
**Information technology —
Telecommunications and information
exchange between systems — Protocol
for Computer Supported
Telecommunications Applications (CSTA)
Phase III**

*Technologies de l'information — Télécommunications et échange
d'information entre systèmes — Protocole pour applications en
télécommunications supportées par ordinateur (CSTA) en phase III*

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Contents

Foreword	x
Introduction	xi
1 Scope	1
2 Normative References	1
3 Conformance	2
3.1 Static Requirements	2
3.2 Dynamic Requirements	2
3.3 PICS Requirement	2
4 Definitions and Abbreviations	2
5 CSTA Service Definition Model	2
5.1 CSTA Application Layer Structure	2
5.2 Remote Operations	2
5.3 The CSTA Service Response	3
5.4 Cross Referencing of Event Reports	3
5.5 Handling of Private Data	3
6 Interconnection service boundary	3
7 Security	3
8 Association Management	4
8.1 Implicit association	4
8.2 Dynamic association management using ACSE	4
8.2.1 Encoding of application context name	4
8.2.2 Encoding of application context information	4
9 CSTA parameter types	8
9.1 Switching function objects	8
9.2 Device Identifiers	9
9.3 Call and connection identifiers	11
9.4 Connection states	12
9.5 Status reporting	13
9.6 Device and feature types and other parameters	15
9.7 Security	20
9.8 Common extensions	21
9.9 Call control	22
9.10 Capability Exchange	24
9.11 Call Detail Record	73
9.12 Charge information	75
9.13 Data call types	76
9.14 Escape types	77
9.15 Media services	78
9.16 Physical device features	80
9.17 Data Collection	82
9.18 Event Cause	83
9.19 Error Value	85

10	Event Report Service	90
11	Capability exchange services	95
11.1	Services	95
11.1.1	Get logical device information	95
11.1.2	Get physical device information	97
11.1.3	Get switching function capabilities	98
11.1.4	Get switching function devices	101
11.1.5	Switching function devices	102
12	System services	103
12.1	Registration services	103
12.1.1	Change system status filter	103
12.1.2	System register	104
12.1.3	System register abort	105
12.1.4	System register cancel	106
12.2	Services	107
12.2.1	Request system status	107
12.2.2	System status	108
12.2.3	Switching function capabilities changed	109
12.2.4	Switching function devices changed	110
13	Monitoring services	111
13.1	Services	111
13.1.1	Change monitor filter	111
13.1.2	Monitor start	112
13.1.3	Monitor stop	113
14	Snapshot services	114
14.1	Services	114
14.1.1	Snapshot call	114
14.1.2	Snapshot device	116
14.1.3	Snapshot calldata	117
14.1.4	Snapshot devicedata	118
15	Call control services and events	119
15.1	Services	119
15.1.1	Accept call	119
15.1.2	Alternate call	120
15.1.3	Answer call	121
15.1.4	Call back call-related	122
15.1.5	Call back message call-related	123
15.1.6	Camp on call	124
15.1.7	Clear call	125
15.1.8	Clear Connection	126
15.1.9	Conference call	127
15.1.10	Consultation call	128
15.1.11	Deflect call	129

15.1.12	Dial digits	130
15.1.13	Directed pickup call	131
15.1.14	Group pickup call	132
15.1.15	Hold call	133
15.1.16	Intrude call	134
15.1.17	Join call	135
15.1.18	Make call	136
15.1.19	Make predictive call	137
15.1.20	Park call	139
15.1.21	Reconnect call	140
15.1.22	Retrieve call	141
15.1.23	Single step conference call	142
15.1.24	Single step transfer call	143
15.1.25	Transfer call	144
15.2	Events	145
15.2.1	Bridged	145
15.2.2	Call cleared	146
15.2.3	Conferenced	147
15.2.4	Connection cleared	148
15.2.5	Delivered	149
15.2.6	Digits dialed	150
15.2.7	Diverted	151
15.2.8	Established	152
15.2.9	Failed	153
15.2.10	Held	154
15.2.11	Network capabilities changed	155
15.2.12	Network reached	156
15.2.13	Offered	157
15.2.14	Originated	158
15.2.15	Queued	159
15.2.16	Retrieved	160
15.2.17	Service initiated	161
15.2.18	Transferred	162
16	Call associated features	163
16.1	Services	163
16.1.1	Associate data	163
16.1.2	Cancel telephony tones	164
16.1.3	Generate digits	165
16.1.4	Generate telephony tones	166
16.1.5	Send user information	167
16.2	Events	168
16.2.1	Call information	168
16.2.2	Charging	169
16.2.3	Digits generated	170
16.2.4	Telephony tones generated	171
16.2.5	Service completion failure	172
17	Media attachment services and events	173
17.1	Services	173

17.1.1	Attach media service	173
17.1.2	Detach media service	174
17.2	Events	175
17.2.1	Media attached	175
17.2.2	Media detached	176
18	Routeing services	177
18.1	Registration services	177
18.1.1	Route register	177
18.1.2	Route register abort	178
18.1.3	Route register cancel	179
18.2	Services	180
18.2.1	Re-Route	180
18.2.2	Route end	181
18.2.3	Route reject	182
18.2.4	Route request	183
18.2.5	Route select	184
18.2.6	Route used	185
19	Physical device features	186
19.1	Services	186
19.1.1	Button press	186
19.1.2	Get auditory apparatus information	187
19.1.3	Get button information	188
19.1.4	Get display	189
19.1.5	Get hookswitch status	190
19.1.6	Get lamp information	191
19.1.7	Get lamp mode	192
19.1.8	Get message waiting indicator	193
19.1.9	Get microphone gain	194
19.1.10	Get microphone mute	195
19.1.11	Get ringer status	196
19.1.12	Get speaker mute	197
19.1.13	Get speaker volume	198
19.1.14	Set button information	199
19.1.15	Set display	200
19.1.16	Set hookswitch status	201
19.1.17	Set lamp mode	202
19.1.18	Set message waiting indicator	203
19.1.19	Set microphone gain	204
19.1.20	Set microphone mute	205
19.1.21	Set ringer status	206
19.1.22	Set speaker mute	207
19.1.23	Set speaker volume	208
19.2	Events	209
19.2.1	Button information	209
19.2.2	Button press	210
19.2.3	Display updated	211

19.2.4	Hookswitch	212
19.2.5	Lamp mode	213
19.2.6	Message waiting	214
19.2.7	Microphone gain	215
19.2.8	Microphone mute	216
19.2.9	Ringer status	217
19.2.10	Speaker mute	218
19.2.11	Speaker volume	219
20	Logical device features	220
20.1	Services	220
20.1.1	Call back non-call-related	220
20.1.2	Call back message non-call-related	221
20.1.3	Cancel call back	222
20.1.4	Cancel call back message	223
20.1.5	Get agent state	224
20.1.6	Get auto answer	225
20.1.7	Get auto work mode	226
20.1.8	Get caller id status	227
20.1.9	Get do not disturb	228
20.1.10	Get forwarding	229
20.1.11	Get last number dialed	230
20.1.12	Get routeing mode	231
20.1.13	Set agent state	232
20.1.14	Set auto answer	233
20.1.15	Set auto work mode	234
20.1.16	Set caller id status	235
20.1.17	Set do not disturb	236
20.1.18	Set forwarding	237
20.1.19	Set routeing mode	238
20.2	Events	239
20.2.1	Agent busy	239
20.2.2	Agent logged off	240
20.2.3	Agent logged on	241
20.2.4	Agent not ready	242
20.2.5	Agent ready	243
20.2.6	Agent working after call	244
20.2.7	Auto answer	245
20.2.8	Auto work mode	246
20.2.9	Call back	247
20.2.10	Call back message	248
20.2.11	Caller id status	249
20.2.12	Do not disturb	250
20.2.13	Forwarding	251
20.2.14	Routeing mode	252
21	Device maintenance events	253
21.1	Events	253
21.1.1	Back in service	253
21.1.2	Device capabilities changed	254
21.1.3	Out of service	255

22	I/O services	256
22.1	Registration services	256
22.1.1	I/O register	256
22.1.2	I/O register abort	257
22.1.3	I/O register cancel	258
22.2	Services	259
22.2.1	Data path resumed	259
22.2.2	Data path suspended	260
22.2.3	Fast data	261
22.2.4	Resume data path	262
22.2.5	Send broadcast data	263
22.2.6	Send data	264
22.2.7	Send multicast data	265
22.2.8	Start data path	266
22.2.9	Stop data path	267
22.2.10	Suspend data path	268
23	Data Collection Services	269
23.1	Services	269
23.1.1	Data Collected	269
23.1.2	Data Collection Resumed	271
23.1.3	Data Collection Suspended	272
23.1.4	Resume Data Collection	273
23.1.5	Start Data Collection	274
23.1.6	Stop Data Collection	275
23.1.7	Suspend Data Collection	276
24	Voice unit services and events	277
24.1	Services	277
24.1.1	Concatenate message	277
24.1.2	Delete message	278
24.1.3	Play message	279
24.1.4	Query voice attribute	280
24.1.5	Record message	281
24.1.6	Reposition	282
24.1.7	Resume	283
24.1.8	Review	284
24.1.9	Set voice attribute	285
24.1.10	Stop	286
24.1.11	Suspend	287
24.1.12	Synthesize message	288
24.2	Events	289
24.2.1	Play	289
24.2.2	Record	290
24.2.3	Review	291
24.2.4	Stop	292
24.2.5	Suspend play	293
24.2.6	Suspend record	294

24.2.7	Voice attribute changed	295
25	Call detail record services	296
25.1	Services	296
25.1.1	Call detail records notification	296
25.1.2	Call detail records report	297
25.1.3	Send stored call detail records	298
25.1.4	Start call detail records transmission	299
25.1.5	Stop call detail records transmission	300
26	Vendor specific extensions services and events	301
26.1	Registration services	301
26.1.1	Escape register	301
26.1.2	Escape register abort	302
26.1.3	Escape register cancel	303
26.2	Services	304
26.2.1	Escape	304
26.2.2	Private data version selection	305
26.3	Events	306
26.3.1	Private event	306
Annex A	Protocol Implementation Conformance Statement (PICS) Proforma	307

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

International Standard ISO/IEC 18052 was prepared by ECMA (as ECMA-285) and was adopted, under a special "fast-track procedure", by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

Annex A forms a normative part of this International Standard.

Introduction

This International Standard defines Phase III of Protocol for Computer Supported Telecommunications Applications (CSTA) for OSI Layer 7 communication between a computing network and a telecommunications network. This International Standard is part of a Suite of Standards and Technical Reports for Phase III of CSTA. All of the Standards and Technical Reports in the Suite are based on practical experience of ECMA member companies and each one represents a pragmatic and widely-based consensus.

The evolution of this Suite began with CSTA Phase I, which included the CSTA Services and Protocol Standards (ECMA-179 and ECMA-180). In Phase II, Technical Report ECMA TR/68 was added illustrating how CSTA services and events may be used in typical call scenarios.

Phase III of CSTA extends the previous Phase II Standards (ECMA-217 and ECMA-218) in major theme directions as well as numerous details. This incorporates technology based upon the *versit* CTI Encyclopedia (Version 1.0), which was contributed to ECMA by *versit*. Major areas of advancement include:

- New categories of services and events such as capabilities exchange, charging, media attachment services, call data recording (CDR), etc.
- Additional services and events for call and device control.
- Enhancement to existing services and events.
- Organization of services and events to reflect a grouping based on function (call control, device control, etc.).

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Information technology - Telecommunications and information exchange between systems - Protocol for Computer Supported Telecommunications Applications (CSTA) Phase III

1 Scope

This International Standard specifies application protocol data units (APDUs) for the services described in ISO/IEC 18051, *Information technology - Telecommunications and information exchange between systems - Services for Computer Supported Telecommunications Applications (CSTA) Phase III*.

Clause 5 to clause 7 inclusive describes the concepts underlying the Remote Operations model, notation and service.

Clause 8 to clause 26 inclusive contains CSTA-specific protocol details and forms the main part of this International Standard.

The protocol in this International Standard operates in the context of an application association.

2 Normative References

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

- ISO/IEC 8649:1996,** *Information technology - Open Systems Interconnection - Service definition for the Association Control Service Element* (this corresponds to ITU-T Rec. X.217 1995).
- ISO/IEC 8650-1:1996,** *Information technology - Open Systems Interconnection - Connection-oriented protocol for the Association Control Service Element: Protocol specification* (this corresponds to ITU-T Rec. X.227 4/95).
- ISO/IEC 9545:1994,** *Information technology - Open Systems Interconnection - Application Layer structure.*
- ISO/IEC 13712-1:1995,** *Information technology - Remote Operations: Concepts, model, and notation* (this corresponds to ITU-T Rec. X.880, 1994).
- ISO/IEC 13712-2:1994,** *Information technology - Remote Operations: OSI realisations - Remote Operations Service Element (ROSE) service definition* (this corresponds to ITU-T Rec. X.881, 1994).
- ISO/IEC 13712-3:1994,** *Information technology - Remote Operations: OSI realisations - Remote Operations Service Element (ROSE) protocol specification* (this corresponds to ITU-T Rec. X.882, 1994).
- ISO/IEC 18051:2000,** *Information technology - Telecommunications and information exchange between systems - Services for Computer Supported Telecommunications Applications (CSTA) Phase III.*
- ISO/IEC TR 18053:2000,** *Information technology - Telecommunications and information exchange between systems - Glossary of definitions and terminology for Computer Supported Telecommunications Applications (CSTA) Phase III.*

- ITU-T X.680,** *Information technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation.*
- ITU-T X.690,** *Information technology - ASN.1 encoding rules - Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER).*

3 Conformance

A manufacturer may select any part of the CSTA protocol, as specified in this International Standard, for implementation on a system as long as it satisfies the minimum conformance requirements as specified in clause 3 of ISO/IEC 18051.

A Protocol Implementation Conformance Statement (PICS) shall be used to specify the operations which are provided by a particular implementation. A PICS shall also specify the parameter options which are used.

3.1 Static Requirements

To conform to this International Standard, a system shall support the transfer syntax (derived from the encoding rules specified in ITU-T X.690) named {joint-iso-ccitt asn1(1) basic-encoding(1)}; for the purpose of generating and interpreting CSTA protocol information as defined by the abstract syntax "CSTA-ASN.1-Object-Descriptor" for the operations supported.

3.2 Dynamic Requirements

To conform to this International Standard, a system shall:

- a. follow the procedures as specified in this International Standard, and ISO/IEC 18051, relevant to each CSTA operation that the system claims to implement; and
- b. satisfy the definitions, as specified in ISO/IEC 18051, relevant to each CSTA service that the system claims to implement.

3.3 PICS Requirement

To conform to this International Standard, the following shall be stated by the implementer when defining a PICS corresponding to an application or implementation:

- a. which CSTA operations, as defined in ISO/IEC 18051, are supported by the system for the particular implementation; and
- b. which optional parameters are supported by the PDUs belonging to the supported operations.

A PICS proforma is given in Annex A of this International Standard.

4 Definitions and Abbreviations

CSTA-specific terminology is defined in ISO/IEC TR 18053. For the purposes of this International Standard, the following additional definitions, defined in other standards, shall apply:

- Remote Operations (as per ISO/IEC 13712-1)
- Application Association (as per ISO/IEC 8649)
- Application Context (as per ISO/IEC 8649)

5 CSTA Service Definition Model

5.1 CSTA Application Layer Structure

The CSTA Application Layer structure conforms to the model described in ISO/IEC 9545.

5.2 Remote Operations

The services of CSTA are modeled as Remote Operations as described in ISO/IEC 13712-1. Typically, one entity requests that a particular operation be performed; the other entity attempts to perform the operation and responds to the requestor. Consequently the operation of the protocol is an elementary request/reply interaction, supported within the OSI Application Layer, and carried out within the context of an application association.

For some of the CSTA services, the entity to which the request is sent generates a reply which can indicate success or failure. For these services, CSTA shall adopt the operations Class 2, defined in ISO/IEC 13712-2 as:

- Asynchronous, reporting success or failure (result or error).

For some of the CSTA services, the entity to which the request is sent generates a reply which can only indicate failure. For these services, CSTA shall adopt the operations Class 3, defined in ISO/IEC 13712-2 as:

- Asynchronous, reporting failure (error) only, if any.

For some of the CSTA services, particularly the ongoing reporting of events, no reply is generated. For these services, CSTA shall adopt the operations Class 5, defined in ISO/IEC 13712-2 as:

- Asynchronous, outcome not reported.

The protocol description for the particular service defines the relevant class of the operation used for that service.

CSTA shall correlate the single response, denoting success or failure, with the originating request by using the mechanisms within the ROSE protocol.

5.3 The CSTA Service Response

CSTA employs a generic response mechanism which is, in principle, decoupled from the specifics of the switching activity. The following points describe the operation of the CSTA service response:

- Specific services may have an unconfirmed mode where responses to correct requests are not returned.
- The server shall check the correctness of the request (e.g. syntactical checks) before issuing the response. Incorrect requests shall result in an error response, even in the unconfirmed mode.

5.4 Cross Referencing of Event Reports

A computer application process may need to cross reference a CSTAEventReport to one of the following:

- a CSTA Object ID (Call ID or Device ID),
- an earlier Monitor request; or
- one of many Monitor requests (pertaining to the same CSTA Object).

For the above scenarios the necessary cross referencing function may be fulfilled by use of the parameter "MonitorCrossRefID". The content of MonitorCrossRefID depends upon the context and it may be one of the following: Call ID, Device ID or another independently switch managed static identifier. The independent identifier may have a unique correlation to either: one device, one call, or one monitor request.

The switching system limit on the number of monitor requests on one CSTA Object (Call or Device) is an implementation option. This International Standard does not stipulate how many monitor requests on one object are to be supported by the switch. If using Static Device or Call identifiers the limit can only be one.

5.5 Handling of Private Data

If an entity receives the parameter CSTAPrivateData, and it can not recognize the information contained, the parameter shall be discarded, and the rest of the message shall be processed.

6 Interconnection service boundary

The protocol in this International Standard is an OSI Application Layer protocol and uses the Remote Operations protocol defined in ISO/IEC 13712-3. The Remote Operations protocol assumes certain services are provided by the underlying layers, and these services are also assumed by the protocol for CSTA.

7 Security

This protocol also provides a mechanism for secure transmission of CSTA PDUs as defined in this International Standard.

8 Association Management

The protocol in this International Standard operates in the context of an application association. This application association can be either:

- an implicit association achieved via off-line agreement; or
- a dynamically negotiated association realized through the use of ACSE.

8.1 Implicit association

An a-priori agreement exists between switching and computing functions: the application context is implicit, dynamic negotiation is not possible.

8.2 Dynamic association management using ACSE

ACSE requires the use of an application context Name (as defined by ISO 8649). This is an object id that uniquely identifies CSTA independently of the different versions of the protocol.

The CSTA protocol version information is carried within the User Information field of the A-ASSOCIATE request and response PDUs.

An application context is established (using ACSE) as follows:

- the system generating the A-ASSOCIATE request includes the CSTA application context name and a list of all protocol versions that it is prepared to offer in the User Information field;
- on receipt of the A-ASSOCIATE request, the receiving system selects the protocol version to be used by identifying the highest version that is common to both systems;
- the protocol version selected is conveyed to the requestor in the User Information field of the A-ASSOCIATE response.

In addition to negotiating the protocol version, it is necessary for the requesting and responding systems to specify the CSTA services that they support. As with the protocol version information, this is also achieved by carrying additional information in the User Information field of the A-ASSOCIATE request and response PDUs. The application association requestor shall:

- list the services required from the serving application;
- list the services it can supply.

The responder shall include similar information for the responding application. At this point the association requestor will either accept or reject the association.

8.2.1 Encoding of application context name

```
CSTA-application-context-name
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta( 218) }
-- Common to all CSTA protocol versions
```

8.2.2 Encoding of application context information

```
CSTA-application-context-information-csta3
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) application-context-information( 200) }
```

```
DEFINITIONS ::=
BEGIN
```

```
IMPORTS
```

```
CSTAF functionality FROM CSTA-application-context-information
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta2( 218) application-context-information( 200) };
```

```
ACSEUserInformationForCSTA ::= CHOICE
{ oldDefinition
  newDefinition [0] IMPLICIT
  OldACSEUserInformationForCSTA,
  NewACSEUserInformationForCSTA }
```

```

OldACSEUserInformationForCSTA ::= SEQUENCE
{
    CSTAVersion                      CSTAVersion,
    CSTAFunctionsRequiredByApplication CSTAFunctionality,
    CSTAFunctionsThatCanBeSupplied    CSTAFunctionality
}

NewACSEUserInformationForCSTA ::= SEQUENCE
{
    CSTAVersion                      CSTAVersion,
    --
    --Note that the following two parameters are defined in ECMA-218 (CSTA Phase II).
    --They are defined in the context of CSTA Phase II Services and Events for
    --backward compatibility considerations.
    --For CSTA Phase III (and later), implementations should use CSTA Capability Exchange Services
    --to determine the Services and Events supported by a switching function.
    --
    CSTAFunctionsRequiredByApplication [0] IMPLICIT CSTAFunctionality OPTIONAL,
    CSTAFunctionsThatCanBeSupplied     [1] IMPLICIT CSTAFunctionality OPTIONAL,
    CSTAPrivateDataVersionList        [2] IMPLICIT CSTAPrivateDataVersionList OPTIONAL
}

CSTAPrivateDataVersionList ::= SEQUENCE OF INTEGER

CSTAVersion ::= BIT STRING
{
    versionOne      (0), -- CSTA protocol version defined in ECMA-180
    versionTwo      (1), -- CSTA protocol version defined in ECMA-218
    versionThree    (2), -- CSTA protocol version defined in ECMA-285
    versionFour     (3), -- CSTA protocol version defined in ISO/IEC 18052
    versionFive     (4), -- Reserved for future use
    versionSix      (5), -- Reserved for future use
    versionSeven    (6), -- Reserved for future use
    versionEight    (7), -- Reserved for future use
    versionNine     (8), -- Reserved for future use
    versionTen      (9), -- Reserved for future use
    versionEleven   (10), -- Reserved for future use
    versionTwelve   (11), -- Reserved for future use
    versionThirteen (12), -- Reserved for future use
    versionFourteen (13), -- Reserved for future use
    versionFifteen  (14), -- Reserved for future use
    versionSixteen  (15)} -- Reserved for future use

CallControlServices ::= BIT STRING
{
    acceptCall      (0),
    alternateCall   (1),
    answerCall      (2),
    callBack        (3),
    callBackMessage (4),
    campOnCall      (5),
    clearCall       (6),
    clearConnection (7),
    conferenceCall  (8),
    consultationCall (9),
    deflectCall     (10),
    dialDigits      (11),
    directedPickupCall (12),
    groupPickupCall  (13),
    holdCall        (14),
    intrudeCall     (15),
    joinCall        (16),
    makeCall        (17),
    makePredictiveCall (18),
    parkCall       (19),
    reconnectCall   (20),
    retrieveCall    (21),
    singleStepConference (22),
    singleStepTransfer (23),
    transferCall    (24)}

CallAssociatedServices ::= BIT STRING
{
    associateData (0),

```

```

        cancelTelephonyTones    (1),
        generateDigits           (2),
        generateTelephonyTones  (3),
        sendUserInformation      (4)}

MediaAttachmentServices ::= BIT STRING
{
    attachMediaService      (0),
    detachMediaService      (1)}

RouteingServices ::= BIT STRING
{
    routeRegister           ( 0),
    routeRegisterCancel     ( 1),
    routeRegisterAbort      ( 2),
    reRoute                 ( 3),
    routeEnd                ( 4),
    routeReject             ( 5),
    routeRequest            ( 6),
    routeSelect             ( 7),
    routeUsed               ( 8)}

VoiceUnitServices ::= BIT STRING
{
    concatenateMessage      (0),
    deleteMessage          (1),
    playMessage             (2),
    queryVoiceAttribute      (3),
    recordMessage           (4),
    reposition              (5),
    resume                  (6),
    review                  (7),
    setVoiceAttribute       (8),
    stop                   (9),
    suspend                 (10),
    synthesiseMessage       (11)}

CallControlEvents ::= BIT STRING
{bridged                    (15),
 callCleared                (0),
 conferenced                (1),
 connectionCleared          (2),
 delivered                  (3),
 digitsDialed               (14),
 diverted                   (4),
 established                 (5),
 failed                     (6),
 held                       (7),
 networkCapabilitiesChanged (16),
 networkReached              (8),
 offered                    (17),
 originated                  (9),
 queued                     (10),
 retrieved                  (11),
 serviceInitiated           (12),
 transferred                 (13) }

CallAssociatedEvents ::= BIT STRING
{
    callInformation          (0),
    charging                 (1),
    dTMFDigitsDetected      (2),
    telephonyTonesDetected  (3),
    serviceCompletionFailure (4)}

MediaAttachmentEvents ::= BIT STRING
{
    mediaAttached (0),
    mediaDetached (1)}

PhysicalDeviceFeatureEvents ::= BIT STRING
{buttonInformation (0),
 buttonPress       (1),

```

```

        displayUpdated      (2),
        hookswitch          (3),
        lampMode            (4),
        messageWaiting      (5),
        microphoneGain      (6),
        microphoneMute      (7),
        ringerStatus        (8),
        speakerMute         (9),
        speakerVolume       (10)}

LogicalDeviceFeatureEvents ::= BIT STRING
{
    agentBusy      ( 0),
    agentLoggedOn  ( 1),
    agentLoggedOff ( 2),
    agentNotReady  ( 3),
    agentReady     ( 4),
    agentWorkingAfterCall ( 5),
    autoAnswer     ( 6),
    autoWorkMode   ( 7),
    callBack       ( 8),
    callBackMessage ( 9),
    callerIDStatus (10),
    doNotDisturb   (11),
    forwarding     (12),
    routeingMode   (13)}

DeviceMaintenanceEvents ::= BIT STRING
{
    backInService      (0),
    deviceCapabilityChanged (2),
    outOfService       (1) }

VoiceUnitEvents ::= BIT STRING
{
    play      (1),
    record    (3),
    review    (5),
    stop      (0),
    suspendPlay (2),
    suspendRecord (4),
    voiceAttributesChange (6) }

VendorSpecEvents ::= BIT STRING
{
    privateEvent (0)}

END -- of CSTA-application-context-information

```

9 CSTA parameter types

The major parameters have been assigned distinct application tags to facilitate parsing. The data is defined in logical groups in ascending order of application tag. Application tags used are:

- APPLICATION 1 - 8: Device identifiers
- APPLICATION 11 - 14: Connection identifiers and local connection states
- APPLICATION 21 - 24: . . . Status reporting
- APPLICATION 29 - 30: . . . CSTACommonArguments

9.1 Switching function objects

```

CSTA-switching-function-objects
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) switching-function-objects( 122) }
DEFINITIONS ::=
BEGIN

EXPORTS
CSTAObject;

IMPORTS
DeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) };

CSTAObject ::= CHOICE
    { deviceObject      DeviceID,
      callObject        ConnectionID }

END -- of CSTA-switching-function-objects

```

9.2 Device Identifiers

```

CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }

DEFINITIONS ::=
BEGIN

EXPORTS
DeviceID, NumberDigits, CallingDeviceID, CalledDeviceID,
SubjectDeviceID, RedirectionDeviceID, AssociatedCallingDeviceID,
AssociatedCalledDeviceID, NetworkCallingDeviceID, NetworkCalledDeviceID;

IMPORTS
MediaCallCharacteristics FROM CSTA-media-services
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) media-services( 136) };

CallingDeviceID ::= [APPLICATION 1] CHOICE
    { deviceIdentifier      DeviceID,
      notKnown              [7] IMPLICIT          NULL }

CalledDeviceID ::= [APPLICATION 2] CHOICE
    { deviceIdentifier      DeviceID,
      notKnown              [7] IMPLICIT          NULL }

SubjectDeviceID ::= [APPLICATION 3] CHOICE
    { deviceIdentifier      DeviceID,
      notKnown              [7] IMPLICIT          NULL }

RedirectionDeviceID ::= [APPLICATION 4] CHOICE
    { numberDialed          DeviceID,
      notKnown              [7] IMPLICIT          NULL,
      notRequired           [8] IMPLICIT          NULL,
      notSpecified          [9] IMPLICIT          NULL }

AssociatedCallingDeviceID ::= [APPLICATION 5] CHOICE
    { deviceIdentifier      DeviceID,
      notKnown              [7] IMPLICIT          NULL }

AssociatedCalledDeviceID ::= [APPLICATION 6] CHOICE
    { deviceIdentifier      DeviceID,
      notKnown              [7] IMPLICIT          NULL }

NetworkCallingDeviceID ::= [APPLICATION 7] CHOICE
    { deviceIdentifier      DeviceID,
      notKnown              [7] IMPLICIT          NULL }

NetworkCalledDeviceID ::= [APPLICATION 8] CHOICE
    { deviceIdentifier      DeviceID,
      notKnown              [7] IMPLICIT          NULL }

DeviceID ::= SEQUENCE
{
    deviceIdentifier      CHOICE
    {
        dialingNumber      [0] IMPLICIT          NumberDigits,
        deviceNumber        [1] IMPLICIT          DeviceNumber,
        implicitPublic      [2] IMPLICIT          NumberDigits,
        explicitPublic      [3] IMPLICIT          PublicTON,
        implicitPrivate     [4] IMPLICIT          NumberDigits,
        explicitPrivate     [5] IMPLICIT          PrivateTON,
        other                [6] IMPLICIT          OtherPlan},
    mediaCallCharacteristics MediaCallCharacteristics OPTIONAL}

PublicTON ::= CHOICE
    {
        unknown            [0] IMPLICIT          IA5String,
        international      [1] IMPLICIT          IA5String,
        national            [2] IMPLICIT          IA5String,

```

```

networkspecific      [3] IMPLICIT      IA5String,
subscriber           [4] IMPLICIT      IA5String,
abbreviated          [5] IMPLICIT      IA5String  }

PrivateTON ::= CHOICE
{
    unknown           [0] IMPLICIT      IA5String,
    level3RegionalNumber [1] IMPLICIT      IA5String,
    level2RegionalNumber [2] IMPLICIT      IA5String,
    level1RegionalNumber [3] IMPLICIT      IA5String,
    pTNSpecificNumber  [4] IMPLICIT      IA5String,
    localNumber        [5] IMPLICIT      IA5String,
    abbreviated        [6] IMPLICIT      IA5String  }

OtherPlan ::= OCTET STRING      -- Allows future expansion to cover other numbering
                                -- plans

NumberDigits ::= IA5String

DeviceNumber ::= INTEGER

END -- of CSTA-device-identifiers

```

9.3 Call and connection identifiers

```

CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }

DEFINITIONS ::=
BEGIN

EXPORTS
    CallID, ConnectionID;

IMPORTS
    DeviceID FROM CSTA-device-identifiers
        { iso( 1) identified-organization( 3) icd-ecma( 12)
          standard( 0) csta3( 285) device-identifiers( 123) };

ConnectionID ::= [APPLICATION 11] CHOICE
{
    callID      [0] IMPLICIT      CallID,
    deviceID    [1]                LocalDeviceID,
    both        SEQUENCE
    {
        callID      [0] IMPLICIT      CallID,
        deviceID    [1]                LocalDeviceID
    }
}

CallID ::= OCTET STRING (SIZE(0..8))

LocalDeviceID ::= CHOICE
{
    staticID      DeviceID,
    dynamicID     [3] IMPLICIT OCTET STRING (SIZE(0..32)) }

END -- of CSTA-call-connection-identifiers

```

9.4 Connection states

```

CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }

DEFINITIONS ::=
BEGIN

EXPORTS
  ConnectionList, LocalConnectionState;

IMPORTS
  ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) },
  DeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) },
  ConnectionInformation FROM CSTA-media-services
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) media-services( 136) },

ConnectionList ::= SEQUENCE OF SEQUENCE
{
  newConnection [0] ConnectionID OPTIONAL,
  oldConnection [1] ConnectionID OPTIONAL,
  endpoint [2] CHOICE
  {
    deviceID DeviceID,
    notKnown NULL} OPTIONAL,
  associatedNID [3] CHOICE
  {
    deviceID DeviceID,
    notKnown NULL} OPTIONAL,
  resultingConnectionInfo ConnectionInformation OPTIONAL}

LocalConnectionState ::= [APPLICATION 14] IMPLICIT ENUMERATED
{
  null (0),
  initiated (1),
  alerting (2),
  connected (3),
  hold (4),
  queued (5),
  fail (6)}

END -- CSTA-connection-states

```

9.5 Status reporting

```

CSTA-status-reporting
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) status-reporting( 126) }

DEFINITIONS ::=
BEGIN

EXPORTS
MonitorObject, MonitorCrossRefID, MonitorFilter, MonitorType,
MonitorMediaClass, SnapshotCallData, SnapshotDeviceData;

IMPORTS
CallControlEvents, CallAssociatedEvents, MediaAttachmentEvents,
PhysicalDeviceFeatureEvents, LogicalDeviceFeatureEvents,
DeviceMaintenanceEvents, VoiceUnitEvents, VendorSpecEvents
FROM CSTA-application-context-information-csta3
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) application-context-information( 200) };
ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control(130) };
CSTAObject FROM CSTA-switching-function-objects
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) switching-function-objects( 122) };
DeviceID, SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) };
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) };
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) };
ConnectionInformation, MediaCallCharacteristics, MediaServiceType,
MediaServiceInstanceID, MediaStreamID FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

;

MonitorObject ::= CSTAObject;

MonitorCrossRefID ::= [APPLICATION 21] IMPLICIT OCTET STRING (SIZE(0..4))

MonitorFilter ::= SEQUENCE-- default is no filter (i.e. all events)
{callControl          [0] IMPLICIT CallControlEvents          DEFAULT {},
 callAssociated        [6] IMPLICIT CallAssociatedEvents        DEFAULT {},
 mediaAttachment       [7] IMPLICIT MediaAttachmentEvents       DEFAULT {},
 physicalDeviceFeature [8] IMPLICIT PhysicalDeviceFeatureEvents DEFAULT {},
 logicalDeviceFeature  [9] IMPLICIT LogicalDeviceFeatureEvents  DEFAULT {},
 maintenance           [3] IMPLICIT DeviceMaintenanceEvents     DEFAULT {},
 voiceUnit             [5] IMPLICIT VoiceUnitEvents             DEFAULT {},
 private               [4] IMPLICIT VendorSpecEvents            DEFAULT {}}

-- setting the relevant bit requests the filter for the appropriate events

MonitorType ::= ENUMERATED
{
    call          (0),
    device        (1)
}

MonitorMediaClass ::= BIT STRING
{
    voice          (0),
    data           (1),
    image          (2),
    audio          (4),
    other          (3)}

```

SnapshotDeviceData ::= [APPLICATION 22] IMPLICIT SEQUENCE OF SnapshotDeviceResponseInfo

SnapshotDeviceResponseInfo ::= SEQUENCE

{	connectionIdentifier	ConnectionID,	
	localCallState	CallState,	
	servicesPermitted	[0] IMPLICIT ServicesPermitted	OPTIONAL,
	mediaServiceInfoList	[1] IMPLICIT DeviceMediaInfoList	OPTIONAL,
	mediaCallCharacteristics	[2] IMPLICIT MediaCallCharacteristics	OPTIONAL}

DeviceMediaInfoList ::= SEQUENCE OF SEQUENCE

{	mediaStreamID	MediaStreamID	OPTIONAL,
	connectionInformation	ConnectionInformation	OPTIONAL}

SnapshotCallData ::= [APPLICATION 23] IMPLICIT SEQUENCE OF SnapshotCallResponseInfo

SnapshotCallResponseInfo ::= SEQUENCE

{	deviceOnCall	SubjectDeviceID,	
	callIdentifier	ConnectionID	
	localConnectionState	LocalConnectionState	OPTIONAL,
	servicesPermitted	[0] IMPLICIT ServicesPermitted	OPTIONAL,
	mediaServiceInfoList	[1] IMPLICIT CallMediaInfoList	OPTIONAL
}			

CallMediaInfoList ::= SEQUENCE OF SEQUENCE

{	mediaServiceType	[0] IMPLICIT MediaServiceType,	
	mediaServiceVersion	[1] IMPLICIT INTEGER	OPTIONAL,
	mediaServiceInstance	[2] IMPLICIT MediaServiceInstanceID	OPTIONAL,
	mediaStreamID	[3] IMPLICIT MediaStreamID	OPTIONAL,
	connectionInformation	[4] IMPLICIT ConnectionInformation	OPTIONAL}

CallState ::= CHOICE

{	compoundCallState	[0] IMPLICIT CompoundCallState,
	simpleCallState	[1] IMPLICIT SimpleCallState,
	unknown	[2] IMPLICIT NULL}

CompoundCallState ::= SEQUENCE OF LocalConnectionState

SimpleCallState ::= ENUMERATED

{	callNull	(0),	-- '00'H	- null-null
	callPending	(1),	-- '01'H	- null-initiate
	callOriginated	(3),	-- '03'H	- null-connect
	callDelivered	(35),	-- '23'H	- alerting-connect
	callDeliveredHeld	(36),	-- '24'H	- alerting-held
	callReceived	(50),	-- '32'H	- connect-alerting
	callEstablished	(51),	-- '33'H	- connect-connect
	callEstablishedHeld	(52),	-- '34'H	- connected-held
	callReceivedOnHold	(66),	-- '42'H	- held-alerting
	callEstablishedOnHold	(67),	-- '43'H	- held-connect
	callQueued	(83),	-- '53'H	- queued-connect
	callQueuedHeld	(84),	-- '54'H	- queued-held
	callFailed	(99),	-- '63'H	- failed-connect
	callFailedHeld	(100),	-- '64'H	- failed-held
	callBlocked	(96)}	-- '60'H	- failed-null

-- This represents the main call states in a simplified encoding. The semantics
 -- are identical to the sequence of connection states but they are represented by
 -- an item from an enumerated list.

END -- of CSTA-status-reporting

9.6 Device and feature types and other parameters

```

CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }

DEFINITIONS ::=
BEGIN

EXPORTS
AccountInfo, AgentID, AgentPassword, AgentState, AuthCode, CallOrigination, CorrelatorData,
DataPathType, DisplayAttributeList, ForwardList, IOCrossRefID, IORegisterReqID,
MessageID, ParticipationType, PendingAgentState, RetryValue, RouteRegisterReqID,
RouteingCrossRefID, SelectValue, SysStatRegisterID, SystemStatus, TerminatingConditions,
ForwardingType, ForwardDefault, AttributeInfo,
EncodingAlgorithm, ControlData, UserData, TelephonyTone;

IMPORTS
DeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 128) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) };

AccountInfo ::= OCTET STRING (SIZE(0..32))

AgentID ::= OCTET STRING (SIZE(0..32))

AgentPassword ::= OCTET STRING (SIZE(0..32))

AgentState ::= ENUMERATED
{
    agentNotReady      (0),
    agentNull          (1),
    agentReady         (2),
    agentBusy          (3),
    agentWorkingAfterCall (4)
}

AuthCode ::= OCTET STRING (SIZE(0..32))

CorrelatorData ::= OCTET STRING (SIZE(0..32))

IOCrossRefID ::= CHOICE
{
    switchProvided      [0] OCTET STRING (SIZE(0..4)),
    computerProvided    [1] OCTET STRING (SIZE(0..4))
}

IORegisterReqID ::= OCTET STRING (SIZE(0..4))

MessageID ::= OCTET STRING

ParticipationType ::= ENUMERATED
{
    silent      (0),
    active      (1)
}

RouteRegisterReqID ::= OCTET STRING (SIZE(0..4))

RouteingCrossRefID ::= [APPLICATION 24] IMPLICIT OCTET STRING (SIZE(0..4))

SelectValue ::= ENUMERATED
{
    normal      (0),
    leastCost   (1),
    emergency   (2),
    aCD         (3),
    userDefined (4)
}

RetryValue ::= CHOICE-- used in RouteSelect Request service
{
    noListAvailable      [0] IMPLICIT BOOLEAN,
    noCountAvailable     [1] IMPLICIT BOOLEAN,
    retryCount           [2] IMPLICIT INTEGER
}

```

```

SysStatRegisterID ::= OCTET STRING (SIZE(0..4))

SystemStatus ::= ENUMERATED
{
    disabled                (4),
    partiallyDisabled       (8),
    enabled                  (1),
    initializing             (0),
    messagesLost            (3),
    normal                   (2),
    overloadImminent        (5),
    overloadReached         (6),
    overloadRelieved        (7)
}

CallOrigination ::= BIT STRING
{
    internal    (0),
    external    (1)}

ForwardList ::= SEQUENCE OF SEQUENCE
{
    forwardingType      ForwardingType      OPTIONAL,
    forwardStatus       BOOLEAN,
    forwardDN           DeviceID            OPTIONAL,
    forwardDefault      ForwardDefault      OPTIONAL,
    ringCount           INTEGER (1..100)    OPTIONAL
}

ForwardingType ::= ENUMERATED
{
    forwardImmediate      (0),
    forwardBusy           (1),
    forwardNoAns          (2),
    forwardDND            (9),
    forwardBusyInt        (3),
    forwardBusyExt        (4),
    forwardNoAnsInt       (5),
    forwardNoAnsExt       (6),
    forwardImmInt         (7),
    forwardImmExt         (8),
    forwardDNDInt         (10),
    forwardDNDExt         (11)}

ForwardDefault ::= ENUMERATED
{
    forwardingTypeAndForwardDN (0),
    forwardingType             (1),
    forwardDN                  (2)}

PendingAgentState ::= ENUMERATED
{
    agentNotReady          (0),
    agentNull              (1),
    agentReady             (2),
    agentWorkingAfterCall  (3)}

DataPathType ::= ENUMERATED
{
    text    (0),
    voice   (1)}

DisplayAttributeList ::= SEQUENCE
{
    physicalBaseRowNumber      [0] IMPLICIT INTEGER OPTIONAL,
    physicalBaseColumnNumber  [1] IMPLICIT INTEGER OPTIONAL,
    offset                     [2] IMPLICIT INTEGER OPTIONAL
}

TerminatingConditions ::= BIT STRING
{
    durationExceeded          (0),
    dTMFDigitDetected        (1),
    endOfMessageDetected      (2),
    speechDetected            (3)}

AttributeInfo ::= CHOICE
{
    encodingAlgorithm          [0] IMPLICIT EncodingAlgorithm,
    samplingRate               [1] IMPLICIT INTEGER,
}

```

```

duration          [2] IMPLICIT INTEGER,
filename          [3] IMPLICIT IA5String,
currentPosition   [4] IMPLICIT INTEGER,
currentSpeed      [5] IMPLICIT INTEGER,
currentVolume     [6] IMPLICIT INTEGER (0 .. 100),
currentGain       [7] IMPLICIT INTEGER (0 .. 100),
currentState      [8] IMPLICIT CurrentState}

EncodingAlgorithm ::= ENUMERATED
{
    aDPCM6K      (0),
    aDPCM8K      (1),
    muLawPCM6K   (2),
    aLawPCM6K    (3)}

CurrentState ::= ENUMERATED
{
    stop          (0),
    play          (1),
    record        (2),
    suspendPlay   (3),
    suspendRecord (4),
    review        (5)}

ControlData ::= SEQUENCE
{
    gender          ENUMERATED
                    {male (0),
                     female (1)},
    language        OCTET STRING}

UserData ::= [APPLICATION 29] OCTET STRING (SIZE(0..256))

TelephonyTone ::= ENUMERATED
{
    beep          ( 0),
    billing        ( 1),
    busy           ( 2),
    carrier        ( 3),
    confirmation   ( 4),
    dial           ( 5),
    faxCNG         ( 6),
    hold           ( 7),
    howler         ( 8),
    intrusion      ( 9),
    modemCNG       (10),
    park           (11),
    recordWarning  (12),
    reorder        (13),
    ringback       (14),
    silence        (15),
    sitVC          (16),
    sitIC          (17),
    sitRO          (18),
    sitNC          (19),
    switchSpec0    (20),
    switchSpec1    (21),
    switchSpec2    (22),
    switchSpec3    (23),
    switchSpec4    (24),
    switchSpec5    (25),
    switchSpec6    (26),
    switchSpec7    (27),
    switchSpec8    (28),
    switchSpec9    (29),
    switchSpec10   (30),
    switchSpec11   (31),
    switchSpec12   (32),
    switchSpec13   (33),
    switchSpec14   (34),
    switchSpec15   (35),

```

switchSpec16	(36),
switchSpec17	(37),
switchSpec18	(38),
switchSpec19	(39),
switchSpec20	(40),
switchSpec21	(41),
switchSpec22	(42),
switchSpec23	(43),
switchSpec24	(44),
switchSpec25	(45),
switchSpec26	(46),
switchSpec27	(47),
switchSpec28	(48),
switchSpec29	(49),
switchSpec30	(50),
switchSpec31	(51),
switchSpec32	(52),
switchSpec33	(53),
switchSpec34	(54),
switchSpec35	(55),
switchSpec36	(56),
switchSpec37	(57),
switchSpec38	(58),
switchSpec39	(59),
switchSpec40	(60),
switchSpec41	(61),
switchSpec42	(62),
switchSpec43	(63),
switchSpec44	(64),
switchSpec45	(65),
switchSpec46	(66),
switchSpec47	(67),
switchSpec48	(68),
switchSpec49	(69),
switchSpec50	(70),
switchSpec51	(71),
switchSpec52	(72),
switchSpec53	(73),
switchSpec54	(74),
switchSpec55	(75),
switchSpec56	(76),
switchSpec57	(77),
switchSpec58	(78),
switchSpec59	(79),
switchSpec60	(80),
switchSpec61	(81),
switchSpec62	(82),
switchSpec63	(83),
switchSpec64	(84),
switchSpec65	(85),
switchSpec66	(86),
switchSpec67	(87),
switchSpec68	(88),
switchSpec69	(89),
switchSpec70	(90),
switchSpec71	(91),
switchSpec72	(92),
switchSpec73	(93),
switchSpec74	(94),
switchSpec75	(95),
switchSpec76	(96),
switchSpec77	(97),
switchSpec78	(98),
switchSpec79	(99),
switchSpec80	(100),
switchSpec81	(101),
switchSpec82	(102),
switchSpec83	(103),

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```
switchSpec84      (104),  
switchSpec85      (105),  
switchSpec86      (106),  
switchSpec87      (107),  
switchSpec88      (108),  
switchSpec89      (109),  
switchSpec90      (110),  
switchSpec91      (111),  
switchSpec92      (112),  
switchSpec93      (113),  
switchSpec94      (114),  
switchSpec95      (115),  
switchSpec96      (116),  
switchSpec97      (117),  
switchSpec98      (118),  
switchSpec99      (119),  
switchSpec100     (120)}
```

```
END  -- of CSTA-device-feature-types
```

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9.7 Security

```

CSTA-security
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) security( 128) }

DEFINITIONS ::=
BEGIN

EXPORTS
CSTASecurityData, TimeInfo;

CSTASecurityData ::= SEQUENCE
{
  messageSequenceNumber[0] IMPLICIT INTEGER      OPTIONAL,
  timestamp                TimeInfo              OPTIONAL,
  securityInfo             SecurityInfo          OPTIONAL}

SecurityInfo ::= CHOICE
{
  string      OCTET STRING,
  private     NULL}    -- The actual encoding is added here,
                      -- replacing NULL with another valid ASN.1 type.

TimeInfo ::= GeneralizedTime

END -- of CSTA-security

```

9.8 Common extensions

```

CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }

DEFINITIONS ::=
BEGIN

EXPORTS
CSTACommonArguments, CSTAPrivateData;

IMPORTS
CSTASecurityData FROM CSTA-security
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) security( 128) };

CSTACommonArguments ::= [APPLICATION 30] IMPLICIT SEQUENCE
    { security      [0] IMPLICIT  CSTASecurityData      OPTIONAL,
      privateData   [1] IMPLICIT  SEQUENCE OF CSTAPrivateData OPTIONAL }

CSTAPrivateData ::= CHOICE
{
    string      OCTET STRING,
    private     NULL}
    -- The actual encoding is added here,
    -- replacing NULL with another valid ASN.1 type.

END -- of CSTA-extension-types

```

9.9 Call control

```

CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }

DEFINITIONS ::=
BEGIN

EXPORTS
AutoOriginate, CallCharacteristics, CallLinkageData, CallLinkageDataList, CallQualifyingData,
ConsultOptions, NetworkCapability,
ProgressIndicator, ServicesPermitted;

IMPORTS
TimeInfo FROM CSTA-security
{ iso( 1) identified-organization( 3) icd-ecma( 12) standard( 0)
  csta3( 285) security( 128) }
CallControlServices, CallAssociatedServices, MediaAttachmentServices, RoutingServices,
VoiceUnitServices FROM CSTA-application-context-information-csta3
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) application-context-information( 200) };

AutoOriginate ::= ENUMERATED
{
  prompt          (0),
  doNotPrompt     (1) }

CallCharacteristics ::= BIT STRING
{
  acdCall          (0),
  priorityCall     (1),
  maintenanceCall  (2),
  directAgent      (3),
  assistCall       (4),
  voiceUnitCall    (5)}

CallQualifyingData ::= OCTET STRING (SIZE(0..32))

ConsultOptions ::= ENUMERATED
{
  unrestricted     (0),
  consultOnly      (1),
  transferOnly     (2),
  conferenceOnly   (3) }

NetworkCapability ::= SEQUENCE
{
  networkType ENUMERATED
  {
    iSDNPublic      (0),
    nonISDNPublic   (1),
    iSDNPrivate     (2),
    nonISDNPrivate  (3),
    other           (4) },
  eventsProvided BIT STRING
  {
    bridged          (0),
    callCleared      (1),
    conferenced      (2),
    connectionCleared (3),
    delivered        (4),
    digitsDialed     (5),
    diverted         (6),
    established      (7),
    failed           (8),
    held            (9),
    networkCapabilitiesChange (10),
    networkReached   (11),
    offered          (12),
    originated       (13),
    queued           (14),
    retrieved        (15),
    serviceInitiated (16),
  }
}

```

```

        transferred                                (17)    } OPTIONAL}

ProgressIndicator ::= SEQUENCE
{
    progressLocation ENUMERATED
    {
        user (0),
        privateNetServingLocal (1),
        publicNetServingLocal (2),
        transitNetwork (3),
        publicNetServingRemote (4),
        privateNetServingRemote (5),
        localInterface (6),
        internationalNetwork (7),
        networkBeyondInterwk (8),
        other (9)
    },
    progressDescription ENUMERATED
    {
        iSDNProgressDesc (0),
        qSIGProgressDesc (1),
        other (2)
    }
}

ServicesPermitted ::= SEQUENCE
{
    callControlServices      CallControlServices,
    callAssociatedServices    CallAssociatedServices,
    mediaAttachmentServices  MediaAttachmentServices,
    routingServices          RoutingServices,
    voiceUnitServices        VoiceUnitServices
}

CallLinkageDataList ::= SEQUENCE
{
    newCallLinkageData      CallLinkageData,
    oldCallLinkageData      CallLinkageData
}

CallLinkageData ::= SEQUENCE
{
    globalCallData          GlobalCallData,
    threadData              ThreadData OPTIONAL
}

GlobalCallData ::= SEQUENCE
{
    globalCallSwitchingSubDomainName IA5String (SIZE(1..64)) OPTIONAL,
    globalCallLinkageID             GlobalCallLinkageID,
    callLinkageIDTimestamp          TimeInfo OPTIONAL
}

GlobalCallLinkageID ::= CHOICE
{
    subDomainCallLinkageID [0] IMPLICIT OCTET STRING (SIZE(1..8)),
    globallyUniqueCallLinkageID [1] IMPLICIT OCTET STRING (SIZE(1..16))
}

ThreadData ::= SEQUENCE
{
    threadSwitchingSubDomainName IA5String (SIZE(1..64)) OPTIONAL,
    threadLinkageID              ThreadLinkageID,
    threadIDTimeStamp            TimeInfo OPTIONAL
}

ThreadLinkageID ::= CHOICE
{
    subDomainThreadID [0] IMPLICIT OCTET STRING (SIZE(1..8)),
    globallyUniqueThreadID [1] IMPLICIT OCTET STRING (SIZE(1..16))
}

END -- of CSTA-call-control

```

9.10 Capability Exchange

```

CSTA-capability-exchange
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) capability-exchange( 131) }

DEFINITIONS ::=
BEGIN

EXPORTS
CapExchangeServList, SystemStatusServList, MonitoringServList, SnapshotServList,
CallControlServList, CallControlEvtsList, CallAssociatedServList,
CallAssociatedEvtsList, MediaServList, MediaEvtsList, RouteingServList, PhysDevEvtsList,
PhysDevServList, LogicalEvtsList, LogicalServList, DeviceMaintEvtsList, IOServicesServList,
DataCollectionServList, VoiceUnitServList, VoiceUnitEvtsList, CDRServList,
VendorSpecificServList, VendorSpecificEvtsList, DeviceIDFormat, SwDomainFeatures,
SwAppearanceAddressability, SwAppearanceTypes, IgnoreUnsupportedParameters, PauseTime,
TimeStampMode, MiscMonitorCaps, MaxLengthParameters, FilterThreshold, ServiceCrossRefID,
DeviceCategory, GroupDeviceAttributes, NamedDeviceTypes, ACDModels, AgentLogOnModels,
AppearanceType, TransAndConfSetup, MediaServiceCapsList, LogDevServList, LogDevEvtsList;

IMPORTS
MediaServiceType, MediaServiceInstanceID, ConnectionMode, ConnectionModeBMap
FROM CSTA-media-services
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) media-services( 136) };

ServiceCrossRefID ::= OCTET STRING (SIZE(0..4))

-- Capability Bitmaps

LogDevServList ::= SEQUENCE
{
    callControlServList      [0] IMPLICIT CallControlServList      OPTIONAL,
    callAssociatedServList   [1] IMPLICIT CallAssociatedServList   OPTIONAL,
    logicalServList          [2] IMPLICIT LogicalServList          OPTIONAL,
    mediaServList            [3] IMPLICIT MediaServList            OPTIONAL,
    iOServicesServList       [4] IMPLICIT IOServicesServList       OPTIONAL,
    dataCollectionServList   [5] IMPLICIT DataCollectionServList   OPTIONAL,
    voiceUnitServList        [6] IMPLICIT VoiceUnitServList        OPTIONAL}

LogDevEvtsList ::= SEQUENCE
{
    callControlEvtsList      [0] IMPLICIT CallControlEvtsList      OPTIONAL,
    callAssociatedEvtsList   [1] IMPLICIT CallAssociatedEvtsList   OPTIONAL,
    logicalEvtsList          [2] IMPLICIT LogicalEvtsList          OPTIONAL,
    mediaEvtsList            [3] IMPLICIT MediaEvtsList            OPTIONAL,
    voiceUnitEvtsList        [4] IMPLICIT VoiceUnitEvtsList        OPTIONAL}

CapExchangeServList ::= SEQUENCE
{
    getLogicalDeviceInformation [0] IMPLICIT GetLogicalDeviceInformation OPTIONAL,
    getPhysicalDeviceInformation [1] IMPLICIT GetPhysicalDeviceInformation OPTIONAL,
    getSwitchingFunctionCaps    NULL,
    getSwitchingFunctionDevices [2] IMPLICIT GetSwitchingFunctionDevices OPTIONAL,
    switchingFunctionDevices    [3] IMPLICIT SwitchingFunctionDevices OPTIONAL}

GetLogicalDeviceInformation ::= BIT STRING
{
    privateDataInReq          ( 0),
    namedDeviceTypeInAck      ( 1),
    shortFormDeviceIDInAck    ( 2),
    miscMonitorCapsInAck      ( 3),
    maxCallBacksInAck         ( 4),
    maxAutoAnswerRingsInAck   ( 5),
    maxActiveCallsInAck       ( 6),
    maxHeldCallsInAck         ( 7),
    maxFwdSettingsInAck       ( 8),
    maxDevicesInConfInAck     ( 9),
    transAndConfSetupParameter (10),
    transAndConfSetupConsultationInAck (11),

```

```

transAndConfSetupHoldMakeInAck          (12),
transAndConfSetupAlternateInAck          (13),
transAndConfSetupTwoCallsHoldInAck       (14),
transAndConfSetupTwoCallsConnectedInAck  (15),
mediaClassSupportInAck                   (16),
connectionRateListInAck                  (17),
delayToleranceListInAck                  (18),
numberOfChannelsInAck                    (19),
maxChannelBindInAck                      (20),
privateDataInAck                         (21)}

GetPhysicalDeviceInformation ::= BIT STRING
{
    privateDataInReq          ( 0),
    namedDeviceTypesInAck     ( 1),
    otherLogicalDeviceListInAck ( 2),
    deviceModelNameInAck      ( 3),
    maxDisplaysInAck          ( 4),
    maxButtonsInAck           ( 5),
    maxLampsInAck             ( 6),
    maxRingPatternsInAck      ( 7),
    privateDataInAck          ( 8)}

GetSwitchingFunctionDevices ::= BIT STRING
{
    requestedDeviceID          ( 0),
    requestedDeviceCategoryACD  ( 1),
    requestedDeviceCategoryACDGroup ( 2),
    requestedDeviceCategoryHuntGroup ( 3),
    requestedDeviceCategoryPickGroup ( 4),
    requestedDeviceCategoryOtherGroup ( 5),
    requestedDeviceCategoryNetwInterface ( 6),
    requestedDeviceCategoryPark ( 7),
    requestedDeviceCategoryRouteingDevice ( 8),
    requestedDeviceCategoryStation ( 9),
    requestedDeviceCategoryVoiceUnit (10),
    requestedDeviceCategoryOther (11),
    privateData                (12),
    privateDataInAck           (13)}

SwitchingFunctionDevices ::= BIT STRING
{
    segmentID          ( 0),
    deviceListDeviceCategory ( 1),
    deviceListNamedDeviceTypes ( 2),
    deviceListDeviceAttributes ( 3),
    deviceListDeviceModelName ( 4),
    privateData          ( 5)}

SystemStatusServList ::= SEQUENCE
{
    changeSystemStatusFilter [ 0] IMPLICIT ChangeSystemStatusFilter OPTIONAL,
    systemRegister           [ 1] IMPLICIT SystemRegister OPTIONAL,
    systemStatusRegisterAbort [ 2] IMPLICIT SystemStatusRegisterAbort OPTIONAL,
    systemStatusRegisterCancel [ 3] IMPLICIT SystemStatusRegisterCancel OPTIONAL,
    requestSystemStatus       [ 4] IMPLICIT RequestSystemStatus OPTIONAL,
    systemStatus              [ 5] IMPLICIT SystemStatus OPTIONAL,
    swFunctionCapsChanged     [ 6] IMPLICIT SwFunctionCapsChanged OPTIONAL,
    swFunctionDevicesChanged  [ 7] IMPLICIT SwFunctionDevicesChanged OPTIONAL}

ChangeSystemStatusFilter ::= BIT STRING
{
    requestedStatusFilterInitializing ( 0), -- optional parameters
    requestedStatusFilterEnabled      ( 1), -- optional parameters
    requestedStatusFilterNormal       ( 2), -- optional parameters
    requestedStatusFilterMessageLost  ( 3), -- optional parameters
    requestedStatusFilterDisabled     ( 4), -- optional parameters
    requestedStatusFilterPartiallyDisabled ( 5), -- optional parameters
    requestedStatusFilterOverloadImminent ( 6), -- optional parameters
    requestedStatusFilterOverloadReached ( 7), -- optional parameters
    requestedStatusFilterOverloadRelieved ( 8), -- optional parameters
    privateData                      ( 9), -- optional parameters

```

```

        privateDataInAck                                (10)} -- optional parameters

SystemRegister ::= BIT STRING
{
    requestTypesSystemStatus                            ( 0), -- optional parameters
    requestTypesRequestSystemStatus                    ( 1), -- optional parameters
    requestTypesSwitchingFunctionCapsChanged           ( 2), -- optional parameters
    requestTypesSwitchingFunctionDevicesChanged        ( 3), -- optional parameters
    statusFilterInitializing                            ( 4), -- optional parameters
    statusFilterEnabled                                ( 5), -- optional parameters
    statusFilterNormal                                  ( 6), -- optional parameters
    statusFilterMessageLost                             ( 7), -- optional parameters
    statusFilterDisabled                               ( 8), -- optional parameters
    statusFilterPartiallyDisabled                      ( 9), -- optional parameters
    statusFilterOverloadImminent                       (10), -- optional parameters
    statusFilterOverloadReached                        (11), -- optional parameters
    statusFilterOverloadRelieved                       (12), -- optional parameters
    privateDataOctetString                             (13), -- optional parameters
    privateData                                         (14), -- optional parameters
    privateDataOctetStringInAck                       (15), -- optional parameters
    privateDataInAck                                   (16)} -- optional parameters

SystemStatusRegisterCancel ::= BIT STRING
{
    privateData                                         (0), -- optional parameters
    privateDataInAck                                   (1)} -- optional parameters

SystemStatusRegisterAbort ::= BIT STRING
{
    privateData                                         (0), -- optional parameters
    privateDataInAck                                   (1)} -- optional parameters

RequestSystemStatus ::= BIT STRING
{
    privateDataInReq                                   ( 0), -- optional parameters
    systemStatusInitializing                           ( 1), -- optional parameters
    systemStatusEnabled                                ( 2), -- optional parameters
    systemStatusNormal                                  ( 3), -- optional parameters
    systemStatusMessageLost                             ( 4), -- optional parameters
    systemStatusDisabled                               ( 5), -- optional parameters
    systemStatusPartiallyDisabled                      ( 6), -- optional parameters
    systemStatusOverloadImminent                       ( 7), -- optional parameters
    systemStatusOverloadReached                        ( 8), -- optional parameters
    systemStatusOverloadRelieved                       ( 9), -- optional parameters
    privateDataInAck                                   (10), -- optional parameters
    switchingFunctionSupportsSending                   (11), -- misc characteristics
    switchingFunctionSupportsReceiving                  (12)} -- misc characteristics

SystemStatus ::= BIT STRING
{
    systemStatusInitializing                           ( 0), -- optional parameters
    systemStatusEnabled                                ( 1), -- optional parameters
    systemStatusNormal                                  ( 2), -- optional parameters
    systemStatusMessageLost                             ( 3), -- optional parameters
    systemStatusDisabled                               ( 4), -- optional parameters
    systemStatusPartiallyDisabled                      ( 5), -- optional parameters
    systemStatusOverloadImminent                       ( 6), -- optional parameters
    systemStatusOverloadReached                        ( 7), -- optional parameters
    systemStatusOverloadRelieved                       ( 8), -- optional parameters
    privateData                                         ( 9), -- optional parameters
    privateDataInAck                                   (10), -- optional parameters
    switchingFunctionSupportsSending                   (11), -- misc characteristics
    switchingFunctionSupportsReceiving                  (12)} -- misc characteristics

SwFunctionCapsChanged ::= BIT STRING
{
    privateData                                         (0), -- optional parameters
    privateDataInAck                                   (1)} -- optional parameters

SwFunctionDevicesChanged ::= BIT STRING
{
    privateData                                         (0), -- optional parameters
    privateDataInAck                                   (1)} -- optional parameters

MonitoringServList ::= SEQUENCE

```

```

{      changeMonitorFilter      [ 0] IMPLICIT ChangeMonitorFilter      OPTIONAL,
      monitorStart              [ 1] IMPLICIT MonitorStart        OPTIONAL,
      monitorStop               [ 2] IMPLICIT MonitorStop         OPTIONAL}

ChangeMonitorFilter ::= BIT STRING
{      privateData              (0),      -- optional parameters
      privateDataInAck          (1)}      -- optional parameters

MonitorStart ::= BIT STRING
{      monitorObjectDevice      ( 0),      -- optional parameters
      monitorObjectCall         ( 1),      -- optional parameters
      requestedMonitorFilter    ( 2),      -- optional parameters
      monitorTypeCall           ( 3),      -- optional parameters
      monitorTypeDevice         ( 4),      -- optional parameters
      monitorMediaClassParameter ( 5),      -- optional parameters
      monitorMediaClassAudio     ( 6),      -- optional parameters
      monitorMediaClassData      ( 7),      -- optional parameters
      monitorMediaClassImage     ( 8),      -- optional parameters
      monitorMediaClassVoice     ( 9),      -- optional parameters
      monitorExistingCallsInAck  (10),      -- optional parameters
      privateDataInAck          (11),      -- optional parameters
      callIDOnly                (12),      -- miscellaneous characteristics
      swDomainDefaultForMonitorTypeIsDevice (13)} -- miscellaneous characteristics

MonitorStop ::= BIT STRING
{      privateData              ( 0),      -- optional parameters
      privateDataInAck          ( 1),      -- optional parameters
      switchingFunctionSupportsSending ( 2),      -- misc characteristics
      switchingFunctionSupportsReceiving ( 3)} -- misc characteristics

SnapshotServList ::= SEQUENCE
{      snapshotCall             [0] IMPLICIT SnapshotCall,
      snapshotDevice            [1] IMPLICIT SnapshotDevice,
      snapshotCallData          [2] IMPLICIT SnapshotCallData,
      snapshotDeviceData        [3] IMPLICIT SnapshotDeviceData}

SnapshotCall ::= BIT STRING
{      privateData              ( 0),      -- optional parameters
      locaConnectionStateInAck  ( 1),      -- optional parameters
      mediaServiceInfoListInAck ( 2),      -- optional parameters
      mediaServiceVersionInAck  ( 3),      -- optional parameters
      mediaServiceInstanceInAck ( 4),      -- optional parameters
      mediaStreamID             ( 5),      -- optional parameters
      connectionInformation     ( 6),      -- optional parameters
      mediaCallCharacteristicsInAck ( 7),      -- optional parameters
      callCharacteristicsInAck  ( 8),      -- optional parameters
      callingDeviceInAck        ( 9),      -- optional parameters
      calledDeviceInAck         (10),      -- optional parameters
      privateDataInAck          (11),      -- optional parameters
      callIDOnly                (12),      -- miscellaneous characteristics
      reportsWithSnapsCallData  (13)} -- miscellaneous characteristics

SnapshotDevice ::= BIT STRING
{      privateData              ( 0),      -- optional parameters
      localCallStateCompoundCallState ( 1),      -- optional parameters
      localCallStateSimpleCallState ( 2),      -- optional parameters
      localCallStateUnknown     ( 3),      -- optional parameters
      mediaServiceInfoListInAck ( 4),      -- optional parameters
      mediaServiceVersionInAck  ( 5),      -- optional parameters
      mediaServiceInstanceInAck ( 6),      -- optional parameters
      mediaStreamID             ( 7),      -- optional parameters
      connectionInformation     ( 8),      -- optional parameters
      mediaCallCharacteristicsInAck ( 9),      -- optional parameters
      privateDataInAck          (10),      -- optional parameters
      reportsWithSnapsDeviceData (11)} -- miscellaneous characteristics

SnapshotCallData ::= BIT STRING
{      segmentID                ( 0),      -- optional parameters

```

```

    localConnectionState      ( 1),  -- optional parameters
    mediaServiceInformationList ( 2),  -- optional parameters
    mediaServiceVersion       ( 3),  -- optional parameters
    mediaServiceInstance      ( 4),  -- optional parameters
    mediaStreamID             ( 5),  -- optional parameters
    connectionInformation      ( 6),  -- optional parameters
    privateData                ( 7)}  -- optional parameters

SnapshotDeviceData ::= BIT STRING
{
    segmentID                  ( 0),  -- optional parameters
    localCallStateCompoundCallState ( 1),  -- optional parameters
    localCallStateSimpleCallState ( 2),  -- optional parameters
    localCallStateUnknown      ( 3),  -- optional parameters
    mediaServiceInformationList ( 4),  -- optional parameters
    mediaServiceVersion        ( 5),  -- optional parameters
    mediaServiceInstance      ( 6),  -- optional parameters
    mediaStreamID             ( 7),  -- optional parameters
    connectionInformation      ( 8),  -- optional parameters
    mediaCallCharacteristics    ( 9),  -- optional parameters
    privateData                (10)}  -- optional parameters

CallControlServList ::= SEQUENCE
{
    acceptCall      [0] IMPLICIT AcceptCall      OPTIONAL,
    alternateCall   [1] IMPLICIT AlternateCall    OPTIONAL,
    answerCall      [2] IMPLICIT AnswerCall       OPTIONAL,
    callBack        [3] IMPLICIT CallBack         OPTIONAL,
    callBackMessage [4] IMPLICIT CallBackMessage  OPTIONAL,
    campOnCall      [5] IMPLICIT CampOnCall       OPTIONAL,
    clearCall       [6] IMPLICIT ClearCall        OPTIONAL,
    clearConnection [7] IMPLICIT ClearConnection  OPTIONAL,
    conferenceCall  [8] IMPLICIT ConferenceCall   OPTIONAL,
    consultationCall [9] IMPLICIT ConsultationCall OPTIONAL,
    deflectCall     [10] IMPLICIT DeflectCall      OPTIONAL,
    dialDigits      [11] IMPLICIT DialDigits       OPTIONAL,
    directedPickupCall [12] IMPLICIT DirectedPickupCall OPTIONAL,
    groupPickupCall [13] IMPLICIT GroupPickupCall  OPTIONAL,
    holdCall        [14] IMPLICIT HoldCall         OPTIONAL,
    intrudeCall     [15] IMPLICIT IntrudeCall      OPTIONAL,
    joinCall        [16] IMPLICIT JoinCall         OPTIONAL,
    makeCall        [17] IMPLICIT MakeCall         OPTIONAL,
    makePredictiveCall [18] IMPLICIT MakePredictiveCall OPTIONAL,
    parkCall        [19] IMPLICIT ParkCall         OPTIONAL,
    reconnectCall   [20] IMPLICIT ReconnectCall    OPTIONAL,
    retrieveCall    [21] IMPLICIT RetrieveCall     OPTIONAL,
    singleStepConference [22] IMPLICIT SingleStepConference OPTIONAL,
    singleStepTransfer [23] IMPLICIT SingleStepTransfer OPTIONAL,
    transferCall    [24] IMPLICIT TransferCall     OPTIONAL}

AcceptCall ::= BIT STRING
{
    correlatorData      ( 0),  -- optional parameters
    userData            ( 1),  -- optional parameters
    privateData         ( 2),  -- optional parameters
    privateDataInAck    ( 3),  -- optional parameters
    deviceIDOnly        ( 4),  -- misc characteristics
    ackModelMultiStep   ( 5)}  -- misc characteristics

AlternateCall ::= BIT STRING
{
    alerting          ( 0),  -- initial states heldCall
    hold              ( 1),  -- initial states heldCall
    queued            ( 2),  -- initial states heldCall
    connectionReservation ( 3),  -- optional parameters
    consultOptionConsultOnly ( 4),  -- optional parameters
    consultOptionTransferOnly ( 5),  -- optional parameters
    consultOptionConferenceOnly ( 6),  -- optional parameters
    consultOptionUnrestricted ( 7),  -- optional parameters
    privateData       ( 8),  -- optional parameters
    privateDataInAck   ( 9),  -- optional parameters
    deviceIDOnly       (10),  -- misc characteristics

```

```

        ackModelMultiStep          (11), -- misc characteristics
        supportsOfferedModeOfAlerting (12)} -- misc characteristics

AnswerCall ::= BIT STRING
{
    alerting          ( 0), -- initial states
    initiated         ( 1), -- initial states
    queued            ( 2), -- initial states
    correlatorData    ( 3), -- optional parameters
    userData          ( 4), -- optional parameters
    privateData       ( 5), -- optional parameters
    privateDataInAck  ( 6), -- optional parameters
    deviceIDOnly      ( 7), -- misc characteristics
    supportsOfferedModeOfAlerting ( 8), -- misc characteristics
    ackModelMultiStep ( 9)} -- misc characteristics

CallBack ::= BIT STRING
{
    alerting          ( 0), -- initial states
    null              ( 1), -- initial states
    failed            ( 2), -- initial states
    queued            ( 3), -- initial states
    callCharacteristics ( 4), -- optional parameters
    privateData       ( 5), -- optional parameters
    targetDeviceInAck ( 6), -- optional parameters
    privateDataInAck  ( 7), -- optional parameters
    deviceIDOnly      ( 8), -- misc characteristics
    moreCallBacksNegAck ( 9), -- misc characteristics
    ackModelMultiStep (10)} -- misc characteristics

CallBackMessage ::= BIT STRING
{
    alerting          ( 0), -- initial states
    null              ( 1), -- initial states
    failed            ( 2), -- initial states
    queued            ( 3), -- initial states
    privateData       ( 4), -- optional parameters
    targetDeviceInAck ( 5), -- optional parameters
    privateDataInAck  ( 6), -- optional parameters
    deviceIDOnly      ( 7), -- misc characteristics
    moreCallBacksNegAck ( 8), -- misc characteristics
    ackModelMultiStep ( 9)} -- misc characteristics

CampOnCall ::= BIT STRING
{
    privateData       ( 0), -- optional parameters
    privateDataInAck  ( 1), -- optional parameters
    deviceIDOnly      ( 2), -- misc characteristics
    ackModelMultiStep ( 3)} -- misc characteristics

ClearCall ::= BIT STRING
{
    alerting          ( 0), -- initial states
    connected         ( 1), -- initial states
    failed            ( 2), -- initial states
    queued            ( 3), -- initial states
    initiated         ( 4), -- initial states
    hold              ( 5), -- initial states
    userData          ( 6), -- optional parameters
    privateData       ( 7), -- optional parameters
    privateDataInAck  ( 8), -- optional parameters
    deviceIDOnly      ( 9), -- misc characteristics
    callIDOnly        (10), -- misc characteristics
    ackModelMultiStep (11)} -- misc characteristics

ClearConnection ::= BIT STRING
{
    alerting          ( 0), -- initial states
    connected         ( 1), -- initial states
    fail              ( 2), -- initial states
    queued            ( 3), -- initial states
    initiated         ( 4), -- initial states
    hold              ( 5), -- initial states
    correlatorData    ( 6), -- optional parameters

```

```

        userData                ( 7),    -- optional parameters
        privateData             ( 8),    -- optional parameters
        privateDataInAck        ( 9),    -- optional parameters
        deviceIDOnly            (10),    -- misc characteristics
        ackModelMultiStep       (11)}    -- misc characteristics

ConferenceCall ::= BIT STRING
{
    activeCallConnected         ( 0),    -- initial states
    activeCallHold              ( 1),    -- initial states
    heldCallConnected           ( 2),    -- initial states
    heldCallHold                ( 3),    -- initial states
    privateData                 ( 4),    -- optional parameters
    connectionParameterInAck    ( 5),    -- optional parameters
    endpointDeviceID            ( 6),    -- optional parameters
    resultingConnectionInfo      ( 7),    -- optional parameters
    conferenceCallOnfoInAck     ( 8),    -- optional parameters
    privateDataInAck            ( 9),    -- optional parameters
    protectedAgainstClearing    (10),    -- misc characteristics
    deviceIDOnly                (11),    -- misc characteristics
    ackModelMultiStep           (12)}    -- misc characteristics

ConsultationCall ::= BIT STRING
{
    connectionReservation       ( 0),    -- optional parameters
    accountCode                 ( 1),    -- optional parameters
    authCode                    ( 2),    -- optional parameters
    correlatorData              ( 3),    -- optional parameters
    userData                    ( 4),    -- optional parameters
    callCharacteristics          ( 5),    -- optional parameters
    callCharacteristicsACDCall   ( 6),    -- optional parameters
    callCharacteristicsPriorityCall ( 7),    -- optional parameters
    callCharacteristicsMaintenanceCall ( 8),    -- optional parameters
    callCharacteristicsDirectAgent ( 9),    -- optional parameters
    callCharacteristicsAssistCall (10),    -- optional parameters
    callCharacteristicsVoiceUnitCall (11),    -- optional parameters
    mediaCallCharacteristics     (12),    -- optional parameters
    callingConnectionInfo        (13),    -- optional parameters
    flowDirectionTransmit        (14),    -- optional parameters
    flowDirectionReceive         (15),    -- optional parameters
    flowDirectionTransmitAndReceive (16),    -- optional parameters
    numberOfChannels             (17),    -- optional parameters
    consultOptionConsultOnly     (18),    -- optional parameters
    consultOptionTransferOnly    (19),    -- optional parameters
    consultOptionConferenceOnly  (20),    -- optional parameters
    consultOptionUnrestricted    (21),    -- optional parameters
    privateData                  (22),    -- optional parameters
    initiatedCallInfoInAck       (23),    -- optional parameters
    privateDataInAck             (24),    -- optional parameters
    deviceIDOnly                 (25),    -- misc characteristics
    multiStage                   (26),    -- misc characteristics
    supportsAdjustmentOfMediaCharacteristics (27),    -- misc characteristics
    ackModelMultiStep           (28)}    -- misc characteristics

DeflectCall ::= BIT STRING
{
    alerting                    ( 0),    -- initial states
    connected                   ( 1),    -- initial states
    failed                      ( 2),    -- initial states
    hold                        ( 3),    -- initial states
    queued                      ( 4),    -- initial states
    correlatorData              ( 5),    -- optional parameters
    userData                    ( 6),    -- optional parameters
    privateData                 ( 7),    -- optional parameters
    privateDataInAck            ( 8),    -- optional parameters
    deviceIDOnly                ( 9),    -- misc characteristics
    ackModelMultiStep           (10)}    -- misc characteristics

DialDigits ::= BIT STRING
{
    correlatorData              ( 0),    -- optional parameters
    privateData                 ( 1),    -- optional parameters

```

```

privateDataInAck          ( 2),  -- optional parameters
deviceIDOnly              ( 3),  -- misc characteristics
ackModelMultiStep         ( 4)}  -- misc characteristics

DirectedPickupCall ::= BIT STRING
{
    alerting                ( 0),  -- initial states
    hold                    ( 1),  -- initial states
    queued                  ( 2),  -- initial states
    connected               ( 3),  -- initial states
    correlatorData          ( 4),  -- optional parameters
    userData                ( 5),  -- optional parameters
    privateData             ( 6),  -- optional parameters
    pickedCallInAck         ( 7),  -- optional parameters
    pickedCallInfoInAck     ( 8),  -- optional parameters
    privateDataInAck        ( 9),  -- optional parameters
    deviceIDOnly            (10),  -- misc characteristics
    supportsOfferedModeOfAlerting (11), -- misc characteristics
    supportsPrompting       (12),  -- misc characteristics
    promptingMode           (13),  -- misc characteristics
    ackModelMultiStep       (14)}  -- misc characteristics

GroupPickupCall ::= BIT STRING
{
    alerting                ( 0),  -- initial states
    connected               ( 1),  -- initial states
    hold                    ( 2),  -- initial states
    queued                  ( 3),  -- initial states
    pickGroup               ( 4),  -- optional parameters
    correlatorData          ( 5),  -- optional parameters
    userData                ( 6),  -- optional parameters
    privateData             ( 7),  -- optional parameters
    pickedCallInAck         ( 8),  -- optional parameters
    pickedCallInfoInAck     ( 9),  -- optional parameters
    privateDataInAck        (10),  -- optional parameters
    supportsPrompting       (11),  -- misc characteristics
    promptingMode           (12),  -- misc characteristics
    supportsOfferedModeOfAlerting (13), -- misc characteristics
    ackModelMultiStep       (14)}  -- misc characteristics

HoldCall ::= BIT STRING
{
    connectionReservation   ( 0),  -- optional parameters
    privateData             ( 1),  -- optional parameters
    privateDataInAck        ( 2),  -- optional parameters
    deviceIDOnly            ( 3),  -- misc characteristics
    ackModelMultiStep       ( 4)}  -- misc characteristics

IntrudeCall ::= BIT STRING
{
    participationTypeSilent ( 0),  -- optional parameters
    participationTypeActive ( 1),  -- optional parameters
    userData                ( 2),  -- optional parameters
    privateData             ( 3),  -- optional parameters
    conferencedCallInfoInAck ( 4),  -- optional parameters
    privateDataInAck        ( 5),  -- optional parameters
    deviceIDOnly            ( 6),  -- misc characteristics
    supportsConference      ( 7),  -- misc characteristics
    supportsAlternate       ( 8),  -- misc characteristics
    ackModelMultiStep       ( 9)}  -- misc characteristics

JoinCall ::= BIT STRING
{
    autoOriginatePrompt     ( 0),  -- optional parameters
    autoOriginateDoNotPrompt ( 1),  -- optional parameters
    participationTypeSilent ( 2),  -- optional parameters
    participationTypeActive ( 3),  -- optional parameters
    accountCode             ( 4),  -- optional parameters
    authCode                ( 5),  -- optional parameters
    correlatorData          ( 6),  -- optional parameters
    userData                ( 7),  -- optional parameters
    conferencedCallInAck     ( 8),  -- optional parameters
    conferencedCallInfoInAck ( 9),  -- optional parameters

```

```

privateDataInAck          (10),  -- optional parameters
deviceIDOnly              (11),  -- misc characteristics
supportsPrompting         (12),  -- misc characteristics
promptingMode             (13),  -- misc characteristics
ackModelMultiStep         (14)}  -- misc characteristics

MakeCall ::= BIT STRING
{
    initiated              ( 0),  -- initials states
    null                   ( 1),  -- initials states
    accountCode            ( 2),  -- optional parameters
    authCode               ( 3),  -- optional parameters
    autoOriginatePrompt    ( 4),  -- optional parameters
    autoOriginateDoNotPrompt ( 5),  -- optional parameters
    correlatorData         ( 6),  -- optional parameters
    userData               ( 7),  -- optional parameters
    callCharacteristics     ( 8),  -- optional parameters
    callCharacteristicsACDCall ( 9),  -- optional parameters
    callCharacteristicsPriorityCall (10),  -- optional parameters
    callCharacteristicsMaintenanceCall (11),  -- optional parameters
    callCharacteristicsDirectAgent (12),  -- optional parameters
    callCharacteristicsAssistCall (13),  -- optional parameters
    callCharacteristicsVoiceUnitCall (14),  -- optional parameters
    mediaCallCharacteristics (15),  -- optional parameters
    callingConnectionInfo  (16),  -- optional parameters
    privateData            (17),  -- optional parameters
    initiatedCallInfoInAck (18),  -- optional parameters
    privateDataInAck       (19),  -- optional parameters
    multiStage             (20),  -- misc characteristics
    supportsPrompting       (21),  -- misc characteristics
    promptingMode           (22),  -- misc characteristics
    offHook                 (23),  -- misc characteristics
    mediaCharacteristicsAdjustable (24),  -- misc characteristics
    ackModelMultiStep      (25)}  -- misc characteristics

MakePredictiveCall ::= BIT STRING
{
    signallingDetection      ( 0),  -- optional parameters
    signallingConditionCallDelivered ( 1),  -- optional parameters
    signallingConditionCallEstablished ( 2),  -- optional parameters
    signallingConditionActionDestinationDetection ( 3),  -- optional parameters
    signallingConditionActionRemainConnected ( 4),  -- optional parameters
    destinationDetection     ( 5),  -- optional parameters
    destinationConditionHumanVoice ( 6),  -- optional parameters
    destinationConditionAnsweringMachine ( 7),  -- optional parameters
    destinationConditionFax   ( 8),  -- optional parameters
    destinationActionClearConnection ( 9),  -- optional parameters
    destinationActionRemainConnected (10),  -- optional parameters
    defaultActionClearConnection (11),  -- optional parameters
    defaultActionRemainConnected (12),  -- optional parameters
    accountCode              (13),  -- optional parameters
    authCode                 (14),  -- optional parameters
    autoOriginatePrompt      (15),  -- optional parameters
    autoOriginateDoNotPrompt (16),  -- optional parameters
    alertTime                (17),  -- optional parameters
    correlatorData           (18),  -- optional parameters
    callCharacteristics       (19),  -- optional parameters
    callCharacteristicsACDCall (20),  -- optional parameters
    callCharacteristicsPriorityCall (21),  -- optional parameters
    callCharacteristicsMaintenanceCall (22),  -- optional parameters
    callCharacteristicsDirectAgent (23),  -- optional parameters
    callCharacteristicsAssistCall (24),  -- optional parameters
    callCharacteristicsVoiceUnitCall (25),  -- optional parameters
    userData                 (26),  -- optional parameters
    privateData              (27),  -- optional parameters
    initiatedCallInfoInAck   (28),  -- optional parameters
    privateDataInAck         (29),  -- optional parameters
    deviceIDOnly             (30),  -- misc characteristics
    supportsPrompting        (31),  -- misc characteristics
    promptingMode            (32),  -- misc characteristics

```

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        reservesCallingDevice                (33), -- misc characteristics
        ackModelMultiStep                    (34)} -- misc characteristics

ParkCall ::= BIT STRING
{
    hold                ( 0), -- initial states
    connected            ( 1), -- initial states
    correlatorData       ( 2), -- optional parameters
    privateData          ( 3), -- optional parameters
    parkedToInAck        ( 4), -- optional parameters
    privateDataInAck     ( 5), -- optional parameters
    deviceIDOnly         ( 6), -- misc characteristics
    ackModelMultiStep    ( 7)} -- misc characteristics

ReconnectCall ::= BIT STRING
{
    alerting            ( 0), -- initial states
    connected            ( 1), -- initial states
    fail                ( 2), -- initial states
    initiated            ( 3), -- initial states
    queued              ( 4), -- initial states
    privateData          ( 5), -- optional parameters
    privateDataInAck     ( 6), -- optional parameters
    deviceIDOnly         ( 7), -- misc characteristics
    ackModelMultiStep    ( 8)} -- misc characteristics

RetrieveCall ::= BIT STRING
{
    privateData          ( 0), -- optional parameters
    privateDataInAck     ( 1), -- optional parameters
    deviceIDOnly         ( 2), -- misc characteristics
    ackModelMultiStep    ( 3)} -- misc characteristics

SingleStepConference ::= BIT STRING
{
    participationTypeActive    ( 0), -- optional parameters
    participationTypeSilent    ( 1), -- optional parameters
    accountCode               ( 2), -- optional parameters
    authCode                  ( 3), -- optional parameters
    correlatorData            ( 4), -- optional parameters
    userData                  ( 5), -- optional parameters
    privateData               ( 6), -- optional parameters
    conferencedCallInfoInAck  ( 7), -- optional parameters
    privateDataInAck          ( 8), -- optional parameters
    deviceIDOnly              ( 9), -- misc characteristics
    ackModelMultiStep         (10)} -- misc characteristics

SingleStepTransfer ::= BIT STRING
{
    accountCode              ( 0), -- optional parameters
    authCode                 ( 1), -- optional parameters
    correlatorData           ( 2), -- optional parameters
    userData                 ( 3), -- optional parameters
    privateData              ( 4), -- optional parameters
    connectionParameterInAck ( 5), -- optional parameters
    endpointDeviceID         ( 6), -- optional parameters
    resultionConnectionInformation ( 7), -- optional parameters
    transferredCollInfoInAck ( 8), -- optional parameters
    privateDataInAck         ( 9), -- optional parameters
    deviceIDOnly             (10), -- misc characteristics
    multipleDevices          (11), -- misc characteristics
    ackModelMultiStep        (12)} -- misc characteristics

TransferCall ::= BIT STRING
{
    activeCallConnected      ( 0), -- initial states
    activeCallHold           ( 1), -- initial states
    heldCallConnected        ( 2), -- initial states
    heldCallHold             ( 3), -- initial states
    privateData              ( 4), -- optional parameters
    connectionsParameterInAck ( 5), -- optional parameters
    endpointDeviceID         ( 6), -- optional parameters
    resultingConnectionInformation ( 7), -- optional parameters
    transferredCallInfoInAck ( 8), -- optional parameters

```

```

privateDataInAck          ( 9), -- optional parameters
deviceIDOnly              (10), -- misc characteristics
multipleDevices           (11), -- misc characteristics
ackModelMultiStep         (12)} -- misc characteristics

CallControlEvtsList ::= SEQUENCE
{
    bridged                [0] IMPLICIT Bridged                OPTIONAL,
    callCleared             [1] IMPLICIT CallCleared           OPTIONAL,
    conferenced             [2] IMPLICIT Conferenced           OPTIONAL,
    connectionCleared       [3] IMPLICIT ConnectionCleared     OPTIONAL,
    delivered               [4] IMPLICIT Delivered             OPTIONAL,
    digitsDialed            [5] IMPLICIT DigitsDialed           OPTIONAL,
    diverted                [6] IMPLICIT Diverted              OPTIONAL,
    established             [7] IMPLICIT Established           OPTIONAL,
    failed                  [8] IMPLICIT Failed                OPTIONAL,
    held                    [9] IMPLICIT Held                  OPTIONAL,
    netwCapsChanged         [10] IMPLICIT NetwCapsChanged       OPTIONAL,
    netwReached             [11] IMPLICIT NetwReached           OPTIONAL,
    offered                 [12] IMPLICIT Offered              OPTIONAL,
    originated              [13] IMPLICIT Originated            OPTIONAL,
    queued                  [14] IMPLICIT Queued               OPTIONAL,
    retrieved               [15] IMPLICIT Retrieved            OPTIONAL,
    serviceInitiated        [16] IMPLICIT ServiceInitiated     OPTIONAL,
    transferred             [17] IMPLICIT Transferred          OPTIONAL }

Bridged ::= BIT STRING
{
    correlatorData          ( 0), -- optional parameters
    userData                ( 1), -- optional parameters
    servicesPermitted       ( 2), -- optional parameters
    mediaCallCharacteristics ( 3), -- optional parameters
    callCharacteristics     ( 4), -- optional parameters
    bridgedConnectionInfo   ( 5), -- optional parameters
    callLinkageData         ( 7), -- optional parameters
    privateData             ( 6)} -- optional parameters

CallCleared ::= BIT STRING
{
    correlatorData          ( 0), -- optional parameters
    userData                ( 1), -- optional parameters
    mediaCallCharacteristics ( 2), -- optional parameters
    callCharacteristics     ( 3), -- optional parameters
    callLinkageData         ( 6), -- optional parameters
    privateData             ( 4), -- optional parameters
    callIDOnly              ( 5)} -- miscellaneous characteristics

Conferenced ::= BIT STRING
{
    confereceConnectionsEndpointDeviceID ( 0), -- optional parameters
    confereceConnectionsresultingConnectionInfo ( 1), -- optional parameters
    userData                ( 2), -- optional parameters
    servicesPermitted       ( 3), -- optional parameters
    mediaCallCharacteristics ( 4), -- optional parameters
    callCharacteristics     ( 5), -- optional parameters
    bridgedConnectionInfo   ( 6), -- optional parameters
    privateData             ( 7)} -- optional parameters

ConnectionCleared ::= BIT STRING
{
    correlatorData          ( 0), -- optional parameters
    userData                ( 1), -- optional parameters
    chargingInfo            ( 2), -- optional parameters
    numberUnitsNumberOfChargingUnits     ( 3), -- optional parameters
    numberUnitsTypeOfUnits               ( 4), -- optional parameters
    numberUnitsNumberOfCurrencyUnits     ( 5), -- optional parameters
    typeOfChargingInfoSubTotal           ( 6), -- optional parameters
    typeOfChargingInfoTotal              ( 7), -- optional parameters
    chargingMultiplierATHousandth        ( 8), -- optional parameters
    chargingMultiplierAHundredth         ( 9), -- optional parameters
    chargingMultiplierATenth              (10), -- optional parameters
    chargingMultiplierOne                 (11), -- optional parameters

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chargingMultiplierTen (12), -- optional parameters
 chargingMultiplierHundred (13), -- optional parameters
 chargingMultiplierThousand (14), -- optional parameters
 servicesPermitted (15), -- optional parameters
 mediaCallCharacteristics (16), -- optional parameters
 callCharacteristics (17), -- optional parameters
 droppedConnectionInfo (18), -- optional parameters
 callLinkageData (20), -- optional parameters
 privateData (19)} -- optional parameters

Delivered ::= BIT STRING
 {
 originatingNIDConnection (0), -- optional parameters
 userData (1), -- optional parameters
 servicesPermitted (2), -- optional parameters
 netwCallingDevice (3), -- optional parameters
 netwCalledDevice (4), -- optional parameters
 mediaCallCharacteristics (5), -- optional parameters
 callCharacteristics (6), -- optional parameters
 connectionInfo (7), -- optional parameters
 privateData (8)} -- optional parameters

DigitsDialed ::= BIT STRING
 {
 servicesPermitted (0), -- optional parameters
 netwCallingDevice (1), -- optional parameters
 netwCalledDevice (2), -- optional parameters
 diallingConnectionInfo (3), -- optional parameters
 callCharacteristics (4), -- optional parameters
 privateData (5)} -- optional parameters

Diverted ::= BIT STRING
 {
 callingDevice (0), -- optional parameters
 calledDevice (1), -- optional parameters
 userData (2), -- optional parameters
 servicesPermitted (3), -- optional parameters
 mediaCallCharacteristics (4), -- optional parameters
 callCharacteristics (5), -- optional parameters
 connectionInfo (6), -- optional parameters
 netwCallingDevice (7), -- optional parameters
 netwCalledDevice (8), -- optional parameters
 privateData (9), -- optional parameters
 sendsDivertedToAll (10)} -- optional parameters

Established ::= BIT STRING
 {
 originatingNIDConnection (0), -- optional parameters
 userData (1), -- optional parameters
 servicesPermitted (2), -- optional parameters
 netwCallingDevice (3), -- optional parameters
 netwCalledDevice (4), -- optional parameters
 mediaCallCharacteristics (5), -- optional parameters
 callCharacteristics (6), -- optional parameters
 establishedConnectionInfo (7), -- optional parameters
 privateData (8)} -- optional parameters

Failed ::= BIT STRING
 {
 originatingNIDConnection (0), -- optional parameters
 userData (1), -- optional parameters
 servicesPermitted (2), -- optional parameters
 netwCallingDevice (3), -- optional parameters
 netwCalledDevice (4), -- optional parameters
 mediaCallCharacteristics (5), -- optional parameters
 callCharacteristics (6), -- optional parameters
 failedConnectionInfo (7), -- optional parameters
 privateData (8), -- optional parameters
 callIDOnly (9)} -- miscellaneous characteristics

Held ::= BIT STRING
 {
 correlatorData (0), -- optional parameters
 servicesPermitted (1), -- optional parameters

```

mediaCallCharacteristics      ( 2),  -- optional parameters
callCharacteristics           ( 3),  -- optional parameters
heldConnectionInfo           ( 4),  -- optional parameters
callLinkageData              ( 6),  -- optional parameters
privateData                   ( 5)}  -- optional parameters

NetwCapsChanged ::= BIT STRING
{
    progressLocationUser      ( 0),  -- optional parameters
    progressLocationPrivateServLocal ( 1),  -- optional parameters
    progressLocationPublicServLocal ( 2),  -- optional parameters
    progressLocationTransit    ( 3),  -- optional parameters
    progressLocationPublicServRemote ( 4),  -- optional parameters
    progressLocationPrivateServRemote ( 5),  -- optional parameters
    progressLocationLocal      ( 6),  -- optional parameters
    progressLocationInternational ( 7),  -- optional parameters
    progressLocationNetwBeyondInterworking ( 8),  -- optional parameters
    progressLocationOther      ( 9),  -- optional parameters
    progressDescriptionISDN     (10),  -- optional parameters
    progressDescriptionQSIG     (11),  -- optional parameters
    progressDescriptionOther    (12),  -- optional parameters
    userData                   (13),  -- optional parameters
    typeOfNetworkISDNPublic     (14),  -- optional parameters
    typeOfNetworkNonISDNPublic  (15),  -- optional parameters
    typeOfNetworkISDNPrivate    (16),  -- optional parameters
    typeOfNetworkNonISDNPrivate (17),  -- optional parameters
    typeOfNetworkOther          (18),  -- optional parameters
    eventsProvidedParameter     (19),  -- optional parameters
    eventsProvidedBridged       (20),  -- optional parameters
    eventsProvidedCallCleared   (21),  -- optional parameters
    eventsProvidedConferenced   (22),  -- optional parameters
    eventsProvidedConnectionCleared (23),  -- optional parameters
    eventsProvidedDelivered     (24),  -- optional parameters
    eventsProvidedDigitsDialed  (25),  -- optional parameters
    eventsProvidedDiverted      (26),  -- optional parameters
    eventsProvidedEstablished   (27),  -- optional parameters
    eventsProvidedFailed        (28),  -- optional parameters
    eventsProvidedHeld          (29),  -- optional parameters
    eventsProvidedNetwCapsChanged (30),  -- optional parameters
    eventsProvidedNetwReached   (31),  -- optional parameters
    eventsProvidedOffered       (32),  -- optional parameters
    eventsProvidedOriginated    (33),  -- optional parameters
    eventsProvidedQueued        (34),  -- optional parameters
    eventsProvidedRetrieved     (35),  -- optional parameters
    eventsProvidedServiceInitiated (36),  -- optional parameters
    eventsProvidedTransferred   (37),  -- optional parameters
    servicesPermitted           (38),  -- optional parameters
    mediaCallCharacteristics     (39),  -- optional parameters
    callCharacteristics          (40),  -- optional parameters
    outboundConnectionInfo      (41),  -- optional parameters
    privateData                  (42)}  -- optional parameters

NetwReached ::= BIT STRING
{
    originatingNIDConnection    ( 0),  -- optional parameters
    userData                     ( 1),  -- optional parameters
    typeOfNetworkISDNPublic      ( 2),  -- optional parameters
    typeOfNetworkNonISDNPublic   ( 3),  -- optional parameters
    typeOfNetworkISDNPrivate     ( 4),  -- optional parameters
    typeOfNetworkNonISDNPrivate  ( 5),  -- optional parameters
    typeOfNetworkOther           ( 6),  -- optional parameters
    eventsProvidedParameter      ( 7),  -- optional parameters
    eventsProvidedBridged         ( 8),  -- optional parameters
    eventsProvidedCallCleared     ( 9),  -- optional parameters
    eventsProvidedConferenced     (10),  -- optional parameters
    eventsProvidedConnectionCleared (11),  -- optional parameters
    eventsProvidedDelivered       (12),  -- optional parameters
    eventsProvidedDigitsDialed    (13),  -- optional parameters
    eventsProvidedDiverted        (14),  -- optional parameters
    eventsProvidedEstablished     (15),  -- optional parameters

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eventsProvidedFailed          (16),      -- optional parameters
eventsProvidedHeld            (17),      -- optional parameters
eventsProvidedNetwCapsChanged (18),      -- optional parameters
eventsProvidedNetwReached     (19),      -- optional parameters
eventsProvidedOffered         (20),      -- optional parameters
eventsProvidedOriginated      (21),      -- optional parameters
eventsProvidedQueued          (22),      -- optional parameters
eventsProvidedRetrieved       (23),      -- optional parameters
eventsProvidedServiceInitiated (24),      -- optional parameters
eventsProvidedTransferred     (25),      -- optional parameters
servicesPermitted             (26),      -- optional parameters
mediaCallCharacteristics      (27),      -- optional parameters
callCharacteristics           (28),      -- optional parameters
outboundConnectionInfo       (29),      -- optional parameters
netwCallingDevice             (30),      -- optional parameters
netwCalledDevice              (31),      -- optional parameters
privateData                   (32)}      -- optional parameters

Offered ::= BIT STRING
{
    originatingNIDConnection ( 0),      -- optional parameters
    userData                 ( 1),      -- optional parameters
    servicesPermitted        ( 2),      -- optional parameters
    netwCallingDevice        ( 3),      -- optional parameters
    netwCalledDevice         ( 4),      -- optional parameters
    mediaCallCharacteristics ( 5),      -- optional parameters
    callCharacteristics      ( 6),      -- optional parameters
    offeredConnectionInfo    ( 7),      -- optional parameters
    privateData              ( 8)}      -- optional parameters

Originated ::= BIT STRING
{
    originatingDevice ( 0),      -- optional parameters
    servicesPermitted ( 1),      -- optional parameters
    netwCallingDevice ( 2),      -- optional parameters
    netwCalledDevice  ( 3),      -- optional parameters
    mediaCallCharacteristics ( 4),      -- optional parameters
    callCharacteristics ( 5),      -- optional parameters
    originatedConnectionInfo ( 6),      -- optional parameters
    privateData        ( 7)}      -- optional parameters

Queued ::= BIT STRING
{
    numberQueued ( 0),      -- optional parameters
    callsInFront ( 1),      -- optional parameters
    userData     ( 2),      -- optional parameters
    servicesPermitted ( 3),      -- optional parameters
    netwCallingDevice ( 4),      -- optional parameters
    netwCalledDevice  ( 5),      -- optional parameters
    mediaCallCharacteristics ( 6),      -- optional parameters
    callCharacteristics ( 7),      -- optional parameters
    queuedConnectionInfo ( 8),      -- optional parameters
    privateData        ( 9)}      -- optional parameters

Retrieved ::= BIT STRING
{
    correlatorData ( 0),      -- optional parameters
    servicesPermitted ( 1),      -- optional parameters
    mediaCallCharacteristics ( 2),      -- optional parameters
    callCharacteristics ( 3),      -- optional parameters
    retrievedConnectionInfo ( 4),      -- optional parameters
    callLinkageData ( 6),      -- optional parameters
    privateData ( 5)}      -- optional parameters

ServiceInitiated ::= BIT STRING
{
    servicesPermitted ( 0),      -- optional parameters
    mediaCallCharacteristics ( 1),      -- optional parameters
    callCharacteristics ( 2),      -- optional parameters
    initiatedConnectionInfo ( 3),      -- optional parameters
    netwCallingDevice ( 4),      -- optional parameters
    netwCalledDevice ( 5),      -- optional parameters
    privateData ( 6)}      -- optional parameters

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Transferred ::= BIT STRING
{
    transferredConnectionsEndpointDeviceID      ( 0),  -- optional parameters
    transferredConnectionsResultingConnectionInfo ( 1),  -- optional parameters
    userData                                    ( 2),  -- optional parameters
    chargingInfo                                ( 3),  -- optional parameters
    numberUnitsNumberOfChargingUnits            ( 4),  -- optional parameters
    numberUnitsTypeOfUnits                      ( 5),  -- optional parameters
    numberUnitsNumberOfCurrencyUnits            ( 6),  -- optional parameters
    typeOfChargingInfoSubTotal                  ( 7),  -- optional parameters
    typeOfChargingInfoTotal                    ( 8),  -- optional parameters
    chargingMultiplierAThousandth              ( 9),  -- optional parameters
    chargingMultiplierAHundredth               (10),  -- optional parameters
    chargingMultiplierATenth                   (11),  -- optional parameters
    chargingMultiplierOne                      (12),  -- optional parameters
    chargingMultiplierTen                      (13),  -- optional parameters
    chargingMultiplierHundred                  (14),  -- optional parameters
    chargingMultiplierThousand                 (15),  -- optional parameters
    servicesPermitted                          (16),  -- optional parameters
    mediaCallCharacteristics                   (17),  -- optional parameters
    callCharacteristics                        (18),  -- optional parameters
    connectionInfo                            (19),  -- optional parameters
    privateData                                (20)}  -- optional parameters

CallAssociatedServList ::= SEQUENCE
{
    associateData          [0] IMPLICIT AssociateData          OPTIONAL,
    cancelTelephonyTones   [1] IMPLICIT CancelTelephonyTones   OPTIONAL,
    generateDigits          [2] IMPLICIT GenerateDigits         OPTIONAL,
    generateTelephonyTones [3] IMPLICIT GenerateTelephonyTones  OPTIONAL,
    sendUserInformation     [4] IMPLICIT SendUserInformation     OPTIONAL}

AssociateData ::= BIT STRING
{
    accountCode      ( 0),  -- optional parameters
    authCode         ( 1),  -- optional parameters
    correlatorData   ( 2),  -- optional parameters
    callQualifyingData ( 3),  -- optional parameters
    privateData      ( 4),  -- optional parameters
    privateDataInAck ( 5),  -- optional parameters
    deviceIDOnly     ( 6),  -- misc characteristics
    rejectsRequestsWithOldConnectionID ( 7),  -- misc characteristics
    ackModelMultiStep ( 8)}  -- misc characteristics

CancelTelephonyTones ::= BIT STRING
{
    privateData      ( 0),  -- optional parameters
    privateDataInAck ( 1),  -- optional parameters
    ackModelMultiStep ( 2)}  -- misc characteristics

GenerateDigits ::= BIT STRING
{
    digitModeDTMF      ( 0),  -- optional parameters
    digitModePulse     ( 1),  -- optional parameters
    toneDuration       ( 2),  -- optional parameters
    pulseRate          ( 3),  -- optional parameters
    pauseDuration      ( 4),  -- optional parameters
    privateData        ( 5),  -- optional parameters
    privateDataInAck   ( 6),  -- optional parameters
    deviceIDOnly       ( 7),  -- misc characteristics
    supportsDTMFTonesABCD ( 8),  -- misc characteristics
    supportsPauseToneChar ( 9),  -- misc characteristics
    ackModelMultiStep  (10)}  -- misc characteristics

GenerateTelephonyTones ::= BIT STRING
{
    toneToSendBeep      ( 0),  -- optional parameters
    toneToSendBilling    ( 1),  -- optional parameters
    toneToSendBusy       ( 2),  -- optional parameters
    toneToSendCarrier    ( 3),  -- optional parameters
    toneToSendConfirmation ( 4),  -- optional parameters

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toneToSendDial	(5),	-- optional parameters
toneToSendFaxCNG	(6),	-- optional parameters
toneToSendHold	(7),	-- optional parameters
toneToSendHowler	(8),	-- optional parameters
toneToSendIntrusion	(9),	-- optional parameters
toneToSendModemCNG	(10),	-- optional parameters
toneToSendPark	(11),	-- optional parameters
toneToSendRecordWarning	(12),	-- optional parameters
toneToSendReorder	(13),	-- optional parameters
toneToSendRingback	(14),	-- optional parameters
toneToSendSilence	(15),	-- optional parameters
toneToSendSitVC	(16),	-- optional parameters
toneToSendSitIC	(17),	-- optional parameters
toneToSendSitRO	(18),	-- optional parameters
toneToSendSitNC	(19),	-- optional parameters
toneToSendSf0	(20),	-- optional parameters
toneToSendSf1	(21),	-- optional parameters
toneToSendSf2	(22),	-- optional parameters
toneToSendSf3	(23),	-- optional parameters
toneToSendSf4	(24),	-- optional parameters
toneToSendSf5	(25),	-- optional parameters
toneToSendSf6	(26),	-- optional parameters
toneToSendSf7	(27),	-- optional parameters
toneToSendSf8	(28),	-- optional parameters
toneToSendSf9	(29),	-- optional parameters
toneToSendSf10	(30),	-- optional parameters
toneToSendSf11	(31),	-- optional parameters
toneToSendSf12	(32),	-- optional parameters
toneToSendSf13	(33),	-- optional parameters
toneToSendSf14	(34),	-- optional parameters
toneToSendSf15	(35),	-- optional parameters
toneToSendSf16	(36),	-- optional parameters
toneToSendSf17	(37),	-- optional parameters
toneToSendSf18	(38),	-- optional parameters
toneToSendSf19	(39),	-- optional parameters
toneToSendSf20	(40),	-- optional parameters
toneToSendSf21	(41),	-- optional parameters
toneToSendSf22	(42),	-- optional parameters
toneToSendSf23	(43),	-- optional parameters
toneToSendSf24	(44),	-- optional parameters
toneToSendSf25	(45),	-- optional parameters
toneToSendSf26	(46),	-- optional parameters
toneToSendSf27	(47),	-- optional parameters
toneToSendSf28	(48),	-- optional parameters
toneToSendSf29	(49),	-- optional parameters
toneToSendSf30	(50),	-- optional parameters
toneToSendSf31	(51),	-- optional parameters
toneToSendSf32	(52),	-- optional parameters
toneToSendSf33	(53),	-- optional parameters
toneToSendSf34	(54),	-- optional parameters
toneToSendSf35	(55),	-- optional parameters
toneToSendSf36	(56),	-- optional parameters
toneToSendSf37	(57),	-- optional parameters
toneToSendSf38	(58),	-- optional parameters
toneToSendSf39	(59),	-- optional parameters
toneToSendSf40	(60),	-- optional parameters
toneToSendSf41	(61),	-- optional parameters
toneToSendSf42	(62),	-- optional parameters
toneToSendSf43	(63),	-- optional parameters
toneToSendSf44	(64),	-- optional parameters
toneToSendSf45	(65),	-- optional parameters
toneToSendSf46	(66),	-- optional parameters
toneToSendSf47	(67),	-- optional parameters
toneToSendSf48	(68),	-- optional parameters
toneToSendSf49	(69),	-- optional parameters
toneToSendSf50	(70),	-- optional parameters
toneToSendSf51	(71),	-- optional parameters
toneToSendSf52	(72),	-- optional parameters

toneToSendSf53 (73), -- optional parameters
 toneToSendSf54 (74), -- optional parameters
 toneToSendSf55 (75), -- optional parameters
 toneToSendSf56 (76), -- optional parameters
 toneToSendSf57 (77), -- optional parameters
 toneToSendSf58 (78), -- optional parameters
 toneToSendSf59 (79), -- optional parameters
 toneToSendSf60 (80), -- optional parameters
 toneToSendSf61 (81), -- optional parameters
 toneToSendSf62 (82), -- optional parameters
 toneToSendSf63 (83), -- optional parameters
 toneToSendSf64 (84), -- optional parameters
 toneToSendSf65 (85), -- optional parameters
 toneToSendSf66 (86), -- optional parameters
 toneToSendSf67 (87), -- optional parameters
 toneToSendSf68 (88), -- optional parameters
 toneToSendSf69 (89), -- optional parameters
 toneToSendSf70 (90), -- optional parameters
 toneToSendSf71 (91), -- optional parameters
 toneToSendSf72 (92), -- optional parameters
 toneToSendSf73 (93), -- optional parameters
 toneToSendSf74 (94), -- optional parameters
 toneToSendSf75 (95), -- optional parameters
 toneToSendSf76 (96), -- optional parameters
 toneToSendSf77 (97), -- optional parameters
 toneToSendSf78 (98), -- optional parameters
 toneToSendSf79 (99), -- optional parameters
 toneToSendSf80 (100), -- optional parameters
 toneToSendSf81 (101), -- optional parameters
 toneToSendSf82 (102), -- optional parameters
 toneToSendSf83 (103), -- optional parameters
 toneToSendSf84 (104), -- optional parameters
 toneToSendSf85 (105), -- optional parameters
 toneToSendSf86 (106), -- optional parameters
 toneToSendSf87 (107), -- optional parameters
 toneToSendSf88 (108), -- optional parameters
 toneToSendSf89 (109), -- optional parameters
 toneToSendSf90 (110), -- optional parameters
 toneToSendSf91 (111), -- optional parameters
 toneToSendSf92 (112), -- optional parameters
 toneToSendSf93 (113), -- optional parameters
 toneToSendSf94 (114), -- optional parameters
 toneToSendSf95 (115), -- optional parameters
 toneToSendSf96 (116), -- optional parameters
 toneToSendSf97 (117), -- optional parameters
 toneToSendSf98 (118), -- optional parameters
 toneToSendSf99 (119), -- optional parameters
 toneToSendSf100 (120), -- optional parameters
 toneDuration (121), -- optional parameters
 privateData (122), -- optional parameters
 privateDataInAck (123), -- optional parameters
 deviceIDOnly (124), -- misc characteristics
 ackModelMultiStep (125)} -- misc characteristics

SendUserInformation ::= BIT STRING
 {
 privateData (0), -- optional parameters
 privateDataInAck (1), -- optional parameters
 deviceIDOnly (2), -- misc characteristics
 ackModelMultiStep (3)} -- misc characteristics

CallAssociatedEvtsList ::= SEQUENCE
 {
 callInformation [0] IMPLICIT CallInformation OPTIONAL,
 charging [1] IMPLICIT Charging OPTIONAL,
 digitsGenerated [2] IMPLICIT DigitsGenerated OPTIONAL,
 telephonyTonesGenerated [3] IMPLICIT TelephonyTonesGenerated OPTIONAL,
 serviceCompletionFailure [4] IMPLICIT ServiceCompletionFailure OPTIONAL}

CallInformation ::= BIT STRING

```

{      callingDevice          ( 0),  -- optional parameters
      accountInfo             ( 1),  -- optional parameters
      authorisationCode       ( 2),  -- optional parameters
      correlatorData          ( 3),  -- optional parameters
      servicesPermitted       ( 4),  -- optional parameters
      userData                ( 5),  -- optional parameters
      callQualifyingData      ( 6),  -- optional parameters
      connectionInfo          ( 7),  -- optional parameters
      callLinkageData         (10),  -- optional parameters
      privateData             ( 8),  -- optional parameters
      genCallInfoForOutdatedConnID ( 9)} -- misc characteristics

Charging ::= BIT STRING
{      numberUnitsNumberOfChargingUnits ( 0),  -- optional parameters
      numberUnitsTypeOfUnits             ( 1),  -- optional parameters
      numberUnitsNumberOfCurrencyUnits   ( 2),  -- optional parameters
      typeOfChargingInfoSubTotal          ( 3),  -- optional parameters
      typeOfChargingInfoTotal            ( 4),  -- optional parameters
      chargingMultiplierAThousandth      ( 5),  -- optional parameters
      chargingMultiplierAHundredth       ( 6),  -- optional parameters
      chargingMultiplierATenth            ( 7),  -- optional parameters
      chargingMultiplierOne              ( 8),  -- optional parameters
      chargingMultiplierTen              ( 9),  -- optional parameters
      chargingMultiplierHundred          (10),  -- optional parameters
      chargingMultiplierThousand         (11),  -- optional parameters
      privateData                        (12)} -- optional parameters

DigitsGenerated ::= BIT STRING
{      digitsDurationList ( 0),  -- optional parameters
      pauseDurationList   ( 1),  -- optional parameters
      connectionInfo      ( 2),  -- optional parameters
      privateData          ( 3)} -- optional parameters

TelephonyTonesGenerated ::= BIT STRING
{      toneToSendBeep          ( 0),  -- optional parameters
      toneToSendBilling        ( 1),  -- optional parameters
      toneToSendBusy           ( 2),  -- optional parameters
      toneToSendCarrier        ( 3),  -- optional parameters
      toneToSendConfirmation    ( 4),  -- optional parameters
      toneToSendDial           ( 5),  -- optional parameters
      toneToSendFaxCNG         ( 6),  -- optional parameters
      toneToSendHold           ( 7),  -- optional parameters
      toneToSendHowler         ( 8),  -- optional parameters
      toneToSendIntrusion      ( 9),  -- optional parameters
      toneToSendModemCNG       (10),  -- optional parameters
      toneToSendPark           (11),  -- optional parameters
      toneToSendRecordWarning  (12),  -- optional parameters
      toneToSendReorder        (13),  -- optional parameters
      toneToSendRingback       (14),  -- optional parameters
      toneToSendSilence        (15),  -- optional parameters
      toneToSendSitVC          (16),  -- optional parameters
      toneToSendSitIC          (17),  -- optional parameters
      toneToSendSitRO          (18),  -- optional parameters
      toneToSendSitNC          (19),  -- optional parameters
      toneToSendSf0            (20),  -- optional parameters
      toneToSendSf1            (21),  -- optional parameters
      toneToSendSf2            (22),  -- optional parameters
      toneToSendSf3            (23),  -- optional parameters
      toneToSendSf4            (24),  -- optional parameters
      toneToSendSf5            (25),  -- optional parameters
      toneToSendSf6            (26),  -- optional parameters
      toneToSendSf7            (27),  -- optional parameters
      toneToSendSf8            (28),  -- optional parameters
      toneToSendSf9            (29),  -- optional parameters
      toneToSendSf10           (30),  -- optional parameters
      toneToSendSf11           (31),  -- optional parameters
      toneToSendSf12           (32),  -- optional parameters
      toneToSendSf13           (33),  -- optional parameters

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toneToSendSf14	(34),	-- optional parameters
toneToSendSf15	(35),	-- optional parameters
toneToSendSf16	(36),	-- optional parameters
toneToSendSf17	(37),	-- optional parameters
toneToSendSf18	(38),	-- optional parameters
toneToSendSf19	(39),	-- optional parameters
toneToSendSf20	(40),	-- optional parameters
toneToSendSf21	(41),	-- optional parameters
toneToSendSf22	(42),	-- optional parameters
toneToSendSf23	(43),	-- optional parameters
toneToSendSf24	(44),	-- optional parameters
toneToSendSf25	(45),	-- optional parameters
toneToSendSf26	(46),	-- optional parameters
toneToSendSf27	(47),	-- optional parameters
toneToSendSf28	(48),	-- optional parameters
toneToSendSf29	(49),	-- optional parameters
toneToSendSf30	(50),	-- optional parameters
toneToSendSf31	(51),	-- optional parameters
toneToSendSf32	(52),	-- optional parameters
toneToSendSf33	(53),	-- optional parameters
toneToSendSf34	(54),	-- optional parameters
toneToSendSf35	(55),	-- optional parameters
toneToSendSf36	(56),	-- optional parameters
toneToSendSf37	(57),	-- optional parameters
toneToSendSf38	(58),	-- optional parameters
toneToSendSf39	(59),	-- optional parameters
toneToSendSf40	(60),	-- optional parameters
toneToSendSf41	(61),	-- optional parameters
toneToSendSf42	(62),	-- optional parameters
toneToSendSf43	(63),	-- optional parameters
toneToSendSf44	(64),	-- optional parameters
toneToSendSf45	(65),	-- optional parameters
toneToSendSf46	(66),	-- optional parameters
toneToSendSf47	(67),	-- optional parameters
toneToSendSf48	(68),	-- optional parameters
toneToSendSf49	(69),	-- optional parameters
toneToSendSf50	(70),	-- optional parameters
toneToSendSf51	(71),	-- optional parameters
toneToSendSf52	(72),	-- optional parameters
toneToSendSf53	(73),	-- optional parameters
toneToSendSf54	(74),	-- optional parameters
toneToSendSf55	(75),	-- optional parameters
toneToSendSf56	(76),	-- optional parameters
toneToSendSf57	(77),	-- optional parameters
toneToSendSf58	(78),	-- optional parameters
toneToSendSf59	(79),	-- optional parameters
toneToSendSf60	(80),	-- optional parameters
toneToSendSf61	(81),	-- optional parameters
toneToSendSf62	(82),	-- optional parameters
toneToSendSf63	(83),	-- optional parameters
toneToSendSf64	(84),	-- optional parameters
toneToSendSf65	(85),	-- optional parameters
toneToSendSf66	(86),	-- optional parameters
toneToSendSf67	(87),	-- optional parameters
toneToSendSf68	(88),	-- optional parameters
toneToSendSf69	(89),	-- optional parameters
toneToSendSf70	(90),	-- optional parameters
toneToSendSf71	(91),	-- optional parameters
toneToSendSf72	(92),	-- optional parameters
toneToSendSf73	(93),	-- optional parameters
toneToSendSf74	(94),	-- optional parameters
toneToSendSf75	(95),	-- optional parameters
toneToSendSf76	(96),	-- optional parameters
toneToSendSf77	(97),	-- optional parameters
toneToSendSf78	(98),	-- optional parameters
toneToSendSf79	(99),	-- optional parameters
toneToSendSf80	(100),	-- optional parameters
toneToSendSf81	(101),	-- optional parameters

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toneToSendSf82          (102), -- optional parameters
toneToSendSf83          (103), -- optional parameters
toneToSendSf84          (104), -- optional parameters
toneToSendSf85          (105), -- optional parameters
toneToSendSf86          (106), -- optional parameters
toneToSendSf87          (107), -- optional parameters
toneToSendSf88          (108), -- optional parameters
toneToSendSf89          (109), -- optional parameters
toneToSendSf90          (110), -- optional parameters
toneToSendSf91          (111), -- optional parameters
toneToSendSf92          (112), -- optional parameters
toneToSendSf93          (113), -- optional parameters
toneToSendSf94          (114), -- optional parameters
toneToSendSf95          (115), -- optional parameters
toneToSendSf96          (116), -- optional parameters
toneToSendSf97          (117), -- optional parameters
toneToSendSf98          (118), -- optional parameters
toneToSendSf99          (119), -- optional parameters
toneToSendSf100         (120), -- optional parameters
toneFrequency           (121), -- optional parameters
toneDuration            (122), -- optional parameters
pauseDurationList       (123), -- optional parameters
connectionInfo          (124), -- optional parameters
privateData             (125)} -- optional parameters

ServiceCompletionFailure ::= BIT STRING
{
    primaryCallConnectionInfo      ( 0), -- optional parameters
    secondaryCallConnectionInfo    ( 1), -- optional parameters
    otherDevicesPrimaryCallList     ( 2), -- optional parameters
    otherDevicesSecondaryCallList   ( 3), -- optional parameters
    mediaCallCharacteristics        ( 4), -- optional parameters
    privateData                    ( 5)} -- optional parameters

MediaServList ::= SEQUENCE
{
    attachMediaService      [0] IMPLICIT AttachMediaService      OPTIONAL,
    detachMediaService      [1] IMPLICIT DetachMediaService      OPTIONAL}

AttachMediaService ::= BIT STRING
{
    mediaServiceVersion      ( 0), -- optional parameters
    mediaServiceInstanceID   ( 1), -- optional parameters
    connectionModeConsultConference ( 2), -- optional parameters
    connectionModeConsultConferenceHold ( 3), -- optional parameters
    connectionModeDeflect    ( 4), -- optional parameters
    connectionModeDirectedPickup ( 5), -- optional parameters
    connectionModeJoin       ( 6), -- optional parameters
    connectionModeSingleStepConference ( 7), -- optional parameters
    connectionModeSingleStepConferenceHold ( 8), -- optional parameters
    connectionModeSingleStepTransfer ( 9), -- optional parameters
    connectionModeTransfer    (10), -- optional parameters
    connectionModeDirect      (11), -- optional parameters
    requestedConnectionState   (12), -- optional parameters
    privateData               (13), -- optional parameters
    mediaServiceInstanceIDInAck (14), -- optional parameters
    mediaConnectionInfoInAck   (15), -- optional parameters
    privateDataInAck           (16), -- optional parameters
    deviceIDOnly               (17), -- misc characteristics
    ackModelMultiStep          (18)} -- misc characteristics

DetachMediaService ::= BIT STRING
{
    alerting      ( 0), -- initial states
    connected     ( 1), -- initial states
    fail          ( 2), -- initial states
    hold         ( 3), -- initial states
    queued       ( 4), -- initial states
    privateData  ( 5), -- optional parameters
    privateDataInAck ( 6), -- optional parameters
    deviceIDOnly ( 7), -- misc characteristics
    ackModelMultiStep ( 8)} -- misc characteristics

```

```

MediaEvtsList ::= SEQUENCE
{
    mediaAttached    [0] IMPLICIT   MediaAttached    OPTIONAL,
    mediaDetached    [1] IMPLICIT   MediaDetached    OPTIONAL}

MediaAttached ::= BIT STRING
{
    mediaServiceVersion      ( 0),      -- optional parameters
    mediaServiceInstanceID   ( 1),      -- optional parameters
    mediaStreamID            ( 2),      -- optional parameters
    mediaCallCharacteristics ( 3),      -- optional parameters
    callCharacteristics       ( 4),      -- optional parameters
    mediaConnectionInfo      ( 5),      -- optional parameters
    privateData              ( 6)}      -- optional parameters

MediaDetached ::= BIT STRING
{
    mediaServiceVersion      ( 0),      -- optional parameters
    mediaServiceInstanceID   ( 1),      -- optional parameters
    mediaStreamID            ( 2),      -- optional parameters
    mediaCallCharacteristics ( 3),      -- optional parameters
    callCharacteristics       ( 4),      -- optional parameters
    mediaConnectionInfo      ( 5),      -- optional parameters
    privateData              ( 6)}      -- optional parameters

RouteingServList ::= SEQUENCE
{
    routeRegister      [ 0] IMPLICIT RouteRegister      OPTIONAL,
    routeRegisterCancel [ 1] IMPLICIT RouteRegisterCancel OPTIONAL,
    routeRegisterAbort [ 2] IMPLICIT RouteRegisterAbort  OPTIONAL,
    reRoute            [ 3] IMPLICIT ReRoute             OPTIONAL,
    routeEnd           [ 4] IMPLICIT RouteEnd            OPTIONAL,
    routeReject        [ 5] IMPLICIT RouteReject         OPTIONAL,
    routeRequest       [ 6] IMPLICIT RouteRequest        OPTIONAL,
    routeSelect        [ 7] IMPLICIT RouteSelect         OPTIONAL,
    routeUsed          [ 8] IMPLICIT RouteUsed           OPTIONAL}

RouteRegister ::= BIT STRING
{
    routingDevice      ( 0),      -- optional parameters
    requestedMonitorMediaClass ( 1), -- optional parameters
    requestedMonitorMediaClassAudio ( 2), -- optional parameters
    requestedMonitorMediaClassData ( 3), -- optional parameters
    requestedMonitorMediaClassImage ( 4), -- optional parameters
    requestedMonitorMediaClassVoice ( 5), -- optional parameters
    privateData        ( 6),      -- optional parameters
    actualRouteingMediaClassInAck ( 7), -- optional parameters
    privateDataInAck   ( 8),      -- optional parameters
    allRouteingDevices ( 9)}      -- misc characteristics

RouteRegisterAbort ::= BIT STRING
{
    privateData      ( 0)}      -- optional parameters

RouteRegisterCancel ::= BIT STRING
{
    privateData      ( 0),      -- optional parameters
    privateDataInAck ( 1)}      -- optional parameters

ReRoute ::= BIT STRING
{
    replyTimeout      ( 1),      -- optional parameters
    correlatorData     ( 2),      -- optional parameters
    privateData        ( 3)}      -- optional parameters

RouteEnd ::= BIT STRING
{
    errorValue        ( 1),      -- optional parameters
    correlatorData     ( 2),      -- optional parameters
    privateData        ( 3),      -- optional parameters
    supportsSending    ( 4),      -- misc characteristics
    supportsReceiving  ( 5)}      -- misc characteristics

RouteReject ::= BIT STRING
{
    rejectCauseBusyOverflow ( 0),      -- optional parameters
    rejectCauseQueueTimeOverflow ( 1),      -- optional parameters

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rejectCauseCapacityOverflow      ( 2),  -- optional parameters
rejectCauseCalendarOverflow      ( 3),  -- optional parameters
rejectCauseUnknownOverflow      ( 4),  -- optional parameters
correlatorData                  ( 5),  -- optional parameters
privateData                     ( 6)}  -- optional parameters

RouteRequest ::= BIT STRING
{
    callingDevice                ( 0),  -- optional parameters
    calledDevice                 ( 1),  -- optional parameters
    routeSelAlgorithmACD         ( 2),  -- optional parameters
    routeSelAlgorithmEmergency   ( 3),  -- optional parameters
    routeSelAlgorithmLeastCost   ( 4),  -- optional parameters
    routeSelAlgorithmNormal      ( 5),  -- optional parameters
    routeSelAlgorithmUserDefined ( 6),  -- optional parameters
    priority                     ( 7),  -- optional parameters
    replyTimeout                 ( 8),  -- optional parameters
    correlatorData               ( 9),  -- optional parameters
    mediaCallCharacteristics     (10),  -- optional parameters
    callCharacteristics          (11),  -- optional parameters
    routedCallInfo              (12),  -- optional parameters
    privateData                 (13),  -- optional parameters
    nonCallRelatedRouteing      (14)}  -- misc characteristics

RouteSelect ::= BIT STRING
{
    alternateRoutes              ( 0),  -- optional parameters
    remainRetriesNoListAvailable ( 1),  -- optional parameters
    remainRetriesNoCountAvailable ( 2),  -- optional parameters
    remainRetriesRetryCount      ( 3),  -- optional parameters
    routeUsed                    ( 4),  -- optional parameters
    correlatorData               ( 5),  -- optional parameters
    privateData                 ( 6)}  -- optional parameters

RouteUsed ::= BIT STRING
{
    callingDevice                ( 0),  -- optional parameters
    domain                      ( 1),  -- optional parameters
    correlatorData               ( 2),  -- optional parameters
    privateData                 ( 3)}  -- optional parameters

PhysDevServList ::= SEQUENCE
{
    buttonPress                  [ 0] IMPLICIT ButtonPress          OPTIONAL,
    getAuditoryApparatusInfo     [ 1] IMPLICIT GetAuditoryApparatusInfo OPTIONAL,
    getButtonInformation         [ 2] IMPLICIT GetButtonInformation  OPTIONAL,
    getDisplay                   [ 3] IMPLICIT GetDisplay            OPTIONAL,
    getHookSwitchStatus         [ 4] IMPLICIT GetHookSwitchStatus   OPTIONAL,
    getLampInfo                  [ 5] IMPLICIT GetLampInfo           OPTIONAL,
    getLampMode                  [ 6] IMPLICIT GetLampMode           OPTIONAL,
    getMessageWaitingIndicator   [ 7] IMPLICIT GetMessageWaitingIndicator OPTIONAL,
    getMicrophoneGain            [ 8] IMPLICIT GetMicrophoneGain     OPTIONAL,
    getMicrophoneMute            [ 9] IMPLICIT GetMicrophoneMute     OPTIONAL,
    getRingerStatus              [10] IMPLICIT GetRingerStatus       OPTIONAL,
    getSpeakerMute               [11] IMPLICIT GetSpeakerMute        OPTIONAL,
    getSpeakerVolume             [12] IMPLICIT GetSpeakerVolume      OPTIONAL,
    setButtonInformation         [13] IMPLICIT SetButtonInformation  OPTIONAL,
    setDisplay                   [14] IMPLICIT SetDisplay            OPTIONAL,
    setHookSwitchStatus         [15] IMPLICIT SetHookSwitchStatus   OPTIONAL,
    setLampMode                  [16] IMPLICIT SetLampMode           OPTIONAL,
    setMessageWaitingIndicator    [17] IMPLICIT SetMessageWaitingIndicator OPTIONAL,
    setMicrophoneGain            [18] IMPLICIT SetMicrophoneGain     OPTIONAL,
    setMicrophoneMute            [19] IMPLICIT SetMicrophoneMute     OPTIONAL,
    setRingerStatus              [20] IMPLICIT SetRingerStatus       OPTIONAL,
    setSpeakerMute               [21] IMPLICIT SetSpeakerMute        OPTIONAL,
    setSpeakerVolume             [22] IMPLICIT SetSpeakerVolume      OPTIONAL}

ButtonPress ::= BIT STRING
{
    privateData                 ( 0),  -- optional parameters
    privateDataInAck            ( 1),  -- optional parameters
    ackModelMultiStep           ( 2)}  -- misc characteristics

```

```

GetAuditoryApparatusInfo ::= BIT STRING
{
    auditoryApparatus                ( 0), -- optional parameters
    privateData                      ( 1), -- optional parameters
    auditoryApparatusTypeSpeakerphone ( 2), -- optional parameters
    auditoryApparatusTypeHandset      ( 3), -- optional parameters
    auditoryApparatusTypeHeadset      ( 4), -- optional parameters
    auditoryApparatusTypeSpeakerOnlyPhone ( 5), -- optional parameters
    auditoryApparatusTypeeothers      ( 6), -- optional parameters
    speakerPresent                    ( 7), -- optional parameters
    speakerVolumeSettable             ( 8), -- optional parameters
    speakerVolumeReadable             ( 9), -- optional parameters
    speakerMuteSettable               (10), -- optional parameters
    speakerMuteReadable               (11), -- optional parameters
    microphonePresent                 (12), -- optional parameters
    microphoneGainSettable            (13), -- optional parameters
    microphoneGainReadable            (14), -- optional parameters
    microphoneMuteSettable            (15), -- optional parameters
    microphoneMuteReadable            (16), -- optional parameters
    hookswitchSettable                (17), -- optional parameters
    hookswitchOnHook                  (18), -- optional parameters
    privateDataInAck                  (19)} -- optional parameters

GetButtonInformation ::= BIT STRING
{
    button                ( 0), -- optional parameters
    privateData           ( 1), -- optional parameters
    buttonLabelInAck       ( 2), -- optional parameters
    buttonLabelSettableInAck ( 3), -- optional parameters
    buttonFunctionInAck    ( 4), -- optional parameters
    buttonAssociatedNumberInAck ( 5), -- optional parameters
    buttonAssociatedNumberSettableInAck ( 6), -- optional parameters
    listOfLampsInAck      ( 7), -- optional parameters
    privateDataInAck      ( 8)} -- optional parameters

GetDisplay ::= BIT STRING
{
    displayID                ( 0), -- optional parameters
    privateData              ( 1), -- optional parameters
    characterSetASCII         ( 2), -- optional parameters
    characterSetUnicode       ( 3), -- optional parameters
    characterSetProprietary   ( 4), -- optional parameters
    privateDataInAck         ( 5)} -- optional parameters

GetHookSwitchStatus ::= BIT STRING
{
    hookSwitch                ( 0), -- optional parameters
    privateData               ( 1), -- optional parameters
    privateDataInAck          ( 2)} -- optional parameters

GetLampInfo ::= BIT STRING
{
    lamp                ( 0), -- optional parameters
    privateData         ( 1), -- optional parameters
    lampLabelInAck      ( 2), -- optional parameters
    buttonInAck         ( 3), -- optional parameters
    lampColorInAck      ( 4), -- optional parameters
    privateDataInAck    ( 5)} -- optional parameters

GetLampMode ::= BIT STRING
{
    lamp                ( 0), -- optional parameters
    privateData         ( 1), -- optional parameters
    lampModeInAck       ( 2), -- optional parameters
    lampBrightnessNormal ( 3), -- optional parameters
    lampBrightnessDim    ( 4), -- optional parameters
    lampBrightnessBright ( 5), -- optional parameters
    lampColorInAck       ( 6), -- optional parameters
    buttonInAck          ( 7), -- optional parameters
    privateDataInAck     ( 8)} -- optional parameters

GetMessageWaitingIndicator ::= BIT STRING
{
    privateData                ( 0), -- optional parameter
    deviceForMsgInAck          ( 1), -- optional parameter

```

```

        lampIsPresentInAck          ( 2),    -- optional parameter
        privateDataInAck           ( 3)}    -- optional parameters

GetMicrophoneGain ::= BIT STRING
{
    auditoryApparatus      ( 0),    -- optional parameters
    privateData            ( 1),    -- optional parameters
    micGainAbsInAck        ( 2),    -- optional parameters
    privateDataInAck       ( 3)}    -- optional parameters

GetMicrophoneMute ::= BIT STRING
{
    auditoryApparatus      ( 0),    -- optional parameters
    privateData            ( 1),    -- optional parameters
    privateDataInAck       ( 2)}    -- optional parameters

GetRingerStatus ::= BIT STRING
{
    ringer                 ( 0),    -- optional parameters
    privateData            ( 1),    -- optional parameters
    ringCountInAck         ( 2),    -- optional parameters
    ringPatternInAck       ( 3),    -- optional parameters
    ringVolumeInAck        ( 4),    -- optional parameters
    ringVolumeAbsInAck     ( 5),    -- optional parameters
    privateDataInAck       ( 6)}    -- optional parameters

GetSpeakerMute ::= BIT STRING
{
    auditoryApparatus      ( 0),    -- optional parameters
    privateDataInAck       ( 1),    -- optional parameters
    privateData            ( 2)}    -- optional parameters

GetSpeakerVolume ::= BIT STRING
{
    auditoryApparatus      ( 0),    -- optional parameters
    privateData            ( 1),    -- optional parameters
    speakerVolAbsInAck     ( 2),    -- optional parameters
    privateDataInAck       ( 3)}    -- optional parameters

SetButtonInformation ::= BIT STRING
{
    buttonLabel            ( 0),    -- optional parameters
    buttonAssociatedNumber ( 1),    -- optional parameters
    privateData            ( 2),    -- optional parameters
    privateDataInAck       ( 3),    -- optional parameters
    ackModelMultiStep      ( 4)}    -- misc characteristics

SetDisplay ::= BIT STRING
{
    physBaseRowNumber      ( 0),    -- optional parameters
    physColumnRowNumber    ( 1),    -- optional parameters
    offset                 ( 2),    -- optional parameters
    privateData            ( 3),    -- optional parameters
    privateDataInAck       ( 4),    -- optional parameters
    supportsModifyingPosition ( 5), -- misc characteristics
    ackModelMultiStep      ( 6)}    -- misc characteristics

SetHookSwitchStatus ::= BIT STRING
{
    privateData            ( 0),    -- optional parameters
    ackModelMultiStep      ( 1)}    -- misc characteristics

SetLampMode ::= BIT STRING
{
    lampModeBrokenFlutter  ( 0),    -- optional parameter
    lampModeFlutter        ( 1),    -- optional parameter
    lampModeOff            ( 2),    -- optional parameter
    lampModeSteady         ( 3),    -- optional parameter
    lampModeWink           ( 4),    -- optional parameter
    lampModeReserved       ( 5),    -- optional parameter
    lampModeSf0            ( 6),    -- optional parameters
    lampModeSf1            ( 7),    -- optional parameters
    lampModeSf2            ( 8),    -- optional parameters
    lampModeSf3            ( 9),    -- optional parameters
    lampModeSf4            (10),    -- optional parameters
    lampModeSf5            (11),    -- optional parameters
    lampModeSf6            (12),    -- optional parameters

```

lampModeSf7	(13),	-- optional parameters
lampModeSf8	(14),	-- optional parameters
lampModeSf9	(15),	-- optional parameters
lampModeSf10	(16),	-- optional parameters
lampModeSf11	(17),	-- optional parameters
lampModeSf12	(18),	-- optional parameters
lampModeSf13	(19),	-- optional parameters
lampModeSf14	(20),	-- optional parameters
lampModeSf15	(21),	-- optional parameters
lampModeSf16	(22),	-- optional parameters
lampModeSf17	(23),	-- optional parameters
lampModeSf18	(24),	-- optional parameters
lampModeSf19	(25),	-- optional parameters
lampModeSf20	(26),	-- optional parameters
lampModeSf21	(27),	-- optional parameters
lampModeSf22	(28),	-- optional parameters
lampModeSf23	(29),	-- optional parameters
lampModeSf24	(30),	-- optional parameters
lampModeSf25	(31),	-- optional parameters
lampModeSf26	(32),	-- optional parameters
lampModeSf27	(33),	-- optional parameters
lampModeSf28	(34),	-- optional parameters
lampModeSf29	(35),	-- optional parameters
lampModeSf30	(36),	-- optional parameters
lampModeSf31	(37),	-- optional parameters
lampModeSf32	(38),	-- optional parameters
lampModeSf33	(39),	-- optional parameters
lampModeSf34	(40),	-- optional parameters
lampModeSf35	(41),	-- optional parameters
lampModeSf36	(42),	-- optional parameters
lampModeSf37	(43),	-- optional parameters
lampModeSf38	(44),	-- optional parameters
lampModeSf39	(45),	-- optional parameters
lampModeSf40	(46),	-- optional parameters
lampModeSf41	(47),	-- optional parameters
lampModeSf42	(48),	-- optional parameters
lampModeSf43	(49),	-- optional parameters
lampModeSf44	(50),	-- optional parameters
lampModeSf45	(51),	-- optional parameters
lampModeSf46	(52),	-- optional parameters
lampModeSf47	(53),	-- optional parameters
lampModeSf48	(54),	-- optional parameters
lampModeSf49	(55),	-- optional parameters
lampModeSf50	(56),	-- optional parameters
lampModeSf51	(57),	-- optional parameters
lampModeSf52	(58),	-- optional parameters
lampModeSf53	(59),	-- optional parameters
lampModeSf54	(60),	-- optional parameters
lampModeSf55	(61),	-- optional parameters
lampModeSf56	(62),	-- optional parameters
lampModeSf57	(63),	-- optional parameters
lampModeSf58	(64),	-- optional parameters
lampModeSf59	(65),	-- optional parameters
lampModeSf60	(66),	-- optional parameters
lampModeSf61	(67),	-- optional parameters
lampModeSf62	(68),	-- optional parameters
lampModeSf63	(69),	-- optional parameters
lampModeSf64	(70),	-- optional parameters
lampModeSf65	(71),	-- optional parameters
lampModeSf66	(72),	-- optional parameters
lampModeSf67	(73),	-- optional parameters
lampModeSf68	(74),	-- optional parameters
lampModeSf69	(75),	-- optional parameters
lampModeSf70	(76),	-- optional parameters
lampModeSf71	(77),	-- optional parameters
lampModeSf72	(78),	-- optional parameters
lampModeSf73	(79),	-- optional parameters
lampModeSf74	(80),	-- optional parameters

lampModeSf75	(81),	-- optional parameters
lampModeSf76	(82),	-- optional parameters
lampModeSf77	(83),	-- optional parameters
lampModeSf78	(84),	-- optional parameters
lampModeSf79	(85),	-- optional parameters
lampModeSf80	(86),	-- optional parameters
lampModeSf81	(87),	-- optional parameters
lampModeSf82	(88),	-- optional parameters
lampModeSf83	(89),	-- optional parameters
lampModeSf84	(90),	-- optional parameters
lampModeSf85	(91),	-- optional parameters
lampModeSf86	(92),	-- optional parameters
lampModeSf87	(93),	-- optional parameters
lampModeSf88	(94),	-- optional parameters
lampModeSf89	(95),	-- optional parameters
lampModeSf90	(96),	-- optional parameters
lampModeSf91	(97),	-- optional parameters
lampModeSf92	(98),	-- optional parameters
lampModeSf93	(99),	-- optional parameters
lampModeSf94	(100),	-- optional parameter
lampBrightnessNormal	(101),	-- optional parameter
lampBrightnessDim	(102),	-- optional parameter
lampBrightnessBright	(103),	-- optional parameter
lampColorNoColor	(104),	-- optional parameter
lampColorRed	(105),	-- optional parameter
lampColorYellow	(106),	-- optional parameter
lampColorGreen	(107),	-- optional parameter
lampColorBlue	(108),	-- optional parameter
lampColorReserved	(109),	-- optional parameter
lampColorsf0	(110),	-- optional parameters
lampColorsf1	(111),	-- optional parameters
lampColorsf2	(112),	-- optional parameters
lampColorsf3	(113),	-- optional parameters
lampColorsf4	(114),	-- optional parameters
lampColorsf5	(115),	-- optional parameters
lampColorsf6	(116),	-- optional parameters
lampColorsf7	(117),	-- optional parameters
lampColorsf8	(118),	-- optional parameters
lampColorsf9	(119),	-- optional parameters
lampColorsf10	(120),	-- optional parameters
lampColorsf11	(121),	-- optional parameters
lampColorsf12	(122),	-- optional parameters
lampColorsf13	(123),	-- optional parameters
lampColorsf14	(124),	-- optional parameters
lampColorsf15	(125),	-- optional parameters
lampColorsf16	(126),	-- optional parameters
lampColorsf17	(127),	-- optional parameters
lampColorsf18	(128),	-- optional parameters
lampColorsf19	(129),	-- optional parameters
lampColorsf20	(130),	-- optional parameters
lampColorsf21	(131),	-- optional parameters
lampColorsf22	(132),	-- optional parameters
lampColorsf23	(133),	-- optional parameters
lampColorsf24	(134),	-- optional parameters
lampColorsf25	(135),	-- optional parameters
lampColorsf26	(136),	-- optional parameters
lampColorsf27	(137),	-- optional parameters
lampColorsf28	(138),	-- optional parameters
lampColorsf29	(139),	-- optional parameters
lampColorsf30	(140),	-- optional parameters
lampColorsf31	(141),	-- optional parameters
lampColorsf32	(142),	-- optional parameters
lampColorsf33	(143),	-- optional parameters
lampColorsf34	(144),	-- optional parameters
lampColorsf35	(145),	-- optional parameters
lampColorsf36	(146),	-- optional parameters
lampColorsf37	(147),	-- optional parameters
lampColorsf38	(148),	-- optional parameters

```

lampColorSf39      (149), -- optional parameters
lampColorSf40      (150), -- optional parameters
lampColorSf41      (151), -- optional parameters
lampColorSf42      (152), -- optional parameters
lampColorSf43      (153), -- optional parameters
lampColorSf44      (154), -- optional parameters
lampColorSf45      (155), -- optional parameters
lampColorSf46      (156), -- optional parameters
lampColorSf47      (157), -- optional parameters
lampColorSf48      (158), -- optional parameters
lampColorSf49      (159), -- optional parameters
lampColorSf50      (160), -- optional parameters
lampColorSf51      (161), -- optional parameters
lampColorSf52      (162), -- optional parameters
lampColorSf53      (163), -- optional parameters
lampColorSf54      (164), -- optional parameters
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lampColorSf58      (168), -- optional parameters
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lampColorSf60      (170), -- optional parameters
lampColorSf61      (171), -- optional parameters
lampColorSf62      (172), -- optional parameters
lampColorSf63      (173), -- optional parameters
lampColorSf64      (174), -- optional parameters
lampColorSf65      (175), -- optional parameters
lampColorSf66      (176), -- optional parameters
lampColorSf67      (177), -- optional parameters
lampColorSf68      (178), -- optional parameters
lampColorSf69      (179), -- optional parameters
lampColorSf70      (180), -- optional parameters
lampColorSf71      (181), -- optional parameters
lampColorSf72      (182), -- optional parameters
lampColorSf73      (183), -- optional parameters
lampColorSf74      (184), -- optional parameters
lampColorSf75      (185), -- optional parameters
lampColorSf76      (186), -- optional parameters
lampColorSf77      (187), -- optional parameters
lampColorSf78      (188), -- optional parameters
lampColorSf79      (189), -- optional parameters
lampColorSf80      (190), -- optional parameters
lampColorSf81      (191), -- optional parameters
lampColorSf82      (192), -- optional parameters
lampColorSf83      (193), -- optional parameters
lampColorSf84      (194), -- optional parameters
lampColorSf85      (195), -- optional parameters
lampColorSf86      (196), -- optional parameters
lampColorSf87      (197), -- optional parameters
lampColorSf88      (198), -- optional parameters
lampColorSf89      (199), -- optional parameters
lampColorSf90      (200), -- optional parameters
lampColorSf91      (201), -- optional parameters
lampColorSf92      (202), -- optional parameters
lampColorSf93      (203), -- optional parameters
lampColorSf94      (204), -- optional parameters
privateData        (205), -- optional parameters
privateDataInAck   (206), -- optional parameters
ackModelMultiStep  (207)} -- misc characteristics

SetMessageWaitingIndicator ::= BIT STRING
{
    deviceForMsg      ( 0), -- optional parameters
    privateData       ( 1), -- optional parameters
    privateDataInAck  ( 2), -- optional parameters
    ackModelMultiStep ( 3)} -- misc characteristics

SetMicrophoneGain ::= BIT STRING
{
    microphoneGainAbs (0), -- optional parameters

```

microphoneGainInc (1), -- optional parameters
privateData (2), -- optional parameters
privateDataInAck (3), -- optional parameters
ackModelMultiStep (4)} -- misc characteristics

SetMicrophoneMute ::= BIT STRING
{ privateData (0), -- optional parameters
privateDataInAck (1), -- optional parameters
ackModelMultiStep (2)} -- misc characteristics

SetRingerStatus ::= BIT STRING
{ ringerModeRinging (0), -- optional parameters
ringerModeNotRinging (1), -- optional parameters
ringVolumeAbs (2), -- optional parameters
ringVolumeInc (3), -- optional parameters
privateData (4), -- optional parameters
privateDataInAck (5), -- optional parameters
ackModelMultiStep (6)} -- misc characteristics

SetSpeakerMute ::= BIT STRING
{ privateData (0), -- optional parameters
privateDataInAck (1), -- optional parameters
ackModelMultiStep (2)} -- misc characteristics

SetSpeakerVolume ::= BIT STRING
{ speakerVolumeAbs (0), -- optional parameters
speakerVolumeInc (1), -- optional parameters
privateData (2), -- optional parameters
privateDataInAck (3), -- optional parameters
ackModelMultiStep (4), -- misc characteristics
resettedAfterCall (5), -- misc characteristics
notSettableWhileActive (6)} -- misc characteristics

PhysDevEvtsList ::= SEQUENCE
{ buttonInformation [0] IMPLICIT ButtonInformation OPTIONAL,
buttonPress [1] IMPLICIT ButtonPressEvent OPTIONAL,
displayUpdated [2] IMPLICIT DisplayUpdated OPTIONAL,
hookswitch [3] IMPLICIT Hookswitch OPTIONAL,
lampMode [4] IMPLICIT LampMode OPTIONAL,
messageWaiting [5] IMPLICIT MessageWaiting OPTIONAL,
microphoneGain [6] IMPLICIT MicrophoneGain OPTIONAL,
microphoneMute [7] IMPLICIT MicrophoneMute OPTIONAL,
ringerStatus [8] IMPLICIT RingerStatus OPTIONAL,
speakerMute [9] IMPLICIT SpeakerMute OPTIONAL,
speakerVolume [10] IMPLICIT SpeakerVolume OPTIONAL}

ButtonInformation ::= BIT STRING
{ buttonLabel (0), -- optional parameters
buttonAssociatedNumber (1), -- optional parameters
buttonPressIndicator (2), -- optional parameters
privateData (3)} -- optional parameters

ButtonPressEvent ::= BIT STRING
{ buttonLabel (0), -- optional parameters
buttonAssociatedNumber (1), -- optional parameters
privateData (2)} -- optional parameters

DisplayUpdated ::= BIT STRING
{ characterSetASCII (0), -- optional parameters
characterSetUnicode (1), -- optional parameters
characterSetProprietary (2), -- optional parameters
privateData (3)} -- optional parameters

Hookswitch ::= BIT STRING
{ privateData (0)} -- optional parameters

LampMode ::= BIT STRING
{ lampModeBrokenFlutter (0), -- optional parameter

lampModeFlutter	(1),	-- optional parameter
lampModeOff	(2),	-- optional parameter
lampModeSteady	(3),	-- optional parameter
lampModeWink	(4),	-- optional parameter
lampModeReserved	(5),	-- optional parameter
lampModeSf0	(6),	-- optional parameters
lampModeSf1	(7),	-- optional parameters
lampModeSf2	(8),	-- optional parameters
lampModeSf3	(9),	-- optional parameters
lampModeSf4	(10),	-- optional parameters
lampModeSf5	(11),	-- optional parameters
lampModeSf6	(12),	-- optional parameters
lampModeSf7	(13),	-- optional parameters
lampModeSf8	(14),	-- optional parameters
lampModeSf9	(15),	-- optional parameters
lampModeSf10	(16),	-- optional parameters
lampModeSf11	(17),	-- optional parameters
lampModeSf12	(18),	-- optional parameters
lampModeSf13	(19),	-- optional parameters
lampModeSf14	(20),	-- optional parameters
lampModeSf15	(21),	-- optional parameters
lampModeSf16	(22),	-- optional parameters
lampModeSf17	(23),	-- optional parameters
lampModeSf18	(24),	-- optional parameters
lampModeSf19	(25),	-- optional parameters
lampModeSf20	(26),	-- optional parameters
lampModeSf21	(27),	-- optional parameters
lampModeSf22	(28),	-- optional parameters
lampModeSf23	(29),	-- optional parameters
lampModeSf24	(30),	-- optional parameters
lampModeSf25	(31),	-- optional parameters
lampModeSf26	(32),	-- optional parameters
lampModeSf27	(33),	-- optional parameters
lampModeSf28	(34),	-- optional parameters
lampModeSf29	(35),	-- optional parameters
lampModeSf30	(36),	-- optional parameters
lampModeSf31	(37),	-- optional parameters
lampModeSf32	(38),	-- optional parameters
lampModeSf33	(39),	-- optional parameters
lampModeSf34	(40),	-- optional parameters
lampModeSf35	(41),	-- optional parameters
lampModeSf36	(42),	-- optional parameters
lampModeSf37	(43),	-- optional parameters
lampModeSf38	(44),	-- optional parameters
lampModeSf39	(45),	-- optional parameters
lampModeSf40	(46),	-- optional parameters
lampModeSf41	(47),	-- optional parameters
lampModeSf42	(48),	-- optional parameters
lampModeSf43	(49),	-- optional parameters
lampModeSf44	(50),	-- optional parameters
lampModeSf45	(51),	-- optional parameters
lampModeSf46	(52),	-- optional parameters
lampModeSf47	(53),	-- optional parameters
lampModeSf48	(54),	-- optional parameters
lampModeSf49	(55),	-- optional parameters
lampModeSf50	(56),	-- optional parameters
lampModeSf51	(57),	-- optional parameters
lampModeSf52	(58),	-- optional parameters
lampModeSf53	(59),	-- optional parameters
lampModeSf54	(60),	-- optional parameters
lampModeSf55	(61),	-- optional parameters
lampModeSf56	(62),	-- optional parameters
lampModeSf57	(63),	-- optional parameters
lampModeSf58	(64),	-- optional parameters
lampModeSf59	(65),	-- optional parameters
lampModeSf60	(66),	-- optional parameters
lampModeSf61	(67),	-- optional parameters
lampModeSf62	(68),	-- optional parameters

lampModeSf63	(69),	-- optional parameters
lampModeSf64	(70),	-- optional parameters
lampModeSf65	(71),	-- optional parameters
lampModeSf66	(72),	-- optional parameters
lampModeSf67	(73),	-- optional parameters
lampModeSf68	(74),	-- optional parameters
lampModeSf69	(75),	-- optional parameters
lampModeSf70	(76),	-- optional parameters
lampModeSf71	(77),	-- optional parameters
lampModeSf72	(78),	-- optional parameters
lampModeSf73	(79),	-- optional parameters
lampModeSf74	(80),	-- optional parameters
lampModeSf75	(81),	-- optional parameters
lampModeSf76	(82),	-- optional parameters
lampModeSf77	(83),	-- optional parameters
lampModeSf78	(84),	-- optional parameters
lampModeSf79	(85),	-- optional parameters
lampModeSf80	(86),	-- optional parameters
lampModeSf81	(87),	-- optional parameters
lampModeSf82	(88),	-- optional parameters
lampModeSf83	(89),	-- optional parameters
lampModeSf84	(90),	-- optional parameters
lampModeSf85	(91),	-- optional parameters
lampModeSf86	(92),	-- optional parameters
lampModeSf87	(93),	-- optional parameters
lampModeSf88	(94),	-- optional parameters
lampModeSf89	(95),	-- optional parameters
lampModeSf90	(96),	-- optional parameters
lampModeSf91	(97),	-- optional parameters
lampModeSf92	(98),	-- optional parameters
lampModeSf93	(99),	-- optional parameters
lampModeSf94	(100),	-- optional parameter
lampBrightnessNormal	(101),	-- optional parameter
lampBrightnessDim	(102),	-- optional parameter
lampBrightnessBright	(103),	-- optional parameter
lampColorNoColor	(104),	-- optional parameter
lampColorRed	(105),	-- optional parameter
lampColorYellow	(106),	-- optional parameter
lampColorGreen	(107),	-- optional parameter
lampColorBlue	(108),	-- optional parameter
lampColorReserved	(109),	-- optional parameter
lampColorSf0	(110),	-- optional parameters
lampColorSf1	(111),	-- optional parameters
lampColorSf2	(112),	-- optional parameters
lampColorSf3	(113),	-- optional parameters
lampColorSf4	(114),	-- optional parameters
lampColorSf5	(115),	-- optional parameters
lampColorSf6	(116),	-- optional parameters
lampColorSf7	(117),	-- optional parameters
lampColorSf8	(118),	-- optional parameters
lampColorSf9	(119),	-- optional parameters
lampColorSf10	(120),	-- optional parameters
lampColorSf11	(121),	-- optional parameters
lampColorSf12	(122),	-- optional parameters
lampColorSf13	(123),	-- optional parameters
lampColorSf14	(124),	-- optional parameters
lampColorSf15	(125),	-- optional parameters
lampColorSf16	(126),	-- optional parameters
lampColorSf17	(127),	-- optional parameters
lampColorSf18	(128),	-- optional parameters
lampColorSf19	(129),	-- optional parameters
lampColorSf20	(130),	-- optional parameters
lampColorSf21	(131),	-- optional parameters
lampColorSf22	(132),	-- optional parameters
lampColorSf23	(133),	-- optional parameters
lampColorSf24	(134),	-- optional parameters
lampColorSf25	(135),	-- optional parameters
lampColorSf26	(136),	-- optional parameters

lampColorSf27	(137),	-- optional parameters
lampColorSf28	(138),	-- optional parameters
lampColorSf29	(139),	-- optional parameters
lampColorSf30	(140),	-- optional parameters
lampColorSf31	(141),	-- optional parameters
lampColorSf32	(142),	-- optional parameters
lampColorSf33	(143),	-- optional parameters
lampColorSf34	(144),	-- optional parameters
lampColorSf35	(145),	-- optional parameters
lampColorSf36	(146),	-- optional parameters
lampColorSf37	(147),	-- optional parameters
lampColorSf38	(148),	-- optional parameters
lampColorSf39	(149),	-- optional parameters
lampColorSf40	(150),	-- optional parameters
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lampColorSf58	(168),	-- optional parameters
lampColorSf59	(169),	-- optional parameters
lampColorSf60	(170),	-- optional parameters
lampColorSf61	(171),	-- optional parameters
lampColorSf62	(172),	-- optional parameters
lampColorSf63	(173),	-- optional parameters
lampColorSf64	(174),	-- optional parameters
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lampColorSf67	(177),	-- optional parameters
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lampColorSf72	(182),	-- optional parameters
lampColorSf73	(183),	-- optional parameters
lampColorSf74	(184),	-- optional parameters
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lampColorSf76	(186),	-- optional parameters
lampColorSf77	(187),	-- optional parameters
lampColorSf78	(188),	-- optional parameters
lampColorSf79	(189),	-- optional parameters
lampColorSf80	(190),	-- optional parameters
lampColorSf81	(191),	-- optional parameters
lampColorSf82	(192),	-- optional parameters
lampColorSf83	(193),	-- optional parameters
lampColorSf84	(194),	-- optional parameters
lampColorSf85	(195),	-- optional parameters
lampColorSf86	(196),	-- optional parameters
lampColorSf87	(197),	-- optional parameters
lampColorSf88	(198),	-- optional parameters
lampColorSf89	(199),	-- optional parameters
lampColorSf90	(200),	-- optional parameters
lampColorSf91	(201),	-- optional parameters
lampColorSf92	(202),	-- optional parameters
lampColorSf93	(203),	-- optional parameters
lampColorSf94	(204),	-- optional parameters

```

privateData (205)} -- optional parameters

MessageWaiting ::= BIT STRING
{
    deviceForMsg ( 0), -- optional parameters
    privateData ( 1)} -- optional parameters

MicrophoneGain ::= BIT STRING
{
    microphoneGainAbs ( 0), -- optional parameters
    microphoneGainInc ( 1), -- optional parameters
    privateData ( 2)} -- optional parameters

MicrophoneMute ::= BIT STRING
{
    privateData ( 0)} -- optional parameters

RingerStatus ::= BIT STRING
{
    ringerModeRinging ( 0), -- optional parameters
    ringerModeNotRinging ( 1), -- optional parameters
    ringCount ( 2), -- optional parameters
    ringPattern ( 3), -- optional parameters
    ringVolumeAbs ( 4), -- optional parameters
    ringVolumeInc ( 5), -- optional parameters
    privateData ( 6)} -- optional parameters

SpeakerMute ::= BIT STRING
{
    privateData ( 0)} -- optional parameters

SpeakerVolume ::= BIT STRING
{
    speakerVolumeAbs ( 0), -- optional parameters
    speakerVolumeInc ( 1), -- optional parameters
    privateData ( 2)} -- optional parameters

LogicalServList ::= SEQUENCE
{
    callBackNonCallRel [ 0] IMPLICIT CallBackNonCallRel OPTIONAL,
    callBackMsgNonCallRel [ 1] IMPLICIT CallBackMsgNonCallRel OPTIONAL,
    cancelCallBack [ 2] IMPLICIT CancelCallBack OPTIONAL,
    cancelCallBackMsg [ 3] IMPLICIT CancelCallBackMsg OPTIONAL,
    getAgentState [ 4] IMPLICIT GetAgentState OPTIONAL,
    getAutoAnswer [ 5] IMPLICIT GetAutoAnswer OPTIONAL,
    getAutoWorkMode [ 6] IMPLICIT GetAutoWorkMode OPTIONAL,
    getCallerIDStatus [ 7] IMPLICIT GetCallerIDStatus OPTIONAL,
    getDoNotDisturb [ 8] IMPLICIT GetDoNotDisturb OPTIONAL,
    getForwarding [ 9] IMPLICIT GetForwarding OPTIONAL,
    getLastNumberDialed [10] IMPLICIT GetLastNumberDialed OPTIONAL,
    getRouteingMode [11] IMPLICIT GetRouteingMode OPTIONAL,
    setAgentState [12] IMPLICIT SetAgentState OPTIONAL,
    setAutoAnswer [13] IMPLICIT SetAutoAnswer OPTIONAL,
    setAutoWorkMode [14] IMPLICIT SetAutoWorkMode OPTIONAL,
    setCallerIDStatus [15] IMPLICIT SetCallerIDStatus OPTIONAL,
    setDoNotDisturb [16] IMPLICIT SetDoNotDisturb OPTIONAL,
    setForwarding [17] IMPLICIT SetForwarding OPTIONAL,
    setRouteingMode [18] IMPLICIT SetRouteingMode OPTIONAL}

CallBackNonCallRel ::= BIT STRING
{
    privateData ( 0), -- optional parameters
    privateDataInAck ( 1), -- optional parameters
    additionalReqForbidden ( 2), -- optional parameters
    ackModelMultiStep ( 3)} -- misc characteristics

CallBackMsgNonCallRel ::= BIT STRING
{
    privateData ( 0), -- optional parameters
    privateDataInAck ( 1), -- optional parameters
    additionalReqForbidden ( 2), -- optional parameters
    ackModelMultiStep ( 3)} -- misc characteristics

CancelCallBack ::= BIT STRING
{
    privateData ( 0), -- optional parameters
    privateDataInAck ( 1), -- optional parameters
    ackModelMultiStep ( 2), -- misc characteristics

```

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        supportsClearing                ( 3)} -- misc characteristics

CancelCallBackMsg ::= BIT STRING
{
    privateData                ( 0), -- optional parameters
    privateDataInAck           ( 1), -- optional parameters
    ackModelMultiStep          ( 2), -- misc characteristics
    supportsClearing           ( 3)} -- misc characteristics

GetAgentState ::= BIT STRING
{
    acdGroup                    ( 0), -- optional parameters
    privateData                ( 1), -- optional parameters
    agentStateListAgentIDInAck  ( 2), -- optional parameters
    agentGroupInAck            ( 3), -- optional parameters
    pendingAgentStateInAck      ( 4), -- optional parameters
    agentStateConditionForcedPauseInAck ( 5), -- optional parameters
    agentStateConditionPauseInAck ( 6), -- optional parameters
    privateDataInAck           ( 7)} -- optional parameters

GetAutoAnswer ::= BIT STRING
{
    privateData                ( 0), -- optional parameters
    numberOfRingsInAck         ( 1), -- optional parameters
    privateDataInAck           ( 2)} -- optional parameters

GetAutoWorkMode ::= BIT STRING
{
    privateData                ( 0), -- optional parameters
    autoWorkIntervalInAck      ( 1), -- optional parameters
    privateDataInAck           ( 2)} -- optional parameters

GetCallerIDStatus ::= BIT STRING
{
    privateData                ( 0), -- optional parameters
    privateDataInAck           ( 1)} -- optional parameters

GetDoNotDisturb ::= BIT STRING
{
    privateData                ( 0), -- optional parameters
    callOriginParameterInAck   ( 1), -- optional parameters
    callOriginInternInAck      ( 2), -- optional parameters
    callOriginExternInAck      ( 3), -- optional parameters
    callingDeviceListInAck     ( 4), -- optional parameters
    privateDataInAck           ( 5)} -- optional parameters

GetForwarding ::= BIT STRING
{
    privateData                ( 0), -- optional parameters
    forwardListInAck           ( 1), -- optional parameters
    forwardListImmediateInAck   ( 2), -- optional parameters
    forwardListBusyInAck       ( 3), -- optional parameters
    forwardListDNDInAck        ( 4), -- optional parameters
    forwardListNoAnsInAck      ( 5), -- optional parameters
    forwardListBusyIntInAck     ( 6), -- optional parameters
    forwardListBusyExtInAck     ( 7), -- optional parameters
    forwardListDNDIntInAck     ( 8), -- optional parameters
    forwardListDNDEExtInAck     ( 9), -- optional parameters
    forwardListNoAnsIntInAck    (10), -- optional parameters
    forwardListNoAnsExtInAck    (11), -- optional parameters
    forwardListImmIntInAck      (12), -- optional parameters
    forwardListImmExtInAck      (13), -- optional parameters
    forwardDNInAck             (14), -- optional parameters
    forwardDefaultInAck         (15), -- optional parameters
    forwardDefaultTypeAndDNInAck (16), -- optional parameters
    forwardDefaultTypeInAck     (17), -- optional parameters
    forwardDefaultDNInAck      (18), -- optional parameters
    ringCountInAck             (19), -- optional parameters
    privateDataInAck           (20)} -- optional parameters

GetLastNumberDialed ::= BIT STRING
{
    privateData                ( 0), -- optional parameters
    privateDataInAck           ( 1)} -- optional parameters

GetRouteingMode ::= BIT STRING

```

```

{      privateData          ( 0),  -- optional parameters
      privateDataInAck      ( 1)}  -- optional parameters

SetAgentState ::= BIT STRING
{
      requestedAgentStateLoggedOn      ( 0),  -- optional parameters
      requestedAgentStateLoggedOff     ( 1),  -- optional parameters
      requestedAgentStateNotReady      ( 2),  -- optional parameters
      requestedAgentStateReady         ( 3),  -- optional parameters
      requestedAgentStateWorkingAfterCall ( 4),  -- optional parameters
      agentID                          ( 5),  -- optional parameters
      password                        ( 6),  -- optional parameters
      group                           ( 7),  -- optional parameters
      privateData                     ( 8),  -- optional parameters
      pendingAgentStateWorkingAfterCallInAck ( 9),  -- optional parameters
      pendingAgentStateNotReadyInAck   (10),  -- optional parameters
      pendingAgentStateNullInAck       (11),  -- optional parameters
      privateDataInAck                 (12),  -- optional parameters
      ackModelMultiStep                (13),  -- misc characteristics
      groupDeviceAllowedInReq          (14),  -- misc characteristics
      aCDDDeviceAllowedInReq           (15),  -- misc characteristics
      delayTransitionIfBusy             (16),  -- misc characteristics
      delayTransitionIfWorkingAfterCall (17)}  -- misc characteristics

SetAutoAnswer ::= BIT STRING
{
      numberOfRings          ( 0),  -- optional parameters
      privateData             ( 1),  -- optional parameters
      privateDataInAck        ( 2),  -- optional parameters
      ackModelMultiStep       ( 3)}  -- misc characteristics

SetAutoWorkMode ::= BIT STRING
{
      autoWorkInterval      ( 0),  -- optional parameters
      privateData            ( 1),  -- optional parameters
      privateDataInAck       ( 2),  -- optional parameters
      ackModelMultiStep      ( 3),  -- misc characteristics
      groupDeviceAllowedInReq ( 4),  -- misc characteristics
      aCDDDeviceAllowedInReq ( 5)}  -- misc characteristics

SetCallerIDStatus ::= BIT STRING
{
      privateData          ( 0),  -- optional parameters
      privateDataInAck      ( 1),  -- optional parameters
      ackModelMultiStep     ( 2)}  -- misc characteristics

SetDoNotDisturb ::= BIT STRING
{
      callOriginationInternal      ( 0),  -- optional parameters
      callOriginationExternal      ( 1),  -- optional parameters
      callingDeviceList            ( 2),  -- optional parameters
      privateData                  ( 3),  -- optional parameters
      privateDataInAck             ( 4),  -- optional parameters
      ackModelMultiStep            ( 5)}  -- misc characteristics

SetForwarding ::= BIT STRING
{
      forwardingTypeBusy      ( 0),  -- optional parameters
      forwardingTypeBusyInt   ( 1),  -- optional parameters
      forwardingTypeBusyExt   ( 2),  -- optional parameters
      forwardingTypeDND       ( 3),  -- optional parameters
      forwardingTypeDNDInt    ( 4),  -- optional parameters
      forwardingTypeDNDExt    ( 5),  -- optional parameters
      forwardingTypeNoAns     ( 6),  -- optional parameters
      forwardingTypeNoAnsInt  ( 7),  -- optional parameters
      forwardingTypeNoAnsExt  ( 8),  -- optional parameters
      forwardingTypeImmediate ( 9),  -- optional parameters
      forwardingTypeImmInt     (10),  -- optional parameters
      forwardingTypeImmExt     (11),  -- optional parameters
      forwardDN                (12),  -- optional parameters
      ringCount                (13),  -- optional parameters
      privateData              (14),  -- optional parameters
      privateDataInAck         (15),  -- optional parameters
      ackModelMultiStep        (16)}  -- misc characteristics

```

```

SetRouteingMode ::= BIT STRING
{
    privateData                ( 0),  -- optional parameters
    privateDataInAck           ( 1),  -- optional parameters
    ackModelMultiStep          ( 2)}  -- misc characteristics

LogicalEvtsList ::= SEQUENCE
{
    agentBusy                  [0] IMPLICIT AgentBusy                OPTIONAL,
    agentLoggedOff              [1] IMPLICIT AgentLoggedOff            OPTIONAL,
    agentLoggedOn               [2] IMPLICIT AgentLoggedOn             OPTIONAL,
    agentNotReady               [3] IMPLICIT AgentNotReady             OPTIONAL,
    agentReady                  [4] IMPLICIT AgentReady                OPTIONAL,
    agentWorkingAfterCall       [5] IMPLICIT AgentWorkingAfterCall     OPTIONAL,
    autoAnswer                  [6] IMPLICIT AutoAnswer               OPTIONAL,
    autoWorkMode                [7] IMPLICIT AutoWorkMode              OPTIONAL,
    callBack                    [8] IMPLICIT CallBackEvent             OPTIONAL,
    callBackMessage              [9] IMPLICIT CallBackMessageEvent     OPTIONAL,
    callerIDStatus              [10] IMPLICIT CallerIDStatus            OPTIONAL,
    doNotDisturb                [11] IMPLICIT DoNotDisturb              OPTIONAL,
    forwarding                   [12] IMPLICIT Forwarding               OPTIONAL,
    routeingMode                [13] IMPLICIT RouteingMode              OPTIONAL}

AgentBusy ::= BIT STRING
{
    agentID                    ( 0),  -- optional parameters
    acdGroup                   ( 1),  -- optional parameters
    pendingAgentStateWorkingAfterCall ( 2),  -- optional parameters
    pendingAgentStateNotReady   ( 3),  -- optional parameters
    pendingAgentStateReady      ( 4),  -- optional parameters
    pendingAgentStateNull       ( 5),  -- optional parameters
    cause                       ( 6),  -- optional parameters
    privateData                 ( 7)}  -- optional parameters

AgentLoggedOff ::= BIT STRING
{
    agentID                    ( 0),  -- optional parameters
    acdGroup                   ( 1),  -- optional parameters
    agentPassword               ( 2),  -- optional parameters
    cause                       ( 3),  -- optional parameters
    privateData                 ( 4)}  -- optional parameters

AgentLoggedOn ::= BIT STRING
{
    agentID                    ( 0),  -- optional parameters
    acdGroup                   ( 1),  -- optional parameters
    agentPassword               ( 2),  -- optional parameters
    cause                       ( 3),  -- optional parameters
    privateData                 ( 4)}  -- optional parameters

AgentNotReady ::= BIT STRING
{
    agentID                    ( 0),  -- optional parameters
    acdGroup                   ( 1),  -- optional parameters
    cause                       ( 2),  -- optional parameters
    privateData                 ( 3)}  -- optional parameters

AgentReady ::= BIT STRING
{
    agentID                    ( 0),  -- optional parameters
    acdGroup                   ( 1),  -- optional parameters
    cause                       ( 2),  -- optional parameters
    privateData                 ( 3)}  -- optional parameters

AgentWorkingAfterCall ::= BIT STRING
{
    agentID                    ( 0),  -- optional parameters
    acdGroup                   ( 1),  -- optional parameters
    pendingAgentStateNotReady   ( 2),  -- optional parameters
    pendingAgentStateReady      ( 3),  -- optional parameters
    pendingAgentStateNull       ( 4),  -- optional parameters
    cause                       ( 5),  -- optional parameters
    privateData                 ( 6)}  -- optional parameters

```

```

AutoAnswer ::= BIT STRING
{
    numberOfRings          ( 0),  -- optional parameters
    privateData            ( 1)}  -- optional parameters

AutoWorkMode ::= BIT STRING
{
    privateData            ( 0)}  -- optional parameters

CallBackEvent ::= BIT STRING
{
    privateData            ( 0)}  -- optional parameters

CallBackMessageEvent ::= BIT STRING
{
    privateData            ( 0)}  -- optional parameters

CallerIDStatus ::= BIT STRING
{
    privateData            ( 0)}  -- optional parameters

DoNotDisturb ::= BIT STRING
{
    callOriginationParameter ( 0),  -- optional parameters
    callOriginationInternal  ( 1),  -- optional parameters
    callOriginationExternal  ( 2),  -- optional parameters
    callingDeviceList        ( 3),  -- optional parameters
    privateData              ( 4)}  -- optional parameters

Forwarding ::= BIT STRING
{
    forwardingTypeBusy      ( 0),
    forwardingTypeBusyInt   ( 1),
    forwardingTypeBusyExt   ( 2),
    forwardingTypeDND       ( 3),
    forwardingTypeDNDInt    ( 4),
    forwardingTypeDNDExt    ( 5),
    forwardingTypeNoAns      ( 6),
    forwardingTypeNoAnsInt   ( 7),
    forwardingTypeNoAnsExt   ( 8),
    forwardingTypeImmediate ( 9),
    forwardingTypeImmInt     (10),
    forwardingTypeImmExt     (11),
    forwardTo                (12),
    forwardDefaultTypeAndDN (13),
    forwardDefaultType       (14),
    forwardDefaultDN         (15),
    ringCount                (16),
    privateData              (17)}

RouteingMode ::= BIT STRING
{
    privateData            ( 0)}  -- optional parameters

DeviceMaintenanceList ::= SEQUENCE
{
    backInService          [0] IMPLICIT BackInService      OPTIONAL,
    deviceCapsChanged      [1] IMPLICIT DeviceCapsChanged  OPTIONAL,
    outOfService           [2] IMPLICIT OutOfService        OPTIONAL}

BackInService ::= BIT STRING
{
    cause                  ( 0),  -- optional parameters
    privateData            ( 1)}  -- optional parameters

DeviceCapsChanged ::= BIT STRING
{
    cause                  ( 0),  -- optional parameters
    privateData            ( 1)}  -- optional parameters

OutOfService ::= BIT STRING
{
    cause                  ( 0),  -- optional parameters
    privateData            ( 1)}  -- optional parameters

IOServicesServList ::= SEQUENCE
{
    ioRegister             [ 0] IMPLICIT IoRegister        OPTIONAL,
    ioRegisterAbort        [ 1] IMPLICIT IoRegisterAbort    OPTIONAL,
    ioRegisterCancel       [ 2] IMPLICIT IoRegisterCancel   OPTIONAL,
    dataPathResumed        [ 3] IMPLICIT DataPathResumed    OPTIONAL,

```

dataPathSuspended	[4]	IMPLICIT DataPathSuspended	OPTIONAL,
fastData	[5]	IMPLICIT FastData	OPTIONAL,
resumeDataPath	[6]	IMPLICIT ResumeDataPath	OPTIONAL,
sendBroadcastData	[7]	IMPLICIT SendBroadcastData	OPTIONAL,
sendData	[8]	IMPLICIT SendData	OPTIONAL,
sendMulticastData	[9]	IMPLICIT SendMulticastData	OPTIONAL,
startDataPath	[10]	IMPLICIT StartDataPath	OPTIONAL,
stopDataPath	[11]	IMPLICIT StopDataPath	OPTIONAL,
suspendDataPath	[12]	IMPLICIT SuspendDataPath	OPTIONAL}

IoRegister ::= BIT STRING

```
{
    ioDevice          ( 0),  -- optional parameters
    privateData       ( 1),  -- optional parameters
    privateDataInAck  ( 2),  -- optional parameters
    allIODevices      ( 3)}  -- misc characteristics
```

IoRegisterAbort ::= BIT STRING

```
{
    privateData      ( 0)}  -- optional parameters
```

IoRegisterCancel ::= BIT STRING

```
{
    privateData       ( 0),  -- optional parameters
    privateDataInAck  ( 1)}  -- optional parameters
```

DataPathResumed ::= BIT STRING

```
{
    privateData       ( 0),  -- optional parameters
    privateDataInAck  ( 1)}  -- optional parameters
```

DataPathSuspended ::= BIT STRING

```
{
    privateData       ( 0),  -- optional parameters
    privateDataInAck  ( 1)}  -- optional parameters
```

FastData ::= BIT STRING

```
{
    objectDevice      ( 0),  -- optional parameters
    objectCall        ( 1),  -- optional parameters
    dataPathTypeText  ( 2),  -- optional parameters
    dataPathTypeVoice ( 3),  -- optional parameters
    displayAttribPhyBaseRowNumber ( 4), -- optional parameters
    displayAttribPhyBaseColumnNumber ( 5), -- optional parameters
    displayAttribOffset ( 6),  -- optional parameters
    privateData       ( 7),  -- optional parameters
    privateDataInAck  ( 8),  -- optional parameters
    supportsModifyingPosition ( 9)}  -- misc characteristics
```

ResumeDataPath ::= BIT STRING

```
{
    privateData       ( 0),  -- optional parameters
    privateDataInAck  ( 1),  -- optional parameters
    sendsDataPathResumed ( 2)}  -- misc characteristics
```

SendBroadcastData ::= BIT STRING

```
{
    privateData       ( 0),  -- optional parameters
    dataPathTypeText  ( 1),  -- optional parameters
    dataPathTypeVoice ( 2),  -- optional parameters
    displayAttribPhyBaseRowNumber ( 3), -- optional parameters
    displayAttribPhyBaseColumnNumber ( 4), -- optional parameters
    displayAttribOffset ( 5),  -- optional parameters
    privateDataInAck  ( 6),  -- optional parameters
    supportsModifyingPosition ( 7)}  -- misc characteristics
```

SendData ::= BIT STRING

```
{
    displayAttribPhyBaseRowNumber ( 0),  -- optional parameters
    displayAttribPhyBaseColumnNumber ( 1),  -- optional parameters
    displayAttribOffset ( 2),  -- optional parameters
    ioCauseTerminationCharReceived ( 3),  -- optional parameters
    ioCauseCharCountReached ( 4),  -- optional parameters
    ioCauseTimeout ( 5),  -- optional parameters
    ioCauseSfTerminated ( 6),  -- optional parameters
    privateData       ( 7),  -- optional parameters
    privateDataInAck  ( 8),  -- optional parameters
```

```

        supportsModifyingPosition          ( 9)}  -- misc characteristics

SendMulticastData ::= BIT STRING
{
    ioData                                ( 0),  -- optional parameters
    displayAttribPhyBaseRowNumber          ( 1),  -- optional parameters
    displayAttribPhyBaseColumnNumber       ( 2),  -- optional parameters
    displayAttribOffset                    ( 3),  -- optional parameters
    privateData                            ( 4),  -- optional parameters
    privateDataInAck                       ( 5),  -- optional parameters
    supportsModifyingPosition              ( 6)}  -- misc characteristics

StartDataPath ::= BIT STRING
{
    objectDevice                           ( 0),  -- optional parameters
    objectCall                             ( 1),  -- optional parameters
    dataPathDirectionCfToObject            ( 2),  -- optional parameters
    dataPathDirectionObjectToCf            ( 3),  -- optional parameters
    dataPathDirectionBidirectional         ( 4),  -- optional parameters
    dataPathTypeText                       ( 5),  -- optional parameters
    dataPathTypeVoice                      ( 6),  -- optional parameters
    numberOfCharsToCollect                  ( 7),  -- optional parameters
    terminationChar                         ( 8),  -- optional parameters
    timeout                                ( 9),  -- optional parameters
    privateData                            (10),  -- optional parameters
    numberOfCharsToCollectInAck             (11),  -- optional parameters
    terminationCharInAck                   (12),  -- optional parameters
    timeoutInAck                           (13),  -- optional parameters
    privateDataInAck                       (14)}  -- optional parameters

StopDataPath ::= BIT STRING
{
    privateData                            ( 0),  -- optional parameters
    privateDataInAck                       ( 1)}  -- optional parameters

SuspendDataPath ::= BIT STRING
{
    privateData                            ( 0),  -- optional parameters
    privateDataInAck                       ( 1)}  -- optional parameters

DataCollectionServList ::= SEQUENCE
{
    dataCollected                         [ 0] IMPLICIT DataCollected          OPTIONAL,
    dataCollectionResumed                  [ 1] IMPLICIT DataCollectionResumed    OPTIONAL,
    dataCollectionSuspended                [ 2] IMPLICIT DataCollectionSuspended  OPTIONAL,
    resumeDataCollection                   [ 3] IMPLICIT ResumeDataCollection     OPTIONAL,
    startDataCollection                    [ 4] IMPLICIT StartDataCollection      OPTIONAL,
    stopDataCollection                     [ 5] IMPLICIT StopDataCollection       OPTIONAL,
    suspendDataCollection                   [ 6] IMPLICIT SuspendDataCollection    OPTIONAL}

DataCollected ::= BIT STRING
{
    digitsDuration                         ( 0),  -- optional parameters
    digitsPauseDuration                    ( 1),  -- optional parameters
    toneDetectedBeep                       ( 2),  -- optional parameters
    toneDetectedBilling                     ( 3),  -- optional parameters
    toneDetectedBusy                       ( 4),  -- optional parameters
    toneDetectedCarrier                     ( 5),  -- optional parameters
    toneDetectedConfirmation                ( 6),  -- optional parameters
    toneDetectedDial                       ( 7),  -- optional parameters
    toneDetectedFaxCNG                     ( 8),  -- optional parameters
    toneDetectedHold                       ( 9),  -- optional parameters
    toneDetectedHowler                     (10),  -- optional parameters
    toneDetectedIntrusion                   (11),  -- optional parameters
    toneDetectedModemCNG                   (12),  -- optional parameters
    toneDetectedPark                       (13),  -- optional parameters
    toneDetectedRecordWarning              (14),  -- optional parameters
    toneDetectedReorder                    (15),  -- optional parameters
    toneDetectedRingback                    (16),  -- optional parameters
    toneDetectedSilence                     (17),  -- optional parameters
    toneDetectedSitVC                      (18),  -- optional parameters
    toneDetectedSitIC                      (19),  -- optional parameters
    toneDetectedSitRO                      (20),  -- optional parameters
    toneDetectedSitNC                      (21),  -- optional parameters

```

```

toneDetectedSf0          (22), -- optional parameters
toneDetectedSf1          (23), -- optional parameters
toneDetectedSf2          (24), -- optional parameters
toneDetectedSf3          (25), -- optional parameters
toneDetectedSf4          (26), -- optional parameters
toneDetectedSf5          (27), -- optional parameters
toneDetectedSf6          (28), -- optional parameters
toneDetectedSf7          (29), -- optional parameters
toneDetectedSf8          (30), -- optional parameters
toneDetectedSf9          (31), -- optional parameters
toneDetectedSf10         (32), -- optional parameters
toneDetectedOther        (33), -- optional parameters
toneFrequency            (34), -- optional parameters
toneDuration             (35), -- optional parameters
tonePauseDuration        (36),
connectionInfo           (37), -- optional parameters
dcolCauseFushCharReceived (38), -- optional parameters
dcolCauseCharCountReached (39), -- optional parameters
dcolCauseTimeout         (40), -- optional parameters
dcolCauseSFTerminated    (41), -- optional parameters
privateData              (42), -- optional parameters
privateDataInAck         (43)} -- optional parameters

DataCollectionResumed ::= BIT STRING
{
    privateData          ( 0), -- optional parameters
    privateDataInAck     ( 1)} -- optional parameters

DataCollectionSuspended ::= BIT STRING
{
    privateData          ( 0), -- optional parameters
    privateDataInAck     ( 1)} -- optional parameters

ResumeDataCollection ::= BIT STRING
{
    privateData          ( 0), -- optional parameters
    privateDataInAck     ( 1)} -- optional parameters

StartDataCollection ::= BIT STRING
{
    objectDevice          ( 0), -- optional parameters
    objectCall            ( 1), -- optional parameters
    dataCollectionTypeDigits ( 2), -- optional parameters
    dataCollectionTypeTones ( 3), -- optional parameters
    digitsReportingCriteriaNumChars ( 4), -- optional parameters
    digitsReportingCriteriaFlushChar ( 5), -- optional parameters
    digitsReportingCriteriaTimeout ( 6), -- optional parameters
    privateData           ( 7), -- optional parameters
    privateDataInAck      ( 8)} -- optional parameters

StopDataCollection ::= BIT STRING
{
    privateData          ( 0), -- optional parameters
    privateDataInAck     ( 1)} -- optional parameters

SuspendDataCollection ::= BIT STRING
{
    privateData          ( 0), -- optional parameters
    privateDataInAck     ( 1)} -- optional parameters

VoiceUnitServList ::= SEQUENCE
{
    concatenateMsg        [ 0] IMPLICIT ConcatenateMsg    OPTIONAL,
    deleteMsg            [ 1] IMPLICIT DeleteMsg          OPTIONAL,
    playMsg               [ 2] IMPLICIT PlayMsg            OPTIONAL,
    queryVoiceAttrib      [ 3] IMPLICIT QueryVoiceAttrib    OPTIONAL,
    recordMsg             [ 4] IMPLICIT RecordMsg          OPTIONAL,
    reposition            [ 5] IMPLICIT Reposition          OPTIONAL,
    resume                [ 6] IMPLICIT Resume             OPTIONAL,
    review                [ 7] IMPLICIT Review             OPTIONAL,
    setVoiceAttrib        [ 8] IMPLICIT SetVoiceAttrib      OPTIONAL,
    stop                  [ 9] IMPLICIT Stop               OPTIONAL,
    suspend               [10] IMPLICIT Suspend            OPTIONAL,
    synthesiseMsg         [11] IMPLICIT SynthesiseMsg       OPTIONAL}

```

```

ConcatenateMsg ::= BIT STRING
{
    privateData          ( 0),    -- optional parameters
    privateDataInAck      ( 1)}   -- optional parameters

DeleteMsg ::= BIT STRING
{
    privateData          ( 0),    -- optional parameters
    privateDataInAck      ( 1)}   -- optional parameters

PlayMsg ::= BIT STRING
{
    duration              ( 0),    -- optional parameters
    terminationParameter  ( 1),    -- optional parameters
    terminationDurationExceeded ( 2), -- optional parameters
    terminationDTMFDigitDetected ( 3), -- optional parameters
    terminationEndOfSpeechDetected ( 4), -- optional parameters
    terminationSpeech     ( 5),    -- optional parameters
    privateData           ( 6),    -- optional parameters
    privateDataInAck       ( 7),    -- optional parameters
    multipleMsgsSimultaneously ( 8)} -- miscellaneous characteristics

QueryVoiceAttrib ::= BIT STRING
{
    attribToQueryEncodingAlgorithm ( 0), -- optional parameters
    attribToQuerySamplingRate      ( 1), -- optional parameters
    attribToQueryDuration           ( 2), -- optional parameters
    attribToQueryFilename           ( 3), -- optional parameters
    attribToQueryCurrentPosition    ( 4), -- optional parameters
    attribToQueryCurrentSpeed       ( 5), -- optional parameters
    attribToQueryCurrentVolume      ( 6), -- optional parameters
    attribToQueryCurrentLevel       ( 7), -- optional parameters
    attribToQueryCurrentState       ( 8), -- optional parameters
    connection                     ( 9), -- optional parameters
    duration                       (10), -- optional parameters
    terminationParameter           (11), -- optional parameters
    terminationDurationExceeded    (12), -- optional parameters
    terminationDTMFDigitDetected   (13), -- optional parameters
    terminationEndOfSpeechDetected (14), -- optional parameters
    terminationSpeech              (15), -- optional parameters
    privateData                   (16), -- optional parameters
    attribInAckEncodingAlgorithmADPCM6K (17), -- optional parameters
    attribInAckEncodingAlgorithmADPCM8K (18), -- optional parameters
    attribInAckEncodingAlgorithmMuLawPCM6K (19), -- optional parameters
    attribInAckEncodingAlgorithmALawPCM6K (20), -- optional parameters
    attribInAckSamplingRate        (21), -- optional parameters
    attribInAckDuration            (22), -- optional parameters
    attribInAckFilename            (23), -- optional parameters
    attribInAckCurrentPosition     (24), -- optional parameters
    attribInAckCurrentSpeed        (25), -- optional parameters
    attribInAckCurrentVolumeAbs    (26), -- optional parameters
    attribInAckCurrentGain         (27), -- optional parameters
    attribInAckCurrentState        (28), -- optional parameters
    privateDataInAck               (29)} -- optional parameters

RecordMsg ::= BIT STRING
{
    samplingRate          ( 0),    -- optional parameters
    encodingAlgorithmADPCM6K ( 1), -- optional parameters
    encodingAlgorithmADPCM8K ( 2), -- optional parameters
    encodingAlgorithmMuLawPCM6K ( 3), -- optional parameters
    encodingAlgorithmALawPCM6K ( 4), -- optional parameters
    maxDuration           ( 5),    -- optional parameters
    terminationParameter  ( 6),    -- optional parameters
    terminationDurationExceeded ( 7), -- optional parameters
    terminationDTMFDigitDetected ( 8), -- optional parameters
    terminationEndOfDataDetected ( 9), -- optional parameters
    terminationSpeechDetected (10), -- optional parameters
    privateData           (11),    -- optional parameters
    privateDataInAck       (12)}   -- optional parameters

Reposition ::= BIT STRING
{
    periodOfRepositionStartOfMsg ( 0), -- optional parameters

```

```

periodOfRepositionEndOfMsg          ( 1),  -- optional parameters
periodOfRepositionRelativePointer   ( 2),  -- optional parameters
msgToReposition                     ( 3),  -- optional parameters
privateData                         ( 4),  -- optional parameters
privateDataInAck                    ( 5)}  -- optional parameters

Resume ::= BIT STRING
{
    msgToResume          ( 0),  -- optional parameters
    duration             ( 1),  -- optional parameters
    privateData          ( 2),  -- optional parameters
    privateDataInAck     ( 3)}  -- optional parameters

Review ::= BIT STRING
{
    periodToResumeStartOfMsg   ( 0),  -- optional parameters
    periodToResumeLengthOfReview ( 1),  -- optional parameters
    privateData               ( 2),  -- optional parameters
    privateDataInAck          ( 3)}  -- optional parameters

SetVoiceAttrib ::= BIT STRING
{
    currentSpeed          ( 0),  -- optional parameters
    currentVolumeAbs      ( 1),  -- optional parameters
    currentVolumeInc      ( 2),  -- optional parameters
    periodToResumeStartOfMsg ( 3),  -- optional parameters
    periodToResumeLengthOfReview ( 4),  -- optional parameters
    currentGain           ( 5),  -- optional parameters
    message               ( 6),  -- optional parameters
    privateData           ( 7),  -- optional parameters
    privateDataInAck      ( 8)}  -- optional parameters

Stop ::= BIT STRING
{
    privateData          ( 0),  -- optional parameters
    privateDataInAck     ( 1)}  -- optional parameters

Suspend ::= BIT STRING
{
    message              ( 0),  -- optional parameters
    privateData          ( 1),  -- optional parameters
    privateDataInAck     ( 2)}  -- optional parameters

SynthesizeMsg ::= BIT STRING
{
    genderMale           ( 0),  -- optional parameters
    genderFemale         ( 1),  -- optional parameters
    privateData          ( 2),  -- optional parameters
    privateDataInAck     ( 3)}  -- optional parameters

VoiceUnitEvsList ::= SEQUENCE
{
    play                 [ 0] IMPLICIT Play          OPTIONAL,
    record               [ 1] IMPLICIT Record        OPTIONAL,
    review               [ 2] IMPLICIT ReviewEvent    OPTIONAL,
    stop                 [ 3] IMPLICIT StopEvent      OPTIONAL,
    suspendPlay          [ 4] IMPLICIT SuspendPlay    OPTIONAL,
    suspendRecord        [ 5] IMPLICIT SuspendRecord  OPTIONAL,
    voiceAttribChanged   [ 6] IMPLICIT VoiceAttribChanged OPTIONAL}

Play ::= BIT STRING
{
    length               ( 0),  -- optional parameters
    currentPosition      ( 1),  -- optional parameters
    speed                ( 2),  -- optional parameters
    cause                ( 3),  -- optional parameters
    servicesPermitted     ( 4),  -- optional parameters
    privateData          ( 5)}  -- optional parameters

Record ::= BIT STRING
{
    length               ( 0),  -- optional parameters
    currentPosition      ( 1),  -- optional parameters
    speed                ( 2),  -- optional parameters
    cause                ( 3),  -- optional parameters
    servicesPermitted     ( 4),  -- optional parameters
    privateData          ( 5)}  -- optional parameters

```

```

ReviewEvent ::= BIT STRING
{
    length                ( 0), -- optional parameters
    currentPosition       ( 1), -- optional parameters
    cause                 ( 2), -- optional parameters
    servicesPermitted     ( 3), -- optional parameters
    privateData           ( 4)} -- optional parameters

StopEvent ::= BIT STRING
{
    length                ( 0), -- optional parameters
    currentPosition       ( 1), -- optional parameters
    speed                 ( 2), -- optional parameters
    cause                 ( 3), -- optional parameters
    servicesPermitted     ( 4), -- optional parameters
    privateData           ( 5)} -- optional parameters

SuspendPlay ::= BIT STRING
{
    length                ( 0), -- optional parameters
    currentPosition       ( 1), -- optional parameters
    cause                 ( 2), -- optional parameters
    servicesPermitted     ( 3), -- optional parameters
    privateData           ( 4)} -- optional parameters

SuspendRecord ::= BIT STRING
{
    length                ( 0), -- optional parameters
    currentPosition       ( 1), -- optional parameters
    cause                 ( 2), -- optional parameters
    servicesPermitted     ( 3), -- optional parameters
    privateData           ( 4)} -- optional parameters

VoiceAttribChanged ::= BIT STRING
{
    playVolumeAbs         ( 0), -- optional parameters
    playVolumeInc         ( 1), -- optional parameters
    recordGain            ( 2), -- optional parameters
    speed                 ( 3), -- optional parameters
    currentPosition       ( 4), -- optional parameters
    cause                 ( 5), -- optional parameters
    privateData           ( 6)} -- optional parameters

CDRServList ::= SEQUENCE
{
    cdrNotification       [ 0] IMPLICIT CdrNotification      OPTIONAL,
    cdrReport             [ 1] IMPLICIT CdrReport            OPTIONAL,
    sendStoredCDRs        [ 2] IMPLICIT SendStoredCDRs        OPTIONAL,
    startCDRTransmission [ 3] IMPLICIT StartCDRTransmission  OPTIONAL,
    stopCDRTransmission  [ 4] IMPLICIT StopCDRTransmission   OPTIONAL }

CdrNotification ::= BIT STRING
{
    cdrReasonTimeout      ( 0), -- optional parameters
    cdrReasonThresholdReached ( 1), -- optional parameters
    cdrReasonOther        ( 2), -- optional parameters
    privateData           ( 3), -- optional parameters
    privateDataInAck      ( 4)} -- optional parameters

CdrReport ::= BIT STRING
{
    cdrReasonTimeout      ( 0), -- optional parameters
    cdrReasonThresholdReached ( 1), -- optional parameters
    cdrReasonOther        ( 2), -- optional parameters
    recordNumber          ( 3), -- optional parameter
    recordCreationTime     ( 4), -- optional parameter
    callingDevice          ( 5), -- optional parameter
    calledDevice           ( 6), -- optional parameter
    assocCallingDevice     ( 7), -- optional parameter
    assocCalledDevice      ( 8), -- optional parameter
    netwCallingDevice      ( 9), -- optional parameter
    netwCalledDevice       (10), -- optional parameter
    callCharacteristics    (11), -- optional parameter
    mediaCallCharacteristics (12), -- optional parameter
    chargedDeviceOperator  (13), -- optional parameter

```

```

chargedDeviceNonOperator      (14), -- optional parameters
recordedCall                  (15), -- optional parameters
nodeNumberArea0               (16), -- optional parameters
nodeNumberArea1               (17), -- optional parameters
nodeNumberArea2               (18), -- optional parameters
tarifTable                    (19), -- optional parameters
connectionStart                (20), -- optional parameters
connectionEnd                  (21), -- optional parameters
connectionDuration             (22), -- optional parameters
accessCode                     (23), -- optional parameters
carrier                        (24), -- optional parameters
selectedRoute                  (25), -- optional parameters
billingIndicatorNormalCharging (26), -- optional parameters
billingIndicatorReverseCharging (27), -- optional parameters
billingIndicatorCreditCardCharging (28), -- optional parameters
billingIndicatorCallForwarding (29), -- optional parameters
billingIndicatorCallDeflection (30), -- optional parameters
billingIndicatorCallTransfer   (31), -- optional parameters
billingIndicatorOther          (32), -- optional parameters
chargingInfo                   (33), -- optional parameters
suppServiceInfoNormalCall     (34), -- optional parameters
suppServiceInfoConsultationCall (35), -- optional parameters
suppServiceInfoTransferCall   (36), -- optional parameters
suppServiceInfoCallCompletion (37), -- optional parameters
suppServiceInfoCallForwarding (38), -- optional parameters
suppServiceInfoCallDiversion  (39), -- optional parameters
suppServiceInfoConferencing   (40), -- optional parameters
suppServiceInfoIntrusion      (41), -- optional parameters
suppServiceInfoUserUserInfo   (42), -- optional parameters
suppServiceInfoOther          (43), -- optional parameters
reasonForTermNormalClearing   (44), -- optional parameters
reasonForTermUnsuccessfulCallAttempt (45), -- optional parameters
reasonForTermAbnormalTermination (46), -- optional parameters
reasonForTermCallTransferred  (47), -- optional parameters
reasonForTermOther            (48), -- optional parameters
authCode                      (49), -- optional parameters
accountInfo                    (50), -- optional parameters
deviceCategory                 (51), -- optional parameters
namedDeviceTypes              (52), -- optional parameters
operatorDevice                 (53), -- optional parameters
lastStoredCDRRReportSent      (54), -- optional parameters
privateData                    (55), -- optional parameters
privateDataInAck              (56)} -- optional parameters

SendStoredCDRs ::= BIT STRING
{
    timePeriod      ( 0), -- optional parameters
    privateData     ( 1), -- optional parameters
    privateDataInAck ( 2)} -- optional parameters

StartCDRTransmission ::= BIT STRING
{
    transferModeTransferAtEndOfCall      ( 0), -- optional parameters
    transferModeTransferOnRequest        ( 1), -- optional parameters
    transferModeTransferOnThresholdReached ( 2), -- optional parameters
    privateData                          ( 3), -- optional parameters
    privateDataInAck                     ( 4)} -- optional parameters

StopCDRTransmission ::= BIT STRING
{
    cdrTermReasonEndOfData      ( 0), -- optional parameters
    cdrTermReasonError          ( 1), -- optional parameters
    cdrTermReasonThresholdReached ( 2), -- optional parameters
    cdrTermReasonOther          ( 3), -- optional parameter
    privateData                  ( 4), -- optional parameter
    privateDataInAck             ( 5), -- optional parameter
    swFunctionSupportsSending     ( 6), -- miscellaneous characteristics
    swFunctionSupportsReceiving   ( 7)} -- miscellaneous characteristics

VendorSpecificServList ::= SEQUENCE
{
    escapeRegister [ 0] IMPLICIT EscapeRegister OPTIONAL,

```

```

        escapeRegisterCancel      [ 1] IMPLICIT EscapeRegisterCancel      OPTIONAL,
        escapeRegisterAbort      [ 2] IMPLICIT EscapeRegisterAbort      OPTIONAL,
        escape                    [ 3] IMPLICIT Escape                  OPTIONAL,
        privateDataVersionSelection [ 4] IMPLICIT PrivateDataVersionSelection OPTIONAL }

EscapeRegister ::= BIT STRING
{
    privateData      (0),    -- optional parameters
    privateDataInAck (1)}    -- optional parameters

EscapeRegisterCancel ::= BIT STRING
{
    privateData      (0),    -- optional parameters
    privateDataInAck (1)}    -- optional parameters

EscapeRegisterAbort ::= BIT STRING
{
    privateData      (0),    -- optional parameters
    privateDataInAck (1)}    -- optional parameters

Escape ::= BIT STRING
{
    privateDataInAck      ( 0),    -- optional parameters
    swFunctionSupportsSending ( 1),    -- misc characteristics
    swFunctionSupportsReceiving ( 2)}    -- misc characteristics

PrivateDataVersionSelection ::= BIT STRING
{
    privateDataInAck      ( 0)}    -- optional parameters

VendorSpecificEvsList ::= SEQUENCE
{
    privateEvent [0] IMPLICIT PrivateEvent OPTIONAL}

PrivateEvent ::= BIT STRING

-- other Types

DeviceIDFormat ::= BIT STRING
{
    dialableDigitsAsterix      ( 0),
    dialableDigitsHash         ( 1),
    dialableDigitsABCD         ( 2),
    dialableDigitsExclamation  ( 3),
    dialableDigitsP            ( 4),
    dialableDigitsT            ( 5),
    dialableDigitsComma        ( 6),
    dialableDigitsW            ( 7),
    dialableDigitsAt           ( 8),
    dialableDigitsDollar        ( 9),
    dialableDigitsSemicolon    (10),
    sFReprExclamation          (11),
    sFReprEt                   (12),
    sFReprSlash                (13),
    sFReprPercent              (14),
    sFReprNM                   (15),
    sFReprGeneric              (16),
    sFReprImplicitTON          (17),
    sFReprPubTONUnkown         (18),
    sFReprPubTONInternal       (19),
    sFReprPubTONNational       (20),
    sFReprPubTONSubscriber     (21),
    sFReprPubTONAbbreviated    (22),
    sFReprPriTONUnknown        (23),
    sFReprPriTONLevel3         (24),
    sFReprPriTONLevel2         (25),
    sFReprPriTONLevel1         (26),
    sFReprPriTONLocal          (27),
    sFReprPriTONAbbreviated    (28),
    sFReprOther                (29),
    deviceNumber               (30)}

SwDomainFeatures ::= BIT STRING

```

```

{
    isForwardingBefore          ( 0),
    isForwardingAfter           ( 1),
    swFunctionDefaultSettings   ( 2),
    userSpecific                 ( 3),
    userSpecificDefaultFowardingType ( 4),
    userSpecificDefaultForwardDestination ( 5),
    negativeAcknowledgment      ( 6),
    supportFailedWithAssConn     ( 7),
    supportFailedWithoutAssConn  ( 8),
    supportFailedWithAssConnNotReportet ( 9),
    recall                      (10),
    callBack                    (11),
    extCallsIncoming            (12),
    extCallsOutgoing            (13),
    prompting                    (14)}

```

SwAppearanceAddressability ::= BIT STRING

```

{
    nonAddressable (0),
    addressable    (1)}

```

SwAppearanceTypes ::= BIT STRING

```

{
    selectedStandard      (0),
    basicStandard         (1),
    basicBridged          (2),
    exclusiveBridged      (3),
    independentSharedBridged (4),
    interDependentSharedBridged (5)}

```

IgnoreUnsupportedParameters ::= ENUMERATED

```

{
    ignoreParameters (0),
    rejectMessage    (1)}

```

PauseTime ::= INTEGER (1..2000)

TimeStampMode ::= BIT STRING

```

{
    allEvents      (0),
    allAcks        (1),
    allServReqs    (2)}

```

MiscMonitorCaps ::= BIT STRING

```

{
    groupInclusivModel (0),
    groupExclusiveModel (1),
    monitorPhysicalElement (2),
    acdDeviceInclusiv (3),
    acdDeviceExclusiv (4)
}

```

MaxLengthParameters ::= SEQUENCE

```

{
    accountInfo      INTEGER (0..32),
    authCode         INTEGER (0..32),
    agentID          INTEGER (0..32),
    agentPassword     INTEGER (0..32),
    callIDInConnectionID INTEGER (0..8),
    correlatorData    INTEGER (0..32),
    privateData       INTEGER,
    deviceIdentifiers INTEGER (0..128),
    userData          INTEGER (0..256),
    buttonLabel       INTEGER (0..64),
    lampLabel         INTEGER (0..64),
    charactersToSend  INTEGER (0..64)}

```

FilterThreshold ::= SEQUENCE

```

{
    getLogicalDeviceInformation    INTEGER,
    getPhysicalDeviceInformation   INTEGER,
    getSwitchingFunctionCaps      INTEGER,
    getSwitchingFunctionDevices   INTEGER,
    switchingFunctionDevices       INTEGER,
    changeSystemStatusFilter      INTEGER,

```

systemStatusRegister	INTEGER,
systemStatusRegisterAbort	INTEGER,
systemStatusRegisterCancel	INTEGER,
requestSystemStatus	INTEGER,
systemStatus	INTEGER,
switchingFunctionCapsChanged	INTEGER,
switchingFunctionDevsChanged	INTEGER,
changeMonitorFilter	INTEGER,
monitorStart	INTEGER,
monitorStop	INTEGER,
snapshotCall	INTEGER,
snapshotDevice	INTEGER,
snapshotCallData	INTEGER,
snapshotDeviceData	INTEGER,
acceptCall	INTEGER,
alternateCall	INTEGER,
answerCall	INTEGER,
callBackCallRelated	INTEGER,
callBackMessageCallRelated	INTEGER,
campOnCall	INTEGER,
clearCall	INTEGER,
clearConnection	INTEGER,
conferenceCall	INTEGER,
consultationCall	INTEGER,
deflectCall	INTEGER,
dialDigits	INTEGER,
directedPickupCall	INTEGER,
groupPickupCall	INTEGER,
holdCall	INTEGER,
intrudeCall	INTEGER,
joinCall	INTEGER,
makeCall	INTEGER,
makePredictiveCall	INTEGER,
parkCall	INTEGER,
reconnectCall	INTEGER,
retrieveCall	INTEGER,
singleStepConferenceCall	INTEGER,
singleStepTransferCall	INTEGER,
transferCall	INTEGER,
associateData	INTEGER,
cancelTelephonyTone	INTEGER,
generateDigits	INTEGER,
generateTelephonyTone	INTEGER,
sendUserInformation	INTEGER,
startDTMFDigitsCollection	INTEGER,
startTelephonyTonesCollection	INTEGER,
stopDTMFDigitsCollection	INTEGER,
stopTelephonyTonesCollection	INTEGER,
attachMediaService	INTEGER,
detachMediaService	INTEGER,
routeRegister	INTEGER,
routeRegisterAbort	INTEGER,
routeRegisterCancel	INTEGER,
reRoute	INTEGER,
routeEnd	INTEGER,
routeReject	INTEGER,
routeRequest	INTEGER,
routeSelect	INTEGER,
routeUsed	INTEGER,
buttonPress	INTEGER,
getAuditoryApparatusInfo	INTEGER,
getButtonInformation	INTEGER,
getDisplay	INTEGER,
getHookswitchStatus	INTEGER,
getLampInformation	INTEGER,
getLampMode	INTEGER,
getMicrophoneGain	INTEGER,
getMicrophoneMute	INTEGER,

getMessageWaitingIndicator	INTEGER,
getRingerStatus	INTEGER,
getSpeakerMute	INTEGER,
getSpeakerVolume	INTEGER,
setButtonInformation	INTEGER,
setDisplay	INTEGER,
setHookswitchStatus	INTEGER,
setLampMode	INTEGER,
setMsgWaitingIndicator	INTEGER,
setMicrophoneGain	INTEGER,
setMicrophoneMute	INTEGER,
setRingerStatus	INTEGER,
setSpeakerMute	INTEGER,
setSpeakerVolume	INTEGER,
callBackMessageNonCallRelated	INTEGER,
callBackNonCallRelated	INTEGER,
cancelCallBack	INTEGER,
cancelCallBackMessage	INTEGER,
getAgentState	INTEGER,
getAutoAnswer	INTEGER,
getAutoWorkMode	INTEGER,
getCallerIDStatus	INTEGER,
getDoNotDisturb	INTEGER,
getForwarding	INTEGER,
getLastNumberDialed	INTEGER,
getRouteingMode	INTEGER,
setAgentState	INTEGER,
setAutoAnswer	INTEGER,
setAutoWorkMode	INTEGER,
setCallerIDStatus	INTEGER,
setDoNotDisturb	INTEGER,
setForwarding	INTEGER,
setRouteingMode	INTEGER,
backInService	INTEGER,
deviceCaosChanged	INTEGER,
outOfService	INTEGER,
ioRegister	INTEGER,
ioRegisterAbort	INTEGER,
ioRegisterCancel	INTEGER,
dataPathResumed	INTEGER,
dataPathSuspended	INTEGER,
fastData	INTEGER,
resumeDataPath	INTEGER,
sendBroadcastData	INTEGER,
sendData	INTEGER,
sendMulticastData	INTEGER,
startDataPath	INTEGER,
stopDataPath	INTEGER,
suspendDataPath	INTEGER,
concatenateMsg	INTEGER,
deleteMsg	INTEGER,
playMsg	INTEGER,
queryVoiceAttribute	INTEGER,
recordMsg	INTEGER,
reposition	INTEGER,
resume	INTEGER,
review	INTEGER,
setVoiceAttribute	INTEGER,
stop	INTEGER,
suspend	INTEGER,
synthesizeMsg	INTEGER,
cDRNotification	INTEGER,
cDRReport	INTEGER,
sendStoredCDRs	INTEGER,
startCDRTransmission	INTEGER,
stopCDRTransmission	INTEGER,
escapeRegister	INTEGER,
escapeRegisterAbort	INTEGER,

```

        escapeRegisterCancel      INTEGER,
        escape                    INTEGER,
        privateDataVersion        INTEGER}

MediaServiceCapsList ::= SEQUENCE OF SEQUENCE
{
    mediaServiceType      MediaServiceType,
    mediaServiceVersion   INTEGER
    mediaServiceInstance  MediaServiceInstanceID OPTIONAL,
    connectionMode        ConnectionModeBMap   OPTIONAL,
    mediaStreamIDSupported BOOLEAN}

DeviceCategory ::= ENUMERATED
{
    acd                ( 0),
    group              ( 1),
    networkInterface   ( 2),
    park               ( 3),
    routeingDevice     ( 4),
    station            ( 5),
    voiceUnit          ( 6),
    other              ( 7)}

GroupDeviceAttributes ::= BIT STRING
{
    acd      ( 0),
    hunt     ( 1),
    pick     ( 2),
    other    ( 3)}

NamedDeviceTypes ::= ENUMERATED
{
    acd                ( 0),
    acdGroup           ( 1),
    button             ( 2),
    buttonGroup        ( 3),
    conferenceBridge   ( 4),
    line               ( 5),
    lineGroup          ( 6),
    operator           ( 7),
    operatorGroup      ( 8),
    parkingDevice      ( 9),
    station            (10),
    stationGroup       (11),
    trunk              (12),
    trunkGroup         (13),
    other              (14),
    otherGroup         (15)}

ACDModels ::= BIT STRING
{
    visibleACDRelatedDevices (0),
    nonVisibleACDRelatedDevices (1)}

AgentLogOnModels ::= BIT STRING
{
    logOnToACDDevice      ( 0),
    logOnToACDGroupExplOneStep ( 1),
    logOnToACDGroupExplTwoSteps ( 2),
    logOnToACDImplOneStep ( 3)}

AppearanceType ::= ENUMERATED
{
    selectedStandard      ( 0),
    basicStandard         ( 1),
    basicBridged          ( 2),
    exclusiveBridged      ( 3),
    independentSharedBridged ( 4),
    interdependentSharedBridged ( 5)}

TransAndConfSetup ::= BIT STRING
{
    consultationCall      ( 0),
    holdCallMakeCall     ( 1),
    alternateCall         ( 2),
    twoCallsInHold       ( 3),

```

twoCallsInConnected (4)}

END -- of CSTA-capability-exchange

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9.11 Call Detail Record

```

CSTA-call-detail-record
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-detail-record( 132) }

DEFINITIONS ::=
BEGIN

EXPORTS
CDRCrossRefID, CDRInfo, CDRReason, CDRTermReason, CDRTimePeriod,
CDRTransferMode;

IMPORTS
DeviceID, CalledDeviceID, CallingDeviceID, AssociatedCalledDeviceID,
AssociatedCallingDeviceID, NetworkCalledDeviceID, NetworkCallingDeviceID
FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
AccountInfo, AuthCode FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
TimeInfo FROM CSTA-security
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) security( 128) }
CallCharacteristics FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
DeviceCategory, NamedDeviceTypes FROM CSTA-capability-exchange
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) capability-exchange( 131) }
ChargingInfo FROM CSTA-charge-info
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) charge-info( 133) }
MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) }
;

CDRCrossRefID ::= OCTET STRING (SIZE(0..4))

CDRReason ::= ENUMERATED
{
  timeout              (0),
  thresholdReached     (1),
  other                (2)}

CDRInfo ::= SEQUENCE OF CDRInformationItem

CDRInformationItem ::= SEQUENCE
{
  recordNumber          INTEGER (1..128)          OPTIONAL,
  recordCreationTime    TimeInfo,
  callingDevice         CallingDeviceID           OPTIONAL,
  calledDevice          CalledDeviceID            OPTIONAL,
  associatedCallingDevice AssociatedCallingDeviceID OPTIONAL,
  associatedCalledDevice AssociatedCalledDeviceID  OPTIONAL,
  networkCallingDevice  NetworkCallingDeviceID    OPTIONAL,
  networkCalledDevice   NetworkCalledDeviceID     OPTIONAL,
  callCharacteristics   [0] IMPLICIT CallCharacteristics OPTIONAL,
  mediaCallCharacteristics [1] IMPLICIT MediaCallCharacteristics OPTIONAL,
  chargedDevice         [2] ChargedDevice          OPTIONAL,
  recordedCall          ConnectionID               OPTIONAL,
  nodeNumber            [3] IMPLICIT NodeNumber    OPTIONAL,
  tariffTable           [4] IMPLICIT INTEGER       OPTIONAL,
  connectionStart       [5] IMPLICIT TimeInfo      OPTIONAL,
  connectionEnd         [6] IMPLICIT TimeInfo      OPTIONAL,
}

```

connectionDuration	[7]	IMPLICIT INTEGER	OPTIONAL,
accessCode	[8]	IMPLICIT OCTET STRING	OPTIONAL,
carrier	[9]	IMPLICIT INTEGER	OPTIONAL,
selectedRoute	[10]	IMPLICIT INTEGER	OPTIONAL,
billingID	[11]	IMPLICIT BillingID	OPTIONAL,
chargingInfo	[12]	IMPLICIT ChargingInfo	OPTIONAL,
supplServiceInfo	[13]	IMPLICIT SupplServiceInfo	OPTIONAL,
reasonForTerm	[14]	IMPLICIT ReasonForTerm	OPTIONAL,
authCode	[15]	IMPLICIT AuthCode	OPTIONAL,
accountInfo	[16]	IMPLICIT AccountInfo	OPTIONAL,
deviceCategory	[17]	IMPLICIT DeviceCategory	OPTIONAL,
namedDeviceTypes	[18]	IMPLICIT NamedDeviceTypes	OPTIONAL,
operatorDevice	[19]	DeviceID	OPTIONAL}

ChargedDevice ::= CHOICE
 { operator [0] IMPLICIT DeviceID,
 nonOperator [1] IMPLICIT DeviceID}

NodeNumber ::= SEQUENCE
 { area0 [0] IMPLICIT INTEGER OPTIONAL,
 area1 [1] IMPLICIT INTEGER OPTIONAL,
 area2 [2] IMPLICIT INTEGER OPTIONAL}

BillingID ::= ENUMERATED
 { normalCharging (0),
 reverseCharging (1),
 creditCardCharging (2),
 callForwarding (3),
 callDeflection (4),
 callTransfer (5),
 other (6)}

SupplServiceInfo ::= BIT STRING
 { normalCall (0),
 consultationCall (1),
 transferCall (2),
 callCompletion (3),
 callForwarding (4),
 callDiversion (5),
 conferencing (6),
 intrusion (7),
 userUserInfo (8),
 other (9)}

ReasonForTerm ::= ENUMERATED
 { normalClearing (0),
 unsuccessfulCallAttempt (1),
 abnormalTermination (2),
 callTransferred (3),
 other (4)}

CDRTimePeriod ::= SEQUENCE
 { beginningOfCDR TimeInfo,
 endOfCDR TimeInfo}

CDRTransferMode ::= ENUMERATED
 { transferAtEndOfCall (0),
 transferOnRequest (1),
 transferOnThresholdReached (2)}

CDRTermReason ::= ENUMERATED
 { endOfDataDetected (0),
 errorDetected (1),
 thresholdReached (2),
 other (3)}

END -- of CSTA-call-detail-record

9.12 Charge information

```

CSTA-charge-info
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) charge-info( 133) }

DEFINITIONS ::=
BEGIN

EXPORTS
ChargingInfo;

ChargingInfo ::= SEQUENCE
{
    numberUnits          NumberUnits,
    typeOfChargingInfo   ENUMERATED
    {
        subTotal        (0),
        total            (1)
    }
}

NumberUnits ::= CHOICE
{
    numberOfChargeUnits   [0] IMPLICIT NumberOfChargingUnits,
    numberOfCurrencyUnits [1] IMPLICIT NumberOfCurrencyUnits}

NumberOfChargingUnits ::= SEQUENCE OF SEQUENCE
{
    chargingUnits   INTEGER,
    typeOfUnits     OCTET STRING OPTIONAL }

NumberOfCurrencyUnits ::= SEQUENCE
{
    currencyType      OCTET STRING,          -- size 0 indicates default currency
    currencyAmount    INTEGER,
    currencyMultiplier ENUMERATED
    {
        oneThousandth      (0),
        oneHundredth       (1),
        oneTenth            (2),
        one                 (3),
        ten                 (4),
        hundred             (5),
        thousand            (6)
    }
}

END -- of CSTA-charge-info

```

9.13 Data call types

```
CSTA-data-call-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) data-call-types( 134) }

DEFINITIONS ::=
BEGIN

EXPORTS
NumberOfChannels, MaxChannelBind, ConnectionRateList, DelayToleranceList;

NumberOfChannels      ::= INTEGER

MaxChannelBind        ::= INTEGER

ConnectionRateList ::= SEQUENCE OF INTEGER

DelayToleranceList ::= SEQUENCE OF INTEGER

END      -- of CSTA-data-call-types
```

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9.14 Escape types

```
CSTA-escape-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) escape-types( 135) }
```

```
DEFINITIONS ::=
```

```
BEGIN
```

```
EXPORTS
```

```
EscapeRegisterID;
```

```
EscapeRegisterID ::= [0] OCTET STRING (SIZE(0..4))
```

```
END -- of CSTA-escape-types
```

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9.15 Media services

```

CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) }

DEFINITIONS ::=
BEGIN

EXPORTS
ConnectionInformation, ConnectionMode, ConnectionModeBMap, MediaCallCharacteristics,
MediaServiceInstanceID, MediaServiceType, MediaStreamID, MediaClass;

MediaServiceType ::= ENUMERATED
{
  cstaVoiceUnit                                ( 0),
  dataModem                                    ( 1),
  digitalDataIsochronousIeee1394               ( 2),
  digitalDataIsochronousGeoport                ( 3),
  digitalDataIsochronousIeeeAtm                ( 4),
  digitalDataIsochronousIeeeIsdn               ( 5),
  digitalDataApi                               ( 6),
  ectfs100MediaServicesDefault                 ( 7),
  ectfs100MediaServicesAppServices             ( 8),
  cstaIVRScript1                              ( 9),
  cstaIVRScript2                              (10),
  cstaIVRScript3                              (11),
  cstaIVRScript4                              (12),
  cstaIVRScript5                              (13),
  cstaIVRScript6                              (14),
  cstaIVRScript7                              (15),
  cstaIVRScript8                              (16),
  cstaIVRScript9                              (17),
  cstaIVRScript10                             (18),
  liveSoundCaptureAnalog                      (19),
  liveSoundTransmitAnalog                     (20),
  liveSoundCaptureIeee1394                    (21),
  liveSoundTransmitIeee1394                   (22),
  liveSoundCaptureTransmitGeoport              (23),
  liveSoundCaptureTransmitAtm                  (24),
  liveSoundCaptureTransmitISDN                 (25),
  soundCaptureTransmitADPCM                    (26),
  soundCaptureTransmitApi                      (27),
  usb                                           (28),
  sfSpecific1                                 (29),
  sfSpecific2                                 (30),
  sfSpecific3                                 (31),
  sfSpecific4                                 (32),
  sfSpecific5                                 (33),
  sfSpecific6                                 (34),
  sfSpecific7                                 (35),
  sfSpecific8                                 (36),
  sfSpecific9                                 (37),
  sfSpecific10                                (38)}

MediaStreamID ::= OCTET STRING
MediaServiceInstanceID ::= OCTET STRING (SIZE(0..64))

ConnectionInformation ::= SEQUENCE
{
  flowDirection          ENUMERATED
  {
    transmit              (0),
    receive                (1),
    transmitAndReceive    (2)
  } OPTIONAL,
  numberOfChannels       INTEGER    DEFAULT 1 }

ConnectionMode ::= ENUMERATED
{
  consultationConference      (0),
  consultationConferenceHold  (1),

```

```

deflect                (2),
directedPickup         (3),
join                   (4),
singleStepConference   (5),
singleStepConferenceHold (6),
singleStepTransfer     (7),
transfer               (8),
direct                 (9)}

ConnectionModeBMap ::= BIT STRING
{
    consultationConference   (0),
    consultationConferenceHold (1),
    deflect                 (2),
    directedPickup          (3),
    join                    (4),
    singleStepConference     (5),
    singleStepConferenceHold (6),
    singleStepTransfer       (7),
    transfer                (8),
    direct                  (9)}

MediaCallCharacteristics ::= SEQUENCE
{
    mediaClass             MediaClass,
    connectionRate         [0] IMPLICIT INTEGER OPTIONAL,
    -- value 0 indicates that
    -- the connection rate is
    -- unknown
    bitrate                [1] IMPLICIT ENUMERATED
        {
            constant (0),
            variable (1)} DEFAULT constant,
    delayTolerance          [2] IMPLICIT INTEGER OPTIONAL,
    switchingSubDomainCCIEType [3] IMPLICIT ENUMERATED {
        isdn        (0),
        atm         (1),
        isoEthernet (2),
        rsvp        (3),
        other       (4)
    } OPTIONAL,
    switchingSubDomainInformationElements OCTET STRING OPTIONAL
    -- is mandatory, if the switchingSubDomainCCIEType is present,
    -- should be ignored otherwise
}

MediaClass ::= BIT STRING
{
    voice      (0),
    data       (1),
    image      (2),
    audio      (4),
    other      (3),
    notKnown   (5)}

END      -- of CSTA-media-services

```

9.16 Physical device features

```

CSTA-physical-device-feature
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) physical-device-feature( 137) }

DEFINITIONS ::=
BEGIN

EXPORTS
AuditoryApparatusID, AuditoryApparatusList, ButtonID, CharacterSet, DisplayID, LampBrightness,
LampColor, LampID, LampMode, MicGainAbs, MicrophoneGain, RingerID, RingMode,
VolAbs, Volume, HookswitchID;

AuditoryApparatusList ::= SEQUENCE OF
  SEQUENCE {
    auditoryApparatus AuditoryApparatusID,
    auditoryApparatusType ENUMERATED {
      speakerphone (0),
      handset (1),
      headset (2),
      speakerOnlyPhone (3),
      other (4)
    },
    speaker BIT STRING {
      present (0),
      volumeSettable (1),
      volumeReadable (2),
      muteSettable (3),
      muteReadable (4)
    },
    microphone BIT STRING {
      present (0),
      gainSettable (1),
      gainReadable (2),
      muteSettable (3),
      muteReadable (4)
    },
    hookswitch BIT STRING {
      hookswitchSettable (0),
      hookswitchOnHook (1)
    },
    hookswitchID HookswitchID
  }

AuditoryApparatusID ::= OCTET STRING (SIZE(0..4))

ButtonID ::= OCTET STRING (SIZE(0..4))

CharacterSet ::= ENUMERATED
{
  ascii (0),
  unicode (1),
  proprietary (2)}

DisplayID ::= OCTET STRING (SIZE(0..4))

HookswitchID ::= OCTET STRING (SIZE(0..4))

LampBrightness ::= ENUMERATED
{
  unspecified (0),
  dim (1),
  bright (2)}

```

```

LampColor ::= INTEGER
{
    noColor (0),
    red      (1),
    yellow   (2),
    green     (3),
    blue      (4),
    unknown   (5)} (0..100)

LampID ::= OCTET STRING (SIZE(0..4))

LampMode ::= INTEGER
{
    brokenFlutter (0),
    flutter        (1),
    off            (2),
    steady         (3),
    wink           (4),
    unknown        (5)} (0..100)

MicrophoneGain ::= CHOICE
{
    micGainAbs    MicGainAbs,
    micGainInc     MicGainInc}

MicGainInc ::= ENUMERATED
{
    increment      (0),
    decrement      (1)}

MicGainAbs ::= INTEGER (0..100)

RingerID ::= OCTET STRING (SIZE(0..4))

RingMode ::= ENUMERATED
{
    ringing        (0),
    notRinging     (1)}

Volume ::= CHOICE
{
    volAbs    VolAbs,
    volInc    VolInc}

VolInc ::= ENUMERATED
{
    increment (0),
    decrement (1)}

VolAbs ::= INTEGER (0..100)

END -- of CSTA-physical-device-feature

```

9.17 Data Collection

```
CSTA-data-collection
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) data-collection( 138) }

DEFINITIONS ::=
BEGIN

EXPORTS
DcollCrossRefID;

DcollCrossRefID ::= OCTET STRING (SIZE(0..4))

END -- of CSTA-data-collection
```

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9.18 Event Cause

```

CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }

DEFINITIONS ::=
BEGIN

EXPORTS
EventCause;

EventCause ::= ENUMERATED
-- a general list of cause codes
--
--
{
  aCDBusy
  aCDForward
  aCDSaturated
  activeParticipation
  alertTimeExpired
  alternate
  autoWork
  blocked
  busy
  callBack
  callCancelled
  callForward
  callForwardImmediate
  callForwardBusy
  callForwardNoAnswer
  callNotAnswered
  callPickup
  campOn
  campOnTrunks
  characterCountReached
  conference
  consultation
  destDetected
  destNotObtainable
  destOutOfOrder
  distributed
  distributionDelay
  doNotDisturb
  dtmfDigitDetected
  durationExceeded
  endOfMessageDetected
  enteringDistribution
  forcedPause
  forcedTransition
  incompatibleDestination
  intrude
  invalidAccountCode
  invalidNumberFormat
  joinCall
  keyOperation
  keyOperationInUse
  lockout
  maintenance
  makeCall
  makePredictiveCall
  messageDurationExceeded
  messageSizeExceeded
  multipleAlerting
  multipleQueuing
  networkCongestion
  networkDialling
  networkNotObtainable
  networkOutOfOrder

```

	Present in Version 1	Added in Version 2	Added in Version 3
aCDBusy			(57),
aCDForward			(58),
aCDSaturated			(59),
activeParticipation	(1),		
alertTimeExpired			(60),
alternate	(2),		
autoWork			(61),
blocked		(35),	
busy	(3),		
callBack	(4),		
callCancelled	(5),		
callForward	(9),		
callForwardImmediate	(6),		
callForwardBusy	(7),		
callForwardNoAnswer	(8),		
callNotAnswered	(10),		
callPickup	(11),		
campOn	(12),		
campOnTrunks			(62),
characterCountReached		(36),	
conference			(63),
consultation		(37),	
destDetected			(64),
destNotObtainable	(13),		
destOutOfOrder			(65),
distributed		(38),	
distributionDelay			(66),
doNotDisturb	(14),		
dtmfDigitDetected		(39),	
durationExceeded		(40),	
endOfMessageDetected		(41),	
enteringDistribution		(42),	
forcedPause		(43),	
forcedTransition			(67),
incompatibleDestination	(15),		
intrude			(68),
invalidAccountCode	(16),		
invalidNumberFormat			(69),
joinCall			(70),
keyOperation	(17),		
keyOperationInUse			(71),
lockout	(18),		
maintenance	(19),		
makeCall		(44),	
makePredictiveCall			(72),
messageDurationExceeded			(73),
messageSizeExceeded		(45),	
multipleAlerting			(74),
multipleQueuing			(75),
networkCongestion	(20),		
networkDialling			(76),
networkNotObtainable	(21),		
networkOutOfOrder			(77),

```

networkSignal                (46),
newCall                      (22),
nextMessage                  (47),
noAvailableAgents           (23),
normal                      (78),
normalClearing              (48),
noSpeechDetected            (49),
notAvaliableBearerService   (79),
notSupportedBearerService   (80),
numberChanged               (50),
numberUnallocated           (81),
overflow                    (26),
override                    (24),
park                        (25),
queueCleared                (82),
recall                      (27),
redirected                  (28),
remainsInQueue              (83),
reorderTone                 (29),
reserved                    (84),
resourcesNotAvailable       (30),
selectedTrunkBusy           (85),
silentParticipation         (31),
singleStepConference        (51),
singleStepTransfer          (52),
speechDetected              (53),
suspend                     (86),
switchingFunctionTerminated (54),
terminationCharacterReceived (55),
timeout                     (56),
transfer                    (32),
trunksBusy                  (33),
unauthorisedBearerService   (87)}
-- voiceUnitInitiator       (34) }
-- *** note that the voiceUnitOriginator (34) is no longer used (commented out) ***

END -- of event-cause-definitions

```

9.19 Error Value

```

CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }

DEFINITIONS ::=
BEGIN

EXPORTS
UniversalFailure, universalFailure, ErrorValue;

IMPORTS

ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)};

universalFailure ERROR ::=
{
  PARAMETER      UniversalFailure
  CODE           local:1
}

ErrorValue ::= UniversalFailure

UniversalFailure ::= CHOICE
{
  operation                [0] OperationErrors,
  security                 [1] SecurityErrors,
  stateIncompatibility     [2] StateIncompatibilityErrors,
  systemResourceAvailability [3] SystemResourceAvailabilityErrors,
  subscribedResourceAvailability [4] SubscribedResourceAvailabilityErrors,
  performanceManagement    [5] PerformanceManagementErrors,
  privateData              [6] PrivateDataInfoErrors,
  unspecified              [7] UnspecifiedErrors}

OperationErrors ::= ENUMERATED -- in CSTA2 added in CSTA3
{
  generic ( 1),
  atLeastOneConditionalParameterNotProvided (29),
  featureAlreadySet (30),
  invalidMsgID (25),
  invalidParameterValue (31),
  invalidAccountCode (21),
  invalidAgentGroup (32),
  invalidAgentIdentifier (33),
  invalidAgentPassword (34),
  invalidAgentState (35),
  invalidAlertTime (36),
  invalidAllocationState (16),
  invalidAuthCode (22),
  invalidAutoAnswer (37),
  invalidBitRate (38),
  invalidButtonIdentifier (39),
  invalidCallType (42),
  invalidConnectionRate (43),
  invalidConsultPurpose (44),
  invalidCorrelatorData (20),
  invalidCrossRefID (17),
  invalidDelayTolerance (45),
  invalidDestination (14),
  invalidDestinationDetect (46),
  invalidDoNotDisturb (47),
  invalidEscapeCrossRefID (48),
  invalidFeature (15),
  invalidFile (28),
  invalidFlowDirection (49),
  invalidForwardingDestination ( 7),
  invalidForwardingFlag (51),
  invalidForwardingType (52),

```

invalidHookswitchType	(53),
invalidHookswitchComponent	(54),
invalidLampMode	(55),
invalidLampID	(56),
invalidMessageWaitingSetting	(57),
invalidMicrophoneGain	(58),
invalidMicrophoneMute	(59),
invalidMonitorCrossRefID	(60),
invalidMonitorFilter	(61),
invalidMonitorObject	(62),
invalidMonitorType	(63),
invalidNumberOfChannels	(64),
invalidParticipationType	(65),
invalidRemainRetry	(66),
invalidRingCount	(67),
invalidRingPattern	(68),
invalidRingVolume	(69),
invalidRouteingAlgorithm	(70),
invalidRouteingCrossRefID	(71),
invalidRouteRegistrationCrossRefID	(72),
invalidSpeakerVolume	(73),
invalidSpeakerMute	(74),
invalidSwitchingSubdomainCharsType	(75),
invalidObjectType	(18),
invalidActiveCallObject	(76),
invalidCalledDeviceObjectType	(77),
invalidCallingDeviceObjectType	(78),
invalidCallToBePickedUpObjectType	(79),
invalidCallToDivertObjectType	(80),
invalidCallToParkObjectType	(81),
invalidDestinationDeviceObject	(195),
invalidHeldCallObject	(82),
invalidMonitorObjectType	(83),
invalidParkToObjectType	(84),
messageIDRequired	(26),
notDifferentDevices	(85),
notSameDevice	(86),
objectNotKnown	(4),
invalidCallID	(11),
invalidActiveCallID	(87),
invalidHeldCallID	(88),
invalidConnectionID	(13),
invalidActiveConnectionID	(89),
invalidHeldConnectionID	(90),
invalidDeviceID	(12),
invalidActiveDeviceID	(91),
invalidCalledDeviceID	(6),
invalidCallingDeviceID	(5),
invalidCallToParkDeviceID	(92),
invalidDestinationDeviceID	(93),
invalidDivertingDeviceID	(94),
invalidHeldDeviceID	(95),
invalidParkToDeviceID	(96),
invalidPickUpDeviceID	(97),
parameterNotSupported	(98),
accountCodeNotSupported	(99),
agentGroupNotSupported	(100),
agentPasswordNotSupported	(101),
agentStateNotSupported	(102),
alertTimeNotSupported	(103),
allocationNotSupported	(104),
authorisationCodeNotSupported	(105),
autoAnswerNotSupported	(106),
bitRateNotSupported	(107),
buttonNotSupported	(108),
callTypeNotSupported	(109),
charactersToSendNotSupported	(110),
connectionRateNotSupported	(111),

connectionReservationNotSupported	(112),
consultPurposeNotSupported	(113),
correlatorDataNotSupported	(114),
delayToleranceNotSupported	(115),
destinationDetectNotSupported	(116),
digitModeNotSupported	(117),
errorValueNotSupported	(118),
flowDirectionNotSupported	(119),
forwardingDestinationNotSupported	(120),
lampNotSupported	(121),
monitorTypeNotSupported	(122),
numberOfChannelsNotSupported	(123),
parameterTypeNotSupported	(124),
priorityNotSupported	(125),
privateDataNotSupported	(126),
pulseDurationNotSupported	(127),
pulseRateNotSupported	(128),
remainRetryNotSupported	(129),
ringCountNotSupported	(130),
routeUsedNotSupported	(131),
securityNotSupported	(132),
swSubdomainCCIETypeNotSupported	(133),
toneDurationNotSupported	(134),
sysStatRegIDNotSupported	(135),
userDataNotSupported	(136),
privilegeViolationSpecifiedDevice(8),	
privilegeViolationActiveDevice	(137),
privilegeViolationCalledDevice(9),	
privilegeViolationCallingDevice(10),	
privilegeViolationCallToParkDevice	(138),
privilegeViolationDestinationDevice	(139),
privilegeViolationOnDivertingDevice	(140),
privilegeViolationHeldDevice	(141),
privilegeViolationOnParkToDevice	(142),
privilegeViolationPickUpDevice	(143),
routeingTimerExpired	(144),
requestIncompatibleWithObject	(2),
requestIncompatibleWithConnection	(145),
requestIncompatibleWithActiveConnection	(146),
requestIncompatibleWithHeldConnection	(147),
requestIncompatibleWithDevice	(148),
requestIncompatibleWithCalledDevice	(24),
requestIncompatibleWithCallingDevice	(23),
requestIncompatibleWithSubjectDevice	(149),
requestIncompatibleWithActiveDevice	(150),
requestIncompatibleWithCallToParkDevice	(151),
requestIncompatibleWithDestinationDevice	(152),
requestIncompatibleWithDivertingDevice	(153),
requestIncompatibleWithHeldDevice	(154),
requestIncompatibleWithMedia	(27),
requestIncompatibleWithParkToDevice	(155),
requestIncompatibleWithPickupDevice	(156),
serviceNotSupported	(50),
securityViolation	(19),
valueOutOfRange	(3),
agentStateOutOfRange	(157),
alertTimeOutOfRange	(158),
allocationOutOfRange	(159),
autoAnswerOutOfRange	(160),
bitRateOutOfRange	(161),
callTypeOutOfRange	(162),
connectionRateOutOfRange	(163),
connectionReservoationOutOfRange	(164),
consultPurposeOutOfRange	(165),
correlatorDataOutOfRange	(166),
delayToleranceOutOfRange	(167),
destinationDetectOutOfRange	(168),
digitModeOutOfRange	(169),

```

doNotDisturbOutOfRange (170),
flowDirectionOutOfRange (171),
forwardingFlagOutOfRange (172),
forwardingTypeOutOfRange (173),
hookswitchComponentOutOfRange (174),
hookswitchTypeOutOfRange (175),
lampModeOutOfRange (176),
messageWaitingSettingOutOfRange (177),
micGainOutOfRange (178),
micMuteOutOfRange (179),
monitorTypeOutOfRange (180),
numberOfChannelsOutOfRange (181),
participationTypeOutOfRange (182),
pulseDurationOutOfRange (183),
pulseRateOutOfRange (184),
ringCountOutOfRange (185),
ringPatternOutOfRange (186),
ringVolumnOutOfRange (187),
routeingAlgorithmOutOfRange (188),
speakerMuteOutOfRange (189),
speakerVolumeOutOfRange (190),
switchingCcittTypeOutOfRange (191),
systemStatusOutOfRange (192),
toneCharacterOutOfRange (193),
toneDurationOutOfRange (194)}

SecurityErrors ::= ENUMERATED
{
    generic ( 0),
    sequenceNumberViolated ( 1),
    timeStampViolated ( 2),
    securityInfoViolated ( 4)}

StateIncompatibilityErrors ::= ENUMERATED
{
    generic ( 1),
    invalidObjectState ( 2),
    invalidDeviceState (15),
    connectedCallExists (16),
    invalidActiveDeviceState (17),
    invalidCalledDeviceState (18),
    invalidCallingDeviceState (19),
    invalidCallToParkDeviceState (20),
    invalidDestinationDeviceState (21),
    invalidDivertingDeviceState (22),
    invalidHeldDeviceState (23),
    invalidParkToDeviceState (24),
    invalidConnectionState (25),
    invalidActiveConnectionState (26),
    invalidConnectionIDForActiveCall ( 3),
    invalidHeldConnectionState (27),
    noActiveCall ( 4),
    noCallToAnswer ( 8),
    noCallToClear ( 6),
    noCallToComplete ( 9),
    noConnectionToClear ( 7),
    noHeldCall ( 5),
    incorrectMsgState (28),
    beginningOfMsg (13),
    endOfMsg (12),
    msgSuspended (14),
    notAbleToPlay (10),
    notAbleToResume (11)}

SystemResourceAvailabilityErrors ::= ENUMERATED
{
    generic ( 1),
    resourceBusy ( 2),
    internalResourceBusy ( 3),
    classifierBusy ( 9),
    noMediaChannelsAvailable (10),

```

```

channelsInUseForBridgedDevices          (11),
channelsInUseForData                    (12),
toneDetectorBusy                        (13),
toneGeneratorBusy                       (14),
networkBusy                            ( 5),
resourceOutOfService                    ( 4),
deviceOutOfService                      (15),
activeDeviceOutOfService                (16),
calledDeviceOutOfService                (17),
callingDeviceOutOfService               (18),
callToParkDeviceOutOfService            (19),
destinationDeviceOutOfService            (20),
divertingDeviceOutOfService              (21),
heldDeviceOutOfService                  (22),
parkToDeviceOutOfService                 (23),
pickupDeviceOutOfService                 (24),
networkOutOfService                     ( 6),
otherResourceOutOfService                (25),
resourceLimitExceeded                   (26),
overallMonitorLimitExceeded              ( 7),
conferenceMemberLimitExceeded            ( 8),
registrationLimitExceeded                (27)}

SubscribedResourceAvailabilityErrors ::= ENUMERATED
{
    generic                                ( 1),
    objectMonitorLimitExceeded             ( 2),
    trunkLimitExceeded                     ( 3),
    outstandingReqLimitExceeded             ( 4),
    objectRegistrationLimitExceeded         ( 5)}

PerformanceManagementErrors ::= ENUMERATED
{
    generic                                (1),
    performanceLimitExceeded               (2)}

PrivateDataInfoErrors ::= ENUMERATED
{
    cSTAPrivateDataInfoError(1)}

UnspecifiedErrors ::= NULL

END -- of CSTA-error-definition

```

10 Event Report Service

```

CSTA-event-report-definitions
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-report-definitions( 21) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
CallClearedEvent FROM CSTA-call-cleared-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-cleared-event( 22) }
ConferencedEvent FROM CSTA-conferenced-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) conferenced-event( 23) }
ConnectionClearedEvent FROM CSTA-connection-cleared-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-cleared-event( 24) }
DeliveredEvent FROM CSTA-delivered-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) delivered-event( 25) }
DivertedEvent FROM CSTA-diverted-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) diverted-event( 26) }
EstablishedEvent FROM CSTA-established-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) established-event( 27) }
FailedEvent FROM CSTA-failed-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) failed-event( 28) }
HeldEvent FROM CSTA-held-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) held-event( 29) }
NetworkReachedEvent FROM CSTA-network-reached-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) network-reached-event( 30) }
OriginatedEvent FROM CSTA-originated-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) originated-event( 31) }
QueuedEvent FROM CSTA-queued-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) queued-event( 32) }
RetrievedEvent FROM CSTA-retrieved-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) retrieved-event( 33) }
ServiceInitiatedEvent FROM CSTA-service-initiated-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) service-initiated-event( 34) }
TransferredEvent FROM CSTA-transferred-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) transferred-event( 35) }
AutoAnswerEvent FROM CSTA-auto-answer-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) auto-answer-event( 40) }
CallInformationEvent FROM CSTA-call-information-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-information-event( 41) }
DoNotDisturbEvent FROM CSTA-do-not-disturb-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) do-not-disturb-event( 42) }
ForwardingEvent FROM CSTA-forwarding-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) forwarding-event( 43) }
MessageWaitingEvent FROM CSTA-message-waiting-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) message-waiting-event( 44) }

```

MicrophoneMuteEvent FROM CSTA-microphone-mute-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) microphone-mute-event(45) }

SpeakerMuteEvent FROM CSTA-speaker-mute-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) speaker-mute-event(46) }

SpeakerVolumeEvent FROM CSTA-speaker-volume-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) speaker-volume-event(47) }

AgentBusyEvent FROM CSTA-agent-busy-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) agent-busy-event(319) }

AgentLoggedInEvent FROM CSTA-agent-logged-on-event
 { iso(1) identified-organization(3) icd-ecma(321)
 standard(0) csta3(285) agent-logged-on-event(321) }

AgentLoggedOffEvent FROM CSTA-agent-logged-off-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) agent-logged-off-event(320) }

AgentNotReadyEvent FROM CSTA-agent-not-ready-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) agent-not-ready-event(322) }

AgentReadyEvent FROM CSTA-agent-ready-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) agent-ready-event(323) }

AgentWorkingAfterCallEvent FROM CSTA-agent-working-after-call-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) agent-working-after-call-event(324) }

BackInServiceEvent FROM CSTA-back-in-service-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) back-in-service-event(333) }

OutOfServiceEvent FROM CSTA-out-of-service-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) out-of-service-event(335) }

PrivateEvent FROM CSTA-private-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) private-event(71) }

PlayEvent FROM CSTA-play-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) play(75) }

RecordEvent FROM CSTA-record-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) record(76) }

ReviewEvent FROM CSTA-review-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) review(77) }

StopEvent FROM CSTA-stop-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) stop(78) }

SuspendPlayEvent FROM CSTA-suspend-play-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) suspend-play(79) }

SuspendRecordEvent FROM CSTA-suspend-record-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) suspend-record(80) }

VoiceAttributesChangeEvent FROM CSTA-voice-attributes-change-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) voice-attributes-change-event(74) }

MonitorCrossRefID FROM CSTA-status-reporting
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) status-reporting(126) }

BridgedEvent FROM CSTA-bridged-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) bridged-event(224) }

DigitsDialedEvent FROM CSTA-digits-dialed-event
 { iso(1) identified-organization(3) icd-ecma(12)
 standard(0) csta3(285) digits-dialed-event(225) }

NetworkCapabilitiesChangedEvent FROM CSTA-network-capabilities-changed-event
 { iso(1) identified-organization(3) icd-ecma(12)

```

        standard( 0 ) csta3( 285 ) network-capabilities-changed-event( 226 ) }
OfferedEvent FROM CSTA-offered-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) offered-event( 227 ) }
ChargingEvent FROM CSTA-charging-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) charging-event( 240 ) }
DigitsGeneratedEvent FROM CSTA-digits-generated-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) digits-generated-event( 241 ) }
TelephonyTonesGeneratedEvent FROM CSTA-telephony-tones-generated-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) telephony-tones-generated-event( 242 ) }
ServiceCompletionFailureEvent FROM CSTA-service-completion-failure-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) service-completion-failure-event( 243 ) }
MediaAttachedEvent FROM CSTA-media-attached-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) media-attached-event( 246 ) }
MediaDetachedEvent FROM CSTA-media-detached-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) media-detached-event( 247 ) }
ButtonInformationEvent FROM CSTA-button-information-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) button-information-event( 283 ) }
ButtonPressEvent FROM CSTA-button-press-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) button-press-event( 284 ) }
DisplayUpdatedEvent FROM CSTA-display-updated-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) display-updated-event( 285 ) }
HookswitchEvent FROM CSTA-hookswitch-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) hookswitch-event( 286 ) }
LampModeEvent FROM CSTA-lamp-mode-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) lamp-mode-event( 287 ) }
MicrophoneGainEvent FROM CSTA-microphone-gain-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) microphone-gain-event( 288 ) }
RingerStatusEvent FROM CSTA-ringer-status-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) ringer-status-event( 289 ) }
AutoWorkModeEvent FROM CSTA-auto-work-mode-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) auto-work-mode-event( 326 ) }
CallBackEvent FROM CSTA-call-back-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) call-back-event( 327 ) }
CallBackMessageEvent FROM CSTA-call-back-message-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) call-back-message-event( 328 ) }
CallerIDStatusEvent FROM CSTA-caller-id-status-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) caller-id-status-event( 329 ) }
RouteingModeEvent FROM CSTA-routeing-mode-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) routeing-mode-event( 332 ) }
DeviceCapsChangedEvent FROM CSTA-device-capabilities-changed-event
{ iso( 1 ) identified-organization( 3 ) icd-ecma( 12 )
  standard( 0 ) csta3( 285 ) device-capabilities-changed-event( 334 ) }
;

cSTAEventReport OPERATION ::=
{
  ARGUMENT      CSTAEventReportArgument
  ALWAYS RESPONDS FALSE
  CODE          local:21
}

```

CSTAEventReportArgument ::= SEQUENCE
 {
 crossRefIdentifier MonitorCrossRefID,
 eventSpecificInfo EventSpecificInfo}

EventSpecificInfo ::= CHOICE
 {
 callControlEvents [0] CallControlEvents,
 callAssociatedEvents [1] CallAssociatedEvents,
 mediaAttachmentEvents [2] MediaAttachmentEvents,
 physicalDeviceFeatureEvents [3] PhysicalDeviceFeatureEvents,
 logicalDeviceFeatureEvents [4] LogicalDeviceFeatureEvents,
 deviceMaintenanceEvents [5] DeviceMaintenanceEvents,
 voiceUnitEvents [6] VoiceUnitEvents,
 vendorSpecEvents [7] VendorSpecEvents}

CallControlEvents ::= CHOICE
 {
 bridged [0] IMPLICIT BridgedEvent,
 callCleared [1] IMPLICIT CallClearedEvent,
 conferenced [2] IMPLICIT ConferencedEvent,
 connectionCleared [3] IMPLICIT ConnectionClearedEvent,
 delivered [4] IMPLICIT DeliveredEvent,
 digitsDialed [5] IMPLICIT DigitsDialedEvent,
 diverted [6] IMPLICIT DivertedEvent,
 established [7] IMPLICIT EstablishedEvent,
 failed [8] IMPLICIT FailedEvent,
 held [9] IMPLICIT HeldEvent,
 networkCapabilitiesChanged [10] IMPLICIT NetworkCapabilitiesChangedEvent,
 networkReached [11] IMPLICIT NetworkReachedEvent,
 offered [12] IMPLICIT OfferedEvent,
 originated [13] IMPLICIT OriginatedEvent,
 queued [14] IMPLICIT QueuedEvent,
 retrieved [15] IMPLICIT RetrievedEvent,
 serviceInitiated [16] IMPLICIT ServiceInitiatedEvent,
 transferred [17] IMPLICIT TransferredEvent}

CallAssociatedEvents ::= CHOICE
 {
 callInformation [0] IMPLICIT CallInformationEvent,
 charging [1] IMPLICIT ChargingEvent,
 digitsGeneratedEvent [2] IMPLICIT DigitsGeneratedEvent,
 telephonyTonesGeneratedEvent [3] IMPLICIT TelephonyTonesGeneratedEvent,
 serviceCompletionFailure [4] IMPLICIT ServiceCompletionFailureEvent}

MediaAttachmentEvents ::= CHOICE
 {
 mediaAttached [0] IMPLICIT MediaAttachedEvent,
 mediaDetached [1] IMPLICIT MediaDetachedEvent}

PhysicalDeviceFeatureEvents ::= CHOICE
 {
 buttonInformation [0] IMPLICIT ButtonInformationEvent,
 buttonPress [1] IMPLICIT ButtonPressEvent,
 displayUpdated [2] IMPLICIT DisplayUpdatedEvent,
 hookswitch [3] IMPLICIT HookswitchEvent,
 lampMode [4] IMPLICIT LampModeEvent,
 messageWaiting [5] IMPLICIT MessageWaitingEvent,
 microphoneGain [6] IMPLICIT MicrophoneGainEvent,
 microphoneMute [7] IMPLICIT MicrophoneMuteEvent,
 ringerStatus [8] IMPLICIT RingerStatusEvent,
 speakerMute [9] IMPLICIT SpeakerMuteEvent,
 speakerVolume [10] IMPLICIT SpeakerVolumeEvent}

LogicalDeviceFeatureEvents ::= CHOICE
 {
 agentBusy [0] IMPLICIT AgentBusyEvent,
 agentLoggedOn [1] IMPLICIT AgentLoggedOnEvent,
 agentLoggedOff [2] IMPLICIT AgentLoggedOffEvent,
 agentNotReady [3] IMPLICIT AgentNotReadyEvent,
 agentReady [4] IMPLICIT AgentReadyEvent,
 agentWorkingAfterCall [5] IMPLICIT AgentWorkingAfterCallEvent,
 autoAnswer [6] IMPLICIT AutoAnswerEvent,
 }

```

    autoWorkMode          [ 7] IMPLICIT AutoWorkModeEvent,
    callBack              [ 8] IMPLICIT CallBackEvent,
    callBackMessage       [ 9] IMPLICIT CallBackMessageEvent,
    callerIDStatus        [10] IMPLICIT CallerIDStatusEvent,
    doNotDisturb          [11] IMPLICIT DoNotDisturbEvent,
    forwarding            [12] IMPLICIT ForwardingEvent,
    routeingMode          [13] IMPLICIT RouteingModeEvent}

DeviceMaintenanceEvents ::= CHOICE
{
    backInService          [ 0] IMPLICIT BackInServiceEvent,
    deviceCapabilityChanged [ 1] IMPLICIT DeviceCapsChangedEvent,
    outOfService           [ 2] IMPLICIT OutOfServiceEvent}

VoiceUnitEvents ::= CHOICE
{
    play                  [ 0] IMPLICIT PlayEvent,
    record                [ 1] IMPLICIT RecordEvent,
    review                [ 2] IMPLICIT ReviewEvent,
    stop                  [ 3] IMPLICIT StopEvent,
    suspendPlay           [ 4] IMPLICIT SuspendPlayEvent,
    suspendRecord         [ 5] IMPLICIT SuspendRecordEvent,
    voiceAttributesChange [ 6] IMPLICIT VoiceAttributesChangeEvent}

VendorSpecEvents ::= CHOICE
{
    privateEvent          [ 0] IMPLICIT PrivateEvent}

END -- of CSTA-event-report-definitions

```

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11 Capability exchange services

11.1 Services

11.1.1 Get logical device information

```

CSTA-get-logical-device-information
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-logical-device-information( 201) }

DEFINITIONS ::=
BEGIN

IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)};
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) };
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) };
MonitorFilter, MonitorMediaClass FROM CSTA-status-reporting
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) status-reporting( 126) };
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };
DeviceCategory, GroupDeviceAttributes, NamedDeviceTypes, ACDModels, AgentLogOnModels,
  AppearanceType, MiscMonitorCaps, TransAndConfSetup, MediaServiceCapsList,
  RouteingServList, LogDevServList, LogDevEvtsList
FROM CSTA-capability-exchange
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) capability-exchange( 131) };
NumberOfChannels, MaxChannelBind, ConnectionRateList, DelayToleranceList
FROM CSTA-data-call-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) data-call-types( 134) };

getLogicalDeviceInformation OPERATION ::=
{
  ARGUMENT    GetLogicalDeviceInformationArgument
  RESULT      GetLogicalDeviceInformationResult
  ERRORS      {universalFailure}
  CODE        local:201
}

GetLogicalDeviceInformationArgument ::= SEQUENCE
{
  device          DeviceID,
  extensions      CSTACommonArgumentsOPTIONAL}

GetLogicalDeviceInformationResult ::= SEQUENCE
{
  deviceCategory          [ 0] IMPLICIT DeviceCategory          DEFAULT station,
  groupDeviceAttributes   [ 1] IMPLICIT GroupDeviceAttributes OPTIONAL,
  namedDeviceTypes        [ 2] IMPLICIT NamedDeviceTypes        OPTIONAL,
  shortFormDeviceID       [ 3] DeviceID                          OPTIONAL,
  hasPhysicalElement      BOOLEAN,
  acdModels               ACDModels,
  agentLogOnModels        [ 4] IMPLICIT AgentLogOnModels        OPTIONAL,
  appearanceAddressable   BOOLEAN,
  appearanceType          AppearanceType,
  appearanceList          [ 5] IMPLICIT SEQUENCE OF IA5String OPTIONAL,
  otherPhysicalDeviceList [ 6] IMPLICIT SEQUENCE OF DeviceID OPTIONAL,
  miscMonitorCaps         [ 7] IMPLICIT MiscMonitorCaps         OPTIONAL,
  associatedGroupList     [ 8] IMPLICIT SEQUENCE OF DeviceID OPTIONAL,
  maxCallbacks            [ 9] IMPLICIT INTEGER                 OPTIONAL,
  maxAutoAnswerRings     [10] IMPLICIT INTEGER                 OPTIONAL,
  maxActiveCalls          [11] IMPLICIT INTEGER                 OPTIONAL,

```

maxHeldCalls	[12]	IMPLICIT INTEGER	OPTIONAL,
maxFwdSettings	[13]	IMPLICIT INTEGER	OPTIONAL,
maxDevicesInConf	[14]	IMPLICIT INTEGER	OPTIONAL,
transAndConfSetup	[15]	IMPLICIT TransAndConfSetup	OPTIONAL,
deviceOnDeviceMonitorFilter	[16]	IMPLICIT MonitorFilter	OPTIONAL,
deviceOnConnectionMonitorFilter	[17]	IMPLICIT MonitorFilter	OPTIONAL,
callOnDeviceMonitorFilter	[18]	IMPLICIT MonitorFilter	OPTIONAL,
callOnConnectionMonitorFilter	[19]	IMPLICIT MonitorFilter	OPTIONAL,
mediaClassSupport	[20]	IMPLICIT MonitorMediaClass	OPTIONAL,
mediaServiceCapsList	[21]	IMPLICIT MediaServiceCapsList	OPTIONAL,
connectionRateList	[22]	IMPLICIT ConnectionRateList	OPTIONAL,
delayToleranceList	[23]	IMPLICIT DelayToleranceList	OPTIONAL,
numberOfChannels	[24]	IMPLICIT NumberOfChannels	OPTIONAL,
maxChannelBind	[25]	IMPLICIT MaxChannelBind	OPTIONAL,
routeingServList	[26]	IMPLICIT RouteingServList	OPTIONAL,
logDevServList	[27]	IMPLICIT LogDevServList	OPTIONAL,
logDevEvtsList	[28]	IMPLICIT LogDevEvtsList	OPTIONAL,
extensions		CSTACCommonArguments	OPTIONAL}

END -- of CSTA-get-logical-device-information

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11.1.2 Get physical device information

```

CSTA-get-physical-device-information
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-physical-device-information( 202) }

DEFINITIONS ::=
BEGIN

IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
MonitorFilter FROM CSTA-status-reporting
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) status-reporting( 126) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
DeviceCategory, GroupDeviceAttributes, NamedDeviceTypes, PhysDevServList, PhysDevEvtsList
FROM CSTA-capability-exchange
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) capability-exchange( 131) };

getPhysicalDeviceInformation OPERATION ::=
{
  ARGUMENT    GetPhysicalDeviceInformationArgument
  RESULT      GetPhysicalDeviceInformationResult
  ERRORS      {universalFailure}
  CODE        local:202
}

GetPhysicalDeviceInformationArgument ::= SEQUENCE
{
  device      DeviceID,
  extensions  CSTACommonArguments OPTIONAL}

GetPhysicalDeviceInformationResult ::= SEQUENCE
{
  deviceCategory [ 0] IMPLICIT DeviceCategory          DEFAULT station,
  groupDeviceAttributes [ 1] IMPLICIT GroupDeviceAttributes OPTIONAL,
  namedDeviceTypes [ 2] IMPLICIT NamedDeviceTypes      OPTIONAL,
  hasLogicalElement BOOLEAN,
  otherLogicalDeviceList [ 3] IMPLICIT SEQUENCE OF DeviceID OPTIONAL,
  deviceModelName [ 4] IMPLICIT IA5String (SIZE(0..64)) OPTIONAL,
  deviceOnDeviceMonitorFilter [ 5] IMPLICIT MonitorFilter OPTIONAL,
  deviceOnConnectionMonitorFilter [ 6] IMPLICIT MonitorFilter OPTIONAL,
  callOnDeviceMonitorFilter [ 7] IMPLICIT MonitorFilter OPTIONAL,
  callOnConnectionMonitorFilter [ 8] IMPLICIT MonitorFilter OPTIONAL,
  maxDisplays [ 9] IMPLICIT INTEGER OPTIONAL,
  maxButtons [10] IMPLICIT INTEGER OPTIONAL,
  maxLamps [11] IMPLICIT INTEGER OPTIONAL,
  maxRingPatterns [12] IMPLICIT INTEGER OPTIONAL,
  physDevServList [13] IMPLICIT PhysDevServList OPTIONAL,
  physDevEvtsList [14] IMPLICIT PhysDevEvtsList OPTIONAL,
  extensions CSTACommonArguments OPTIONAL}

END -- of CSTA-get-physical-device-information

```

11.1.3 Get switching function capabilities

```

CSTA-get-switching-function-capabilities
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-switching-function-capabilities( 203) }

DEFINITIONS ::=
BEGIN

IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
MonitorMediaClass, MonitorFilter FROM CSTA-status-reporting
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) status-reporting( 126) }
TimeInfo FROM CSTA-security
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) security( 128) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics FROM CSTA-call-control
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) call-control( 130) }
ACDModels, CapExchangeServList, DeviceIDFormat, FilterThreshold,
IgnoreUnsupportedParameters, CallControlServList, CallControlEvtsList,
CallAssociatedServList, CallAssociatedEvtsList, MediaServList, MediaEvtsList,
RouteingServList, PhysDevEvtsList, PhysDevServList, LogicalEvtsList, LogicalServList,
DeviceMaintEvtsList, IOServicesServList, DataCollectionServList, VoiceUnitServList,
VoiceUnitEvtsList, CDRServList, VendorSpecificServList, VendorSpecificEvtsList,
MaxLengthParameters, TransAndConfSetup, MediaServiceCapsList, MiscMonitorCaps,
MonitoringServList, PauseTime, SnapshotServList, SwAppearanceAddressability,
SwAppearanceTypes, SwDomainFeatures, SystemStatusServList, TimeStampMode
FROM CSTA-capability-exchange
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) capability-exchange( 131) }
NumberOfChannels, MaxChannelBind, ConnectionRateList, DelayToleranceList
FROM CSTA-data-call-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) data-call-types( 134) };

getSwitchingFunctionCapabilities OPERATION ::=
{
  ARGUMENT  GetSwitchingFunctionCapsArgument
  RESULT    GetSwitchingFunctionCapsResult
  ERRORS    {universalFailure}
  CODE      local:203
}

GetSwitchingFunctionCapsArgument ::= CHOICE
{
  extensions  CSTACommonArguments,
  noData      NULL}

GetSwitchingFunctionCapsResult ::= SEQUENCE
{
  switchingSubDomainName      IA5String (SIZE(0..64)),
  manufacturerName            IA5String (SIZE(0..64)),
  profiles                     Profiles,
  deviceIDFormat               DeviceIDFormat,
  swDomainFeatures             SwDomainFeatures,
  swAppearanceAddressability   SwAppearanceAddressability,
  swAppearanceTypes            SwAppearanceTypes,
  ignoreUnsupportedParameters  IgnoreUnsupportedParameters,
  callCharacteristicsSupported [0] IMPLICIT CallCharacteristics      OPTIONAL,
  mediaClassSupport            [1] IMPLICIT MonitorMediaClass        OPTIONAL,
  numberOfChannels              [2] IMPLICIT NumberOfChannels        OPTIONAL,
}

```

maxChannelBind	[3] IMPLICIT MaxChannelBind	OPTIONAL,
miscMediaCallCharacteristics	[4] IMPLICIT MiscMediaCallCharacteristics	OPTIONAL,
connectionRateList	[5] IMPLICIT ConnectionRateList	OPTIONAL,
delayToleranceList	[6] IMPLICIT DelayToleranceList	OPTIONAL,
pauseTime	[7] IMPLICIT PauseTime	OPTIONAL,
currentTime	[8] IMPLICIT TimeInfo	OPTIONAL,
messageSeqNumbers	[9] IMPLICIT MessageSeqNumbers	OPTIONAL,
timeStampMode	[10] IMPLICIT TimeStampMode	OPTIONAL,
securityMode	[11] IMPLICIT SecurityMode	OPTIONAL,
securityFormat	[12] IMPLICIT SecurityFormat	OPTIONAL,
privateDataFormat	[13] IMPLICIT SecurityFormat	OPTIONAL,
transAndConfSetup	[14] IMPLICIT TransAndConfSetup	OPTIONAL,
monitorFilterItems	[15] IMPLICIT MonitorFilterItems	OPTIONAL,
miscMonitorCaps	[16] IMPLICIT MiscMonitorCaps	OPTIONAL,
correlatorDataSupported	[17] IMPLICIT BOOLEAN	OPTIONAL,
dynamicFeatureSupported	[18] IMPLICIT DynamicFeatureSupported	OPTIONAL,
callLinkageOptions	[28] IMPLICIT CallLinkageOptions	OPTIONAL,
aCDModels	[19] IMPLICIT ACDModels	OPTIONAL,
agentLogOnModels	[20] IMPLICIT AgentLogOnModels	OPTIONAL,
agentStateModels	[21] IMPLICIT AgentStateModels	OPTIONAL,
connectionView	ConnectionView,	
maxLengthParameters	MaxLengthParameters,	
servEvsList	[22] IMPLICIT ServEvsList	OPTIONAL,
privateDataVersionList	[23] IMPLICIT PrivateDataVersionList	OPTIONAL,
systemStatusTimer	[24] IMPLICIT INTEGER (0..180)	OPTIONAL,
simpleThreshold	[25] IMPLICIT INTEGER	OPTIONAL,
filterThreshold	[26] IMPLICIT FilterThreshold	OPTIONAL,
mediaServiceCapsList	[27] IMPLICIT MediaServiceCapsList	OPTIONAL,
extensions	CSTACCommonArguments	OPTIONAL}
MonitorFilterItems ::= SEQUENCE		
{ deviceOnDeviceMonitorFilter	[0] IMPLICIT MonitorFilter	OPTIONAL,
deviceOnConnectionMonitorFilter	[1] IMPLICIT MonitorFilter	OPTIONAL,
callOnDeviceMonitorFilter	[2] IMPLICIT MonitorFilter	OPTIONAL,
callOnConnectionMonitorFilter	[3] IMPLICIT MonitorFilter	OPTIONAL}
MessageSeqNumbers ::= BIT STRING		
{ allEvents (0),		
allAcks (1),		
allServReqs (2)}		
SecurityMode ::= ENUMERATED		
{ allEvents (0),		
allAcks (1),		
allServReqs (2)}		
SecurityFormat ::= BIT STRING		
{ octetStringFromSF (0),		
otherTypeFromSF (1),		
octetStringToSF (2),		
otherTypeToSF (3)}		
Profiles ::= BIT STRING		
{ basicTelephonyProfile (0),		
routeingProfile (1)}		
DynamicFeatureSupported ::= ENUMERATED		
{ none (0),		
all (1),		
some (2)}		
CallLinkageOptions ::= BIT STRING		
{ callLinkageFeatureSupported (0),		
threadLinkageFeatureSupported (1) }		
AgentLogOnModels ::= BIT STRING		
{ logOnACDDevice (0),		

```

logOnACDGroupExplOneStep      (1),
logOnACDGroupExplTwoSteps     (2),
logOnACDGroupImplOneStep      (3)}

AgentStateModels ::= BIT STRING
{
    multiState                (0),
    multiStateSemiIndependentLinked (1),
    agentOriented              (2)}

ConnectionView ::= ENUMERATED
{
    fixed      (0),
    local      (1)}

ServEvsList ::= SEQUENCE
{
    capExchangeServList    [ 0] IMPLICIT CapExchangeServList    OPTIONAL,
    systemServList         [ 1] IMPLICIT SystemStatusServList    OPTIONAL,
    monitoringServList     [ 2] IMPLICIT MonitoringServList      OPTIONAL,
    snapshotServList       [ 3] IMPLICIT SnapshotServList        OPTIONAL,
    callControlServList    [ 4] IMPLICIT CallControlServList      OPTIONAL,
    callControlEvsList     [ 5] IMPLICIT CallControlEvsList       OPTIONAL,
    callAssociatedServList [ 6] IMPLICIT CallAssociatedServList    OPTIONAL,
    callAssociatedEvsList  [ 7] IMPLICIT CallAssociatedEvsList     OPTIONAL,
    mediaServList          [ 8] IMPLICIT MediaServList            OPTIONAL,
    mediaEvsList           [ 9] IMPLICIT MediaEvsList             OPTIONAL,
    routeingServList       [10] IMPLICIT RouteingServList         OPTIONAL,
    physDevServList        [11] IMPLICIT PhysDevServList          OPTIONAL,
    physDevEvsList         [12] IMPLICIT PhysDevEvsList           OPTIONAL,
    logicalServList        [13] IMPLICIT LogicalServList          OPTIONAL,
    logicalEvsList         [14] IMPLICIT LogicalEvsList           OPTIONAL,
    deviceMaintEvsList     [15] IMPLICIT DeviceMaintEvsList       OPTIONAL,
    ioServicesServList     [16] IMPLICIT IOServicesServList       OPTIONAL,
    dataCollectionServList [17] IMPLICIT DataCollectionServList    OPTIONAL,
    voiceUnitServList      [18] IMPLICIT VoiceUnitServList        OPTIONAL,
    voiceUnitEvsList       [19] IMPLICIT VoiceUnitEvsList         OPTIONAL,
    cdrServList            [20] IMPLICIT CDRServList              OPTIONAL,
    vendorSpecificServList [21] IMPLICIT VendorSpecificServList   OPTIONAL,
    vendorSpecificEvsList  [22] IMPLICIT VendorSpecificEvsList    OPTIONAL,
    statusReportingServList[23] IMPLICIT StatusReportingServList  OPTIONAL}

StatusReportingServList ::= SEQUENCE
{
    monitoringServices     [ 0] IMPLICIT MonitoringServList    OPTIONAL,
    snapshotServices       [ 1] IMPLICIT SnapshotServList      OPTIONAL,
    systemServices         [ 2] IMPLICIT SystemStatusServList  OPTIONAL}

MiscMediaCallCharacteristics ::= BIT STRING
{
    supportAdjustment      (0) }

PrivateDataVersionList ::= SEQUENCE OF INTEGER

END -- of CSTA-get-switching-function-capabilities

```

11.1.4 Get switching function devices

```

CSTA-get-switching-function-devices
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-switching-function-devices( 204) }

DEFINITIONS ::=
BEGIN

IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
ServiceCrossRefID FROM CSTA-capability-exchange
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) capability-exchange( 131) };

getSwitchingFunctionDevices OPERATION ::=
{
  ARGUMENT    GetSwitchingFunctionDevicesArgument
  RESULT      GetSwitchingFunctionDevicesResult
  ERRORS      {universalFailure}
  CODE        local:204
}

GetSwitchingFunctionDevicesArgument ::= SEQUENCE
{
  requestedDeviceID          DeviceID          OPTIONAL,
  requestedDeviceCategory    ReqDeviceCategory OPTIONAL,
  extensions                  CSTACCommonArguments OPTIONAL}

GetSwitchingFunctionDevicesResult ::= SEQUENCE
{
  serviceCrossRefID          ServiceCrossRefID,
  extensions                  CSTACCommonArguments OPTIONAL}

ReqDeviceCategory ::= ENUMERATED
{
  acd                ( 0),
  groupACD           ( 1),
  groupHunt           ( 2),
  groupPick           ( 3),
  groupOther          ( 4),
  networkInterface    ( 5),
  park                ( 6),
  routeingDevice      ( 7),
  station             ( 8),
  voiceUnit           ( 9),
  other               (10)}

END -- of CSTA-get-switching-function-devices

```

11.1.5 Switching function devices

```

CSTA-switching-function-devices
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) switching-function-devices( 205) }

DEFINITIONS ::=
BEGIN

IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{ joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0) }
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
ServiceCrossRefID, DeviceCategory, NamedDeviceTypes FROM CSTA-capability-exchange
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) capability-exchange( 131) };

switchingFunctionDevices OPERATION ::=
{
  ARGUMENT      SwitchingFunctionDevicesArgument
  ERRORS        {universalFailure}
  CODE          local:205
}

SwitchingFunctionDevicesArgument ::= SEQUENCE
{
  serviceCrossRefID      ServiceCrossRefID,
  segmentID              INTEGER                OPTIONAL,
  lastSegment            BOOLEAN,
  deviceList             DeviceList,
  extensions             CSTACommonArguments   OPTIONAL}

DeviceList ::= SEQUENCE OF SEQUENCE
{
  deviceID              DeviceID,
  deviceCategory        [0] IMPLICIT DeviceCategory      DEFAULT station,
  namedDeviceTypes      [1] IMPLICIT NamedDeviceTypes    OPTIONAL,
  deviceAttributes      DeviceAttributes                  OPTIONAL,
  deviceModelName       IA5String (SIZE(0..64))          OPTIONAL}

DeviceAttributes ::= BIT STRING
{
  mediaAccessDevice     ( 0),
  routingDevice         ( 1),
  groupACD              ( 2),
  groupHunt             ( 3),
  groupPick             ( 4)}

END -- of CSTA-switching-function-devices

```

12 System services

12.1 Registration services

12.1.1 Change system status filter

```

CSTA-change-system-status-filter
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) change-system-status-filter( 206) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)};
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
SysStatRegisterID, SystemStatus FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

changeSysStatFilter OPERATION ::=
{
    ARGUMENT      ChangeSysStatFilterArg
    RESULT        ChangeSysStatFilterRes
    ERRORS        {universalFailure}
    CODE          local: 206
}

ChangeSysStatFilterArg ::= SEQUENCE
{
    sysStatRegisterID      SysStatRegisterID,
    requestedStatusFilter  SystemStatus,
    extensions             CSTACommonArguments      OPTIONAL}

ChangeSysStatFilterRes ::= SEQUENCE
{
    actualStatusFilter      SystemStatus,
    extensions             CSTACommonArguments      OPTIONAL}

END -- of CSTA-change-system-status-filter

```

12.1.2 System register

```

CSTA-system-register
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) system-register( 207) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
SysStatRegisterID FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

systemRegister OPERATION ::=
{
  ARGUMENT    SystemRegisterArgument
  RESULT      SystemRegisterResult
  ERRORS      {universalFailure}
  CODE        local: 207
}

SystemRegisterArgument ::= SEQUENCE
{
  requestTypes          RequestTypes,
  requestedStatusFilter StatusFilter          OPTIONAL,
  extensions            CSTACommonArguments  OPTIONAL}

SystemRegisterResult ::= SEQUENCE
{
  sysStatRegisterID    SysStatRegisterID,
  actualStatusFilter    StatusFilter          OPTIONAL,
  extensions            CSTACommonArguments  OPTIONAL}

StatusFilter ::= BIT STRING
{
  initializing          ( 0),
  enabled               ( 1),
  normal                ( 2),
  messageLost           ( 3),
  disabled              ( 4),
  partiallyDisabled     ( 5),
  overloadImminent      ( 6),
  overloadReached       ( 7),
  overloadRelieved      ( 8)}

RequestTypes ::= BIT STRING
{
  systemStatus          (0),
  requestSystemStatus   (1),
  switchingFunctionCapsChanged (2),
  switchingFunctionDevicesChanged (3)}

END -- of CSTA-system-register

```

12.1.3 System register abort

```

CSTA-system-register-abort
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) system-register-abort( 208) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
SysStatRegisterID FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }

systemRegisterAbort OPERATION ::=
{
  ARGUMENT      SystemRegisterAbortArgument
  ERRORS        {universalFailure}
  ALWAYS RESPONDS FALSE
  CODE          local: 208
}

SystemRegisterAbortArgument ::= SEQUENCE
{
  sysStatRegisterID SysStatRegisterID,
  extensions         CSTACCommonArguments OPTIONAL}

END -- of CSTA-system-register-abort

```

12.1.4 System register cancel

```

CSTA-system-register-cancel
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) system-register-cancel( 209) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
SysStatRegisterID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
;

systemRegisterCancel OPERATION ::=
{
    ARGUMENT    SystemRegisterCancelArgument
    RESULT      SystemRegisterCancelResult
    ERRORS      {universalFailure}
    CODE        local: 209
}

SystemRegisterCancelArgument ::= SEQUENCE
{
    sysStatRegisterID      SysStatRegisterID,
    extensions              CSTACommonArguments      OPTIONAL}

SystemRegisterCancelResult ::= CHOICE
{
    extensions      CSTACommonArguments,
    noData          NULL}

END -- of CSTA-system-register-cancel

```

12.2 Services

12.2.1 Request system status

```

CSTA-request-system-status
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) request-system-status( 210) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
SysStatRegisterID, SystemStatus FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

requestSysStat OPERATION ::=
{
    ARGUMENT      RequestSysStatArg
    RESULT        RequestSysStatRes
    ERRORS        {universalFailure}
    CODE          local: 210
}

RequestSysStatArg ::= SEQUENCE
{
    sysStatRegisterID      SysStatRegisterID      OPTIONAL,
    extensions              CSTACommonArguments    OPTIONAL}

RequestSysStatRes ::= SEQUENCE
{
    systemStatus            SystemStatus,
    extensions              CSTACommonArguments    OPTIONAL}

END -- of CSTA-request-system-status

```

12.2.2 System status

```

CSTA-system-status
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) system-status( 211) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{ joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0) }
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
SysStatRegisterID, SystemStatus FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

systemStatus OPERATION ::=
{
  ARGUMENT    SystemStatusArg
  RESULT      SystemStatusRes
  ERRORS      {universalFailure}
  CODE        local: 211
}

SystemStatusArg ::= SEQUENCE
{
  sysStatRegisterID    SysStatRegisterID    OPTIONAL,
  systemStatus          SystemStatus,
  extensions             CSTACommonArguments    OPTIONAL}

SystemStatusRes ::= CHOICE
{
  extensions    CSTACommonArguments,
  noData        NULL}

END -- of CSTA-system-status

```

12.2.3 Switching function capabilities changed

```

CSTA-switching-function-capabilities-changed
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) switching-function-capabilities-changed( 212) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
SysStatRegisterID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

swFunctionCapsChanged OPERATION ::=
{
    ARGUMENT    SwFunctionCapsChangedArg
    RESULT      SwFunctionCapsChangedRes
    ERRORS      {universalFailure}
    CODE        local: 212
}

SwFunctionCapsChangedArg ::= SEQUENCE
{
    sysStatRegisterID    SysStatRegisterID    OPTIONAL,
    extensions            CSTACommonArguments  OPTIONAL}

SwFunctionCapsChangedRes ::= CHOICE
{
    extensions    CSTACommonArguments,
    noData        NULL}

END -- of CSTA-switching-function-capabilities-changed

```

12.2.4 Switching function devices changed

```

CSTA-switching-function-devices-changed
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) switching-function-devices-changed( 213) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
SysStatRegisterID FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

swFunctionDevicesChanged OPERATION ::=
{
  ARGUMENT    SwFunctionDevicesChangedArg
  RESULT      SwFunctionDevicesChangedRes
  ERRORS      {universalFailure}
  CODE        local: 213
}

SwFunctionDevicesChangedArg ::= SEQUENCE
{
  sysStatRegisterID    SysStatRegisterID    OPTIONAL,
  extensions            CSTACCommonArguments OPTIONAL}

SwFunctionDevicesChangedRes ::= CHOICE
{
  extensions    CSTACCommonArguments,
  noData        NULL}

END -- of CSTA-switching-function-devices-changed

```

13 Monitoring services

13.1 Services

13.1.1 Change monitor filter

```

CSTA-change-monitor-filter
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) change-monitor-filter( 102) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)};
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
MonitorFilter, MonitorCrossRefID FROM CSTA-status-reporting
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) status-reporting( 126) };
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

changeMonitorFilter      OPERATION ::=
{
    ARGUMENT      ChangeMonitorFilterArgument
    RESULT        ChangeMonitorFilterResult
    ERRORS        {universalFailure}
    CODE          local: 72
}

ChangeMonitorFilterArgument ::=
SEQUENCE
{crossRefIdentifier      MonitorCrossRefID,
 requestedFilterList     MonitorFilter,
 extensions              CSTACommonArguments      OPTIONAL}

ChangeMonitorFilterResult ::=
SEQUENCE
{actualFilterList        MonitorFilter      OPTIONAL,
 extensions              CSTACommonArguments  OPTIONAL}

END -- of CSTA-change-monitor-filter

```

13.1.2 Monitor start

```

CSTA-monitor-start
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) monitor-start( 101) }
DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
MonitorObject, MonitorFilter, MonitorType, MonitorMediaClass,
MonitorCrossRefID FROM CSTA-status-reporting
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) status-reporting( 126) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

monitorStart      OPERATION ::=
{
    ARGUMENT      MonitorStartArgument
    RESULT        MonitorStartResult
    ERRORS        {universalFailure}
    CODE          local: 71
}

MonitorStartArgument ::= SEQUENCE
{
    monitorObject      MonitorObject,
    requestedMonitorFilter [0] IMPLICIT MonitorFilter      OPTIONAL,
    monitorType        MonitorType                          OPTIONAL,
    requestedMonitorMediaClass [1] IMPLICIT MonitorMediaClass OPTIONAL,
    extensions         CSTACommonArguments                 OPTIONAL}

MonitorStartResult ::= SEQUENCE
{
    crossRefIdentifier  MonitorCrossRefID,
    actualmonitorFilter [0] IMPLICIT MonitorFilter      OPTIONAL,
    actualMonitorMediaClass [1] IMPLICIT MonitorMediaClass OPTIONAL,
    monitorExistingCalls BOOLEAN                      OPTIONAL,
    extensions         CSTACommonArguments                 OPTIONAL}

END -- of CSTA-monitor-start

```

13.1.3 Monitor stop

```

CSTA-monitor-stop
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) monitor-stop( 103) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
MonitorCrossRefID FROM CSTA-status-reporting
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) status-reporting( 126) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

monitorStop      OPERATION ::=
{
  ARGUMENT      MonitorStopArgument
  RESULT        MonitorStopResult
  ERRORS        {universalFailure}
  CODE          local: 73
}

MonitorStopArgument ::=
SEQUENCE
{crossRefIdentifier      MonitorCrossRefID,
 extensions              CSTACCommonArguments OPTIONAL}

MonitorStopResult ::=
CHOICE
{extensions              CSTACCommonArguments,
 noData                  NULL}

END -- of CSTA-monitor-stop

```

14 Snapshot services

14.1 Services

14.1.1 Snapshot call

```

CSTA-snapshot-call
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) snapshot-call( 105) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
CallingDeviceID, CalledDeviceID, AssociatedCallingDeviceID,
AssociatedCalledDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
SnapshotCallData FROM CSTA-status-reporting
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) status-reporting( 126) }
CorrelatorData FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) }
ServiceCrossRefID FROM CSTA-capability-exchange
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) capability-exchange( 131) }
MediaCallCharacteristics FROM CSTA-media-services
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) media-services( 136) };

snapshotCall      OPERATION ::=
{
    ARGUMENT      SnapshotCallArgument
    RESULT        SnapshotCallResult
    ERRORS        {universalFailure}
    CODE          local: 75
}

SnapshotCallArgument ::=
SEQUENCE
    {snapshotObject          ConnectionID,
     extensions              CSTACommonArguments    OPTIONAL}

SnapshotCallResult ::=
SEQUENCE
    {crossRefIDorSnapshotData
     CHOICE
         {serviceCrossRefID [0] IMPLICIT ServiceCrossRefID,
          snapshotData      SnapshotCallData},
     mediaCallCharacteristics MediaCallCharacteristics    OPTIONAL,
     callCharacteristics     CallCharacteristics          OPTIONAL,
     callingDevice           CallingDeviceID              OPTIONAL,
     calledDevice            CalledDeviceID               OPTIONAL,
     associatedCallingDeviceID AssociatedCallingDeviceID   OPTIONAL,
     associatedCalledDeviceID AssociatedCalledDeviceID     OPTIONAL,
     correlatorData          [1] IMPLICIT CorrelatorData   OPTIONAL,

```

callLinkageData extensions	[2] IMPLICIT CallLinkageData CSTACCommonArguments	OPTIONAL, OPTIONAL}
END -- of CSTA-snapshot-call		

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14.1.2 Snapshot device

```

CSTA-snapshot-device
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) snapshot-device( 104) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
SnapshotDeviceData FROM CSTA-status-reporting
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) status-reporting( 126) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
ServiceCrossRefID FROM CSTA-capability-exchange
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) capability-exchange( 131) };

snapshotDevice OPERATION ::=
{
  ARGUMENT    SnapshotDeviceArgument
  RESULT      SnapshotDeviceResult
  ERRORS      {universalFailure}
  CODE        local: 74
}

SnapshotDeviceArgument ::=
SEQUENCE
{snapshotObject DeviceID,
 extensions      CSTACCommonArguments      OPTIONAL}

SnapshotDeviceResult ::=
SEQUENCE
{crossRefIDorSnapshotData
  CHOICE
  {serviceCrossRefID      ServiceCrossRefID,
   snapshotData           SnapshotDeviceData},
 extensions      CSTACCommonArguments      OPTIONAL}

END -- of CSTA-snapshot-device

```

14.1.3 Snapshot calldata

```

CSTA-snapshot-call-data
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) snapshot-call-data(106) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
SnapshotCallData FROM CSTA-status-reporting
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) status-reporting( 126) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
ServiceCrossRefID FROM CSTA-capability-exchange
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) capability-exchange( 131) };

snapshotCallData      OPERATION ::=
{
  ARGUMENT      SnapshotCallDataArgument
  ERRORS        {universalFailure}
  ALWAYS RESPONDS FALSE
  CODE          local: 76
}

SnapshotCallDataArgument ::=
SEQUENCE
{serviceCrossRefID  ServiceCrossRefID,
 segmentID         INTEGER,                OPTIONAL,
 lastSegment       BOOLEAN,
 snapshotData      SnapshotCallData,
 extensions        CSTACommonArguments    OPTIONAL}

END -- of CSTA-snapshot-call-data

```

14.1.4 Snapshot devicedata

```

CSTA-snapshot-device-data
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) snapshot-device-data(107) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
SnapshotDeviceData FROM CSTA-status-reporting
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) status-reporting( 126) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
ServiceCrossRefID FROM CSTA-capability-exchange
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) capability-exchange( 131) };

snapshotDeviceData      OPERATION ::=
{
  ARGUMENT      SnapshotDeviceDataArgument
  ERRORS        {universalFailure}
  ALWAYS RESPONDS FALSE
  CODE          local: 77
}

SnapshotDeviceDataArgument ::=
SEQUENCE
{serviceCrossRefID      ServiceCrossRefID,
 segmentID              INTEGER,              OPTIONAL,
 lastSegment            BOOLEAN,
 snapshotData           SnapshotDeviceData,
 extensions             CSTACommonArguments  OPTIONAL}

END -- of CSTA-snapshot-device-data

```

15 Call control services and events

15.1 Services

15.1.1 Accept call

```

CSTA-accept-call
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) accept-call( 214) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)};
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
CorrelatorData, UserData FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

acceptCall OPERATION ::=
{
    ARGUMENT      AcceptCallArgument
    RESULT        AcceptCallResult
    ERRORS        {universalFailure}
    CODE          local: 214
}

AcceptCallArgument ::= SEQUENCE
{
    callToBeAccepted      ConnectionID,
    correlatorData        CorrelatorData OPTIONAL,
    userData              UserData OPTIONAL,
    extensions            CSTACommonArguments OPTIONAL}

AcceptCallResult ::= CHOICE
{
    extensions            CSTACommonArguments,
    noData                NULL}

END -- of CSTA-accept-call

```

15.1.2 Alternate call

```

CSTA-alternate-call
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) alternate-call( 1) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
ConsultOptions FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) }
;

alternateCall      OPERATION ::=
{
    ARGUMENT      AlternateCallArgument
    RESULT        AlternateCallResult
    ERRORS        {universalFailure}
    CODE          local: 1
}

AlternateCallArgument ::= SEQUENCE
{
    heldCall      ConnectionID,
    activeCall    ConnectionID,
    connectionReservation BOOLEAN OPTIONAL,
    consultOptions ConsultOptions DEFAULT unrestricted,
    extensions    CSTACCommonArguments OPTIONAL}

AlternateCallResult ::=CHOICE
{
    extensions    CSTACCommonArguments,
    noData        NULL}

END -- of CSTA-alternate-call

```

15.1.3 Answer call

```

CSTA-answer-call
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) answer-call( 2) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

answerCall OPERATION ::=
{
  ARGUMENT    AnswerCallArgument
  RESULT      AnswerCallResult
  ERRORS      {universalFailure}
  CODE        local: 2
}

AnswerCallArgument ::=
SEQUENCE
{
  callToBeAnswered      ConnectionID,
  correlatorData         CorrelatorData
  userData               UserData
  extensions             CSTACommonArguments
}

AnswerCallResult ::=
CHOICE
{extensions      CSTACommonArguments,
 noData         NULL}

END -- of CSTA-answer-call

```

15.1.4 Call back call-related

```

CSTA-call-back-call-related
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-back-call-related( 215) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) };

callBack OPERATION ::=
{
    ARGUMENT    CallBackArgument
    RESULT      CallBackResult
    ERRORS      {universalFailure}
    CODE        local: 215
}

CallBackArgument ::=
SEQUENCE
{
    callbackConnectionID      ConnectionID,
    callCharacteristics        CallCharacteristics      OPTIONAL,
    extensions                 CSTACommonArguments      OPTIONAL}

CallBackResult ::=
SEQUENCE
{
    targetDevice      DeviceID      OPTIONAL,
    extensions        CSTACommonArguments      OPTIONAL}

END -- of CSTA-call-back-call-related

```

15.1.5 Call back message call-related

```

CSTA-call-back-message-call-related
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-back-message-call-related( 216) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) call-connection-identifiers( 124) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

callBackMessage OPERATION ::=
{
  ARGUMENT      CallBackMessageArgument
  RESULT        CallBackMessageResult
  ERRORS        {universalFailure}
  CODE          local: 216
}

CallBackMessageArgument ::=
SEQUENCE
{
  callbackMessageConnection      ConnectionID,
  extensions                     CSTACommonArguments OPTIONAL}

CallBackMessageResult ::=
SEQUENCE
{
  targetDevice      DeviceID      OPTIONAL,
  extensions        CSTACommonArguments OPTIONAL}

END -- of CSTA-call-back-message-call-related

```

15.1.6 Camp on call

```

CSTA-camp-on-call
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) camp-on-call( 217) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) call-connection-identifiers( 124) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

camponCall OPERATION ::=
{
  ARGUMENT    CamponCallArgument
  RESULT      CamponCallResult
  ERRORS      {universalFailure}
  CODE        local: 217
}

CamponCallArgument ::=
  SEQUENCE
  {
    camponConnection      ConnectionID,
    extensions             CSTACommonArguments OPTIONAL}

CamponCallResult ::=
  CHOICE
  {
    extensions             CSTACommonArguments,
    noData                 NULL }

END -- of CSTA-camp-on-call

```

15.1.7 Clear call

```

CSTA-clear-call
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) clear-call( 4) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

clearCall OPERATION ::=
{
  ARGUMENT ClearCallArgument
  RESULT ClearCallResult
  ERRORS {universalFailure}
  CODE local: 4
}

ClearCallArgument ::=
SEQUENCE
{
  callToBeCleared ConnectionID,
  userData UserData OPTIONAL,
  extensions CSTACommonArguments OPTIONAL}

ClearCallResult ::=
CHOICE
{extensions CSTACommonArguments,
 noData NULL}

END -- of CSTA-clear-call

```

15.1.8 Clear Connection

```

CSTA-clear-connection
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) clear-connection( 5) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

clearConnection OPERATION ::=
{
  ARGUMENT    ClearConnectionArgument
  RESULT      ClearConnectionResult
  ERRORS      {universalFailure}
  CODE        local: 5
}

ClearConnectionArgument ::=
SEQUENCE
{connectionToBeCleared ConnectionID,
 correlatorData         CorrelatorData          OPTIONAL,
 userData               UserData                OPTIONAL,
 extensions              CSTACommonArguments     OPTIONAL}

ClearConnectionResult ::=
CHOICE
{extensions              CSTACommonArguments,
 noData                  NULL}

END -- of CSTA-clear-connection

```

15.1.9 Conference call

```

CSTA-conference-call
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) conference-call( 6) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124)* }
ConnectionList FROM CSTA-connection-states
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) connection-states( 125) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
ConnectionInformation FROM CSTA-media-services
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) media-services( 136) };

conferenceCall OPERATION ::=
{
    ARGUMENT    ConferenceCallArgument
    RESULT      ConferenceCallResult
    ERRORS      {universalFailure}
    CODE        local: 6
}

ConferenceCallArgument ::=
SEQUENCE
{
    heldCall      ConnectionID,
    activeCall    ConnectionID,
    extensions     CSTACommonArguments    OPTIONAL}

ConferenceCallResult ::=
SEQUENCE
{
    conferenceCall    ConnectionID,
    connections       [0] IMPLICIT ConnectionList    OPTIONAL,
    conferenceCallInfo [1] IMPLICIT ConnectionInformation OPTIONAL,
    extensions         CSTACommonArguments            OPTIONAL}

END -- of CSTA-conference-call

```

15.1.10 Consultation call

```

CSTA-consultation-call
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) consultation-call( 7) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
AccountInfo, AuthCode, CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, ConsultOptions FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

consultationCall OPERATION ::=
{
  ARGUMENT ConsultationCallArgument
  RESULT ConsultationCallResult
  ERRORS {universalFailure}
  CODE local: 7
}

ConsultationCallArgument ::= SEQUENCE
{
  existingCall [0] IMPLICIT ConnectionID,
  consultedDevice [1] DeviceID,
  connectionReservation [2] IMPLICIT BOOLEAN OPTIONAL,
  accountCode [3] IMPLICIT AccountInfo OPTIONAL,
  authCode [4] IMPLICIT AuthCode OPTIONAL,
  correlatorData [5] IMPLICIT CorrelatorData OPTIONAL,
  userData [6] IMPLICIT UserData OPTIONAL,
  callCharacteristics [7] IMPLICIT CallCharacteristics OPTIONAL,
  mediaCallCharacteristics [8] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callingConnectionInfo [9] IMPLICIT ConnectionInformation OPTIONAL,
  consultOptions [10] IMPLICIT ConsultOptions DEFAULT unrestricted,
  extensions CSTACommonArguments OPTIONAL}

ConsultationCallResult ::= SEQUENCE
{
  initiatedCall ConnectionID,
  mediaCallCharacteristics [0] IMPLICIT MediaCallCharacteristics OPTIONAL,
  initiatedCallInfo [1] IMPLICIT ConnectionInformation OPTIONAL,
  extensions CSTACommonArguments OPTIONAL}

END -- of CSTA-consultation-call

```

15.1.11 Deflect call

```

CSTA-deflect-call
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) deflect-call( 218) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

deflectCall OPERATION ::=
{
  ARGUMENT    DeflectCallArgument
  RESULT      DeflectCallResult
  ERRORS      {universalFailure}
  CODE        local: 218
}

DeflectCallArgument ::=
SEQUENCE
{
  callToBeDiverted      ConnectionID,
  newDestination        DeviceID,
  correlatorData        CorrelatorData      OPTIONAL,
  userData              UserData          OPTIONAL,
  extensions            CSTACommonArguments OPTIONAL}

DeflectCallResult ::=
CHOICE
{extensions      CSTACommonArguments,
 noData          NULL}

END -- of CSTA-deflect-call

```

15.1.12 Dial digits

```

CSTA-dial-digits
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) dial-digits( 219) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
CorrelatorData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

dialDigits      OPERATION ::=
{
  ARGUMENT      DialDigitsArgument
  RESULT        DialDigitsResult
  ERRORS        {universalFailure}
  CODE          local: 219
}

DialDigitsArgument ::=
  SEQUENCE
  {
    diallingConnection          ConnectionID,
    diallingSequence            DeviceID,
    correlatorData              CorrelatorData      OPTIONAL,
    extensions                  CSTACommonArguments OPTIONAL}

DialDigitsResult ::=
  CHOICE
  {extensions    CSTACommonArguments,
   noData       NULL}

END -- of CSTA-dial-digits

```

15.1.13 Directed pickup call

```

CSTA-directed-pickup-call
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) directed-pickup-call( 220) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
ConnectionInformation FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

directedPickupCall      OPERATION ::=
{
  ARGUMENT    DirectedPickupCallArgument
  RESULT      DirectedPickupCallResult
  ERRORS      {universalFailure}
  CODE        local: 220
}

DirectedPickupCallArgument ::=
SEQUENCE
{
  callToBePickedUp      ConnectionID,
  requestingDevice       DeviceID,
  correlatorData         CorrelatorData      OPTIONAL,
  userData               UserData            OPTIONAL,
  extensions             CSTACommonArguments OPTIONAL}

DirectedPickupCallResult ::=
SEQUENCE
{
  pickedCall      ConnectionID      OPTIONAL,
  pickedCallInfo  ConnectionInformation OPTIONAL,
  extensions      CSTACommonArguments OPTIONAL}

END -- of CSTA-directed-pickup-call

```

15.1.14 Group pickup call

```

CSTA-group-pickup-call
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) group-pickup-call( 221) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
ConnectionInformation FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

groupPickupCall OPERATION ::=
{
  ARGUMENT    GroupPickupCallArgument
  RESULT      GroupPickupCallResult
  ERRORS      {universalFailure}
  CODE        local: 221
}

GroupPickupCallArgument ::=
SEQUENCE
{
  newDestination DeviceID,
  pickGroup      DeviceID                OPTIONAL,
  correlatorData CorrelatorData          OPTIONAL,
  userData       UserData                OPTIONAL,
  extensions     CSTACommonArguments     OPTIONAL}

GroupPickupCallResult ::=
SEQUENCE
{
  pickedCall      ConnectionID            OPTIONAL,
  pickedCallInfo  ConnectionInformation   OPTIONAL,
  extensions      CSTACommonArguments     OPTIONAL}

END -- of CSTA-group-pickup-call

```

15.1.15 Hold call

```

CSTA-hold-call
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) hold-call( 9) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124)* }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

holdCall      OPERATION ::=
{
  ARGUMENT      HoldCallArgument
  RESULT        HoldCallResult
  ERRORS        {universalFailure}
  CODE          local: 9
}

HoldCallArgument ::=
SEQUENCE
{callToBeHeld      ConnectionID,
 connectionReservation BOOLEAN OPTIONAL,
 extensions        CSTACommonArguments OPTIONAL}

HoldCallResult ::=
CHOICE
{extensions        CSTACommonArguments,
 noData            NULL}

END -- of CSTA-hold-call

```

15.1.16 Intrude call

```

CSTA-intrude-call
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) intrude-call( 222) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
ParticipationType, UserData FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
ConnectionInformation FROM CSTA-media-services
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) media-services( 136) };

intrudeCall OPERATION ::=
{
    ARGUMENT    IntrudeCallArgument
    RESULT      IntrudeCallResult
    ERRORS      {universalFailure}
    CODE        local: 222
}

IntrudeCallArgument ::= SEQUENCE
{
    intrude          ConnectionID,
    participationType ParticipationType    DEFAULT active,
    userData         UserData             OPTIONAL,
    extensions       CSTACommonArguments  OPTIONAL}

IntrudeCallResult ::= SEQUENCE
{
    conferencedCall  ConnectionID          OPTIONAL,
    conferencedCallInfo ConnectionInformation OPTIONAL,
    extensions       CSTACommonArguments  OPTIONAL}

END -- of CSTA-intrude-call

```

15.1.17 Join call

```

CSTA-join-call
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) join-call( 223) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) call-connection-identifiers( 124) }
AccountInfo, AuthCode, CorrelatorData, ParticipationType, UserData
FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
ConnectionInformation FROM CSTA-media-services
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) media-services( 136) }
AutoOriginate FROM CSTA-call-control
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) call-control( 130) };

joinCall OPERATION ::=
{
  ARGUMENT      JoinCallArgument
  RESULT        JoinCallResult
  ERRORS        {universalFailure}
  CODE          local: 223
}

JoinCallArgument ::= SEQUENCE
{
  activeCall      ConnectionID,
  joiningDevice   DeviceID,
  autoOriginate   [0] IMPLICIT AutoOriginate          DEFAULT prompt,
  participationType [1] IMPLICIT ParticipationType      DEFAULT active,
  accountCode     [2] IMPLICIT AccountInfo             OPTIONAL,
  authCode        [3] IMPLICIT AuthCode                OPTIONAL,
  correlatorData  [4] IMPLICIT CorrelatorData           OPTIONAL,
  userData        UserData                             OPTIONAL,
  extensions      CSTACCommonArguments                 OPTIONAL}

JoinCallResult ::= SEQUENCE
{
  conferencedCall      ConnectionID,
  conferencedCallInfo  ConnectionInformation OPTIONAL,
  extensions            CSTACCommonArguments OPTIONAL}

END -- of CSTA-join-call

```

15.1.18 Make call

```

CSTA-make-call
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) make-call( 10) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
AccountInfo, AuthCode, CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
AutoOriginate, CallCharacteristics FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) }
;

makeCall      OPERATION ::=
{
  ARGUMENT    MakeCallArgument
  RESULT      MakeCallResult
  ERRORS      {universalFailure}
  CODE        local: 10
}

MakeCallArgument ::= SEQUENCE
{
  callingDevice          DeviceID,
  calledDirectoryNumber  DeviceID,
  accountCode            [0] IMPLICIT AccountInfo          OPTIONAL,
  authCode               [1] IMPLICIT AuthCode              OPTIONAL,
  autoOriginate          [3] IMPLICIT AutoOriginate         DEFAULT prompt,
  correlatorData         [2] IMPLICIT CorrelatorData        OPTIONAL,
  userData               UserData                          OPTIONAL,
  callCharacteristics     CallCharacteristics                OPTIONAL,
  mediaCallCharacteristics [4] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callingConnectionInfo  [5] IMPLICIT ConnectionInformation OPTIONAL,
  extensions              CSTACommonArguments               OPTIONAL}

MakeCallResult ::= SEQUENCE
{
  callingDevice          ConnectionID,
  mediaCallCharacteristics [0] IMPLICIT MediaCallCharacteristics OPTIONAL,
  initiatedCallInfo      [1] IMPLICIT ConnectionInformation  OPTIONAL,
  extensions              CSTACommonArguments                OPTIONAL}

END -- of CSTA-make-call

```

15.1.19 Make predictive call

```

CSTA-make-predictive-call
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) make-predictive-call( 11) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
AccountInfo, AuthCode, CorrelatorData, UserData FROM
    CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
AutoOriginate, CallCharacteristics FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation FROM CSTA-media-services
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) media-services( 136) };

makePredictiveCall OPERATION ::=
{
    ARGUMENT    MakePredictiveCallArgument
    RESULT      MakePredictiveCallResult
    ERRORS      {universalFailure}
    CODE        local: 11
}

MakePredictiveCallArgument ::= SEQUENCE
{
    callingDevice          DeviceID,
    calledDirectoryNumber  DeviceID,
    signallingDetection     [0] IMPLICIT SignallingDetection OPTIONAL,
    destinationDetection   [1] IMPLICIT DestinationDetection OPTIONAL,
    defaultAction          [2] IMPLICIT DefaultAction OPTIONAL,
    accountCode            [3] IMPLICIT AccountInfo OPTIONAL,
    authCode               [4] IMPLICIT AuthCode OPTIONAL,
    autoOriginate          [5] IMPLICIT AutoOriginate DEFAULT prompt,
    alertTime              [6] IMPLICIT INTEGER OPTIONAL,
    correlatorData         [7] IMPLICIT CorrelatorData OPTIONAL,
    callCharacteristics     [8] IMPLICIT CallCharacteristics OPTIONAL,
    userData               UserData OPTIONAL,
    extensions             CSTACCommonArguments OPTIONAL}

MakePredictiveCallResult ::= SEQUENCE
{
    initiatedCall          ConnectionID,
    initiatedCallInfo      ConnectionInformation OPTIONAL,
    extensions             CSTACCommonArguments OPTIONAL}

SignallingDetection ::= SEQUENCE
{
    signallingCondition    SignallingCondition,
    signallingConditionsAction SignallingConditionsAction}

SignallingCondition ::= ENUMERATED
{
    callDelivered          (0),

```

```

        callEstablished          (1)}

SignallingConditionsAction ::= ENUMERATED
{
    destinationDetection          (0),
    remainConnected               (1)}

DestinationDetection ::= SEQUENCE OF SEQUENCE
{
    destinationCondition          DestinationCondition,
    detectionAction               DetectionAction}

DestinationCondition ::= ENUMERATED
{
    humanVoice                    (0),
    answeringMachine              (1),
    facsimileMachine              (2)}

DefaultAction ::= DetectionAction

DetectionAction ::= ENUMERATED
{
    clearCalledConnection         (0),
    remainConnected               (1)}

END -- of CSTA-make-predictive-call

```

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15.1.20 Park call

```

CSTA-park-call
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) park-call( 18) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
CorrelatorData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

parkCall
{
  ARGUMENT      ParkCallArgument
  RESULT        ParkCallResult
  ERRORS        {universalFailure}
  CODE          local: 18
}

ParkCallArgument ::=
SEQUENCE
{
  parking
  parkTo
  correlatorData
  extensions
  ConnectionID,
  DeviceID,
  CorrelatorData
  CSTACommonArguments
  OPTIONAL,
  OPTIONAL}

ParkCallResult ::=
SEQUENCE
{
  parkedTo
  extensions
  ConnectionID
  CSTACommonArguments
  OPTIONAL,
  OPTIONAL}

END -- of CSTA-park-call

```

15.1.21 Reconnect call

```

CSTA-reconnect-call
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) reconnect-call( 13) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

reconnectCall      OPERATION ::=
{
    ARGUMENT      ReconnectCallArgument
    RESULT         ReconnectCallResult
    ERRORS         {universalFailure}
    CODE           local: 13
}

ReconnectCallArgument ::= SEQUENCE
{
    activeCall      ConnectionID,
    heldCall        ConnectionID,
    extensions      CSTACCommonArguments OPTIONAL
}

ReconnectCallResult ::=
CHOICE
{extensions          CSTACCommonArguments,
 noData              NULL}

END -- of CSTA-reconnect-call

```

15.1.22 Retrieve call

```

CSTA-retrieve-call
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) retrieve-call( 14) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124)* }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

retrieveCall          OPERATION ::=
{
    ARGUMENT          RetrieveCallArgument
    RESULT             RetrieveCallResult
    ERRORS             {universalFailure}
    CODE               local: 14
}

RetrieveCallArgument ::=
SEQUENCE
{
    callToBeRetrieved          ConnectionID,
    extensions                 CSTACommonArguments OPTIONAL}

RetrieveCallResult ::=
CHOICE
{extensions                 CSTACommonArguments,
 noData                     NULL}

END -- of CSTA-retrieve-call

```

15.1.23 Single step conference call

```

CSTA-single-step-conference
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) single-step-conference( 20) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
AccountInfo, AuthCode, CorrelatorData, ParticipationType, UserData
FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
ConnectionInformation FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

singleStepConf OPERATION ::=
{
  ARGUMENT    SingleStepConfArgument
  RESULT      SingleStepConfResult
  ERRORS      {universalFailure}
  CODE        local: 20
}

SingleStepConfArgument ::=
SEQUENCE
{activeCall      ConnectionID,
 deviceToJoin    DeviceID,
 participationType ParticipationType          DEFAULT active,
 accountCode     [0] IMPLICIT AccountInfo     OPTIONAL,
 authCode        [1] IMPLICIT AuthCode        OPTIONAL,
 correlatorData  [2] IMPLICIT CorrelatorData   OPTIONAL,
 userData        UserData                      OPTIONAL,
 extensions      CSTACommonArguments          OPTIONAL}

SingleStepConfResult ::=
SEQUENCE
{
  conferencedCall ConnectionID,
  conferencedCallInfo ConnectionInformation    OPTIONAL,
  extensions      CSTACommonArguments          OPTIONAL}

END -- of CSTA-single-step-conference

```

15.1.24 Single step transfer call

```

CSTA-single-step-transfer
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) single-step-conference( 50) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
ConnectionList FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
AccountInfo, AuthCode, CorrelatorData, UserData
FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
ConnectionInformation FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

singleStepTrans OPERATION ::=
{
  ARGUMENT    SingleStepTransArgument
  RESULT      SingleStepTransResult
  ERRORS      {universalFailure}
  CODE        local: 50
}

SingleStepTransArgument ::=
SEQUENCE
{activeCall          ConnectionID,
 transferredTo      DeviceID,
 accountCode        [0] IMPLICIT AccountInfo          OPTIONAL,
 authCode           [1] IMPLICIT AuthCode              OPTIONAL,
 correlatorData     [2] IMPLICIT CorrelatorData         OPTIONAL,
 userData           UserData                            OPTIONAL,
 extensions         CSTACCommonArguments              OPTIONAL}

SingleStepTransResult ::= SEQUENCE
{transferredCall    ConnectionID,
 connections        [0] IMPLICIT ConnectionList        OPTIONAL,
 transferredCallInfo [1] IMPLICIT ConnectionInformation  OPTIONAL,
 extensions         CSTACCommonArguments              OPTIONAL}

END -- of CSTA-single-step-transfer

```

15.1.25 Transfer call

```

CSTA-transfer-call
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) transfer-call( 16) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
ConnectionList FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
ConnectionInformation FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) }
;

transferCall      OPERATION ::=
{
  ARGUMENT      TransferCallArgument
  RESULT        TransferCallResult
  ERRORS        {universalFailure}
  CODE          local: 16
}

TransferCallArgument ::= SEQUENCE
{
  heldCall      ConnectionID,
  activeCall    ConnectionID,
  extensions    CSTACommonArguments OPTIONAL}

TransferCallResult ::= SEQUENCE
{
  transferredCall      ConnectionID,
  connections          [0] IMPLICIT ConnectionList          OPTIONAL,
  transferredCallInfo  [1] IMPLICIT ConnectionInformation    OPTIONAL,
  extensions           CSTACommonArguments                   OPTIONAL}

END -- of CSTA-transfer-call

```

15.2 Events

15.2.1 Bridged

```

CSTA-bridged-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) bridged-event( 224) }

DEFINITIONS ::=
BEGIN

IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

BridgedEvent ::= SEQUENCE
{
  bridgedConnection          ConnectionID,
  bridgedAppearance          SubjectDeviceID,
  localConnectionInfo        LocalConnectionState          OPTIONAL,
  correlatorData              [0] IMPLICIT CorrelatorData    OPTIONAL,
  userData                    UserData                      OPTIONAL,
  cause                       EventCause,
  servicesPermitted           [1] IMPLICIT ServicesPermitted OPTIONAL,
  mediaCallCharacteristics    [2] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics          [3] IMPLICIT CallCharacteristics OPTIONAL,
  bridgedConnectionInfo       [4] IMPLICIT ConnectionInformation OPTIONAL,
  callLinkageData              [5] IMPLICIT CallLinkageData   OPTIONAL,
  extensions                  CSTACommonArguments           OPTIONAL}

END -- of CSTA-bridged-event

```

15.2.2 Call cleared

```

CSTA-call-cleared-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-cleared-event( 22) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) }
;

CallClearedEvent ::=
SEQUENCE
{
  clearedCall          ConnectionID,
  correlatorData        [1] IMPLICIT CorrelatorData          OPTIONAL,
  userData              UserData                                OPTIONAL,
  cause                 EventCause,
  mediaCallCharacteristics [2] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics    [3] IMPLICIT CallCharacteristics      OPTIONAL,
  callLinkageData        [4] IMPLICIT CallLinkageData          OPTIONAL,
  extensions             CSTACommonArguments                  OPTIONAL}

END -- of CSTA-call-cleared-event

```

15.2.3 Conferenced

```

CSTA-conferenced-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) conferenced-event( 23) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState, ConnectionList FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageDataList, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

ConferencedEvent ::= SEQUENCE
{
  primaryOldCall          ConnectionID,
  secondaryOldCall        ConnectionID          OPTIONAL,
  conferencingDevice      SubjectDeviceID,
  addedParty              SubjectDeviceID,
  conferenceConnections   ConnectionList,
  localConnectionInfo     LocalConnectionState  OPTIONAL,
  correlatorData          [1] IMPLICIT CorrelatorData  OPTIONAL,
  userData                UserData              OPTIONAL,
  cause                   EventCause,
  servicesPermitted       [2] IMPLICIT ServicesPermitted  OPTIONAL,
  mediaCallCharacteristics [3] IMPLICIT MediaCallCharacteristics  OPTIONAL,
  callCharacteristics     [4] IMPLICIT CallCharacteristics  OPTIONAL,
  callLinkageDataList     [6] IMPLICIT CallLinkageDataList  OPTIONAL,
  extensions              [5] IMPLICIT CSTACommonArguments  OPTIONAL}

END -- of CSTA-conferenced-event

```

15.2.4 Connection cleared

```

CSTA-connection-cleared-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-cleared-event( 24) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ChargingInfo FROM CSTA-charge-info
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) charge-info( 133) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

ConnectionClearedEvent ::=
SEQUENCE
{
  droppedConnection          ConnectionID,
  releasingDevice            SubjectDeviceID,
  localConnectionInfo        LocalConnectionState          OPTIONAL,
  correlatorData              [0] IMPLICIT CorrelatorData    OPTIONAL,
  userData                    UserData                      OPTIONAL,
  chargingInfo                [1] IMPLICIT ChargingInfo       OPTIONAL,
  cause                       EventCause,
  servicesPermitted           [2] IMPLICIT ServicesPermitted  OPTIONAL,
  mediaCallCharacteristics    [3] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics         [4] IMPLICIT CallCharacteristics OPTIONAL,
  droppedConnectionInfo       [5] IMPLICIT ConnectionInformation OPTIONAL,
  callLinkageData             [6] IMPLICIT CallLinkageData    OPTIONAL,
  extensions                  CSTACommonArguments           OPTIONAL
}

END -- of CSTA-connection-cleared-event

```


15.2.6 Digits dialed

```

CSTA-digits-dialed-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) digits-dialed-event( 225) }

DEFINITIONS ::=
BEGIN

IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID, DeviceID, AssociatedCalledDeviceID, AssociatedCallingDeviceID,
NetworkCalledDeviceID, NetworkCallingDeviceID
FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

DigitsDialedEvent ::= SEQUENCE
{
    dialingConnection      ConnectionID,
    dialingDevice          SubjectDeviceID,
    dialingSequence        DeviceID,
    localConnectionInfo    LocalConnectionState      OPTIONAL,
    correlatorData         [0] IMPLICIT CorrelatorData  OPTIONAL,
    cause                  EventCause,
    servicesPermitted      [1] IMPLICIT ServicesPermitted  OPTIONAL,
    networkCallingDevice   NetworkCallingDeviceID      OPTIONAL,
    networkCalledDevice    NetworkCalledDeviceID       OPTIONAL,
    associatedCallingDevice AssociatedCallingDeviceID   OPTIONAL,
    associatedCalledDevice AssociatedCalledDeviceID     OPTIONAL,
    dialingConnectionInfo  [2] IMPLICIT ConnectionInformation  OPTIONAL,
    callCharacteristics    [3] IMPLICIT CallCharacteristics    OPTIONAL,
    callLinkageData        [4] IMPLICIT CallLinkageData        OPTIONAL,
    extensions             CSTACommonArguments         OPTIONAL}

END -- of CSTA-digits-dialed-event

```

15.2.7 Diverted

```

CSTA-diverted-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) diverted-event( 26) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID, CallingDeviceID, CalledDeviceID, RedirectionDeviceID,
AssociatedCalledDeviceID, AssociatedCallingDeviceID,
NetworkCalledDeviceID, NetworkCallingDeviceID
FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

DivertedEvent ::= SEQUENCE
{
  connection          ConnectionID,
  divertingDevice     SubjectDeviceID,
  newDestination      SubjectDeviceID,
  callingDevice       CallingDeviceID,
  calledDevice        CalledDeviceID,
  lastRedirectionDevice RedirectionDeviceID,
  localConnectionInfo LocalConnectionState,
  correlatorData      [0] IMPLICIT CorrelatorData,
  userData            UserData,
  cause              EventCause,
  servicesPermitted   [1] IMPLICIT ServicesPermitted,
  mediaCallCharacteristics [2] IMPLICIT MediaCallCharacteristics,
  callCharacteristics [3] IMPLICIT CallCharacteristics,
  connectionInfo      [4] IMPLICIT ConnectionInformation,
  networkCallingDevice NetworkCallingDeviceID,
  networkCalledDevice NetworkCalledDeviceID,
  associatedCallingDevice AssociatedCallingDeviceID,
  associatedCalledDevice AssociatedCalledDeviceID,
  callLinkageData     [5] IMPLICIT CallLinkageData,
  extensions          CSTACommonArguments
}

END -- of diverted-event

```

15.2.8 Established

```

CSTA-established-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) established-event( 27) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID, CalledDeviceID, CallingDeviceID, RedirectionDeviceID,
AssociatedCalledDeviceID, AssociatedCallingDeviceID,
NetworkCalledDeviceID, NetworkCallingDeviceID
FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

EstablishedEvent ::=
SEQUENCE
{
  establishedConnection      ConnectionID,
  answeringDevice            SubjectDeviceID,
  callingDevice               CallingDeviceID,
  calledDevice                CalledDeviceID,
  lastRedirectionDevice       RedirectionDeviceID,
  originatingNIDConnection   ConnectionID OPTIONAL,
  localConnectionInfo         LocalConnectionState OPTIONAL,
  correlatorData               [1] IMPLICIT CorrelatorData OPTIONAL,
  userData                    UserData OPTIONAL,
  cause                       EventCause,
  servicesPermitted           [2] IMPLICIT ServicesPermitted OPTIONAL,
  networkCallingDevice         NetworkCallingDeviceID OPTIONAL,
  networkCalledDevice          NetworkCalledDeviceID OPTIONAL,
  associatedCallingDevice       AssociatedCallingDeviceID OPTIONAL,
  associatedCalledDevice        AssociatedCalledDeviceID OPTIONAL,
  mediaCallCharacteristics     [3] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics          [4] IMPLICIT CallCharacteristics OPTIONAL,
  establishedConnectionInfo    [5] IMPLICIT ConnectionInformation OPTIONAL,
  callLinkageData              [6] IMPLICIT CallLinkageData OPTIONAL,
  extensions                   CSTACommonArguments OPTIONAL}

END -- of CSTA-established-event

```

15.2.9 Failed

```

CSTA-failed-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) failed-event( 28) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID, CallingDeviceID, CalledDeviceID, RedirectionDeviceID,
AssociatedCalledDeviceID, AssociatedCallingDeviceID,
NetworkCalledDeviceID, NetworkCallingDeviceID
FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

FailedEvent ::= SEQUENCE
{
  failedConnection          ConnectionID,
  failingDevice             SubjectDeviceID,
  callingDevice             CallingDeviceID,
  calledDevice             CalledDeviceID,
  lastRedirectionDevice     RedirectionDeviceID,
  originatingNIDConnection ConnectionID          OPTIONAL,
  localConnectionInfo      LocalConnectionState  OPTIONAL,
  correlatorData           [0] IMPLICIT CorrelatorData  OPTIONAL,
  userData                 UserData              OPTIONAL,
  cause                   EventCause,
  servicesPermitted        [1] IMPLICIT ServicesPermitted  OPTIONAL,
  networkCallingDevice     NetworkCallingDeviceID  OPTIONAL,
  networkCalledDevice      NetworkCalledDeviceID   OPTIONAL,
  associatedCallingDevice   AssociatedCallingDeviceID  OPTIONAL,
  associatedCalledDevice    AssociatedCalledDeviceID  OPTIONAL,
  mediaCallCharacteristics [2] IMPLICIT MediaCallCharacteristics  OPTIONAL,
  callCharacteristics       [3] IMPLICIT CallCharacteristics    OPTIONAL,
  establishedConnectionInfo [4] IMPLICIT ConnectionInformation  OPTIONAL,
  callLinkageData           [5] IMPLICIT CallLinkageData    OPTIONAL,
  extensions                CSTACommonArguments      OPTIONAL}

END -- of CSTA-failed-event

```

15.2.10 Held

```

CSTA-held-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) held-event( 29) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

HeldEvent ::=
SEQUENCE
{
  heldConnection          ConnectionID,
  holdingDevice           SubjectDeviceID,
  localConnectionInfo     LocalConnectionState          OPTIONAL,
  correlatorData          [0] IMPLICIT CorrelatorData    OPTIONAL,
  cause                  EventCause,
  servicesPermitted       [1] IMPLICIT ServicesPermitted OPTIONAL,
  mediaCallCharacteristics [2] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics     [3] IMPLICIT CallCharacteristics OPTIONAL,
  heldConnectionInfo      [4] IMPLICIT ConnectionInformation OPTIONAL,
  callLinkageData         [5] IMPLICIT CallLinkageData    OPTIONAL,
  extensions              CSTACommonArguments           OPTIONAL}

END -- of CSTA-held-event

```

15.2.11 Network capabilities changed

```

CSTA-network-capabilities-changed-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) network-capabilities-changed-event( 226) }

DEFINITIONS ::=
BEGIN

IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID, CalledDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, NetworkCapability, ProgressIndicator,
ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

NetworkCapabilitiesChangedEvent ::= SEQUENCE
{
  outboundConnection      ConnectionID,
  networkInterfaceUsed    SubjectDeviceID,
  calledDevice            CalledDeviceID,
  progressIndicator        ProgressIndicator,
  localConnectionInfo     LocalConnectionState      OPTIONAL,
  correlatorData          CorrelatorData            OPTIONAL,
  userData                UserData                  OPTIONAL,
  networkCapability       [0] IMPLICIT NetworkCapability OPTIONAL,
  cause                   EventCause,
  servicesPermitted       [1] IMPLICIT ServicesPermitted  OPTIONAL,
  mediaCallCharacteristics [2] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics      [3] IMPLICIT CallCharacteristics  OPTIONAL,
  outboundConnectionInfo  [4] IMPLICIT ConnectionInformation OPTIONAL,
  callLinkageData          [5] IMPLICIT CallLinkageData      OPTIONAL,
  extensions               CSTACommonArguments         OPTIONAL}

END -- of CSTA-network-capabilities-changed-event

```

15.2.12 Network reached

```

CSTA-network-reached-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) network-reached-event( 30) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID, CallingDeviceID, CalledDeviceID, RedirectionDeviceID,
AssociatedCallingDeviceID, NetworkCalledDeviceID, NetworkCallingDeviceID
FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, NetworkCapability,
ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

NetworkReachedEvent ::=
SEQUENCE
{
  outboundConnection          ConnectionID,
  networkInterfaceUsed        SubjectDeviceID,
  callingDevice               CallingDeviceID,
  calledDevice                CalledDeviceID,
  lastRedirectionDevice       RedirectionDeviceID,
  originatingNIDConneciton   ConnectionID          OPTIONAL,
  localConnectionInfo        LocalConnectionState  OPTIONAL,
  correlatorData              [0] IMPLICIT CorrelatorData  OPTIONAL,
  userData                    UserData              OPTIONAL,
  networkCapability           [1] IMPLICIT NetworkCapability OPTIONAL,
  cause                       EventCause,
  servicesPermitted           [2] IMPLICIT ServicesPermitted OPTIONAL,
  mediaCallCharacteristics    [3] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics         [4] IMPLICIT CallCharacteristics  OPTIONAL,
  outboundConnectionInfo     [5] IMPLICIT ConnectionInformation OPTIONAL,
  networkCallingDevice        NetworkCallingDeviceID  OPTIONAL,
  networkCalledDevice         NetworkCalledDeviceID   OPTIONAL,
  associatedCallingDevice     AssociatedCallingDeviceID OPTIONAL,
  callLinkageData             [6] IMPLICIT CallLinkageData    OPTIONAL,
  extensions                  CSTACommonArguments     OPTIONAL}

END -- of CSTA-network-reached-event

```

15.2.13 Offered

```

CSTA-offered-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) offered-event( 227) }

DEFINITIONS ::=
BEGIN

IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID, CallingDeviceID, CalledDeviceID, RedirectionDeviceID, AssociatedCalledDeviceID,
AssociatedCallingDeviceID, NetworkCalledDeviceID, NetworkCallingDeviceID
FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

OfferedEvent ::= SEQUENCE
{
  offeredConnection          ConnectionID,
  offeredDevice              SubjectDeviceID,
  callingDevice              CallingDeviceID,
  calledDevice               CalledDeviceID,
  lastRedirectionDevice      RedirectionDeviceID,
  originatingNIDConnection  ConnectionID          OPTIONAL,
  localConnectionInfo        LocalConnectionState  OPTIONAL,
  correlatorData             CorrelatorData        OPTIONAL,
  userData                   UserData              OPTIONAL,
  cause                      EventCause,
  servicesPermitted          [0] IMPLICIT ServicesPermitted OPTIONAL,
  networkCallingDevice        NetworkCallingDeviceID OPTIONAL,
  networkCalledDevice         NetworkCalledDeviceID OPTIONAL,
  associatedCallingDevice      AssociatedCallingDeviceID OPTIONAL,
  associatedCalledDevice       AssociatedCalledDeviceID OPTIONAL,
  mediaCallCharacteristics    [1] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics         [2] IMPLICIT CallCharacteristics      OPTIONAL,
  offeredConnectionInfo       [3] IMPLICIT ConnectionInformation    OPTIONAL,
  callLinkageData             [4] IMPLICIT CallLinkageData          OPTIONAL,
  extensions                  CSTACCommonArguments OPTIONAL}

END -- of CSTA-offered-event

```

15.2.14 Originated

```

CSTA-originated-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) originated-event( 31) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
DeviceID, CallingDeviceID, CalledDeviceID, AssociatedCalledDeviceID,
AssociatedCallingDeviceID, NetworkCalledDeviceID, NetworkCallingDeviceID, SubjectDeviceID
FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

OriginatedEvent ::= SEQUENCE
{
  originatedConnection          ConnectionID,
  callingDevice                 SubjectDeviceID,
  calledDevice                 CalledDeviceID,
  originatingDevice            DeviceID OPTIONAL,
  localConnectionInfo          LocalConnectionState OPTIONAL,
  correlatorData               [2] IMPLICIT CorrelatorData OPTIONAL,
  cause                        EventCause,
  servicesPermitted            [3] IMPLICIT ServicesPermitted OPTIONAL,
  networkCallingDevice         NetworkCallingDeviceID OPTIONAL,
  networkCalledDevice          NetworkCalledDeviceID OPTIONAL,
  associatedCallingDevice       AssociatedCallingDeviceID OPTIONAL,
  associatedCalledDevice        AssociatedCalledDeviceID OPTIONAL,
  mediaCallCharacteristics     [4] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics           [5] IMPLICIT CallCharacteristics OPTIONAL,
  originatedConnectionInfo     [6] IMPLICIT ConnectionInformation OPTIONAL,
  callLinkageData              [7] IMPLICIT CallLinkageData OPTIONAL,
  extensions                   CSTACommonArguments OPTIONAL}

END -- of CSTA-originated-event

```

15.2.15 Queued

```

CSTA-queued-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) queued-event( 32) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
CalledDeviceID, CallingDeviceID, RedirectionDeviceID, SubjectDeviceID, AssociatedCalledDeviceID,
AssociatedCallingDeviceID, NetworkCalledDeviceID, NetworkCallingDeviceID
FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

QueuedEvent ::=
SEQUENCE
{
  queuedConnection      ConnectionID,
  queue                 SubjectDeviceID,
  callingDevice         CallingDeviceID,
  calledDevice          CalledDeviceID,
  lastRedirectionDevice RedirectionDeviceID,
  numberQueued          [0] IMPLICIT INTEGER OPTIONAL,
  callsInFront          [1] IMPLICIT INTEGER OPTIONAL,
  localConnectionInfo   LocalConnectionState OPTIONAL,
  correlatorData        [2] IMPLICIT CorrelatorData OPTIONAL,
  userData              UserData OPTIONAL,
  cause                 EventCause,
  servicesPermitted     [3] IMPLICIT ServicesPermitted OPTIONAL,
  networkCallingDevice  NetworkCallingDeviceID OPTIONAL,
  networkCalledDevice   NetworkCalledDeviceID OPTIONAL,
  associatedCallingDevice AssociatedCallingDeviceID OPTIONAL,
  associatedCalledDevice AssociatedCalledDeviceID OPTIONAL,
  mediaCallCharacteristics [4] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics   [5] IMPLICIT CallCharacteristics OPTIONAL,
  queuedConnectionInfo [6] IMPLICIT ConnectionInformation OPTIONAL,
  callLinkageData       [7] IMPLICIT CallLinkageData OPTIONAL,
  extensions            CSTACommonArguments OPTIONAL
}

END -- of CSTA-queued-event

```

15.2.16 Retrieved

```

CSTA-retrieved-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) retrieved-event( 33) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

RetrievedEvent ::=
SEQUENCE
{
  retrievedConnection      ConnectionID,
  retrievingDevice         SubjectDeviceID,
  localConnectionInfo      LocalConnectionState      OPTIONAL,
  correlatorData           [0] IMPLICIT CorrelatorData  OPTIONAL,
  cause                    EventCause,
  servicesPermitted        [1] IMPLICIT ServicesPermitted  OPTIONAL,
  mediaCallCharacteristics [2] IMPLICIT MediaCallCharacteristics  OPTIONAL,
  callCharacteristics       [3] IMPLICIT CallCharacteristics  OPTIONAL,
  retrievedConnectionInfo   [4] IMPLICIT ConnectionInformation  OPTIONAL,
  callLinkageData           [5] IMPLICIT CallLinkageData  OPTIONAL,
  extensions                CSTACommonArguments        OPTIONAL}

END -- of CSTA-retrieved-event

```

15.2.17 Service initiated

```

CSTA-service-initiated-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) service-initiated-event( 34) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID, AssociatedCallingDeviceID, NetworkCalledDeviceID,
NetworkCallingDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

ServiceInitiatedEvent ::=
SEQUENCE
{
  initiatedConnection      ConnectionID,
  initiatingDevice          SubjectDeviceID,
  localConnectionInfo      LocalConnectionState      OPTIONAL,
  correlatorData           [0] IMPLICIT CorrelatorData  OPTIONAL,
  cause                    EventCause,
  servicesPermitted        [1] IMPLICIT ServicesPermitted  OPTIONAL,
  mediaCallCharacteristics [2] IMPLICIT MediaCallCharacteristics  OPTIONAL,
  callCharacteristics       [3] IMPLICIT CallCharacteristics    OPTIONAL,
  initiatedConnectionInfo  [4] IMPLICIT ConnectionInformation  OPTIONAL,
  networkCallingDevice      NetworkCallingDeviceID      OPTIONAL,
  networkCalledDevice       NetworkCalledDeviceID       OPTIONAL,
  associatedCallingDevice   AssociatedCallingDeviceID    OPTIONAL,
  callLinkageData           [5] IMPLICIT CallLinkageData      OPTIONAL,
  extensions                CSTACommonArguments         OPTIONAL}

END -- of CSTA-service-initiated-event

```

15.2.18 Transferred

```

CSTA-transferred-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) transferred-event( 35) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState, ConnectionList FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CorrelatorData, UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageDataList, ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ChargingInfo FROM CSTA-charge-info
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) charge-info( 133) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

TransferredEvent ::=
SEQUENCE
{
  primaryOldCall          ConnectionID,
  secondaryOldCall        [0] IMPLICIT ConnectionID          OPTIONAL,
  transferringDevice      SubjectDeviceID,
  transferredToDevice     SubjectDeviceID,
  transferredConnections  [1] IMPLICIT ConnectionList,
  localConnectionInfo     LocalConnectionState              OPTIONAL,
  correlatorData          [2] IMPLICIT CorrelatorData        OPTIONAL,
  userData                UserData                          OPTIONAL,
  chargingInfo            [3] IMPLICIT ChargingInfo          OPTIONAL,
  cause                   EventCause,
  servicesPermitted       [4] IMPLICIT ServicesPermitted     OPTIONAL,
  mediaCallCharacteristics [5] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics     [6] IMPLICIT CallCharacteristics    OPTIONAL,
  callLinkageDataList     [7] IMPLICIT CallLinkageDataList    OPTIONAL,
  extensions              CSTACCommonArguments              OPTIONAL}

END -- of CSTA-transferred-event

```

16 Call associated features

16.1 Services

16.1.1 Associate data

```

CSTA-associate-data
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) associate-data( 230) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
AccountInfo, AuthCode, CorrelatorData FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
CallQualifyingData FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) };

associateData      OPERATION ::=
{
    ARGUMENT      AssociateDataArgument
    RESULT        AssociateDataResult
    ERRORS        {universalFailure}
    CODE          local:230
}

AssociateDataArgument ::= SEQUENCE
{
    existingCall      ConnectionID,
    accountCode       [0] IMPLICIT AccountInfo      OPTIONAL,
    authCode          [1] IMPLICIT AuthCode          OPTIONAL,
    correlatorData    [2] IMPLICIT CorrelatorData    OPTIONAL,
    callQualifyingData [3] IMPLICIT CallQualifyingData OPTIONAL,
    extensions        CSTACommonArguments           OPTIONAL}

AssociateDataResult ::=
CHOICE
{extensions          CSTACommonArguments,
 noData              NULL}

END -- of CSTA-associate-data

```

16.1.2 Cancel telephony tones

```

CSTA-cancel-telephony-tones
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) cancel-telephony-tones( 231) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

cancelTelephonyTones          OPERATION ::=
{
    ARGUMENT    CancelTelephonyTonesArgument
    RESULT      CancelTelephonyTonesResult
    ERRORS      {universalFailure}
    CODE        local: 231
}

CancelTelephonyTonesArgument ::= SEQUENCE
{
    connectionToStopTone    ConnectionID,
    extensions              CSTACommonArguments    OPTIONAL}

CancelTelephonyTonesResult ::=
CHOICE
{extensions              CSTACommonArguments,
 noData                  NULL}

END -- of CSTA-cancel-telephony-tones

```

16.1.3 Generate digits

```

CSTA-generate-digits
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) generate-digits( 232) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }

generateDigits      OPERATION ::=
{
  ARGUMENT      GenerateDigitsArgument
  RESULT        GenerateDigitsResult
  ERRORS        {universalFailure}
  CODE          local: 232
}

GenerateDigitsArgument ::= SEQUENCE
{
  connectionToSendDigits ConnectionID,
  digitMode               DigitMode               OPTIONAL,
  charactersToSend        IA5String,
  toneDuration            [0] IMPLICIT INTEGER    OPTIONAL,
  pulseRate               [1] IMPLICIT INTEGER    OPTIONAL,
  pauseDuration           [2] IMPLICIT INTEGER    OPTIONAL,
  extensions              CSTACommonArguments     OPTIONAL}

GenerateDigitsResult ::=
CHOICE
{extensions          CSTACommonArguments,
 noData              NULL}

DigitMode ::= ENUMERATED
{
  rotaryPulse(0),
  dTMF         (1)}

END -- of CSTA-generate-digits

```

16.1.4 Generate telephony tones

```

CSTA-generate-telephony-tones
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) generate-telephony-tones( 233) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
TelephonyTone FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }

generateTelephonyTones      OPERATION ::=
{
  ARGUMENT    GenerateTelephonyTonesArgument
  RESULT      GenerateTelephonyTonesResult
  ERRORS      {universalFailure}
  CODE        local: 233
}

GenerateTelephonyTonesArgument ::= SEQUENCE
{
  connectionToSendTone      ConnectionID,
  toneToSend                TelephonyTone,
  toneDuration               INTEGER,
  extensions                 CSTACommonArguments OPTIONAL,
                           OPTIONAL}

GenerateTelephonyTonesResult ::=
CHOICE
{extensions                 CSTACommonArguments,
 noData                     NULL}

END -- of CSTA-generate-telephony-tones

```

16.1.5 Send user information

```

CSTA-send-user-information
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) send-user-information( 234) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
UserData FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

sendUserInfo      OPERATION ::=
{
  ARGUMENT      SendUserInfoArgument
  RESULT        SendUserInfoResult
  ERRORS        {universalFailure}
  CODE          local: 234
}

SendUserInfoArgument ::= SEQUENCE
{
  existingCall      ConnectionID,
  userData          UserData,
  extensions        CSTACommonArgumentsOPTIONAL}

SendUserInfoResult ::=
CHOICE
{extensions        CSTACommonArguments,
 noData            NULL}

END -- of CSTA-send-user-information

```

16.2 Events

16.2.1 Call information

```

CSTA-call-information-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-information-event( 41) }

DEFINITIONS ::=
BEGIN

IMPORTS
-- Data Types --
CallingDeviceID, SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
AccountInfo, AuthCode, CorrelatorData, UserData FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
CallLinkageDataList, CallQualifyingData, ServicesPermitted FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation FROM CSTA-media-services
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) media-services( 136) };

CallInformationEvent ::= SEQUENCE
{
    connection          ConnectionID,
    device              SubjectDeviceID,
    callingDevice       CallingDeviceID
    accountInfo         [0] IMPLICIT AccountInfo      OPTIONAL,
    authCode            [1] IMPLICIT AuthCode         OPTIONAL,
    correlatorData      [2] IMPLICIT CorrelatorData    OPTIONAL,
    servicesPermitted   [3] IMPLICIT ServicesPermitted OPTIONAL,
    userData            UserData                      OPTIONAL,
    callQualifyingData  [4] IMPLICIT CallQualifyingData OPTIONAL,
    connectionInfo      ConnectionInformation         OPTIONAL,
    callLinkageDataList [5] IMPLICIT CallLinkageDataList OPTIONAL,
    extensions          CSTACCommonArguments          OPTIONAL}

END -- of CSTA-call-information-event

```

16.2.2 Charging

```

CSTA-charging-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) charging-event( 240) }

DEFINITIONS ::=
BEGIN

IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
ChargingInfo FROM CSTA-charge-info
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) charge-info( 133) };

ChargingEvent ::= SEQUENCE
{
  connection          ConnectionID,
  chargedDevice       DeviceID,
  chargingInfo        ChargingInfo,
  cause               EventCause          OPTIONAL,
  extensions          CSTACommonArguments OPTIONAL}

END -- of CSTA-charging-event

```

16.2.3 Digits generated

```

CSTA-digits-generated-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) digits-generated-event( 241) }

DEFINITIONS ::=
BEGIN

IMPORTS
-- Data Types --
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
ConnectionInformation FROM CSTA-media-services
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) media-services( 136) };

DigitsGeneratedEvent ::= SEQUENCE
{
    connection          ConnectionID,
    digitGeneratedList  IA5String,
    digitDurationList   [0] IMPLICIT SEQUENCE OF INTEGER OPTIONAL,
    pauseDurationList   [1] IMPLICIT SEQUENCE OF INTEGER OPTIONAL,
    connectionInfo      ConnectionInformation OPTIONAL,
    extensions          CSTACCommonArguments OPTIONAL}

END -- of CSTA-digits-generated-event

```

16.2.4 Telephony tones generated

```

CSTA-telephony-tones-generated-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) telephony-tones-generated-event( 242) }

DEFINITIONS ::=
BEGIN

IMPORTS
-- Data Types --
ConnectionID FROM CSTA-call-connection-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) call-connection-identifiers( 124) }
TelephonyTone FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
ConnectionInformation FROM CSTA-media-services
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) media-services( 136) };

TelephonyTonesGeneratedEvent ::= SEQUENCE
{
  connection          ConnectionID,
  toneGenerated        TelephonyTone OPTIONAL,
  toneFrequency        [0] IMPLICIT INTEGER OPTIONAL,
  toneDuration         [1] IMPLICIT INTEGER OPTIONAL,
  pauseDuration        [2] IMPLICIT INTEGER OPTIONAL,
  connectionInfo       ConnectionInformation OPTIONAL,
  extensions           CSTACommonArguments OPTIONAL}

END -- of CSTA-telephony-tones-generated-event

```

16.2.5 Service completion failure

```

CSTA-service-completion-failure-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) service-completion-failure-event( 243) }

DEFINITIONS ::=
BEGIN

IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
MediaCallCharacteristics, ConnectionInformation FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

ServiceCompletionFailureEvent ::= SEQUENCE
{
  primaryCall          PrimaryOrSecondaryCall,
  secondaryCall        [0] IMPLICIT PrimaryOrSecondaryCall    OPTIONAL,
  otherDevsPrimaryCallList [1] IMPLICIT SEQUENCE OF OtherCall  OPTIONAL,
  otherDevsSecondaryCallList [2] IMPLICIT SEQUENCE OF OtherCall  OPTIONAL,
  mediaCallCharacteristics [3] IMPLICIT MediaCallCharacteristics  OPTIONAL,
  cause                EventCause,
  extensions            CSTACCommonArguments                    OPTIONAL}

PrimaryOrSecondaryCall ::= SEQUENCE
{
  deviceID          DeviceID,
  connectionID      ConnectionID,
  localConnectionState LocalConnectionState,
  connectionInfo    ConnectionInformation  OPTIONAL}

OtherCall ::= SEQUENCE
{
  deviceID          DeviceID,
  connectionID      ConnectionID,
  localConnectionState LocalConnectionState  OPTIONAL,
  connectionInfo    ConnectionInformation  OPTIONAL}

END -- of CSTA-charging-event

```

17 Media attachment services and events

17.1 Services

17.1.1 Attach media service

```

CSTA-attach-media-service
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) attach-media-service( 244) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) connection-states( 125) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
MediaServiceType, MediaServiceInstanceID, ConnectionMode,
ConnectionInformation FROM CSTA-media-services
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) media-services( 136) };

attachMediaService OPERATION ::=
{
    ARGUMENT    AttachMediaServiceArgument
    RESULT      AttachMediaServiceResult
    ERRORS      {universalFailure}
    CODE        local: 244
}

AttachMediaServiceArgument ::= SEQUENCE
{
    connection          ConnectionID,
    mediaServiceType    MediaServiceType,
    mediaServiceVersion INTEGER          OPTIONAL,
    mediaServiceInstanceID MediaServiceInstanceID OPTIONAL,
    connectionMode      ConnectionMode,
    requestedConnectionState LocalConnectionState OPTIONAL,
    extensions           CSTACCommonArguments OPTIONAL}

AttachMediaServiceResult ::= SEQUENCE
{
    mediaConnection      ConnectionID          OPTIONAL,
    mediaDevice          [0] IMPLICIT DeviceID OPTIONAL,
    mediaServiceInstanceID MediaServiceInstanceID OPTIONAL,
    mediaConnectionInfo  [1] IMPLICIT ConnectionInformation OPTIONAL,
    extensions           CSTACCommonArguments OPTIONAL}

END -- of CSTA-attach-media-service

```

17.1.2 Detach media service

```

CSTA-detach-media-service
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) detach-media-service( 245) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
MediaServiceType FROM CSTA-media-services
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) media-services( 136) };

detachMediaService OPERATION ::=
{
    ARGUMENT    DetachMediaServiceArgument
    RESULT      DetachMediaServiceResult
    ERRORS      {universalFailure}
    CODE        local: 245
}

DetachMediaServiceArgument ::= SEQUENCE
{
    connection      ConnectionID,
    mediaServiceType MediaServiceType,
    extensions      CSTACCommonArguments OPTIONAL}

DetachMediaServiceResult ::= CHOICE
{
    extensions      CSTACCommonArguments,
    noData          NULL}

END -- of CSTA-detach-media-service

```

17.2 Events

17.2.1 Media attached

```

CSTA-media-attached-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-attached-event( 246) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
MediaServiceType, MediaServiceInstanceID, MediaStreamID,
MediaCallCharacteristics, ConnectionInformation FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

MediaAttachedEvent ::= SEQUENCE
{
  mediaConnection          ConnectionID,
  mediaDevice              SubjectDeviceID,
  mediaServiceType         MediaServiceType,
  mediaServiceVersion      INTEGER OPTIONAL,
  mediaServiceInstanceID   [0] IMPLICIT MediaServiceInstanceID OPTIONAL,
  mediaStreamID            [1] IMPLICIT MediaStreamID OPTIONAL,
  mediaCallCharacteristics [2] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics      CallCharacteristics OPTIONAL,
  localConnectionInfo      LocalConnectionState OPTIONAL,
  mediaConnectionInfo      [3] IMPLICIT ConnectionInformation OPTIONAL,
  extension                CSTACommonArguments OPTIONAL}

END -- of CSTA-media-attached-service

```

17.2.2 Media detached

```

CSTA-media-detached-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-detached-event( 247) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
LocalConnectionState FROM CSTA-connection-states
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) connection-states( 125) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
MediaServiceType, MediaServiceInstanceID, MediaStreamID,
MediaCallCharacteristics, ConnectionInformation FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

MediaDetachedEvent ::= SEQUENCE
{
  mediaConnection          ConnectionID,
  mediaDevice              SubjectDeviceID,
  mediaServiceType         MediaServiceType,
  mediaServiceVersion      INTEGER OPTIONAL,
  mediaServiceInstanceID   [0] IMPLICIT MediaServiceInstanceID OPTIONAL,
  mediaStreamID            [1] IMPLICIT MediaStreamID OPTIONAL,
  mediaCallCharacteristics [2] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics      CallCharacteristics OPTIONAL,
  localConnectionInfo      LocalConnectionState OPTIONAL,
  mediaConnectionInfo      [3] IMPLICIT ConnectionInformation OPTIONAL,
  extension                CSTACommonArguments OPTIONAL}

END -- of CSTA-media-detached-service

```

18 Routeing services**18.1 Registration services****18.1.1 Route register**

```

CSTA-route-register
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) route-register( 248) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
RouteRegisterReqID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
MediaClass FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

routeRegister OPERATION ::=
{
  ARGUMENT    RouteRegisterArgument
  RESULT      RouteRegisterResult
  ERRORS      {universalFailure}
  CODE        local: 248
}

RouteRegisterArgument ::= SEQUENCE
{
  routeingDevice          DeviceID          OPTIONAL,
  requestedRouteingMediaClass MediaClass    OPTIONAL,
  extensions              CSTACommonArguments OPTIONAL}

RouteRegisterResult ::= SEQUENCE
{
  routeRegisterReqID      RouteRegisterReqID,
  actualRouteingMediaClass MediaClass        OPTIONAL,
  extensions              CSTACommonArguments OPTIONAL}

END -- of CSTA-route-register

```

18.1.2 Route register abort

```

CSTA-route-register-abort
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) route-register-abort( 249) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
RouteRegisterReqID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

routeRegisterAbort OPERATION ::=
{
    ARGUMENT          RouteRegisterAbortArgument
    ERRORS             {universalFailure}
    ALWAYS RESPONDS    FALSE
    CODE               local: 249
}

RouteRegisterAbortArgument ::= SEQUENCE
{
    routeRegisterReqID  RouteRegisterReqID,
    extensions          CSTACommonArguments    OPTIONAL}

END -- of CSTA-route-register-abort

```

18.1.3 Route register cancel

```

CSTA-route-register-cancel
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) route-register-cancel( 250) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
RouteRegisterReqID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }

routeRegisterCancel OPERATION ::=
{
    ARGUMENT    RouteRegisterCancelArgument
    RESULT      RouteRegisterCancelResult
    ERRORS      {universalFailure}
    CODE        local: 250
}

RouteRegisterCancelArgument ::= SEQUENCE
{
    routeRegisterReqID    RouteRegisterReqID,
    extensions            CSTACCommonArguments    OPTIONAL}

RouteRegisterCancelResult ::= CHOICE
{
    extensions    CSTACCommonArguments,
    noData        NULL}

END -- of CSTA-route-register-cancel

```

18.2 Services**18.2.1 Re-Route**

```

CSTA-re-route-request
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) re-route-request( 82) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
CorrelatorData, RouteRegisterReqID, RouteingCrossRefID
    FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
CallLinkageData FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) }
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) };

reRouteRequest OPERATION ::=
{
    ARGUMENT          ReRouteRequestArgument
    ERRORS             {universalFailure}
    ALWAYS RESPONDS    FALSE
    CODE               local: 32
}

ReRouteRequestArgument ::= SEQUENCE
{
    crossRefIdentifier    RouteingCrossRefID,
    routeRegisterReqID    [0] IMPLICIT RouteRegisterReqID    OPTIONAL,
    replyTimeout          [1] IMPLICIT INTEGER              OPTIONAL,
    correlatorData        [2] IMPLICIT CorrelatorData        OPTIONAL,
    callLinkageData       [3] IMPLICIT CallLinkageData        OPTIONAL,
    extensions            CSTACommonArguments                OPTIONAL}

END -- of CSTA-re-route-request

```

18.2.2 Route end

```

CSTA-route-end-request
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) route-end-request( 85) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure, ErrorValue FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
CorrelatorData, RouteRegisterReqID, RouteingCrossRefID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

routeEndRequest OPERATION ::=
{
    ARGUMENT          RouteEndRequestArgument
    ERRORS             {universalFailure}
    ALWAYS RESPONDS    FALSE
    CODE               local: 35
}

RouteEndRequestArgument ::= SEQUENCE {
    crossRefIdentifier    RouteingCrossRefID,
    routeRegisterReqID    [ 0] IMPLICIT RouteRegisterReqID    OPTIONAL,
    errorValue            [ 1] ErrorValue                      OPTIONAL,
    correlatorData        [ 2] IMPLICIT CorrelatorData          OPTIONAL,
    extensions            CSTACommonArguments                  OPTIONAL}

END -- of CSTA-route-end-request

```

18.2.3 Route reject

```

CSTA-route-reject
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) route-reject( 86) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
CorrelatorData, RouteRegisterReqID, RouteingCrossRefID
FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

routeReject OPERATION ::=
{
  ARGUMENT          RouteRejectArgument
  ERRORS             {universalFailure}
  ALWAYS RESPONDS    FALSE
  CODE               local: 36
}

RouteRejectArgument ::=
SEQUENCE
{crossRefIdentifier      RouteingCrossRefID,
 routeRegisterReqID      [0] IMPLICIT RouteRegisterReqID OPTIONAL,
 rejectCause              [1] IMPLICIT RejectCause          OPTIONAL,
 correlatorData           [2] IMPLICIT CorrelatorData        OPTIONAL,
 extensions               CSTACommonArguments              OPTIONAL}

RejectCause ::= ENUMERATED
{
  busyOverflow              (1),
  queueTimeOverflow         (2),
  capacityOverflow          (3),
  calendarOverflow          (4),
  unknownOverflow           (5)}

END -- of CSTA-route-reject

```

18.2.4 Route request

```

CSTA-route-request
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) route-request( 81) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
AssociatedCallingDeviceID, AssociatedCalledDeviceID, CalledDeviceID,
CallingDeviceID, SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
CorrelatorData, SelectValue, RouteRegisterReqID, RouteingCrossRefID
FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallCharacteristics, CallLinkageData FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
ConnectionInformation, MediaCallCharacteristics FROM CSTA-media-services
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) media-services( 136) };

routeRequest OPERATION ::=
{
  ARGUMENT          RouteRequestArgument
  ERRORS             {universalFailure}
  ALWAYS RESPONDS    FALSE
  CODE               local: 31
}

RouteRequestArgument ::= SEQUENCE
{
  crossRefIdentifier          RouteingCrossRefID,
  routeRegisterReqID         [0] IMPLICIT RouteRegisterReqID      OPTIONAL,
  currentRoute                CalledDeviceID,
  callingDevice               CallingDeviceID                      OPTIONAL,
  routeingDevice              SubjectDeviceID                      OPTIONAL,
  routedCall                  ConnectionID                         OPTIONAL,
  routeSelAlgorithm           [1] IMPLICIT SelectValue            OPTIONAL,
  associatedCallingDevice      AssociatedCallingDeviceID           OPTIONAL,
  associatedCalledDevice       AssociatedCalledDeviceID            OPTIONAL,
  priority                    [2] IMPLICIT BOOLEAN                OPTIONAL,
  replyTimeout                [3] IMPLICIT INTEGER                OPTIONAL,
  correlatorData              [4] IMPLICIT CorrelatorData         OPTIONAL,
  mediaCallCharacteristics     [5] IMPLICIT MediaCallCharacteristics OPTIONAL,
  callCharacteristics          [6] IMPLICIT CallCharacteristics    OPTIONAL,
  routeCallInfo               [7] IMPLICIT ConnectionInformation  OPTIONAL,
  callLinkageData             [8] IMPLICIT CallLinkageData         OPTIONAL,
  extensions                   CSTACommonArguments                OPTIONAL}

END -- of CSTA-route-request

```

18.2.5 Route select

```

CSTA-route-select-request
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) route-select-request( 83) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
CorrelatorData, RetryValue, RouteingCrossRefID, RouteRegisterReqID
FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

routeSelectRequest      OPERATION ::=
{
    ARGUMENT              RouteSelectRequestArgument
    ERRORS                 {universalFailure}
    ALWAYS RESPONDS       FALSE
    CODE                   local: 33
}

RouteSelectRequestArgument ::=
SEQUENCE
{crossRefIdentifier      RouteingCrossRefID,
 routeRegisterReqID     [0] IMPLICIT RouteRegisterReqID      OPTIONAL,
 routeSelected           [1] DeviceID,
 alternateRoutes         [2] IMPLICIT SEQUENCE OF DeviceID    OPTIONAL,
 remainRetries           [3] RetryValue                        OPTIONAL,
 routeUsedReq           [4] IMPLICIT BOOLEAN                  OPTIONAL,
 correlatorData          [5] IMPLICIT CorrelatorData           OPTIONAL,
 extensions              CSTACommonArguments                  OPTIONAL}

END -- of CSTA-route-select-request

```

18.2.6 Route used

```

CSTA-route-used-request
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) route-used-request( 84) }
DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
CallingDeviceID, CalledDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
CorrelatorData, RouteRegisterReqID, RouteingCrossRefID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CallLinkageData FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
;

routeUsedRequest      OPERATION ::=
{
  ARGUMENT              RouteUsedRequestArgument
  ERRORS                 {universalFailure}
  ALWAYS RESPONDS       FALSE
  CODE                   local: 34
}

RouteUsedRequestArgument ::= SEQUENCE
{
  crossRefIdentifier      RouteingCrossRefID,
  routeRegisterReqID     [0] IMPLICIT RouteRegisterReqID    OPTIONAL,
  routeUsed               CalledDeviceID,
  callingDevice           CallingDeviceID                    OPTIONAL,
  domain                  BOOLEAN                            OPTIONAL,
  correlatorData          [1] IMPLICIT CorrelatorData        OPTIONAL,
  callLinkageData         [2] IMPLICIT CallLinkageData        OPTIONAL,
  extensions              CSTACommonArguments                OPTIONAL}

END -- of CSTA-route-used-request

```

19 Physical device features

19.1 Services

19.1.1 Button press

```

CSTA-button-press
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) button-press( 260) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
ButtonID FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

buttonPress OPERATION ::=
{
  ARGUMENT    ButtonPressArgument
  RESULT      ButtonPressResult
  ERRORS      {universalFailure}
  CODE        local: 260
}

ButtonPressArgument ::= SEQUENCE
{
  device      DeviceID,
  button      ButtonID,
  extensions  CSTACommonArguments OPTIONAL}

ButtonPressResult ::= CHOICE
{
  extensions  CSTACommonArguments,
  noData      NULL}

END -- of CSTA-button-press

```

19.1.2 Get auditory apparatus information

```

CSTA-get-auditory-apparatus-information
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-auditory-apparatus-information( 261) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID, AuditoryApparatusList FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

getAuditoryApparatusInformation OPERATION ::=
{
  ARGUMENT    GetAuditoryApparatusInformationArgument
  RESULT      GetAuditoryApparatusInformationResult
  ERRORS      {universalFailure}
  CODE        local: 261
}

GetAuditoryApparatusInformationArgument ::= SEQUENCE
{
  device                DeviceID,
  auditoryApparatus     AuditoryApparatusID      OPTIONAL,
  extensions            CSTACommonArguments      OPTIONAL}

GetAuditoryApparatusInformationResult ::= SEQUENCE
{
  auditoryApparatusList AuditoryApparatusList,
  extensions            CSTACommonArguments      OPTIONAL}

END -- of CSTA-get-auditory-apparatus-information

```

19.1.3 Get button information

```

CSTA-get-button-information
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-button-information( 262) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
ButtonID, LampID FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

getButtonInformation OPERATION ::=
{
  ARGUMENT    GetButtonInformationArgument
  RESULT      GetButtonInformationResult
  ERRORS      {universalFailure}
  CODE        local: 262
}

GetButtonInformationArgument ::= SEQUENCE
{
  device      DeviceID,
  button      ButtonID,
  extensions  CSTACommonArguments OPTIONAL,
}

GetButtonInformationResult ::= SEQUENCE
{
  buttonList  ButtonList,
  extensions  CSTACommonArguments OPTIONAL}

ButtonList ::= SEQUENCE OF SEQUENCE
{
  button          ButtonID,
  buttonLabel     [0] IMPLICIT IA5String OPTIONAL,
  buttonLabelSettable [1] IMPLICIT BOOLEAN OPTIONAL,
  buttonFunction  [2] IMPLICIT IA5String OPTIONAL,
  buttonAssociatedNumber [3] IMPLICIT DeviceID OPTIONAL,
  buttonAssociatedNumberSettable [4] IMPLICIT BOOLEAN OPTIONAL,
  buttonPressIndicator [5] IMPLICIT BOOLEAN OPTIONAL,
  lampList        SEQUENCE OF LampID OPTIONAL}

END -- of CSTA-get-button-information

```

19.1.4 Get display

```

CSTA-get-display
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-display( 263) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
DisplayID, CharacterSet FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

getDisplay OPERATION ::=
{
  ARGUMENT      GetDisplayArgument
  RESULT        GetDisplayResult
  ERRORS        {universalFailure}
  CODE          local: 263
}

GetDisplayArgument ::= SEQUENCE
{
  device      DeviceID,
  display     DisplayID,
  extensions  CSTACommonArguments OPTIONAL,
}

GetDisplayResult ::= SEQUENCE
{
  displayList  DisplayList,
  extensions   CSTACommonArguments OPTIONAL}

DisplayList ::= SEQUENCE OF SEQUENCE
{
  displayID      DisplayID,
  logicalRows    INTEGER,
  logicalColumns INTEGER,
  physicalRows   [0] IMPLICIT INTEGER OPTIONAL,
  physicalColumns [1] IMPLICIT INTEGER OPTIONAL,
  physicalBaseRowNumber [2] IMPLICIT INTEGER OPTIONAL,
  physicalBaseColumnNumber [3] IMPLICIT INTEGER OPTIONAL,
  characterSet    CharacterSet OPTIONAL,
  contentsOfDisplay IA5String}

END -- of CSTA-get-display

```

19.1.5 Get hookswitch status

```

CSTA-get-hookswitch-status
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-hookswitch-status( 264) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
HookswitchID FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

getHookswitchStatus OPERATION ::=
{
  ARGUMENT    GetHookswitchStatusArgument
  RESULT      GetHookswitchStatusResult
  ERRORS      {universalFailure}
  CODE        local: 264
}

GetHookswitchStatusArgument ::= SEQUENCE
{
  device      DeviceID,
  hookswitch  HookswitchID
  extensions  CSTACommonArguments OPTIONAL}

GetHookswitchStatusResult ::= SEQUENCE
{
  hookswitchStatusList HookswitchStatusList,
  extensions           CSTACommonArguments OPTIONAL}

HookswitchStatusList ::= SEQUENCE OF SEQUENCE
{
  hookswitch      HookswitchID,
  hookswitchOnHook BOOLEAN}

END -- of CSTA-get-hookswitch-status

```

19.1.6 Get lamp information

```

CSTA-get-lamp-information
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-lamp-information( 265) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
ButtonID, LampID, LampColor FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

getLampInformation OPERATION ::=
{
  ARGUMENT    GetLampInformationArgument
  RESULT      GetLampInformationResult
  ERRORS      {universalFailure}
  CODE        local: 265
}

GetLampInformationArgument ::= SEQUENCE
{
  device      DeviceID,
  lamp        LampID,
  extensions  CSTACommonArguments OPTIONAL,
}

GetLampInformationResult ::= SEQUENCE
{
  lampList    LampList,
  extensions  CSTACommonArguments OPTIONAL
}

LampList ::= SEQUENCE OF SEQUENCE
{
  lamp      LampID,
  lampLabel [0] IMPLICIT OCTET STRING      OPTIONAL,
  button    [1] IMPLICIT ButtonID          OPTIONAL,
  lampColor LampColor                      OPTIONAL
}

END -- of CSTA-get-lamp-information

```

19.1.7 Get lamp mode

```

CSTA-get-lamp-mode
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-lamp-mode( 266) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
ButtonID, LampID, LampColor, LampMode, LampBrightness
FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

getLampMode OPERATION ::=
{
  ARGUMENT      GetLampModeArgument
  RESULT        GetLampModeResult
  ERRORS        {universalFailure}
  CODE          local: 266
}

GetLampModeArgument ::= SEQUENCE
{
  device      DeviceID,
  lamp        LampID,
  extensions  CSTACommonArguments,
  OPTIONAL,
  OPTIONAL}

GetLampModeResult ::= SEQUENCE
{
  lampModeList LampModeList,
  lamp          LampID,
  extensions    CSTACommonArguments,
  OPTIONAL,
  OPTIONAL}

LampModeList ::= SEQUENCE OF SEQUENCE
{
  lamp      LampID,
  lampMode  LampMode,
  lampBrightness [0] IMPLICIT LampBrightness,
  lampColor      [1] IMPLICIT LampColor,
  button         [2] IMPLICIT ButtonID,
  OPTIONAL,
  OPTIONAL,
  OPTIONAL}

END -- of CSTA-get-lamp-mode

```

19.1.8 Get message waiting indicator

```

CSTA-get-message-waiting-indicator
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-message-waiting-indicator( 267) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

getMessageWaitingIndicator OPERATION ::=
{
  ARGUMENT    GetMessageWaitingIndicatorArgument
  RESULT      GetMessageWaitingIndicatorResult
  ERRORS      {universalFailure}
  CODE        local: 267
}

GetMessageWaitingIndicatorArgument ::= SEQUENCE
{
  device      DeviceID,
  extensions  CSTACommonArguments OPTIONAL}

GetMessageWaitingIndicatorResult ::= SEQUENCE
{
  messageWaitingOn      BOOLEAN,
  deviceForMessage      DeviceID          OPTIONAL,
  lampIsPresent         BOOLEAN          OPTIONAL,
  extensions            CSTACommonArguments OPTIONAL}

END -- of CSTA-get-message-waiting-indicator

```

19.1.9 Get microphone gain

```

CSTA-get-microphone-gain
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-microphone-gain( 268) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID, MicGainAbs FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

getMicrophoneGain OPERATION ::=
{
  ARGUMENT    GetMicrophoneGainArgument
  RESULT      GetMicrophoneGainResult
  ERRORS      {universalFailure}
  CODE        local: 268
}

GetMicrophoneGainArgument ::= SEQUENCE
{
  device                DeviceID,
  auditoryApparatus     AuditoryApparatusID      OPTIONAL,
  extensions             CSTACCommonArguments    OPTIONAL}

GetMicrophoneGainResult ::= SEQUENCE
{
  microphoneGainList    MicrophoneGainList,
  extensions             CSTACCommonArguments    OPTIONAL}

MicrophoneGainList ::= SEQUENCE OF SEQUENCE
{
  auditoryApparatus     AuditoryApparatusID,
  micGainAbs            MicGainAbs              OPTIONAL}

END -- of CSTA-get-microphone-gain

```

19.1.10 Get microphone mute

```

CSTA-get-microphone-mute
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-microphone-mute( 269) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

getMicrophoneMute OPERATION ::=
{
  ARGUMENT    GetMicrophoneMuteArgument
  RESULT      GetMicrophoneMuteResult
  ERRORS      {universalFailure}
  CODE        local: 269
}

GetMicrophoneMuteArgument ::= SEQUENCE
{
  device          DeviceID,
  auditoryApparatus AuditoryApparatusID OPTIONAL,
  extensions      CSTACommonArguments OPTIONAL}

GetMicrophoneMuteResult ::= SEQUENCE
{
  microphoneMuteList MicrophoneMuteList,
  extensions          CSTACommonArguments OPTIONAL}

MicrophoneMuteList ::= SEQUENCE OF SEQUENCE
{
  auditoryApparatus AuditoryApparatusID,
  microphoneMuteOn  BOOLEAN}

END -- of CSTA-get-microphone-mute

```

19.1.11 Get ringer status

```

CSTA-get-ringer-status
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-ringer-status( 270) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
RingerID, RingMode FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

getRingerStatus OPERATION ::=
{
  ARGUMENT    GetRingerStatusArgument
  RESULT      GetRingerStatusResult
  ERRORS      {universalFailure}
  CODE        local: 270
}

GetRingerStatusArgument ::= SEQUENCE
{
  device      DeviceID,
  ringer      RingerID,
  extensions  CSTACommonArguments OPTIONAL,
}

GetRingerStatusResult ::= SEQUENCE
{
  ringerStatusList RingerStatusList,
  extensions       CSTACommonArguments OPTIONAL}

RingerStatusList ::= SEQUENCE OF SEQUENCE
{
  ringer      RingerID,
  ringMode    RingMode,
  ringCount   [0] IMPLICIT INTEGER (0..1000)    OPTIONAL,
  ringPattern [1] IMPLICIT INTEGER              OPTIONAL,
  ringVolAbs  [2] IMPLICIT INTEGER (0..100)     OPTIONAL}

END -- of CSTA-get-ringer-status

```

19.1.12 Get speaker mute

```

CSTA-get-speaker-mute
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-speaker-mute( 271) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

getSpeakerMute OPERATION ::=
{
  ARGUMENT    GetSpeakerMuteArgument
  RESULT      GetSpeakerMuteResult
  ERRORS      {universalFailure}
  CODE        local: 271
}

GetSpeakerMuteArgument ::= SEQUENCE
{
  device                DeviceID,
  auditoryApparatus     AuditoryApparatusID      OPTIONAL,
  extensions            CSTACommonArguments      OPTIONAL}

GetSpeakerMuteResult ::= SEQUENCE
{
  speakerMuteList       SpeakerMuteList,
  extensions            CSTACommonArguments      OPTIONAL}

SpeakerMuteList ::= SEQUENCE OF SEQUENCE
{
  auditoryApparatus     AuditoryApparatusID,
  speakerMuteOn         BOOLEAN}

END -- of CSTA-get-speaker-mute

```

19.1.13 Get speaker volume

```

CSTA-get-speaker-volume
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-speaker-volume( 272) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID, VolAbs FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

getSpeakerVolume OPERATION ::=
{
  ARGUMENT    GetSpeakerVolumeArgument
  RESULT      GetSpeakerVolumeResult
  ERRORS      {universalFailure}
  CODE        local: 272
}

GetSpeakerVolumeArgument ::= SEQUENCE
{
  device                DeviceID,
  auditoryApparatus     AuditoryApparatusID      OPTIONAL,
  extensions            CSTACommonArguments      OPTIONAL}

GetSpeakerVolumeResult ::= SEQUENCE
{
  speakerVolumeList     SpeakerVolumeList,
  extensions            CSTACommonArguments      OPTIONAL}

SpeakerVolumeList ::= SEQUENCE OF SEQUENCE
{
  auditoryApparatus     AuditoryApparatusID,
  speakerVolAbs         VolAbs                    OPTIONAL}

END -- of CSTA-get-speaker-volume

```

19.1.14 Set button information

```

CSTA-set-button-information
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-button-information( 273) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
ButtonID FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

setButtonInformation OPERATION ::=
{
  ARGUMENT      SetButtonInformationArgument
  RESULT        SetButtonInformationResult
  ERRORS        {universalFailure}
  CODE          local: 273
}

SetButtonInformationArgument ::= SEQUENCE
{
  device          DeviceID,
  button          ButtonID,
  buttonLabel     IA5String (SIZE(0..64)) OPTIONAL,
  buttonAssociatedNumber DeviceID OPTIONAL,
  extensions      CSTACommonArguments OPTIONAL}

SetButtonInformationResult ::= CHOICE
{
  extensions      CSTACommonArguments,
  noData          NULL}

END -- of CSTA-set-button-information

```

19.1.15 Set display

```

CSTA-set-display
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-display( 274) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
DisplayID FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

setDisplay OPERATION ::=
{
  ARGUMENT    SetDisplayArgument
  RESULT      SetDisplayResult
  ERRORS      {universalFailure}
  CODE        local: 274
}

SetDisplayArgument ::= SEQUENCE
{
  device          DeviceID,
  display         DisplayID,
  physicalBaseRowNumber [0] IMPLICIT INTEGER,
  physicalBaseColumnNumber [1] IMPLICIT INTEGER,
  contentsOfDisplay IA5String (SIZE(0..240)),
  offset          [2] IMPLICIT INTEGER,
  extensions      CSTACCommonArguments
}
OPTIONAL,
OPTIONAL,
OPTIONAL,
OPTIONAL,
OPTIONAL}

SetDisplayResult ::= CHOICE
{
  extensions CSTACCommonArguments,
  noData     NULL
}

END -- of CSTA-set-display

```

19.1.16 Set hookswitch status

```

CSTA-set-hookswitch-status
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-hookswitch-status( 275) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
HookswitchID FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

setHookswitchStatus OPERATION ::=
{
  ARGUMENT      SetHookswitchStatusArgument
  RESULT        SetHookswitchStatusResult
  ERRORS        {universalFailure}
  CODE          local: 275
}

SetHookswitchStatusArgument ::= SEQUENCE
{
  device          DeviceID,
  hookswitch      HookswitchID,
  hookswitchOnHook BOOLEAN,
  extensions      CSTACCommonArguments OPTIONAL}

SetHookswitchStatusResult ::= CHOICE
{
  extensions      CSTACCommonArguments,
  noData          NULL}

END -- of CSTA-set-hookswitch-status

```

19.1.17 Set lamp mode

```

CSTA-set-lamp-mode
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-lamp-mode( 276) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
LampID, LampColor, LampMode, LampBrightness
FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

setLampMode OPERATION ::=
{
  ARGUMENT      SetLampModeArgument
  RESULT        SetLampModeResult
  ERRORS        {universalFailure}
  CODE          local: 276
}

SetLampModeArgument ::= SEQUENCE
{
  device          DeviceID,
  lamp            LampID,
  lampMode        LampMode,
  lampBrightness  LampBrightness OPTIONAL,
  lampColor       LampColor OPTIONAL,
  extensions      CSTACCommonArguments OPTIONAL}

SetLampModeResult ::= CHOICE
{
  extensions  CSTACCommonArguments,
  noData      NULL}

END -- of CSTA-set-lamp-mode

```

19.1.18 Set message waiting indicator

```

CSTA-set-message-waiting-indicator
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-message-waiting-indicator( 277) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

setMessageWaitingIndicator OPERATION ::=
{
  ARGUMENT    SetMessageWaitingIndicatorArgument
  RESULT      SetMessageWaitingIndicatorResult
  ERRORS      {universalFailure}
  CODE        local: 277
}

SetMessageWaitingIndicatorArgument ::= SEQUENCE
{
  device                DeviceID,
  messageWaitingOn      BOOLEAN,
  deviceForMessage      DeviceID OPTIONAL,
  extensions             CSTACommonArguments OPTIONAL}

SetMessageWaitingIndicatorResult ::= CHOICE
{
  extensions CSTACommonArguments,
  noData      NULL}

END -- of CSTA-set-message-waiting-indicator

```

19.1.19 Set microphone gain

```

CSTA-set-microphone-gain
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-microphone-gain( 278) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID, MicrophoneGain FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

setMicrophoneGain OPERATION ::=
{
  ARGUMENT    SetMicrophoneGainArgument
  RESULT      SetMicrophoneGainResult
  ERRORS      {universalFailure}
  CODE        local: 278
}

SetMicrophoneGainArgument ::= SEQUENCE
{
  device          DeviceID,
  auditoryApparatus AuditoryApparatusID,
  microphoneGain   MicrophoneGain,
  extensions       CSTACommonArguments OPTIONAL}

SetMicrophoneGainResult ::= CHOICE
{
  extensions CSTACommonArguments,
  noData      NULL}

END -- of CSTA-set-microphone-gain

```

19.1.20 Set microphone mute

```

CSTA-set-microphone-mute
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-microphone-mute( 279) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

setMicrophoneMute OPERATION ::=
{
  ARGUMENT    SetMicrophoneMuteArgument
  RESULT      SetMicrophoneMuteResult
  ERRORS      {universalFailure}
  CODE        local: 279
}

SetMicrophoneMuteArgument ::= SEQUENCE
{
  device          DeviceID,
  auditoryApparatus AuditoryApparatusID,
  microphoneMuteOn BOOLEAN,
  extensions      CSTACCommonArguments OPTIONAL}

SetMicrophoneMuteResult ::= CHOICE
{
  extensions CSTACCommonArguments,
  noData     NULL}

END -- of CSTA-set-microphone-mute

```

19.1.21 Set ringer status

```

CSTA-set-ringer-status
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-ringer-status( 280) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
RingerID, RingMode, Volume FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

setRingerStatus OPERATION ::=
{
  ARGUMENT      SetRingerStatusArgument
  RESULT        SetRingerStatusResult
  ERRORS        {universalFailure}
  CODE          local: 280
}

SetRingerStatusArgument ::= SEQUENCE
{
  device          DeviceID,
  ringer          RingerID,
  ringMode        RingMode,
  ringPattern     [1] IMPLICIT INTEGER,
  ringVolume      [2] Volume,
  extensions      CSTACommonArguments
}
-- OPTIONAL,
-- OPTIONAL,
-- OPTIONAL,
-- OPTIONAL}

SetRingerStatusResult ::= CHOICE
{
  extensions      CSTACommonArguments,
  noData          NULL}

END -- of CSTA-set-ringer-status

```

19.1.22 Set speaker mute

```

CSTA-set-speaker-mute
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-speaker-mute( 281) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

setSpeakerMute OPERATION ::=
{
  ARGUMENT      SetSpeakerMuteArgument
  RESULT        SetSpeakerMuteResult
  ERRORS        {universalFailure}
  CODE          local: 281
}

SetSpeakerMuteArgument ::= SEQUENCE
{
  device          DeviceID,
  auditoryApparatus AuditoryApparatusID,
  speakerMuteOn   BOOLEAN,
  extensions      CSTACCommonArguments OPTIONAL}

SetSpeakerMuteResult ::= CHOICE
{
  extensions CSTACCommonArguments,
  noData      NULL}

END -- of CSTA-set-speaker-mute

```

19.1.23 Set speaker volume

```

CSTA-set-speaker-volume
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-speaker-volume( 282) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID, Volume FROM CSTA-physical-device-feature
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) physical-device-feature( 137) };

setSpeakerVolume OPERATION ::=
{
  ARGUMENT    SetSpeakerVolumeArgument
  RESULT      SetSpeakerVolumeResult
  ERRORS      {universalFailure}
  CODE        local: 282
}

SetSpeakerVolumeArgument ::= SEQUENCE
{
  device          DeviceID,
  auditoryApparatus AuditoryApparatusID,
  speakerVolume   Volume,
  extensions      CSTACommonArguments OPTIONAL}

SetSpeakerVolumeResult ::= CHOICE
{
  extensions CSTACommonArguments,
  noData      NULL}

END -- of CSTA-set-speaker-volume

```

19.2 Events

19.2.1 Button information

```

CSTA-button-information-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) button-information-event( 283) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
DeviceID, SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
ButtonID FROM CSTA-physical-device-feature
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) physical-device-feature( 137) };

ButtonInformationEvent ::= SEQUENCE
{
    device                SubjectDeviceID,
    button                ButtonID,
    buttonLabel           IA5String (SIZE(0..64)) OPTIONAL,
    buttonAssociatedNumber DeviceID OPTIONAL,
    buttonPressIndicator  BOOLEAN OPTIONAL,
    extensions            CSTACCommonArguments OPTIONAL}

END -- of CSTA-button-information-event

```

19.2.2 Button press

```

CSTA-button-press-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) button-press-event( 284) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
DeviceID, SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
ButtonID FROM CSTA-physical-device-feature
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) physical-device-feature( 137) };

ButtonPressEvent ::= SEQUENCE
{
    device                               SubjectDeviceID,
    button                               ButtonID,
    buttonLabel                          IA5String (SIZE(0..64)) OPTIONAL,
    buttonAssociatedNumber DeviceID      OPTIONAL,
    extensions                          CSTACCommonArguments OPTIONAL}

END -- of CSTA-button-press-event

```

19.2.3 Display updated

```

CSTA-display-updated-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) display-updated-event( 285) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
DisplayID, CharacterSet FROM CSTA-physical-device-feature
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) physical-device-feature( 137) };

DisplayUpdatedEvent ::= SEQUENCE
{
  device                               SubjectDeviceID,
  displayID                           DisplayID OPTIONAL,
  logicalRows                         INTEGER,
  logicalColumns                      INTEGER,
  physicalRows                        [0] IMPLICIT INTEGER OPTIONAL,
  physicalColumns                     [1] IMPLICIT INTEGER OPTIONAL,
  physicalBaseRowNumber               [2] IMPLICIT INTEGER OPTIONAL,
  physicalBaseColumnNumber           [3] IMPLICIT INTEGER OPTIONAL,
  characterSet                        CharacterSet OPTIONAL,
  contentsOfDisplay                   IA5String,
  extensions                          CSTACCommonArguments OPTIONAL}

END -- of CSTA-display-updated-event

```

19.2.4 Hookswitch

```

CSTA-hookswitch-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) hookswitch-event( 286) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
HookswitchID FROM CSTA-physical-device-feature
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) physical-device-feature( 137) };

HookswitchEvent ::= SEQUENCE
{
    device                SubjectDeviceID,
    hookswitch            HookswitchID,
    hookswitchOnHook      BOOLEAN,
    extensions            CSTACommonArguments    OPTIONAL}

END -- of CSTA-hookswitch-event

```

19.2.5 Lamp mode

```

CSTA-lamp-mode-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) lamp-mode-event( 287) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
LampID, LampMode, LampBrightness, LampColor
FROM CSTA-physical-device-feature
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) physical-device-feature( 137) };

LampModeEvent ::= SEQUENCE
{
    device                SubjectDeviceID,
    lamp                  LampID,
    lampLabel              OCTET STRING (SIZE(0..64))    OPTIONAL,
    lampMode               LampMode,
    lampBrightness         LampBrightness                OPTIONAL,
    lampColor              LampColor                     OPTIONAL,
    extensions             CSTACommonArguments           OPTIONAL}

END -- of CSTA-lamp-mode-event

```

19.2.6 Message waiting

```

CSTA-message-waiting-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) message-waiting-event( 44) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
DeviceID, SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

MessageWaitingEvent ::=SEQUENCE
{
    targetDevice          SubjectDeviceID,
    deviceForMessage      DeviceID          OPTIONAL,
    messageWaitingOn      BOOLEAN,
    extensions            CSTACCommonArguments  OPTIONAL}

END -- of CSTA-message-waiting-event

```

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19.2.7 Microphone gain

```

CSTA-microphone-gain-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) microphone-gain-event( 288) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID, MicrophoneGain FROM CSTA-physical-device-feature
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) physical-device-feature( 137) };

MicrophoneGainEvent ::= SEQUENCE
{
    invokingDevice          SubjectDeviceID,
    auditoryApparatus       AuditoryApparatusID,
    microphoneGain          MicrophoneGain,
    extensions              CSTACommonArguments    OPTIONAL}

END -- of CSTA-microphone-gain-event

```

19.2.8 Microphone mute

```

CSTA-microphone-mute-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) microphone-mute-event( 45) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID FROM CSTA-physical-device-feature
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) physical-device-feature( 137) };

MicrophoneMuteEvent ::= SEQUENCE
{
    invokingDevice          SubjectDeviceID,
    auditoryApparatus       AuditoryApparatusID,
    microphoneMuteOn        BOOLEAN,
    extensions              CSTACommonArguments    OPTIONAL}

END -- of CSTA-microphone-mute-event

```

19.2.9 Ringer status

```

CSTA-ringer-status-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) ringer-status-event( 289) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
RingerID, RingMode, Volume FROM CSTA-physical-device-feature
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) physical-device-feature( 137) };

RingerStatusEvent ::= SEQUENCE
{
    device                SubjectDeviceID,
    ringer                 RingerID,
    ringMode               RingMode
    ringCount              [0] IMPLICIT INTEGER (0..1000) OPTIONAL,
    ringPattern            [1] IMPLICIT INTEGER OPTIONAL,
    ringVolume             [2] Volume OPTIONAL,
    extensions             CSTACCommonArguments OPTIONAL}

END -- of CSTA-ringer-status-event

```

19.2.10 Speaker mute

```

CSTA-speaker-mute-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) speaker-mute-event( 46) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID FROM CSTA-physical-device-feature
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) physical-device-feature( 137) };

SpeakerMuteEvent ::= SEQUENCE
{
  invokingDevice          SubjectDeviceID,
  auditoryApparatus       AuditoryApparatusID,
  speakerMuteOn           BOOLEAN,
  extensions               CSTACommonArguments    OPTIONAL
}

END -- of CSTA-speaker-mute-event

```

19.2.11 Speaker volume

```

CSTA-speaker-volume-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) speaker-volume-event( 47) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
AuditoryApparatusID, Volume FROM CSTA-physical-device-feature
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) physical-device-feature( 137) };

SpeakerVolumeEvent ::= SEQUENCE
{
    invokingDevice          SubjectDeviceID,
    auditoryApparatus       AuditoryApparatusID,
    speakerVolume           Volume,
    extensions              CSTACCommonArguments    OPTIONAL}

END -- of CSTA-speaker-volume-event

```

20 Logical device features**20.1 Services****20.1.1 Call back non-call-related**

```

CSTA-call-back-non-call-related
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-back-non-call-related( 300) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

callBackNonCallRelated OPERATION ::=
{
  ARGUMENT    callBackNonCallRelatedArgument
  RESULT      callBackNonCallRelatedResult
  ERRORS      {universalFailure}
  CODE        local: 300
}

CallBackNonCallRelatedArgument ::= SEQUENCE
{
  originatingDevice    DeviceID,
  targetDevice         DeviceID,
  extensions            CSTACommonArguments OPTIONAL}

CallBackNonCallRelatedResult ::= CHOICE
{
  extensions    CSTACommonArguments,
  noData        NULL}

END -- of CSTA-call-back-non-call-related

```

20.1.2 Call back message non-call-related

```

CSTA-call-back-message-non-call-related
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-back-message-non-call-related( 301) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) },

callBackMessageNonCallRelated OPERATION ::=
{
  ARGUMENT    CallBackMessageNonCallRelatedArgument
  RESULT      CallBackMessageNonCallRelatedResult
  ERRORS      {universalFailure}
  CODE        local: 301
}

CallBackMessageNonCallRelatedArgument ::= SEQUENCE
{
  originatingDevice    DeviceID,
  targetDevice          DeviceID,
  extensions            CSTACommonArguments OPTIONAL}

CallBackMessageNonCallRelatedResult ::= CHOICE
{
  extensions    CSTACommonArguments,
  noData        NULL}

END -- of CSTA-call-back-message-non-call-related

```

20.1.3 Cancel call back

```

CSTA-cancel-call-back
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) cancel-call-back( 302) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

cancelCallBack OPERATION ::=
{
  ARGUMENT    CancelCallBackArgument
  RESULT      CancelCallBackResult
  ERRORS      {universalFailure}
  CODE        local: 302
}

CancelCallBackArgument ::= SEQUENCE
{
  originatingDevice    DeviceID,
  targetDevice         DeviceID,
  extensions            CSTACCommonArguments OPTIONAL}

CancelCallBackResult ::= CHOICE
{
  extensions    CSTACCommonArguments,
  noData        NULL}

END -- of CSTA-cancel-call-back

```

20.1.4 Cancel call back message

```

CSTA-cancel-call-back-message
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) cancel-call-back-message( 303) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

cancelCallBackMessage OPERATION ::=
{
  ARGUMENT    CancelCallBackMessageArgument
  RESULT      CancelCallBackMessageResult
  ERRORS      {universalFailure}
  CODE        local: 303
}

CancelCallBackMessageArgument ::= SEQUENCE
{
  originatingDevice    DeviceID,
  targetDevice         DeviceID,
  extensions            CSTACommonArguments OPTIONAL}

CancelCallBackMessageResult ::= CHOICE
{
  extensions    CSTACommonArguments,
  noData       NULL}

END -- of CSTA-cancel-call-back-message

```

20.1.5 Get agent state

```

CSTA-get-agent-state
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-agent-state( 304) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
AgentID, AgentState, PendingAgentState FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

getAgentState OPERATION ::=
{
  ARGUMENT    GetAgentStateArgument
  RESULT      GetAgentStateResult
  ERRORS      {universalFailure}
  CODE        local: 304
}

GetAgentStateArgument ::= SEQUENCE
{
  device      DeviceID,
  acdGroup    DeviceID,
  extensions  CSTACommonArguments OPTIONAL,
}

GetAgentStateResult ::= SEQUENCE
{
  agentStateList AgentStateList,
  extensions     CSTACommonArguments OPTIONAL}

AgentStateList ::= SEQUENCE SIZE (1..32) OF AgentStateEntry

AgentStateEntry ::= SEQUENCE
{
  agentID      AgentID OPTIONAL,
  loggedOnState BOOLEAN,
  agentInfo    SEQUENCE OF AgentInfo OPTIONAL}

AgentInfo ::= SEQUENCE
{
  acdGroup      DeviceID OPTIONAL,
  agentState    AgentState,
  pendingAgentState [0] IMPLICIT PendingAgentState OPTIONAL,
  agentStateCondition [1] IMPLICIT AgentStateCondition OPTIONAL}

AgentStateCondition ::= ENUMERATED
{
  forcedPause (0),
  other (1)}

END -- of CSTA-get-agent-state

```

20.1.6 Get auto answer

```

CSTA-get-auto-answer
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-auto-answer( 305) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

getAutoAnswer OPERATION ::=
{
  ARGUMENT    GetAutoAnswerArgument
  RESULT      GetAutoAnswerResult
  ERRORS      {universalFailure}
  CODE        local: 305
}

GetAutoAnswerArgument ::= SEQUENCE
{
  device      DeviceID,
  extensions  CSTACommonArguments OPTIONAL}

GetAutoAnswerResult ::= SEQUENCE
{
  autoAnswerOn      BOOLEAN,
  numberOfRings     INTEGER,
  extensions         CSTACommonArguments OPTIONAL,
  extensions         CSTACommonArguments OPTIONAL}

END -- of CSTA-get-auto-answer

```

20.1.7 Get auto work mode

```

CSTA-get-auto-work-mode
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-auto-work-mode( 306) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

getAutoWorkMode OPERATION ::=
{
  ARGUMENT    GetAutoWorkModeArgument
  RESULT      GetAutoWorkModeResult
  ERRORS      {universalFailure}
  CODE        local: 306
}

GetAutoWorkModeArgument ::= SEQUENCE
{
  device      DeviceID,
  extensions  CSTACommonArguments OPTIONAL}

GetAutoWorkModeResult ::= SEQUENCE
{
  autoWorkOn      BOOLEAN,
  autoWorkInterval INTEGER,
  extensions       CSTACommonArguments OPTIONAL}

END -- of CSTA-get-auto-work-mode

```

20.1.8 Get caller id status

```

CSTA-get-caller-id-status
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-caller-id-status( 307) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

getCallerIDStatus OPERATION ::=
{
  ARGUMENT    GetCallerIDStatusArgument
  RESULT      GetCallerIDStatusResult
  ERRORS      {universalFailure}
  CODE        local: 307
}

GetCallerIDStatusArgument ::= SEQUENCE
{
  device      DeviceID,
  extensions  CSTACommonArguments OPTIONAL}

GetCallerIDStatusResult ::= SEQUENCE
{
  callerIDProvided  BOOLEAN,
  extensions        CSTACommonArguments OPTIONAL}

END -- of CSTA-get-caller-id-status

```

20.1.9 Get do not disturb

```

CSTA-get-do-not-disturb
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-do-not-disturb( 308) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CallOrigination FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

getDoNotDisturb OPERATION ::=
{
  ARGUMENT    GetDoNotDisturbArgument
  RESULT      GetDoNotDisturbResult
  ERRORS      {universalFailure}
  CODE        local: 308
}

GetDoNotDisturbArgument ::= SEQUENCE
{
  device      DeviceID,
  extensions  CSTACCommonArguments OPTIONAL}

GetDoNotDisturbResult ::= SEQUENCE
{
  doNotDisturbOn      BOOLEAN,
  callOrigination      CallOrigination      OPTIONAL,
  callingDeviceList    SEQUENCE OF DeviceID  OPTIONAL,
  extensions            CSTACCommonArguments OPTIONAL}

END -- of CSTA-get-do-not-disturb

```

20.1.10 Get forwarding

```

CSTA-get-forwarding
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-forwarding( 309) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
ForwardList FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

getForwarding OPERATION ::=
{
  ARGUMENT    GetForwardingArgument
  RESULT      GetForwardingResult
  ERRORS      {universalFailure}
  CODE        local: 309
}

GetForwardingArgument ::= SEQUENCE
{
  device      DeviceID,
  extensions  CSTACommonArguments OPTIONAL}

GetForwardingResult ::= SEQUENCE
{
  forwardingList ForwardList,
  extensions     CSTACommonArguments OPTIONAL}

END -- of CSTA-get-forwarding

```

20.1.11 Get last number dialed

```

CSTA-get-last-number-dialed
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-last-number-dialed( 310) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

getLastNumberDialed OPERATION ::=
{
  ARGUMENT    GetLastNumberDialedArgument
  RESULT      GetLastNumberDialedResult
  ERRORS      {universalFailure}
  CODE        local: 310
}

GetLastNumberDialedArgument ::= SEQUENCE
{
  device      DeviceID,
  extensions  CSTACommonArguments OPTIONAL}

GetLastNumberDialedResult ::= SEQUENCE
{
  numberDialed      DeviceID,
  extensions        CSTACommonArguments OPTIONAL}

END -- of CSTA-get-last-number-dialed

```

20.1.12 Get routing mode

```

CSTA-get-routing-mode
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) get-routing-mode( 311) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

getRoutingMode OPERATION ::=
{
  ARGUMENT    GetRoutingModeArgument
  RESULT      GetRoutingModeResult
  ERRORS      {universalFailure}
  CODE        local: 311
}

GetRoutingModeArgument ::= SEQUENCE
{
  device      DeviceID,
  extensions  CSTACommonArguments OPTIONAL}

GetRoutingModeResult ::= SEQUENCE
{
  routingMode    BOOLEAN,
  extensions     CSTACommonArguments    OPTIONAL}

END -- of CSTA-get-routing-mode

```

20.1.13 Set agent state

```

CSTA-set-agent-state
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-agent-state( 312) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
AgentID, AgentPassword, PendingAgentState FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

setAgentState OPERATION ::=
{
  ARGUMENT      SetAgentStateArgument
  RESULT        SetAgentStateResult
  ERRORS        {universalFailure}
  CODE          local: 312
}

SetAgentStateArgument ::= SEQUENCE
{
  device                DeviceID,
  requestedAgentState   ReqAgentState,
  agentID               [2] IMPLICIT AgentID           OPTIONAL,
  password              [3] IMPLICIT AgentPassword     OPTIONAL,
  group                DeviceID                         OPTIONAL,
  extensions            CSTACommonArguments            OPTIONAL}

SetAgentStateResult ::= SEQUENCE
{
  pendingAgentState     PendingAgentState              OPTIONAL,
  extensions            CSTACommonArguments            OPTIONAL}

ReqAgentState ::= ENUMERATED
{
  loggedon              (0),
  loggedoff             (1),
  notReady              (2),
  ready                 (3),
  workingAfterCall      (4)}

END -- of CSTA-set-agent-state

```

20.1.14 Set auto answer

```

CSTA-set-auto-answer
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-auto-answer( 313) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

setAutoAnswer OPERATION ::=
{
  ARGUMENT      SetAutoAnswerArgument
  RESULT        SetAutoAnswerResult
  ERRORS        {universalFailure}
  CODE          local: 313
}

SetAutoAnswerArgument ::= SEQUENCE
{
  device          DeviceID,
  autoAnswerOn    BOOLEAN,
  numberOfRings   INTEGER          OPTIONAL,
  extensions      CSTACCommonArguments OPTIONAL}

SetAutoAnswerResult ::= CHOICE
{
  extensions      CSTACCommonArguments,
  noData          NULL}

END -- of CSTA-set-auto-answer

```

20.1.15 Set auto work mode

```

CSTA-set-auto-work-mode
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-auto-work-mode( 314) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

setAutoWorkMode OPERATION ::=
{
  ARGUMENT    SetAutoWorkModeArgument
  RESULT      SetAutoWorkModeResult
  ERRORS      {universalFailure}
  CODE        local: 314
}

SetAutoWorkModeArgument ::= SEQUENCE
{
  device          DeviceID,
  autoWorkOn      BOOLEAN,
  autoWorkInterval INTEGER (0..6000) OPTIONAL,
  extensions      CSTACCommonArguments OPTIONAL}

SetAutoWorkModeResult ::= CHOICE
{
  extensions CSTACCommonArguments,
  noData     NULL}

END -- of CSTA-set-auto-work-mode

```

20.1.16 Set caller id status

```

CSTA-set-caller-id-status
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-caller-id-status( 315) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

setCallerIDStatus OPERATION ::=
{
  ARGUMENT    SetCallerIDStatusArgument
  RESULT      SetCallerIDStatusResult
  ERRORS      {universalFailure}
  CODE        local: 315
}

SetCallerIDStatusArgument ::= SEQUENCE
{
  device          DeviceID,
  callerIDProvided BOOLEAN,
  extensions      CSTACCommonArguments OPTIONAL}

SetCallerIDStatusResult ::= CHOICE
{
  extensions CSTACCommonArguments,
  noData      NULL}

END -- of CSTA-set-caller-id-status

```

20.1.17 Set do not disturb

```

CSTA-set-do-not-disturb
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-do-not-disturb( 316) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CallOrigination FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

setDoNotDisturb OPERATION ::=
{
  ARGUMENT    SetDoNotDisturbArgument
  RESULT      SetDoNotDisturbResult
  ERRORS      {universalFailure}
  CODE        local: 316
}

SetDoNotDisturbArgument ::= SEQUENCE
{
  device          DeviceID,
  doNotDisturbOn  BOOLEAN,
  callOrigination CallOrigination OPTIONAL,
  callingDeviceList SEQUENCE OF DeviceID OPTIONAL,
  extensions      CSTACommonArguments OPTIONAL}

SetDoNotDisturbResult ::= CHOICE
{
  extensions CSTACommonArguments,
  noData     NULL}

END -- of CSTA-set-do-not-disturb

```

20.1.18 Set forwarding

```

CSTA-set-forwarding
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-forwarding( 317) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
ForwardingType FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

setForwarding OPERATION ::=
{
  ARGUMENT      SetForwardingArgument
  RESULT        SetForwardingResult
  ERRORS        {universalFailure}
  CODE          local: 317
}

SetForwardingArgument ::= SEQUENCE
{
  device          DeviceID,
  forwardingType  ForwardingType          OPTIONAL,
  activateForward BOOLEAN,
  forwardDN       DeviceID                OPTIONAL,
  ringCount       INTEGER (1..100)        OPTIONAL,
  extensions      CSTACommonArguments     OPTIONAL}

SetForwardingResult ::= CHOICE
{
  extensions  CSTACommonArguments,
  noData      NULL}

END -- of CSTA-set-forwarding

```

20.1.19 Set routing mode

```

CSTA-set-routing-mode
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) set-routing-mode( 318) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

setRoutingMode OPERATION ::=
{
  ARGUMENT    SetRoutingModeArgument
  RESULT      SetRoutingModeResult
  ERRORS      {universalFailure}
  CODE        local: 318
}

SetRoutingModeArgument ::= SEQUENCE
{
  device          DeviceID,
  routingMode     BOOLEAN,
  extensions      CSTACommonArguments OPTIONAL}

SetRoutingModeResult ::= CHOICE
{
  extensions      CSTACommonArguments,
  noData          NULL}

END -- of CSTA-set-routing-mode

```

20.2 Events

20.2.1 Agent busy

```

CSTA-agent-busy-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) agent-busy-event( 319) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) event-causes( 121) }
DeviceID, SubjectDeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
AgentID, PendingAgentState FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

AgentBusyEvent ::= SEQUENCE
{
  agentDevice          SubjectDeviceID,
  agentID              AgentID,
  acdGroup             DeviceID,
  pendingAgentState    [2] IMPLICIT PendingAgentState,
  cause                [3] IMPLICIT EventCause,
  extensions           CSTACCommonArguments
}

END -- of CSTA-agent-busy-event

```

20.2.2 Agent logged off

```

CSTA-agent-logged-off-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) agent-logged-off-event( 320) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) event-causes( 121) }
DeviceID, SubjectDeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
AgentID, AgentPassword FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

AgentLoggedOffEvent ::= SEQUENCE
{
  agentDevice          SubjectDeviceID,
  agentID              [2] IMPLICIT AgentID          OPTIONAL,
  acdGroup             DeviceID                      OPTIONAL,
  agentPassword        [3] IMPLICIT AgentPassword    OPTIONAL,
  cause               EventCause                    OPTIONAL,
  extensions           CSTACommonArguments           OPTIONAL}

END -- of CSTA-agent-logged-off-event

```

20.2.3 Agent logged on

```

CSTA-agent-logged-on-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) agent-logged-on-event( 321) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
    { iso( 1) identified-organization( 3) icd-ecma( 12)
        standard( 0) csta3( 285) event-causes( 121) }
DeviceID, SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
        standard( 0) csta3( 285) device-identifiers( 123) }
AgentID, AgentPassword FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
        standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
        standard( 0) csta3( 285) extension-types( 129) };

AgentLoggedOnEvent ::= SEQUENCE
{
    agentDevice          SubjectDeviceID,
    agentID              [2] IMPLICIT AgentID          OPTIONAL,
    acdGroup             DeviceID                      OPTIONAL,
    agentPassword        [3] IMPLICIT AgentPassword    OPTIONAL,
    cause               EventCause                    OPTIONAL,
    extensions           CSTACommonArguments           OPTIONAL}

END -- of CSTA-agent-logged-on-event

```

20.2.4 Agent not ready

```

CSTA-agent-not-ready-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) agent-not-ready-event( 322) }

```

```

DEFINITIONS ::=

```

```

BEGIN

```

```

IMPORTS

```

```

-- Data Types --

```

```

EventCause FROM CSTA-event-causes

```

```

{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }

```

```

DeviceID, SubjectDeviceID FROM CSTA-device-identifiers

```

```

{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }

```

```

AgentID FROM CSTA-device-feature-types

```

```

{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }

```

```

CSTACCommonArguments FROM CSTA-extension-types

```

```

{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

```

```

AgentNotReadyEvent ::= SEQUENCE

```

```

{
  agentDevice          SubjectDeviceID,
  agentID              AgentID          OPTIONAL,
  acdGroup             DeviceID         OPTIONAL,
  cause               EventCause       OPTIONAL,
  extensions           CSTACCommonArguments OPTIONAL}

```

```

END -- of CSTA-agent-not-ready-event

```

20.2.5 Agent ready

```

CSTA-agent-ready-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) agent-ready-event( 323) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) event-causes( 121) }
DeviceID, SubjectDeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
AgentID, AgentPassword FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

AgentReadyEvent ::= SEQUENCE
{
  agentDevice          SubjectDeviceID,
  agentID              AgentID,
  acdGroup             DeviceID,
  cause                EventCause,
  extensions           CSTACommonArguments
}

END -- of CSTA-agent-ready-event

```

20.2.6 Agent working after call

```

CSTA-agent-working-after-call-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) agent-working-after-call-event( 324) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) event-causes( 121) }
DeviceID, SubjectDeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
AgentID, PendingAgentState FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

AgentWorkingAfterCallEvent ::= SEQUENCE
{
  agentDevice          SubjectDeviceID,
  agentID              AgentID
                        OPTIONAL,
  acdGroup             DeviceID
                        OPTIONAL,
  pendingAgentState    [2] IMPLICIT ENUMERATED
                        {notReady
                        (0),
                        ready
                        (1),
                        null
                        (2)}
                        OPTIONAL,
  cause                [3] IMPLICIT EventCause
                        OPTIONAL,
  extensions            CSTACCommonArguments
                        OPTIONAL}

END -- of CSTA-agent-working-after-call-event

```

20.2.7 Auto answer

```

CSTA-auto-answer-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) auto-answer-event( 40) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

AutoAnswerEvent ::= SEQUENCE
{
  invokingDevice          SubjectDeviceID,
  autoAnswerOn            BOOLEAN,
  numberOfRings           INTEGER          OPTIONAL,
  extensions              CSTACCommonArguments  OPTIONAL
}

END -- of CSTA-auto-answer-event

```

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20.2.8 Auto work mode

```

CSTA-auto-work-mode-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) auto-work-mode-event( 326) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

AutoWorkModeEvent ::= SEQUENCE
{
  invokingDevice      SubjectDeviceID,
  autoWorkOn          BOOLEAN,
  autoWorkInterval    INTEGER,
  extensions           CSTACommonArguments    OPTIONAL}

END -- of CSTA-auto-work-mode-event

```

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20.2.9 Call back

```

CSTA-call-back-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-back-event( 327) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

CallBackEvent ::= SEQUENCE
{
  originatingDevice      SubjectDeviceID,
  targetDevice           SubjectDeviceID,
  callBackSetCanceled    BOOLEAN,
  extensions             CSTACommonArguments OPTIONAL
}

END -- of CSTA-call-back-event

```

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20.2.10 Call back message

```

CSTA-call-back-message-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-back-message-event( 328) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

CallBackMessageEvent ::= SEQUENCE
{
  originatingDevice      SubjectDeviceID,
  targetDevice            SubjectDeviceID,
  callBackMsgSetCanceled BOOLEAN,
  extensions              CSTACommonArguments    OPTIONAL}

END -- of CSTA-call-back-message-event

```

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20.2.11 Caller id status

```

CSTA-caller-id-status-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) caller-id-status-event( 329) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

CallerIDStatusEvent ::= SEQUENCE
{
  device                DeviceID,
  callerIDProvided      BOOLEAN,
  extensions             CSTACommonArguments OPTIONAL}

END -- of CSTA-caller-id-status-event

```

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20.2.12 Do not disturb

```

CSTA-do-not-disturb-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) do-not-disturb-event( 42) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
DeviceID, SubjectDeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CallOrigination FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

DoNotDisturbEvent ::= SEQUENCE
{
  device                SubjectDeviceID,
  doNotDisturbOn        BOOLEAN,
  callOrigination        CallOrigination      OPTIONAL,
  callingDeviceList      SEQUENCE OF DeviceID OPTIONAL,
  extensions             CSTACommonArguments OPTIONAL}

END -- of CSTA-do-not-disturb-event

```

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20.2.13 Forwarding

```

CSTA-forwarding-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) forwarding-event( 43) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
DeviceID, SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
        standard( 0) csta3( 285) device-identifiers( 123) }
ForwardingType, ForwardDefault FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
        standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
        standard( 0) csta3( 285) extension-types( 129) };

ForwardingEvent ::= SEQUENCE
{
    device                SubjectDeviceID,
    forwardingType         ForwardingType         OPTIONAL,
    forwardStatus          BOOLEAN,
    forwardTo              DeviceID                OPTIONAL,
    forwardDefault          ForwardDefault          OPTIONAL,
    ringCount              INTEGER (1..100)         OPTIONAL,
    extensions              CSTACCommonArguments   OPTIONAL}

END -- of CSTA-forwarding-event

```

20.2.14 Routing mode

```

CSTA-routing-mode-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) routing-mode-event( 332) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
SubjectDeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

RoutingModeEvent ::= SEQUENCE
{
  device          SubjectDeviceID,
  routingMode     BOOLEAN,
  extensions      CSTACommonArguments OPTIONAL}

END -- of CSTA-routing-mode-event

```

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21 Device maintenance events

21.1 Events

21.1.1 Back in service

```
CSTA-back-in-service-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) back-in-service-event( 333) }
```

```
DEFINITIONS ::=
BEGIN
```

```
IMPORTS
```

```
-- Data Types --
```

```
EventCause FROM CSTA-event-causes
```

```
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) event-causes( 121) }
```

```
SubjectDeviceID FROM CSTA-device-identifiers
```

```
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
```

```
CSTACommonArguments FROM CSTA-extension-types
```

```
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };
```

```
BackInServiceEvent ::= SEQUENCE
```

```
{
    device                SubjectDeviceID,
    cause                 EventCause
    extensions            CSTACommonArguments OPTIONAL,
                        OPTIONAL}
```

```
END -- of CSTA-back-in-service-event
```

21.1.2 Device capabilities changed

```

CSTA-device-capabilities-changed-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-capabilities-changed-event( 334) }

DEFINITIONS ::=
BEGIN

IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID FROM CSTA-device-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-identifiers( 123) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

DeviceCapsChangedEvent ::= SEQUENCE
{
  device          SubjectDeviceID,
  cause           EventCause
                  OPTIONAL,
  extensions      CSTACommonArguments
                  OPTIONAL}

END -- of CSTA-device-capabilities-changed-event

```

21.1.3 Out of service

```

CSTA-out-of-service-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) out-of-service-event( 335) }

DEFINITIONS ::=
BEGIN

IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) event-causes( 121) }
SubjectDeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
;

OutOfServiceEvent ::= SEQUENCE
{
    device          SubjectDeviceID,
    cause           EventCause
                    OPTIONAL,
    extensions      CSTACCommonArguments
                    OPTIONAL}

END -- of CSTA-out-of-service-event

```

22 I/O services**22.1 Registration services****22.1.1 I/O register**

```

CSTA-io-register
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) io-register( 340) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-identifiers( 123) }
IORegisterReqID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

ioRegister      OPERATION ::=
{
    ARGUMENT      IORegisterArgument
    RESULT        IORegisterResult
    ERRORS        {universalFailure}
    CODE          local: 340
}

IORegisterArgument ::= SEQUENCE
{
    ioDevice      DeviceID          OPTIONAL,
    extensions    CSTACCommonArguments  OPTIONAL}

IORegisterResult ::= SEQUENCE
{
    ioRegisterReqID  IORegisterReqID,
    extensions       CSTACCommonArguments  OPTIONAL}

END -- of CSTA-io-register

```

22.1.2 I/O register abort

```

CSTA-io-register-abort
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) io-register-abort( 341) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
IORegisterReqID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }

ioRegisterAbort      OPERATION ::=
{
    ARGUMENT          IORegisterAbortArgument
    ERRORS             {universalFailure}
    ALWAYS RESPONDS   FALSE
    CODE              local: 341
}

IORegisterAbortArgument ::= SEQUENCE
{
    ioRegisterReqID    IORegisterReqID,
    extensions         CSTACCommonArguments    OPTIONAL}

END -- of CSTA-io-register-abort

```

22.1.3 I/O register cancel

```

CSTA-io-register-cancel
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) io-register-cancel( 342) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
IORegisterReqID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

ioRegisterCancelOPERATION ::=
{
  ARGUMENT    IORegisterCancelArgument
  RESULT      IORegisterCancelResult
  ERRORS      {universalFailure}
  CODE        local: 342
}

IORegisterCancelArgument ::= SEQUENCE
{
  ioRegisterReqID      IORegisterReqID,
  extensions            CSTACommonArguments    OPTIONAL}

IORegisterCancelResult ::= CHOICE
{
  extensions    CSTACommonArguments,
  noData        NULL}

END -- of CSTA-io-register-cancel

```

22.2 Services

22.2.1 Data path resumed

```

CSTA-data-path-resumed
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) data-path-resumed( 118) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
IOCrossRefID, IORegisterReqID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

dataPathResumedOPERATION ::=
{
    ARGUMENT    DataPathResumedArgument
    RESULT      DataPathResumedResult
    ERRORS      {universalFailure}
    CODE        local: 118
}

DataPathResumedArgument ::= SEQUENCE
{
    ioCrossRefID      IOCrossRefID,
    ioRegisterReqID   IORegisterReqID      OPTIONAL,
    extensions        CSTACommonArguments  OPTIONAL}

DataPathResumedResult ::= CHOICE
{
    extensions  CSTACommonArguments,
    noData     NULL }

END -- of CSTA-data-path-resumed

```

22.2.2 Data path suspended

```

CSTA-data-path-suspended
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) data-path-suspended( 116) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
IOCrossRefID, IORegisterReqID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

dataPathSuspendedOPERATION ::=
{
  ARGUMENT    DataPathSuspendedArgument
  RESULT      DataPathSuspendedResult
  ERRORS      {universalFailure}
  CODE        local: 116
}

DataPathSuspendedArgument ::= SEQUENCE
{
  ioCrossRefID      IOCrossRefID,
  ioReqRegisterID   IORegisterReqID,
  extensions         CSTACCommonArguments OPTIONAL,
                    OPTIONAL}

DataPathSuspendedResult ::= CHOICE
{
  extensions         CSTACCommonArguments,
  noData             NULL }

END -- of CSTA-data-path-suspended

```

22.2.3 Fast data

```

CSTA-fast-data
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) fast-data( 119) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
CSTAObject FROM CSTA-switching-function-objects
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) switching-function-objects( 122) }
DataPathType, IORegisterReqID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
DisplayID FROM CSTA-physical-device-feature
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) physical-device-feature( 137) };

fastData
{
  ARGUMENT    FastDataArgument
  RESULT      FastDataResult
  ERRORS       {universalFailure}
  CODE         local: 119
}

FastDataArgument ::= SEQUENCE
{
  ioRegisterReqID      IORegisterReqID          OPTIONAL,
  object                CSTAObject,
  dataPathType          DataPathType            OPTIONAL,
  displayAttributes     DisplayAttribute         OPTIONAL,
  ioData                OCTET STRING (SIZE(0..240)) OPTIONAL,
  extensions             CSTACommonArguments     OPTIONAL}

FastDataResult ::= CHOICE
{
  extensions CSTACommonArguments,
  noData     NULL}

DisplayAttribute ::= SEQUENCE
{
  displayID          DisplayID          OPTIONAL,
  physicalBaseRowNumber [0] IMPLICIT INTEGER OPTIONAL,
  physicalBaseColumnNumber [1] IMPLICIT INTEGER OPTIONAL,
  offset             [2] IMPLICIT INTEGER OPTIONAL}

END -- of CSTA-fast-data

```

22.2.4 Resume data path

```

CSTA-resume-data-path
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) resume-data-path( 117) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
IOCrossRefID, IORegisterReqID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

resumeDataPath      OPERATION ::=
{
  ARGUMENT      ResumeDataPathArgument
  RESULT        ResumeDataPathResult
  ERRORS        {universalFailure}
  CODE          local: 117
}

ResumeDataPathArgument ::= SEQUENCE
{
  ioCrossRefID      IOCrossRefID,
  ioRegisterReqID   IORegisterReqID,
  extensions        CSTACCommonArguments OPTIONAL,
                   OPTIONAL}

ResumeDataPathResult ::= CHOICE
{
  extensions        CSTACCommonArguments,
  noData            NULL }

END -- of CSTA-resume-data-path

```

22.2.5 Send broadcast data

```

CSTA-send-broadcast-data
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) send-broadcast-data( 114) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
DataPathType, DisplayAttributeList FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }

sendBroadcastData OPERATION ::=
{
    ARGUMENT      SendBroadcastDataArgument
    RESULT        SendBroadcastDataResult
    ERRORS        {universalFailure}
    CODE          local: 114
}

SendBroadcastDataArgument ::= SEQUENCE
{
    ioData          OCTET STRING (SIZE(0..240)),
    dataPathType    DataPathType
    displayAttributes DisplayAttributeList
    extensions      CSTACommonArguments
}

SendBroadcastDataResult ::= CHOICE
{
    extensions CSTACommonArguments,
    noData     NULL
}

END -- of CSTA-send-broadcast-data

```

22.2.6 Send data

```

CSTA-send-data
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) send-data( 112) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
IOCrossRefID, IORegisterReqID, DisplayAttributeList FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }

sendData      OPERATION ::=
{
  ARGUMENT      SendDataArgument
  RESULT        SendDataResult
  ERRORS        {universalFailure}
  CODE          local: 112
}

SendDataArgument ::= SEQUENCE
{
  ioCrossRefID      IOCrossRefID,
  ioRegisterReqID   [0] IMPLICIT IORegisterReqID      OPTIONAL,
  displayAttributes DisplayAttributeList              OPTIONAL,
  ioData            OCTET STRING (SIZE(0..240)),
  ioCause           EventCause                        OPTIONAL,
  extensions        CSTACommonArguments               OPTIONAL}

SendDataResult ::= CHOICE
{
  extensions CSTACommonArguments,
  noData     NULL}

END -- of CSTA-send-data

```

22.2.7 Send multicast data

```

CSTA-send-multicast-data
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) send-multicast-data( 113) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
IOCrossRefID, DisplayAttributeList FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }

sendMulticastDataOPERATION ::=
{
    ARGUMENT    SendMulticastDataArgument
    RESULT      SendMulticastDataResult
    ERRORS      {universalFailure}
    CODE        local: 113
}

SendMulticastDataArgument ::= SEQUENCE
{
    ioCrossRefIDList    SEQUENCE OF IOCrossRefID,
    ioData              OCTET STRING (SIZE(0..240))    OPTIONAL,
    displayAttributes   DisplayAttributeList           OPTIONAL,
    extensions          CSTACommonArguments            OPTIONAL}

SendMulticastDataResult ::= CHOICE
{
    extensions    CSTACommonArguments,
    noData        NULL}

END -- of CSTA-send-multicast-data

```

22.2.8 Start data path

```

CSTA-start-data-path
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) start-data-path( 110) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
CSTAObject FROM CSTA-switching-function-objects
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) switching-function-objects( 122) }
DataPathType, IOCrossRefID, IORegisterReqID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
DisplayID FROM CSTA-physical-device-feature
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) physical-device-feature( 137) };

startDataPathOPERATION ::=
{
  ARGUMENT    StartDataPathArgument
  RESULT      StartDataPathResult
  ERRORS      {universalFailure}
  CODE        local: 110
}

StartDataPathArgument ::= SEQUENCE
{
  ioRegisterReqID      IORegisterReqID              OPTIONAL,
  object               CSTAObject,
  dataPathDirection    [0] IMPLICIT DataPathDirection OPTIONAL,
  dataPathType          [1] IMPLICIT DataPathType     OPTIONAL,
  displayID            DisplayID                     OPTIONAL,
  numberOfCharactersToCollect [2] IMPLICIT INTEGER    OPTIONAL,
  terminationCharacter   IA5String (SIZE(1..1))      OPTIONAL,
  timeout               [3] IMPLICIT INTEGER          OPTIONAL,
  extensions            CSTACommonArguments          OPTIONAL}

StartDataPathResult ::=SEQUENCE
{
  ioCrossRefID      IOCrossRefID,
  numberOfCharactersToCollect [0] IMPLICIT INTEGER    OPTIONAL,
  terminationCharacter   IA5String(SIZE(1..1))      OPTIONAL,
  timeout               [1] IMPLICIT INTEGER          OPTIONAL,
  extensions            CSTACommonArguments          OPTIONAL}

DataPathDirection ::= ENUMERATED
{
  computeFunctionToObject      (0),
  objectToComputeFunction      (1),
  bidirectional                 (2)}

END -- of CSTA-start-data-path

```

22.2.9 Stop data path

```

CSTA-stop-data-path
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) stop-data-path( 111) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
IOCrossRefID, IORegisterReqID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }

stopDataPathOPERATION ::=
{
    ARGUMENT    StopDataPathArgument
    RESULT      StopDataPathResult
    ERRORS      {universalFailure}
    CODE        local: 111
}

StopDataPathArgument ::= SEQUENCE
{
    ioCrossRefID      IOCrossRefID,
    ioRegisterReqID   IORegisterReqID,
    extensions        CSTACCommonArguments OPTIONAL,
                     OPTIONAL}

StopDataPathResult ::= CHOICE
{
    extensions        CSTACCommonArguments,
    noData            NULL}

END -- of CSTA-stop-data-path

```

22.2.10 Suspend data path

```

CSTA-suspend-data-path
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) suspend-data-path( 115) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
IOCrossRefID, IORegisterReqID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

suspendDataPathOPERATION ::=
{
    ARGUMENT    SuspendDataPathArgument
    RESULT      SuspendDataPathResult
    ERRORS      {universalFailure}
    CODE        local: 115
}

SuspendDataPathArgument ::= SEQUENCE
{
    ioCrossRefID      IOCrossRefID,
    ioRegisterReqID   IORegisterReqID,
    extensions        CSTACCommonArguments OPTIONAL,
                     OPTIONAL}

SuspendDataPathResult ::= CHOICE
{
    extensions        CSTACCommonArguments,
    noData            NULL }

END -- of CSTA-suspend-data-path

```

23 Data Collection Services

23.1 Services

23.1.1 Data Collected

```

CSTA-data-collected
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) data-collected( 343) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)};
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
ConnectionInformation FROM CSTA-media-services
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) media-services( 136) }
DcollCrossRefID FROM CSTA-data-collection
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) data-collection( 138) };

dataCollected OPERATION ::=
{
  ARGUMENT    DataCollectedArgument
  RESULT      DataCollectedResult
  ERRORS      {universalFailure}
  CODE        local: 343
}

DataCollectedArgument ::= SEQUENCE
{
  dcollCrossRefID    DcollCrossRefID,
  digitsData         [0] IMPLICIT DigitsData             OPTIONAL,
  telTonesData       [1] IMPLICIT TelTonesData            OPTIONAL,
  connectionInformation [2] IMPLICIT ConnectionInformation OPTIONAL,
  dcollCause         DcollCause                           OPTIONAL,
  extensions         CSTACommonArguments                  OPTIONAL}

DataCollectedResult ::= CHOICE
{
  extensions  CSTACommonArguments,
  noData      NULL}

DigitsData ::= SEQUENCE
{
  digitsDetected      IA5String (SIZE(0..64)),
  digitsDuration      [0] IMPLICIT SEQUENCE OF INTEGER  OPTIONAL,
  digitsPauseDuration [1] IMPLICIT SEQUENCE OF INTEGER  OPTIONAL}

TelTonesData ::= SEQUENCE
{
  toneDetected      ToneDetected,
  toneFrequency      [0] IMPLICIT INTEGER               OPTIONAL,
  toneDuration       [1] IMPLICIT INTEGER               OPTIONAL,
  tonePauseDuration [2] IMPLICIT INTEGER               OPTIONAL}

ToneDetected ::= ENUMERATED
{
  beep              ( 0),
  billing            ( 1),
  busy               ( 2),
  carrier            ( 3),
  confirmation       ( 4),
  dial               ( 5),
  faxCNG             ( 6),
  hold               ( 7),
  howler             ( 8),

```

```

        intrusion          ( 9),
        modemCNG           (10),
        park               (11),
        recordWarning       (12),
        reorder             (13),
        ringback            (14),
        silence             (15),
        sitVC               (16),
        sitIC               (17),
        sitRO               (18),
        sitNC               (19),
        other               (20)}

DcollCause ::= ENUMERATED
{
    flushCharReceived       (0),
    charCountReached        (1),
    timeout                 (2),
    sfTerminated            (3)}

END -- of CSTA-data-collected

```

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23.1.2 Data Collection Resumed

```

CSTA-data-collection-resumed
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) data-collection-resumed( 344) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
DcollCrossRefID FROM CSTA-data-collection
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) data-collection( 138) };

dataCollectionResumed OPERATION ::=
{
  ARGUMENT    DataCollectionResumedArgument
  RESULT      DataCollectionResumedResult
  ERRORS      {universalFailure}
  CODE        local: 344
}

DataCollectionResumedArgument ::= SEQUENCE
{
  dcollCrossRefID      DcollCrossRefID,
  extensions           CSTACommonArguments    OPTIONAL}

DataCollectionResumedResult ::= CHOICE
{
  extensions CSTACommonArguments,
  noData      NULL}

END -- of CSTA-data-collection-resumed

```

23.1.3 Data Collection Suspended

```

CSTA-data-collection-suspended
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) data-collection-suspended( 345) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
DcollCrossRefID FROM CSTA-data-collection
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) data-collection( 138) };

dataCollectionSuspended OPERATION ::=
{
  ARGUMENT   DataCollectionSuspendedArgument
  RESULT     DataCollectionSuspendedResult
  ERRORS     {universalFailure}
  CODE       local: 345
}

DataCollectionSuspendedArgument ::= SEQUENCE
{
  dcollCrossRefID      DcollCrossRefID,
  extensions           CSTACommonArguments    OPTIONAL}

DataCollectionSuspendedResult ::= CHOICE
{
  extensions  CSTACommonArguments,
  noData      NULL}

END -- of CSTA-data-collection-suspended

```

23.1.4 Resume Data Collection

```

CSTA-resume-data-collection
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) resume-data-collection( 346) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
DcollCrossRefID FROM CSTA-data-collection
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) data-collection( 138) };

resumeDataCollection OPERATION ::=
{
  ARGUMENT    ResumeDataCollectionArgument
  RESULT      ResumeDataCollectionResult
  ERRORS      {universalFailure}
  CODE        local: 346
}

ResumeDataCollectionArgument ::= SEQUENCE
{
  dcollCrossRefID      DcollCrossRefID,
  extensions           CSTACommonArguments    OPTIONAL}

ResumeDataCollectionResult ::= CHOICE
{
  extensions  CSTACommonArguments,
  noData      NULL}

END -- of CSTA-resume-data-collection

```

23.1.5 Start Data Collection

```

CSTA-start-data-collection
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) start-data-collection( 347) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
DeviceID FROM CSTA-device-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-identifiers( 123) }
ConnectionID FROM CSTA-call-connection-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) call-connection-identifiers( 124) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
DcollCrossRefID FROM CSTA-data-collection
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) data-collection( 138) };

startDataCollection OPERATION ::=
{
  ARGUMENT    StartDataCollectionArgument
  RESULT      StartDataCollectionResult
  ERRORS      {universalFailure}
  CODE        local: 347
}

StartDataCollectionArgument ::= SEQUENCE
{
  object          CallObject,
  dataCollType    DataCollType          OPTIONAL,
  digitsReportingCriteria DigitsReportingCriteria OPTIONAL,
  extensions      CSTACommonArguments   OPTIONAL}

StartDataCollectionResult ::= SEQUENCE
{
  dcollCrossRefID DcollCrossRefID,
  extensions      CSTACommonArguments   OPTIONAL}

CallObject ::= CHOICE
{
  device          DeviceID,
  call            ConnectionID}

DataCollType ::= ENUMERATED
{
  digits          (0),
  telTones        (1)}

DigitsReportingCriteria ::= SEQUENCE
{
  numChars        [0] IMPLICIT INTEGER   OPTIONAL,
  flushChar        IA5String (SIZE(1..1)) OPTIONAL,
  timeout          [1] IMPLICIT INTEGER   OPTIONAL}

END -- of CSTA-start-data-collection

```

23.1.6 Stop Data Collection

```

CSTA-stop-data-collection
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) stop-data-collection( 348) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
DcollCrossRefID FROM CSTA-data-collection
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) data-collection( 138) };

stopDataCollection OPERATION ::=
{
  ARGUMENT    StopDataCollectionArgument
  RESULT      StopDataCollectionResult
  ERRORS      {universalFailure}
  CODE        local: 348
}

StopDataCollectionArgument ::= SEQUENCE
{
  dcollCrossRefID      DcollCrossRefID,
  extensions           CSTACommonArguments    OPTIONAL}

StopDataCollectionResult ::= CHOICE
{
  extensions CSTACommonArguments,
  noData      NULL}

END -- of CSTA-stop-data-collection

```

23.1.7 Suspend Data Collection

```

CSTA-suspend-data-collection
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) suspend-data-collection( 349) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
DcollCrossRefID FROM CSTA-data-collection
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) data-collection( 138) };

suspendDataCollection OPERATION ::=
{
  ARGUMENT    SuspendDataCollectionArgument
  RESULT      SuspendDataCollectionResult
  ERRORS      {universalFailure}
  CODE        local: 349
}

SuspendDataCollectionArgument ::= SEQUENCE
{
  dcollCrossRefID      DcollCrossRefID,
  extensions           CSTACommonArguments    OPTIONAL}

SuspendDataCollectionResult ::= CHOICE
{
  extensions  CSTACommonArguments,
  noData      NULL}

END -- of CSTA-suspend-data-collection

```

24 Voice unit services and events

24.1 Services

24.1.1 Concatenate message

```

CSTA-concatenate-message
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) concatenate-message( 500) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
MessageID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

concatenateMessage OPERATION ::=
{
    ARGUMENT    ConcatenateMessageArgument
    RESULT      ConcatenateMessageResult
    ERRORS      {universalFailure}
    CODE        local: 500
}

ConcatenateMessageArgument ::= SEQUENCE
{
    messagesToConcatenate SEQUENCE OF MessageID,
    extensions             CSTACommonArguments             OPTIONAL}

ConcatenateMessageResult ::= SEQUENCE
{
    concatenatedMessage MessageID,
    extensions           CSTACommonArguments             OPTIONAL}

END -- of CSTA-concatenate-message

```

24.1.2 Delete message

```

CSTA-delete-message
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) delete-message( 501) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
MessageID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

deleteMessageOPERATION ::=
{
    ARGUMENT    DeleteMessageArgument
    RESULT      DeleteMessageResult
    ERRORS      {universalFailure}
    CODE        local: 501
}

DeleteMessageArgument ::= SEQUENCE
{
    messageToBeDeleted    MessageID,
    extensions             CSTACommonArguments    OPTIONAL}

DeleteMessageResult ::=CHOICE
{
    extensions    CSTACommonArguments,
    noData        NULL}

END -- of CSTA-delete-message

```

24.1.3 Play message

```

CSTA-play-message
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) play-message( 502) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID, TerminatingConditions FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

playMessage      OPERATION ::=
{
    ARGUMENT      PlayMessageArgument
    RESULT        PlayMessageResult
    ERRORS        {universalFailure}
    CODE          local: 502
}

PlayMessageArgument ::= SEQUENCE
{
    messageToBePlayed      MessageID,
    overConnection         ConnectionID,
    duration               INTEGER OPTIONAL,
    termination            TerminatingConditions OPTIONAL,
    extensions             CSTACommonArguments OPTIONAL}

PlayMessageResult ::= CHOICE
{
    extensions CSTACommonArguments,
    noData     NULL}

END -- of CSTA-play-message

```

24.1.4 Query voice attribute

```

CSTA-query-voice-attribute
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) query-voice-attribute( 503) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
AttributeInfo, MessageID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }

queryVoiceAttributeOPERATION ::=
{
  ARGUMENT    QueryVoiceAttributeArgument
  RESULT      QueryVoiceAttributeResult
  ERRORS      {universalFailure}
  CODE        local: 503
}

QueryVoiceAttributeArgument ::= SEQUENCE
{
  messageToQuery      MessageID,
  attributeToQuery     AttributeToQuery,
  connection          ConnectionID,
  extensions           CSTACommonArguments OPTIONAL,
}

QueryVoiceAttributeResult ::= SEQUENCE
{
  attribute      AttributeInfo,
  extensions     CSTACommonArguments OPTIONAL
}

AttributeToQuery ::= ENUMERATED
{
  encodingAlgorithm      (0),
  samplingRate           (1),
  duration               (2),
  fileName               (3),
  currentPosition        (4),
  currentSpeed           (5),
  currentVolume          (6),
  currentLevel           (7),
  currentState           (8)
}

END -- of CSTA-query-voice-attribute

```

24.1.5 Record message

```

CSTA-record-message
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) record-message( 511) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID, EncodingAlgorithm, TerminatingConditions
FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

recordMessageOPERATION ::=
{
    ARGUMENT    RecordMessageArgument
    RESULT      RecordMessageResult
    ERRORS      {universalFailure}
    CODE        local: 511
}

RecordMessageArgument ::= SEQUENCE
{
    callToBeRecorded      ConnectionID,
    samplingRate           [0] IMPLICIT INTEGER    OPTIONAL,
    encodingAlgorithm      EncodingAlgorithm        OPTIONAL,
    maxDuration            [1] IMPLICIT INTEGER    OPTIONAL,
    termination            TerminatingConditions  OPTIONAL,
    extensions             CSTACommonArguments      OPTIONAL}

RecordMessageResult ::= SEQUENCE
{
    resultingMessage      MessageID,
    extensions            CSTACommonArguments      OPTIONAL}

END -- of CSTA-record-message

```

24.1.6 Reposition

```

CSTA-reposition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) reposition( 504) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }

reposition      OPERATION ::=
{
  ARGUMENT      RepositionArgument
  RESULT        RepositionResult
  ERRORS        {universalFailure}
  CODE          local: 504
}

RepositionArgument ::= SEQUENCE
{
  connection          ConnectionID,
  periodOfReposition  Period,
  messageToReposition MessageID,
  extensions           CSTACommonArguments OPTIONAL,
}

RepositionResult ::= CHOICE
{
  extensions CSTACommonArguments,
  noData     NULL}

Period ::= CHOICE
{
  absolutePosition  ENUMERATED
  {
    startOfMessage(0),
    endOfMessage(1)},
  relativePosition  INTEGER}

END -- of CSTA-reposition

```

24.1.7 Resume

```

CSTA-resume
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) resume( 505) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

resume
{
  ARGUMENT ResumeArgument
  RESULT ResumeResult
  ERRORS {universalFailure}
  CODE local: 505
}

ResumeArgument ::= SEQUENCE
{
  connection ConnectionID,
  messageToResume MessageID,
  duration INTEGER,
  extensions CSTACommonArguments
}

ResumeResult ::= CHOICE
{
  extensions CSTACommonArguments,
  noData NULL
}

END -- of CSTA-resume

```

24.1.8 Review

```

CSTA-review
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) review( 506) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }

review      OPERATION ::=
{
  ARGUMENT   ReviewArgument
  RESULT     ReviewResult
  ERRORS     {universalFailure}
  CODE       local: 506
}

ReviewArgument ::= SEQUENCE
{
  connection          ConnectionID,
  periodToReview      PeriodToReview,
  messageToReview     MessageID,
  extensions           CSTACommonArguments OPTIONAL,
}

ReviewResult ::= CHOICE
{
  extensions CSTACommonArguments,
  noData     NULL}

PeriodToReview ::= CHOICE
{
  startOfMessage  NULL,
  lengthOfReview  INTEGER}

END -- of CSTA-review

```

24.1.9 Set voice attribute

```

CSTA-set-voice-attribute
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) set-voice-attribute( 507) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
Volume FROM CSTA-physical-device-feature
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) physical-device-feature( 137) };

setVoiceAttributeOPERATION ::=
{
    ARGUMENT      SetVoiceAttributeArgument
    RESULT        SetVoiceAttributeResult
    ERRORS        {universalFailure}
    CODE          local: 507
}

SetVoiceAttributeArgument ::= SEQUENCE
{
    connection          ConnectionID,
    attributeToSet       AttributeToSet,
    message              MessageID          OPTIONAL,
    extensions            CSTACommonArguments  OPTIONAL}

SetVoiceAttributeResult ::= CHOICE
{
    extensions CSTACommonArguments,
    noData      NULL}

AttributeToSet ::= CHOICE
{
    currentSpeed      [0] IMPLICIT INTEGER,
    currentVolume     [1] Volume,
    currentGain        [2] IMPLICIT INTEGER (0 .. 100)}

END -- of CSTA-set-voice-attribute

```

24.1.10 Stop

```

CSTA-stop
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) stop( 508) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }

stop
{
  ARGUMENT      StopArgument
  RESULT        StopResult
  ERRORS        {universalFailure}
  CODE          local: 508
}

StopArgument ::= SEQUENCE
{
  connection          ConnectionID,
  messageToBeStopped  MessageID,
  extensions           CSTACommonArguments OPTIONAL,
}

StopResult ::= CHOICE
{
  extensions CSTACommonArguments,
  noData     NULL}

END -- of CSTA-stop

```

24.1.11 Suspend

```

CSTA-suspend
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) suspend( 509) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
ConnectionID FROM CSTA-call-connection-identifiers
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) device-feature-types( 127) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) };

suspend OPERATION ::=
{
  ARGUMENT    SuspendArgument
  RESULT      SuspendResult
  ERRORS      {universalFailure}
  CODE        local: 509
}

SuspendArgument ::= SEQUENCE
{
  connection  ConnectionID,
  message     MessageID          OPTIONAL,
  extensions  CSTACommonArguments OPTIONAL}

SuspendResult ::= CHOICE
{
  extensions  CSTACommonArguments,
  noData      NULL}

END -- of CSTA-suspend

```

24.1.12 Synthesize message

```

CSTA-synthesize-message
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) synthesize-message( 510) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
ControlData, MessageID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) };

synthesizeMessage OPERATION ::=
{
  ARGUMENT    SynthesizeMessageArgument
  RESULT      SynthesizeMessageResult
  ERRORS      {universalFailure}
  CODE        local: 510
}

SynthesizeMessageArgument ::= SEQUENCE
{
  textToBeSynthesized    IA5String,
  control                 ControlData          OPTIONAL,
  extensions              CSTACCommonArguments OPTIONAL}

SynthesizeMessageResult ::= SEQUENCE
{
  synthesizedMessage      MessageID,
  extensions              CSTACCommonArguments OPTIONAL}

END -- of CSTA-synthesize-message

```

24.2 Events

24.2.1 Play

```

CSTA-play-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) play( 75) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) event-causes( 121) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
ServicesPermitted FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) };

PlayEvent ::=SEQUENCE
{
    connection          ConnectionID,
    message              MessageID,
    length               [0] IMPLICIT INTEGER              OPTIONAL,
    currentPosition     [1] IMPLICIT INTEGER              OPTIONAL,
    speed               [2] IMPLICIT INTEGER              OPTIONAL,
    cause               EventCause                        OPTIONAL,
    servicesPermitted   ServicesPermitted                 OPTIONAL,
    extensions          CSTACCommonArguments              OPTIONAL}

END -- of CSTA-play-event

```

24.2.2 Record

```

CSTA-record-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) record( 76) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) event-causes( 121) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
ServicesPermitted FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) };

RecordEvent ::= SEQUENCE
{
    connection          ConnectionID,
    message             MessageID,
    length              [0] IMPLICIT INTEGER OPTIONAL,
    currentPosition     [1] IMPLICIT INTEGER OPTIONAL,
    cause               EventCause OPTIONAL,
    servicesPermitted   ServicesPermitted OPTIONAL,
    extensions          CSTACCommonArguments OPTIONAL}

END -- of CSTA-record-event

```

24.2.3 Review

```

CSTA-review-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) review( 77) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) event-causes( 121) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
ServicesPermitted FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) };

ReviewEvent ::= SEQUENCE
{
    connection          ConnectionID,
    message             MessageID,
    length              [0] IMPLICIT INTEGER OPTIONAL,
    currentPosition     [1] IMPLICIT INTEGER OPTIONAL,
    cause               EventCause OPTIONAL,
    servicesPermitted   ServicesPermitted OPTIONAL,
    extensions          CSTACCommonArguments OPTIONAL}

END -- of CSTA-review-event

```

24.2.4 Stop

```

CSTA-stop-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) stop( 78) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) event-causes( 121) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
ServicesPermitted FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) };

StopEvent ::= SEQUENCE
{
    connection          ConnectionID,
    message             MessageID,
    length              [0] IMPLICIT INTEGER OPTIONAL,
    currentPosition     [1] IMPLICIT INTEGER OPTIONAL,
    cause               EventCause OPTIONAL,
    servicesPermitted   ServicesPermitted OPTIONAL,
    extensions          CSTACCommonArguments OPTIONAL}

END -- of CSTA-stop-event

```

24.2.5 Suspend play

```

CSTA-suspend-play-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) suspend-play( 79) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) event-causes( 121) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
ServicesPermitted FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) };

SuspendPlayEvent ::= SEQUENCE
{
    connection          ConnectionID,
    message             MessageID,
    length              [0] IMPLICIT INTEGER OPTIONAL,
    currentPosition     [1] IMPLICIT INTEGER OPTIONAL,
    cause               EventCause OPTIONAL,
    servicesPermitted   ServicesPermitted OPTIONAL,
    extensions          CSTACCommonArguments OPTIONAL}

END -- of CSTA-suspend-play-event

```

24.2.6 Suspend record

```

CSTA-suspend-record-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) suspend-record( 80) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) event-causes( 121) }
ConnectionID FROM CSTA-call-connection-identifiers
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
ServicesPermitted FROM CSTA-call-control
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-control( 130) };

SuspendRecordEvent ::= SEQUENCE
{
    connection          ConnectionID,
    message              MessageID,
    length               [0] IMPLICIT INTEGER OPTIONAL,
    currentPosition     [1] IMPLICIT INTEGER OPTIONAL,
    cause                EventCause OPTIONAL,
    servicesPermitted    ServicesPermitted OPTIONAL,
    extensions           CSTACCommonArguments OPTIONAL}

END -- of CSTA-suspend-record-event

```

24.2.7 Voice attribute changed

```

CSTA-voice-attributes-change-event
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) voice-attributes-change-event( 74) }

DEFINITIONS ::=
BEGIN
IMPORTS
-- Data Types --
EventCause FROM CSTA-event-causes
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) event-causes( 121) }
ConnectionID FROM CSTA-call-connection-identifiers
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-connection-identifiers( 124) }
MessageID FROM CSTA-device-feature-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) device-feature-types( 127) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
ServicesPermitted FROM CSTA-call-control
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-control( 130) }
Volume FROM CSTA-physical-device-feature
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) physical-device-feature( 137) };

VoiceAttributesChangeEvent ::= SEQUENCE
{
  connection          ConnectionID,
  message             MessageID,
  playVolume          [0] Volume OPTIONAL,
  recordingGain        [1] IMPLICIT INTEGER (0 .. 100) OPTIONAL,
  speed               [2] IMPLICIT INTEGER OPTIONAL,
  currentPosition     [3] IMPLICIT INTEGER OPTIONAL,
  cause               EventCause OPTIONAL,
  servicesPermitted   ServicesPermitted OPTIONAL,
  extensions          CSTACCommonArguments OPTIONAL}

END -- of CSTA-voice-attributes-change-event

```

25 Call detail record services**25.1 Services****25.1.1 Call detail records notification**

```

CSTA-call-detail-records-notification
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-detail-records-notification( 360) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
CDRCrossRefID, CDRReason FROM CSTA-call-detail-record
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) call-detail-record( 132) };

CDRNotification OPERATION ::=
{
    ARGUMENT    CDRNotificationArgument
    RESULT      CDRNotificationResult
    ERRORS      {universalFailure}
    CODE        local: 360
}

CDRNotificationArgument ::= SEQUENCE
{
    cdrCrossRefID  CDRCrossRefID,
    cdrReason      CDRReason          OPTIONAL,
    extensions     CSTACommonArguments OPTIONAL}

CDRNotificationResult ::= CHOICE
{
    extensions     CSTACommonArguments,
    noData         NULL}

END -- of CSTA-call-detail-records-notification

```

25.1.2 Call detail records report

```

CSTA-call-detail-records-report
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-detail-records-report( 361) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
CSTACommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
CDRCrossRefID, CDRInfo FROM CSTA-call-detail-record
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) call-detail-record( 132) };

CDRReport      OPERATION ::=
{
  ARGUMENT      CDRReportArgument
  RESULT        CDRReportResult
  ERRORS        {universalFailure}
  CODE          local: 361
}

CDRReportArgument ::= SEQUENCE
{
  cdrCrossRefID          CDRCrossRefID,
  numberOfRecordsSent    INTEGER (1..128),
  cdrInfo                CDRInfo,
  lastStoredCDRReportSent BOOLEAN          OPTIONAL,
  extensions              CSTACommonArguments OPTIONAL}

CDRReportResult ::= CHOICE
{
  extensions      CSTACommonArguments,
  noData          NULL}

END -- of CSTA-call-detail-records-report

```

25.1.3 Send stored call detail records

```

CSTA-send-stored-call-detail-records
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) send-stored-call-detail-records( 362) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CDRCrossRefID, CDRTIMEPERIOD FROM CSTA-call-detail-record
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-detail-record( 132) };

sendStoredCDR OPERATION ::=
{
  ARGUMENT    SendStoredCDRArgument
  RESULT      SendStoredCDRResult
  ERRORS      {universalFailure}
  CODE        local: 362
}

SendStoredCDRArgument ::= SEQUENCE
{
  cdrCrossRefID  CDRCrossRefID,
  timePeriod     CDRTIMEPERIOD OPTIONAL,
  extensions     CSTACCommonArguments OPTIONAL}

SendStoredCDRResult ::= CHOICE
{
  extensions     CSTACCommonArguments,
  noData         NULL}

END -- of CSTA-send-stored-call-detail-records

```

25.1.4 Start call detail records transmission

```

CSTA-start-call-detail-records-transmission
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) start-call-detail-records-transmission( 363) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
  {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) error-definition( 120) }
CSTACCommonArguments FROM CSTA-extension-types
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) extension-types( 129) }
CDRCrossRefID, CDRTransferMode FROM CSTA-call-detail-record
  { iso( 1) identified-organization( 3) icd-ecma( 12)
    standard( 0) csta3( 285) call-detail-record( 132) };

startCDRTransmission      OPERATION ::=
{
  ARGUMENT      StartCDRTransmissionArgument
  RESULT        StartCDRTransmissionResult
  ERRORS        {universalFailure}
  CODE          local: 363
}

StartCDRTransmissionArgument ::= SEQUENCE
{
  transferMode    CDRTransferMode,
  extensions      CSTACCommonArguments    OPTIONAL}

StartCDRTransmissionResult ::= SEQUENCE
{
  cdrRrossRefID   CDRCrossRefID,
  extensions      CSTACCommonArguments    OPTIONAL}

END -- of CSTA-start-call-detail-records-transmission

```

25.1.5 Stop call detail records transmission

```

CSTA-stop-call-detail-records
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) stop-call-detail-records( 364) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
{joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) error-definition( 120) }
CSTACCommonArguments FROM CSTA-extension-types
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) extension-types( 129) }
CDRCrossRefID, CDRTermReason FROM CSTA-call-detail-record
{ iso( 1) identified-organization( 3) icd-ecma( 12)
  standard( 0) csta3( 285) call-detail-record( 132) };

stopCDRTransmission      OPERATION ::=
{
  ARGUMENT      StopCDRTransmissionArgument
  RESULT        StopCDRTransmissionResult
  ERRORS        {universalFailure}
  CODE          local: 364
}

StopCDRTransmissionArgument ::= SEQUENCE
{
  cdrCrossRefID   CDRCrossRefID,
  cdrTermReason   CDRTermReason,
  extensions      CSTACCommonArguments
}

StopCDRTransmissionResult ::= CHOICE
{
  extensions      CSTACCommonArguments,
  noData          NULL
}

END -- of CSTA-stop-call-detail-records

```

26 Vendor specific extensions services and events

26.1 Registration services

26.1.1 Escape register

```

CSTA-escape-register
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) escape-register( 365) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)};
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
EscapeRegisterID FROM CSTA-escape-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) escape-types( 135) };

escapeRegister OPERATION ::=
{
    ARGUMENT      EscapeRegisterArgument
    RESULT        EscapeRegisterResult
    ERRORS        {universalFailure}
    CODE          local: 365
}

EscapeRegisterArgument ::= CHOICE
{
    extensions      CSTACommonArguments,
    noData          NULL}

EscapeRegisterResult ::= SEQUENCE
{
    escapeRegisterID EscapeRegisterID,
    extensions        CSTACommonArguments OPTIONAL}

END -- of CSTA-escape-register

```

26.1.2 Escape register abort

```

CSTA-escape-register-abort
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) escape-register-abort( 366) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
EscapeRegisterID FROM CSTA-escape-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) escape-types( 135) };

escapeRegisterAbort OPERATION ::=
{
    ARGUMENT          EscapeRegisterAbortArgument
    ERRORS             {universalFailure}
    ALWAYS RESPONDS   FALSE
    CODE              local: 366
}

EscapeRegisterAbortArgument ::= SEQUENCE
{
    escapeRegisterID   EscapeRegisterID,
    extensions         CSTACommonArguments    OPTIONAL}

END -- of CSTA-escape-register-abort

```

26.1.3 Escape register cancel

```

CSTA-escape-register-cancel
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) escape-register-cancel( 367) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
EscapeRegisterID FROM CSTA-escape-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) escape-types( 135) };

escapeRegisterCancel OPERATION ::=
{
    ARGUMENT    EscapeRegisterCancelArgument
    RESULT      EscapeRegisterCancelResult
    ERRORS      {universalFailure}
    CODE        local: 367
}

EscapeRegisterCancelArgument ::= SEQUENCE
{
    escapeRegisterID      EscapeRegisterID,
    extensions            CSTACommonArguments    OPTIONAL}

EscapeRegisterCancelResult ::= CHOICE
{
    extensions            CSTACommonArguments,
    noData                NULL}

END -- of CSTA-escape-register-cancel

```

26.2 Services**26.2.1 Escape**

```

CSTA-escape-service
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) escape-service( 91) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
CSTASecurityData FROM CSTA-security
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) security( 128) }
CSTACommonArguments, CSTAPrivateData FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) }
EscapeRegisterID FROM CSTA-escape-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) escape-types( 135) }

escape OPERATION ::=
{
    ARGUMENT      EscapeArgument
    RESULT        EscapeResult
    ERRORS        {universalFailure}
    CODE          local: 51
}

EscapeArgument ::= SEQUENCE
{
    escapeRegisterID      EscapeRegisterID      OPTIONAL,
    security              CSTASecurityData      OPTIONAL,
    privateData           CSTAPrivateData
}

EscapeResult ::= CHOICE
{
    extensions          CSTACommonArguments,
    noData              NULL
}

END -- of CSTA-escape-service

```

26.2.2 Private data version selection

```

CSTA-private-data-version-selection
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) private-data-version-selection( 368) }

DEFINITIONS ::=
BEGIN
IMPORTS
OPERATION, ERROR FROM Remote-Operations-Information-Objects
    {joint-iso-itu-t remote-operations(4) informationObjects(5) version1(0)}
-- Data Types --
universalFailure FROM CSTA-error-definition
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) error-definition( 120) }
CSTACommonArguments FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

privateDataVersionSelection OPERATION ::=
{
    ARGUMENT    PrivateDataVersionSelectionArgument
    RESULT      PrivateDataVersionSelectionResult
    ERRORS      {universalFailure}
    CODE        local: 368
}

PrivateDataVersionSelectionArgument ::= INTEGER

PrivateDataVersionSelectionResult ::= CHOICE
{
    extensions    CSTACommonArguments,
    noData        NULL}

END -- of CSTA-private-data-version-selection

```

26.3 Events**26.3.1 Private event**

```

CSTA-private-event
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) private-event( 71) }

DEFINITIONS ::=
BEGIN

IMPORTS
-- Data Types --
CSTASecurityData FROM CSTA-security
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) security( 128) }
CSTAPrivateData FROM CSTA-extension-types
    { iso( 1) identified-organization( 3) icd-ecma( 12)
      standard( 0) csta3( 285) extension-types( 129) };

PrivateEvent ::= SEQUENCE
{
    security          CSTASecurityData          OPTIONAL,
    privateData       CSTAPrivateData
}

END -- of CSTA-private-event

```

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Annex A

(normative)

Protocol Implementation Conformance Statement (PICS) Proforma

A.1 Introduction

The Protocol Implementation Conformance Statement (PICS) is a statement of which capabilities and options of the protocol have been implemented. The PICS can have a number of uses, including use:

- by the protocol implementor, as a check-list to reduce the risk of failure to conform to the standard through oversight;
- by the supplier and acquirer (or potential acquirer) of the implementation, as a detailed indication of the capabilities of the implementation, stated relative to the common basis for understanding provided by the standard PICS proforma;
- by the user (or potential user) of the implementation, as a basis for initially checking the possibility of interworking with another implementation (note that, while interworking cannot be guaranteed, failure to interwork can often be predicted from incompatible PICS);
- by a protocol tester, as the basis for selecting appropriate tests against which to assess the claim for conformance of the implementation.

A.2 Conformance

The supplier of a protocol implementation which is claimed to conform to this International Standard shall complete a copy of the Protocol Implementation Conformance Statement (PICS) proforma in A.5, "PICS proforma".

A.3 Instructions for completing the PICS proforma

The first part of the PICS proforma, the Implementation Identification (A.4, "Implementation identification", on page 308), is to be completed as indicated with the information necessary to identify fully both the supplier and the implementation.

The main part of the PICS proforma, A.5, "PICS proforma", is a fixed format questionnaire divided into subclauses each containing a group of individual items. These items represent options specified in ISO/IEC 18051 (mandatory items are not represented). Answers to the questionnaire items are to be provided in the appropriate columns by marking an answer to indicate a restricted choice (Yes or No), and optionally clarifying this response with a comment.

Where a service or event is not supported, as indicated by entering No for the first entry in a table, any parameters or dependent service components in the rest of that table are not applicable, it is then not necessary to complete items in any subsidiary entries in the table.

Note that ISO/IEC 18051 should be used as a reference when completing the PICS proforma.

A.4 Implementation identification

Supplier	
Protocol Version	Phase III, First Edition
Date of Statement	
Contact point for queries about the PICS	
Implementation Name(s) and Version(s)	
Other information necessary for full identification - e.g. Name(s) and Version(s) for machines and/or operating systems; system name(s)	

The first five items are required for all implementations; other information may be completed as appropriate in meeting the requirement for full identification.

The terms Name and Version should be interpreted appropriately to correspond with a supplier's terminology (e.g. Type, Series, Model).

A.5 PICS proforma

A.5.1 CSTA Profiles

CSTA Profiles group together services and events, where each profile specifies a set of services and events that are supported by the implementation. Switching Function implementors shall indicate support for one or more profiles in the table below. Specifying support for a profile shall be accompanied by specifying support for the services and events encompassed by the profile, as well as any other services and events that the implementation supports.

Refer to ISO/IEC 18051 for a description of the CSTA Services and Events that must be supported for a specific CSTA profile.

Description: Profile(s) Supported	Supported?		Comments
	Yes	No	
Basic Telephony Profile			
Routeing Profile			

A.5.2 Capability Exchange Services

A.5.2.1 Get Logical Device Information

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Get Logical Device Information			
Service Request optional parameters			
security			
privateData			
Service Response optional parameters			
groupDeviceAttributes			
namedDeviceTypes			
shortFormDeviceID			
agentLogOnModels			
appearanceList			
otherPhysicalDeviceList			
miscMonitorCaps			
associatedGroupList			
maxCallbacks			
maxAutoAnswerRings			
maxActiveCalls			
maxHeldCalls			
maxFwdSettings			
maxDevicesInConf			
transAndConfSetup			
deviceOnDeviceMonitorFilter			
deviceOnConnectionMonitorFilter			
callOnDeviceMonitorFilter			
callOnConnectionMonitorFilter			
mediaClassSupport			
mediaServiceCapsList			

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
connectionRateList			
delayToleranceList			
numberOfChannels			
maxChannelBind			
routeingServList			
logDevServList			
logDevEvtsList			
deviceMaintEvtsList			
security			
privateData			

A.5.2.2 Get Physical Device Information

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Get Physical Device Information			
Service Request optional parameters			
security			
privateData			
Service Response optional parameters			
groupDeviceAttributes			
namedDeviceTypes			
otherLogicalDeviceList			
deviceModelName			
deviceOnDeviceMonitorFilter			
deviceOnConnectionMonitorFilter			
callOnDeviceMonitorFilter			
callOnConnectionMonitorFilter			
maxDisplays			

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
maxButtons			
maxLamps			
maxRingPatterns			
physDevServList			
physDevEvtsList			
security			
privateData			

A.5.2.3 Get Switching Function Capabilities

This service shall be supported by a switching function.

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Get Switching Function Capabilities			
Service Request optional parameters			
security			
privateData			
Service Response optional parameters			
callCharacteristicsSupported			
mediaClassSupport			
numberOfChannels			
maxChannelBind			
miscMediaCallCharacteristics			
connectionRateList			
delayToleranceRateList			
pauseTime			
currentTime			
messageSeqNumbers			
timeStampMode			

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
securityMode			
securityFormat			
privateDataFormat			
transAndConfSetup			
deviceOnDeviceMonitorFilter			
deviceOnConnectionMonitorFilter			
callOnDeviceMonitorFilter			
callOnConnectionMonitorFilter			
miscMonitorCaps			
correlatorDataSupported			
dynamicFeatureSupported			
callLinkageOptionsSupported			
acdModels			
agentLogonModels			
agentStateModels			
routeingServList			
logDevServList			
logDevEvtsList			
physDevServList			
physDevEvtsList			
deviceMaintEvtsList			
statusReportingServList			
capExchangeServList			
cdrServList			
vendorSpecificServList			
vendorSpecificEvtsList			
privateDataVersionList			
systemStatusTimer			

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
simpleThreshold			
filterThreshold			
mediaServiceCapsList			
security			
privateData			

A.5.2.4 Get Switching Function Devices

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Get Switching Function Devices			
Service Request optional parameters			
requestedDeviceID			
requestedDeviceCategory			
security			
privateData			
Service Response optional parameters			
security			
privateData			

A.5.2.5 Switching Function Devices

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Switching Function Devices			
Service Request optional parameters			
segmentID			
security			
privateData			

A.5.3 System Services

A.5.3.1 Change System Status Filter

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Change System Status Filter			
Service Request optional parameters			
security			
privateData			
Service Response optional parameters			
security			
privateData			

A.5.3.2 System Register

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
System Register			
Service Request optional parameters			
requestedStatusFilter			
security			
privateData			
Service Response optional parameters			
actualStatusFilter			
security			
privateData			

A.5.3.3 System Register Abort

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
System Register Abort			
Service Request optional parameters			
security			
privateData			

A.5.3.4 System Register Cancel

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
System Register Cancel			
Service Request optional parameters			
security			
privateData			
Service Response optional parameters			
security			
privateData			

A.5.3.5 Request System Status

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Request System Status			
Service Request optional parameters			
sysStatRegisterID			
security			
privateData			
Service Response optional parameters			
security			
privateData			

A.5.3.6 System Status

The System Status service shall be supported as part of the Application Association Initialisation as specified in Clause 7 of ISO/IEC 18051.

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
System Status			
Service Request optional parameters			
sysStatRegisterID			
security			
privateData			
Service Response optional parameters			
security			
privateData			

A.5.3.7 Switching Function Capabilities Changed

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Switching Function Capabilities Changed			
Service Request optional parameters			
sysStatRegisterID			
security			
privateData			
Service Response optional parameters			
security			
privateData			

A.5.3.8 Switching Function Devices Changed

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Switching Function Devices Changed			
Service Request optional parameters			
sysStatRegisterID			
security			
privateData			
Service Response optional parameters			
security			
privateData			

A.5.4 Monitoring Services

A.5.4.1 Change Monitor Filter

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Change Monitor Filter			
Service Request optional parameters			
security			
privateData			
Service Response optional parameters			
actualFilterList			
security			
privateData			

A.5.4.2 Monitor Start

This service must be supported if the Basic Telephony profile is supported (A.5.1).

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Monitor Start			
Service Request optional parameters			
requestedMonitorFilter			
monitorType			
requestedMonitorMediaClass			
security			
privateData			
Service Response optional parameters			
actualMonitorFilter			
actualMonitorMediaClass			
monitorExistingCalls			
security			
privateData			

A.5.4.3 Monitor Stop

This service must be supported if the Basic Telephony profile is supported (A.5.1).

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Monitor Stop			
Service Request optional parameters			
security			
privateData			
Service Response optional parameters			
security			
privateData			

A.5.5 Snapshot Services

A.5.5.1 Snapshot Call

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Snapshot Call			
Service Request optional parameters			
security			
privateData			
Service Response optional parameters			
serviceCrossRefID			
snapshotData			
mediaCallCharacteristics			
callCharacteristics			
callingDevice			
calledDevice			
associatedCallingDevice			
associatedCalledDevice			
correlatorData			
security			
privateData			

A.5.5.2 Snapshot Device

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Snapshot Device			
Service Request optional parameters			
security			
privateData			
Service Response optional parameters			
serviceCrossRefID			

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
snapshotData			
security			
privateData			

A.5.5.3 Snapshot CallData

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Snapshot CallData			
Service Request optional parameters			
segmentID			
security			
privateData			

A.5.5.4 Snapshot DeviceData

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Snapshot DeviceData			
Service Request optional parameters			
segmentID			
security			
privateData			

A.5.6 Call Control Services**A.5.6.1 Accept Call**

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Accept Call			
Service Request optional parameters			
correlatorData			
userData			
security			
privateData			
Service Response optional parameters			
security			
privateData			

A.5.6.2 Alternate Call

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Alternate Call			
Service Request optional parameters			
connectionReservation			
consultOptions			
security			
privateData			
Service Response optional parameters			
security			
privateData			

A.5.6.3 Answer Call

This service must be supported if the Basic Telephony profile is supported (A.5.1).

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Answer Call			
Service Request optional parameters			
correlatorData			
userData			
security			
privateData			
Service Response optional parameters			
security			
privateData			

A.5.6.4 Call Back Call-Related

Description: Service, optional parameters	Supported?		Comments
	Yes	No	
Call Back Call-Related			
Service Request optional parameters			
callCharateristics			
security			
privateData			
Service Response optional parameters			
targetDevice			
security			
privateData			