



**TDA/TDE Series PBX - CTI Version 4.000**

CSTA Implementation

Specification Part 2

Parameter Specification

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**Revision 3.1**



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## Revision History

| Revision | Section                                      | Description   | Date       |
|----------|--|---|------------|
| 0.02     |  | First release   | 2002/11/29 |
| 0.02a    | 1.77.3 TelephonyTone                         | "intrusion" is changed to "No".   | 2002/12/28 |
| 1.00     | 1.35 DeviceID                                | OtherPlan is changed to "supported".  | 2003/05/15 |
| 1.01     | 3.44 KmeWakeUpInfo                           | time parameter is changed to OPTIONAL.  | 2003/09/11 |
| 1.006    | 4. ASN.1 Definition                          | This section is added.  | 2003/11/14 |
| 1.006a   | Kme specific name type                       | "wide is not used" is added to all of kme specific name type which has "single" and "wide" in it. | 2003/12/19 |
|          |  |   |            |
| 2.0a     | KmePhoneProperty                             | PortType for IP-PT is added.  | 2004/07/20 |
|          | KmeRevisionType                              | Added.  |            |
|          | KmeBroadcastGroupList                        | Added.  |            |
|          | KmeBroadcastGrpMembers                       | Added.  |            |
|          | KmeTenantSpeedDial                           | Added.  |            |
|          | KmeDistributionMethod                        | Added.  |            |
|          | KmeFcoKeyList                                | Added.  |            |
|          | KmeFcoKeyInfo                                | Added.  |            |
|          | KmeDistributionMethod                        | Added.  |            |
|          | KmeExternalSensorList                        | Added.  |            |
|          | 4. ASN.1 Definition                          | Changed to definitions for version 2.0  |            |
| 2.0b     | 4.1 Location of KME Specific Types           | This section is added.  | 2005/05/16 |
| 2.0c     | 3.40 KmePhoneProperty                        | Port Type is added.   | 2006/09/28 |
| 3.0      | 4.2 KME Specific Data Types ASN.1 Definition | Updated.  | 2006/10/02 |
| 3.1      | 3.40 PhoneProperty                           | Note is added.  | 2008/08/25 |
|          | 3.35 KmeSpeedDialRequest                     | tenantNo parameter is added.  |            |
|          | 4 PBX Hospitality Features                   | This section is added.  |            |
|          |  |   |            |

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# 1. CSTA Standard Parameter Types

## 1.1 AccountInfo

### 1.1.1 Abstract Syntax Module

CSTA-device-feature-types

### 1.1.2 Services & Events

CDR Report

### 1.1.3 Data Type Definition

OCTET STRING (SIZE(0..32))

## 1.2 AgentID

### 1.2.1 Abstract Syntax Module

CSTA-device-feature-types

### 1.2.2 Services & Events

GetAgentState-Result

SetAgentState-Request

### 1.2.3 Data Type Definition

OCTET STRING (SIZE(0..32))

## 1.3 AgentInfo

### 1.3.1 Abstract Syntax Module

CSTA-get-agent-state

### 1.3.2 Services & Events

GetAgentState

### 1.3.3 Data Type Definition

| Parameter           | Data Type           | MO | TDA /TDE | Description |
|---------------------|---------------------|----|----------|-------------|
| SEQUENCE            |                     |    |          |             |
| acdGroup            | DeviceID            | OP | No       |             |
| agentState          | AgentState          | M  | Yes      |             |
| pendingAgentState   | PendingAgentState   | OP | No       |             |
| agentStateCondition | AgentStateCondition | OP | No       |             |



## 1.4 AgentState

### 1.4.1 Abstract Syntax Module

CSTA-device-feature-types

### 1.4.2 Services & Events

GetAgentState-Result

### 1.4.3 Data Type Definition

| Parameter             | Value | TDA/T<br>DE | Description |
|-----------------------|-------|-------------|-------------|
| ENUMERATED            |       |             |             |
| agentNotReady         | 0     | Yes         |             |
| agentNull             | 1     | No          |             |
| agentReady            | 2     | Yes         |             |
| agentBusy             | 3     | Yes         |             |
| agentWorkingAfterCall | 4     | Yes         |             |

## 1.5 AgentStateEntry

### 1.5.1 Abstract Syntax Module

CSTA-get-agent-state

### 1.5.2 Services & Events

GetAgentState-Result

### 1.5.3 Data Type Definition

| Parameter     | Data Type             | MO | TDA<br>/TDE | Description  |
|---------------|-----------------------|----|-------------|--|
| SEQUENCE      |                       |    |             |  |
| agentID       | AgentID               | OP | No          |  |
| loggedOnState | BOOLEAN,              | M  | Yes         | When the value is FALSE(=loggedOff), the PBX does not provide the agentInfo parameter. |
| agentInfo     | SEQUENCE OF AgentInfo | OP | Yes         |  |

## 1.6 AgentStateList

### 1.6.1 Abstract Syntax Module

CSTA-get-agent-state

### 1.6.2 Services & Events

GetAgentState(Result)

### 1.6.3 Data Type Definition

SEQUENCE SIZE (1..32) OF AgentStateEntry

## 1.7 AssociatedCalledDeviceID

### 1.7.1 Abstract Syntax Module

CSTA-device-identifiers

### 1.7.2 Services & Events

Delivered-Event, Established-Event, etc.

### 1.7.3 Data Type Definition

| Parameter        | Data Type | MO | TDA<br>/TD<br>E | Description |
|------------------|-----------|----|-----------------|-------------|
| CHOICE           |           | M  | -               |             |
| deviceIdentifier | DeviceID  |    | Yes             |             |
| notKnown         | NULL      |    | No              |             |

## 1.8 AssociatedCallingDeviceID

### 1.8.1 Abstract Syntax Module

CSTA-device-identifiers

### 1.8.2 Services & Events

Delivered-Event、Established-Event など。

### 1.8.3 Data Type Definition

| Parameter        | Data Type | MO | TDA<br>/TD<br>E | Description |
|------------------|-----------|----|-----------------|-------------|
| CHOICE           |           | M  | -               |             |
| deviceIdentifier | DeviceID  |    | Yes             |             |
| notKnown         | NULL      |    | No              |             |

## 1.9 BillingID

### 1.9.1 Abstract Syntax Module

CSTA-call-detail-record

### 1.9.2 Services & Events

CallDetailRecordsReport (cdrInfo parameter)

### 1.9.3 Data Type Definition

| Parameter  | Value | TDA/T<br>DE | Description |
|------------|-------|-------------|-------------|
| ENUMERATED |       |             |             |

|                    |   |     |  |
|--------------------|---|-----|--|
| normalCharging     | 0 | Yes |  |
| reverseCharging    | 1 | Yes |  |
| creditCardCharging | 2 | No  |  |
| callForwarding     | 3 | Yes |  |
| callDeflection     | 4 | No  |  |
| callTransfer       | 5 | Yes |  |
| other              | 6 | Yes |  |

## 1.10 ButtonID

### 1.10.1 Abstract Syntax Module

Physical device features

### 1.10.2 Services & Events

ButtonPress-Event

### 1.10.3 Data Type Definition

OCTET STRING (SIZE(0..4))

## 1.11 CallAssociatedEvents - 1

### 1.11.1 Abstract Syntax Module

CSTA-application-context-information-csta3

### 1.11.2 Services & Events

MonitorStart-Request

### 1.11.3 Data Type Definition

| Parameter                | Value | Description |
|--------------------------|-------|-------------|
| BIT STRING               |       |             |
| callInformation          | 0     |             |
| charging                 | 1     |             |
| dTMFDigitsDetected       | 2     |             |
| telephonyTonesDetected   | 3     |             |
| serviceCompletionFailure | 4     |             |

## 1.12 CallAssociatedEvents - 2

### 1.12.1 Abstract Syntax Module

CSTA-event-report-definitions

### 1.12.2 Services & Events

CSTAEventReportArgument

**1.12.3 Data Type Definition**

| Parameter                    | Data Type                     | MO | TDA<br>/TD<br>E | Description |
|------------------------------|-------------------------------|----|-----------------|-------------|
| CHOICE                       |                               |    |                 |             |
| callInformation              | CallInformationEvent          | -  | Yes             |             |
| charging                     | ChargingEvent                 | -  | No              |             |
| digitsGeneratedEvent         | DigitsGeneratedEvent          | -  | No              |             |
| telephonyTonesGeneratedEvent | TelephonyTonesGeneratedEvent  | -  | No              |             |
| serviceCompletionFailure     | ServiceCompletionFailureEvent | -  | Yes             |             |

**1.13 CallControlEvents - 1****1.13.1 Abstract Syntax Module**

CSTA-application-context-information-csta3

**1.13.2 Services & Events**

MonitorStart - MonitorFilter

**1.13.3 Data Type Definition**

| Parameter                  | Bit | Description |
|----------------------------|-----|-------------|
| 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  |             |

**1.14 CallControlEvents - 2****1.14.1 Abstract Syntax Module**

CSTA-event-report-definitions

**1.14.2 Services & Events**

CSTAEventReportArgument

**1.14.3 Data Type Definition**

| Parameter   | Data Type (Value) | MO | TDA<br>/TD<br>E | Description |
|-------------|-------------------|----|-----------------|-------------|
| CHOICE      |                   |    |                 |             |
| bridged     | BridgedEvent      | -  | No              |             |
| callCleared | CallClearedEvent  | -  | No              |             |

|                   |                                 |   |     |
|-------------------|---------------------------------|---|-----|
| conferenced       | ConferencedEvent                | - | Yes |
| connectionCleared | ConnectionClearedEvent          | - | Yes |
| delivered         | DeliveredEvent                  | - | Yes |
| digitsDialed      | DigitsDialedEvent               | - | Yes |
| diverted          | DivertedEvent                   | - | Yes |
| established       | EstablishedEvent                | - | Yes |
| failed            | FailedEvent                     | - | Yes |
| held              | HeldEvent                       | - | Yes |
| netwCapsChanged   | NetworkCapabilitiesChangedEvent | - | No  |
| netwReached       | NetworkReachedEvent             | - | Yes |
| offered           | OfferedEvent                    | - | No  |
| originated        | OriginatedEvent                 | - | Yes |
| queued            | QueuedEvent                     | - | Yes |
| retrieved         | RetrievedEvent                  | - | Yes |
| serviceInitiated  | ServiceInitiatedEvent           | - | Yes |
| transferred       | TransferredEvent                | - | Yes |

## 1.15 CalledDeviceID

### 1.15.1 Abstract Syntax Module

CSTA-device-identifiers

### 1.15.2 Services & Events

Delivered-Event, etc.

### 1.15.3 Data Type Definition

| Parameter        | Data Type | MO | TDA<br>/TD<br>E | Description |
|------------------|-----------|----|-----------------|-------------|
| CHOICE           |           | M  | -               |             |
| deviceIdentifier | DeviceID  |    |                 |             |
| notKnown         | NULL      |    |                 |             |

## 1.16 CallID

OCTET STRING (SIZE(0..8))

Note : The PBX provides CallID whose length is 4.

## 1.17 CallingDeviceID

| Parameter        | Data Type | MO | TDA<br>/TD<br>E | Description |
|------------------|-----------|----|-----------------|-------------|
| CHOICE           |           | M  | -               |             |
| deviceIdentifier | DeviceID  |    | Yes             |             |
| notKnown         | NULL      |    | Yes             |             |

## 1.18 CallObject

**1.18.1 Abstract Syntax Module**

CSTA-start-data-collection

**1.18.2 Services & Events**

StartDataCollection

**1.18.3 Data Type Definition**

| Parameter | Data Type (Value) | MO | TDA<br>/TD<br>E | Description |
|-----------|-------------------|----|-----------------|-------------|
| CHOICE    |                   |    |                 |             |
| device    | DeviceID          | -  | No              |             |
| call      | ConnectionID      | -  | Yes             |             |

**1.19 CallState****1.19.1 Abstract Syntax Module**

CSTA-status-reporting

**1.19.2 Services & Events**

SnapshotDeviceData (shapshotData parameter)

**1.19.3 Data Type Definition**

| Parameter         | Data Type (Value) | MO | TDA<br>/TDE | Description                  |
|-------------------|-------------------|----|-------------|------------------------------|
| CHOICE            |                   |    |             |                              |
| compoundCallState | CompoundCallState | -  | Yes         | List of LocalConnectionState |
| simpleCallState   | SimpleCallState   | -  | No          |                              |
| unknown           | NULL              | -  | No          |                              |

**1.20 CDRCrossRefID****1.20.1 Abstract Syntax Module**

CSTA-call-detail-record

**1.20.2 Services & Events**

CallDetailRecordsReport

**1.20.3 Data Type Definition**

OCTET STRING (SIZE(0..4))

## 1.21 CDRInfo

### 1.21.1 Abstract Syntax Module

CSTA-call-detail-record

### 1.21.2 Services & Events

CallDetailRecordsReport

### 1.21.3 Data Type Definition

SEQUENCE OF CDRInformationItem

## 1.22 CDRInformationItem

### 1.22.1 Abstract Syntax Module

CSTA-call-detail-record

### 1.22.2 Services & Events

CallDetailRecordsReport(cdrInfo parameter)

### 1.22.3 Data Type Definition

| Parameter                | Data Type (Value)         | MO | TDA<br>/TD<br>E | Description |
|--------------------------|---------------------------|----|-----------------|-------------|
| SEQUENCE                 |                           |    |                 |             |
| recordNumber             | INTEGER (1..128)          | OP | No              |             |
| recordCreationTime       | TimeInfo,                 | M  | Yes             |             |
| callingDevice            | CallingDeviceID           | OP | Yes             |             |
| calledDevice             | CalledDeviceID            | OP | Yes             |             |
| associatedCallingDevice  | AssociatedCallingDeviceID | OP | Yes             |             |
| associatedCalledDevice   | AssociatedCalledDeviceID  | OP | Yes             |             |
| networkCallingDevice     | NetworkCallingDeviceID    | OP | No              |             |
| networkCalledDevice      | NetworkCalledDeviceID     | OP | Yes             |             |
| callCharacteristics      | CallCharacteristics       | OP | No              |             |
| mediaCallCharacteristics | MediaCallCharacteristics  | OP | No              |             |
| chargedDevice            | ChargedDevice             | OP | Yes             |             |
| recordedCall             | ConnectionID              | OP | No              |             |
| nodeNumber               | NodeNumber                | OP | No              |             |
| tariffTable              | INTEGER                   | OP | No              |             |
| connectionStart          | TimeInfo                  | OP | No              |             |
| connectionEnd            | TimeInfo                  | OP | Yes             |             |
| connectionDuration       | INTEGER                   | OP | Yes             |             |
| accessCode               | OCTET STRING              | OP | No              |             |
| carrier                  | INTEGER                   | OP | No              |             |
| selectedRoute            | INTEGER                   | OP | No              |             |
| billingID                | BillingID                 | OP | Yes             |             |
| chargingInfo             | ChargingInfo              | OP | Yes             |             |
| supplServiceInfo         | SupplServiceInfo          | OP | No              |             |
| reasonForTerm            | ReasonForTerm             | OP | Yes             |             |
| authCode                 | AuthCode                  | OP | No              |             |
| accountInfo              | AccountInfo               | OP | Yes             |             |
| deviceCategory           | DeviceCategory            | OP | No              |             |
| namedDeviceTypes         | NamedDeviceTypes          | OP | No              |             |
| operatorDevice           | DeviceID                  | OP | No              |             |

## 1.23 CDRTransferMode

### 1.23.1 Abstract Syntax Module

CSTA-call-detail-record

### 1.23.2 Services & Events

CallDetailRecordsReport (cdrInfo parameter)

### 1.23.3 Data Type Definition

| Parameter                  | Value | TDA/T<br>DE | Description |
|----------------------------|-------|-------------|-------------|
| ENUMERATED                 |       | Yes         |             |
| transferAtEndOfCall        | 0     | Yes         |             |
| transferOnRequest          | 1     | No          |             |
| transferOnThresholdReached | 2     | No          |             |

## 1.24 ChargedDevice

### 1.24.1 Abstract Syntax Module

CSTA-call-detail-record

### 1.24.2 Services & Events

CallDetailRecordsReport(cdrInfo parameter)

### 1.24.3 Data Type Definition

| Parameter   | Data Type (Value) | MO | TDA<br>/TD<br>E | Description |
|-------------|-------------------|----|-----------------|-------------|
| CHOICE      |                   | M  | Yes             |             |
| operator    | DeviceID,         | -  | No              |             |
| nonOperator | DeviceID,         | -  | Yes             |             |

## 1.25 ChargingInfo

### 1.25.1 Abstract Syntax Module

CSTA-charge-info

### 1.25.2 Services & Events

CallDetailRecordsReport (cdrInfo parameter)



**1.25.3 Data Type Definition**

| Parameter          | Data Type (Value) | MO  | TDA /TDE | Description |
|--------------------|-------------------|-----|----------|-------------|
| SEQUENCE           |                   |     |          |             |
| numberUnits        | NumberUnits       | M   | Yes      |             |
| typeOfChargingInfo | ENUMERATED        | M   | -Yes     |             |
|                    | subTotal          | (0) | -        | No          |
|                    | total             | (1) | -        | Yes         |

**1.26 CompoundCallState**

SEQUENCE OF LocalConnectionState

**1.27 ConnectionID**

**1.27.1 Abstract Syntax Module**

CSTA-call-connection-identifiers

**1.27.2 Services & Events**

CallControl events, etc.

**1.27.3 Data Type Definition**

| Parameter | Data Type     | MO            | TDA /TDE | Description   |
|-----------|---------------|---------------|----------|---|
| CHOICE    |               | M             | -        |   |
| callID    | CallID        |               | No       |   |
| deviceID  | LocalDeviceID |               | Yes      | Selectable only for requesting DirectedPickupCall against an alerting call. |
| both      | SEQUENCE      |               | Yes      |   |
|           | callID        | CallID        |          |   |
|           | deviceID      | LocalDeviceID |          |   |

**1.28 ConnectionList**

**1.28.1 Abstract Syntax Module**

CSTA-connection-states

**1.28.2 Services & Events**

Conferenced event, Transferred event

**1.28.3 Data Type Definition**

| Parameter                   | Data Type             | MO       | TDA<br>/TD<br>E | Description |  |
|-----------------------------|-----------------------|----------|-----------------|-------------|--|
| <b>SEQUENCE OF SEQUENCE</b> |                       |          |                 |             |  |
| newConnection               | ConnectionID          | OP       | Yes             |             |  |
| oldConnection               | ConnectionID          | OP       | No              |             |  |
| endpoint                    | CHOICE                |          | OP              | No          |  |
|                             | deviceID              | DeviceID |                 | -           |  |
|                             | notKnown              | NULL     |                 | -           |  |
| associatedNID               | CHOICE                |          | OP              | Yes         |  |
|                             | deviceID              | DeviceID |                 | Yes         | This parameter is set when connected device is externally located. |
|                             | notKnown              | NULL     |                 | No          |  |
| resultingConnectionInfo     | ConnectionInformation | OP       | No              |             |  |

**1.29 ConsultOptions****1.29.1 Abstract Syntax Module**

CSTA-call-control

**1.29.2 Services & Events**

ConsultationCall

**1.29.3 Data Type Definition**

| Parameter         | Value | TDA/T<br>DE | Description |
|-------------------|-------|-------------|-------------|
| <b>ENUMERATED</b> |       |             |             |
| unrestricted      | 0     | No          |             |
| consultOnly       | 1     | No          |             |
| transferOnly      | 2     | Yes         |             |
| conferenceOnly    | 3     | Yes         |             |

**1.30 CSTACommonArguments**

| Parameter       | Data Type                   | MO | TDA<br>/TD<br>E | Description |
|-----------------|-----------------------------|----|-----------------|-------------|
| <b>SEQUENCE</b> |                             |    |                 | -           |
| security        | CSTASecurityData            | OP | No              |             |
| privateData     | SEQUENCE OF CSTAPrivateData | OP | Yes             |             |

**1.31 CSTAObject**

| Parameter | Data Type | MO | TDA<br>/TD<br>E | Description |
|-----------|-----------|----|-----------------|-------------|
|-----------|-----------|----|-----------------|-------------|

|              |              |     |  |
|--------------|--------------|-----|--|
| CHOICE       |              | -   |  |
| deviceObject | DeviceID     | Yes |  |
| callObject   | ConnectionID | No  |  |

### 1.32 CSTAPrivateData

| Parameter | Data Type              | MO | TDA<br>/TD<br>E | Description |
|-----------|------------------------|----|-----------------|-------------|
| CHOICE    |                        |    |                 | -           |
| string    | OCTET STRING           |    | No              |             |
| private   | KmeSpecificPrivateData |    | Yes             |             |

### 1.33 DcollCrossRefID

#### 1.33.1 Abstract Syntax Module

CSTA-data-collection

#### 1.33.2 Services & Events

Data Collected, etc.

#### 1.33.3 Data Type Definition

OCTET STRING (SIZE(0..4))

### 1.34 DeviceCategory

#### 1.34.1 Abstract Syntax Module

CSTA-capability-exchange

#### 1.34.2 Services & Events

SwitchingFunctionDevices

#### 1.34.3 Data Type Definition

| Parameter        | Value | TDA/T<br>DE | Description |
|------------------|-------|-------------|-------------|
| ENUMERATED       |       |             | -           |
| acd              | 0     | No          |             |
| group            | 1     | Yes         |             |
| networkInterface | 2     | Yes         |             |
| park             | 3     | Yes         |             |
| routeingDevice   | 4     | Yes         |             |
| station          | 5     | Yes         |             |
| voiceUnit        | 6     | Yes         |             |
| other            | 7     | Yes         |             |

## 1.35 DeviceID

| Parameter                | Data Type                | MO           | TDA<br>/TD<br>E | Description             |
|--------------------------|--------------------------|--------------|-----------------|-------------------------|
| SEQUENCE                 |                          | M            | -               |                         |
| deviceIdentifier         | CHOICE                   |              | M               | -                       |
|                          | dialingNumber            | NumberDigits | Yes             | Max. length : 32 digits |
|                          | deviceNumber             | DeviceNumber | Yes             | INTEGER type (4 bytes)  |
|                          | implicitPublic           | NumberDigits | No              |                         |
|                          | explicitPublic           | PublicTON    | No              |                         |
|                          | implicitPrivate          | NumberDigits | No              |                         |
|                          | explicitPrivate          | PrivateTON   | No              |                         |
|                          | other                    | OtherPlan    | Yes             | *1                      |
| mediaCallCharacteristics | MediaCallCharacteristics | OP           | No              |                         |

\*1 Following parameters could have OtherPlan type.

| Events      | Parameters           |
|-------------|----------------------|
| Delivered   | networkCallingDevice |
| Established | networkCallingDevice |
| CDRReport   | callingDevice        |
|             | networkCalledDevice  |

## 1.36 DeviceList

### 1.36.1 Abstract Syntax Module

CSTA-switching-function-devices

### 1.36.2 Services & Events

switchingFunctionDevices

### 1.36.3 Data Type Definition

| Parameter            | Data Type               | MO | TDA<br>/TD<br>E | Description |
|----------------------|-------------------------|----|-----------------|-------------|
| SEQUENCE OF SEQUENCE |                         |    |                 |             |
| deviceID             | DeviceID,               | M  | -               |             |
| deviceCategory       | DeviceCategory          | O  | Yes             | Mandatory   |
| namedDeviceTypes     | NamedDeviceTypes        | OP | No              |             |
| deviceAttributes     | DeviceAttributes        | OP | No              |             |
| deviceModelName      | IA5String (SIZE(0..64)) | OP | No              |             |

## 1.37 DeviceMaintenanceEvents - 1

### 1.37.1 Abstract Syntax Module

CSTA-application-context-information-csta3

**1.37.2 Services & Events**

MonitorStart - MonitorFilter

**1.37.3 Data Type Definition**

| Parameter               | Bit | Description |
|-------------------------|-----|-------------|
| BIT STRING              |     |             |
| backInService           | 0   |             |
| deviceCapabilityChanged | 2   |             |
| outOfService            | 1   |             |

**1.38 DeviceMaintenanceEvents - 2****1.38.1 Abstract Syntax Module**

CSTA-event-report-definitions

**1.38.2 Services & Events**

CSTAEventReportArgument

**1.38.3 Data Type Definition**

| Parameter               | Data Type               | MO | TDA<br>/TD<br>E | Description |
|-------------------------|-------------------------|----|-----------------|-------------|
| CHOICE                  |                         |    |                 | No          |
| backInService           | BackInServiceEvent,     | -  | Yes             |             |
| deviceCapabilityChanged | DeviceCapsChangedEvent, | -  | No              |             |
| outOfService            | OutOfServiceEvent       | -  | Yes             |             |

**1.39 DeviceNumber**

INTEGER (4 octets)

**1.40 DigitsData****1.40.1 Abstract Syntax Module**

CSTA-generate-digits

**1.40.2 Services & Events**

GenerateDigits

**1.40.3 Data Type Definition**

| Parameter | Data Type | MO | TDA<br>/TD<br>E | Description |
|-----------|-----------|----|-----------------|-------------|
| SEQUENCE  |           |    |                 |             |

|                     |                              |    |     |  |
|---------------------|------------------------------|----|-----|--|
| digitsDetected      | IA5String (SIZE(0..64))      | M  | Yes |  |
| digitsDuration      | IMPLICIT SEQUENCE OF INTEGER | OP | No  |  |
| digitsPauseDuration | IMPLICIT SEQUENCE OF INTEGER | OP | No  |  |

## 1.41 DigitsReportingCriteria

### 1.41.1 Abstract Syntax Module

CSTA-start-data-collection

### 1.41.2 Services & Events

StartDataCollection

### 1.41.3 Data Type Definition

| Parameter | Data Type              | MO | TDA<br>/TD<br>E | Description |
|-----------|------------------------|----|-----------------|-------------|
| SEQUENCE  |                        |    |                 |             |
| numChars  | INTEGER                | OP | Yes             |             |
| flushChar | IA5String (SIZE(1..1)) | OP | Yes             |             |
| timeout   | INTEGER                | OP | Yes             |             |

## 1.42 DisplayID

### 1.42.1 Abstract Syntax Module

Physical device features

### 1.42.2 Services & Events

SetDisplay

### 1.42.3 Data Type Definition

OCTET STRING (SIZE(0..4))

## 1.43 ErrorValue

UniversalFailure

## 1.44 EventCause

| Parameter               | Value | TDA/T<br>DE | Description |
|-------------------------|-------|-------------|-------------|
| ENUMERATED              |       | -           |             |
| 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    |             |             |

## 1.45 ForwardList

### 1.45.1 Abstract Syntax Module

CSTA-device-feature-types

### 1.45.2 Services & Events

GetForwarding

### 1.45.3 Data Type Definition

| Parameter            | Data Type        | MO | TDA<br>/TD<br>E | Description |
|----------------------|------------------|----|-----------------|-------------|
| SEQUENCE OF SEQUENCE |                  |    |                 |             |
| forwardingType       | ForwardingType   | OP | Yes             |             |
| forwardStatus        | BOOLEAN          | M  | Yes             |             |
| forwardDN            | DeviceID         | OP | Yes             |             |
| forwardDefault       | ForwardDefault   | OP | No              |             |
| ringCount            | INTEGER (1..100) | OP | No              |             |

## 1.46 ForwardingType

### 1.46.1 Abstract Syntax Module

CSTA-device-feature-types

### 1.46.2 Services & Events

GetForwarding, SetForwarding

### 1.46.3 Data Type Definition

| Parameter        | Value | TDA/T<br>DE | Description |
|------------------|-------|-------------|-------------|
| ENUMERATED       |       |             |             |
| forwardImmediate | 0     | No          |             |
| forwardBusy      | 1     | No          |             |
| forwardNoAns     | 2     | No          |             |
| forwardDND       | 9     | No          |             |
| forwardBusyInt   | 3     | Yes         |             |
| forwardBusyExt   | 4     | Yes         |             |
| forwardNoAnsInt  | 5     | Yes         |             |
| forwardNoAnsExt  | 6     | Yes         |             |
| forwardImmInt    | 7     | Yes         |             |
| forwardImmExt    | 8     | Yes         |             |
| forwardDNDInt    | 10    | Yes         |             |
| forwardDNDExt    | 11    | Yes         |             |

## 1.47 LocalConnectionState

### 1.47.1 Abstract Syntax Module

CSTA-connection-states



**1.47.2 Services & Events**

CallControl events, SnapshotDeviceData

**1.47.3 Data Type Definition**

| Parameter  | Value | TDA/T<br>DE | Description |
|------------|-------|-------------|-------------|
| ENUMERATED |       |             |             |
| null       | 0     | Yes         |             |
| initiated  | 1     | Yes         |             |
| alerting   | 2     | Yes         |             |
| connected  | 3     | Yes         |             |
| hold       | 4     | Yes         |             |
| queued     | 5     | Yes         |             |
| fail       | 6     | Yes         |             |

**1.48 LocalDeviceID****1.48.1 Abstract Syntax Module**

CSTA-call-connection-identifiers

**1.48.2 Services & Events**

ConnectionID, etc.

**1.48.3 Data Type Definition**

| Parameter | Data Type                  | MO | TDA<br>/TD<br>E | Description |
|-----------|----------------------------|----|-----------------|-------------|
| CHOICE    |                            |    |                 |             |
| staticID  | DeviceID                   | M  | -               |             |
| dynamicID | OCTET STRING (SIZE(0..32)) |    | Yes             |             |
|           |                            |    | No              |             |

**1.49 LogicalDeviceFeatureEvents - 1****1.49.1 Abstract Syntax Module**

CSTA-application-context-information-csta3

**1.49.2 Services & Events**

MonitorStart - MonitorFilter

**1.49.3 Data Type Definition**

| Parameter             | Bit | Description |
|-----------------------|-----|-------------|
| 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 |  |

## 1.50 LogicalDeviceFeatureEvents - 2

### 1.50.1 Abstract Syntax Module

CSTA-event-report-definitions

### 1.50.2 Services & Events

CSTAEventReportArgument

### 1.50.3 Data Type Definition

| Parameter             | Data Type                  | MO | TDA<br>/TD<br>E | Description |
|-----------------------|----------------------------|----|-----------------|-------------|
| CHOICE                |                            |    |                 |             |
| agentBusy             | AgentBusyEvent             | -  | Yes             |             |
| agentLoggedOn         | AgentLoggedOnEvent         | -  | Yes             |             |
| agentLoggedOff        | AgentLoggedOffEvent        | -  | Yes             |             |
| agentNotReady         | AgentNotReadyEvent         | -  | Yes             |             |
| agentReady            | AgentReadyEvent            | -  | Yes             |             |
| agentWorkingAfterCall | AgentWorkingAfterCallEvent | -  | Yes             |             |
| autoAnswer            | AutoAnswerEvent            | -  | Yes             |             |
| autoWorkMode          | AutoWorkModeEvent          | -  | Yes             |             |
| callBack              | CallBackEvent              | -  | Yes             |             |
| callBackMessage       | CallBackMessageEvent       | -  | Yes             |             |
| callerIDStatus        | CallerIDStatusEvent        | -  | No              |             |
| doNotDisturb          | DoNotDisturbEvent          | -  | No              |             |
| forwarding            | ForwardingEvent            | -  | Yes             |             |
| routeingMode          | RouteingModeEvent          | -  | No              |             |

## 1.51 MonitorCrossRefID

### 1.51.1 Abstract Syntax Module

CSTA-status-reporting

### 1.51.2 Services & Events

StartMonitor, StopMonitor, etc.

### 1.51.3 Data Type Definition

OCTET STRING (SIZE(0..4))

## 1.52 MonitorFilter

### 1.52.1 Abstract Syntax Module

CSTA-status-reporting

### 1.52.2 Services & Events

StartMonitor, StopMonitor, GetLogicalDeviceInformation, etc.

### 1.52.3 Data Type Definition

| Parameter             | Data Type                   | MO | TDA<br>/TD<br>E | Description |
|-----------------------|-----------------------------|----|-----------------|-------------|
| SEQUENCE              |                             |    |                 |             |
| callControl           | CallControlEvents           | OP | Yes             |             |
| callAssociated        | CallAssociatedEvents        | OP | Yes             |             |
| mediaAttachment       | MediaAttachmentEvents       | OP | No              |             |
| physicalDeviceFeature | PhysicalDeviceFeatureEvents | OP | Yes             |             |
| logicalDeviceFeature  | LogicalDeviceFeatureEvents  | OP | Yes             |             |
| maintenance           | DeviceMaintenanceEvents     | OP | Yes             |             |
| voiceUnit             | VoiceUnitEvents             | OP | No              |             |
| private               | VendorSpecEvents            | OP | Yes             |             |

## 1.53 MonitorObject

CSTAObject

## 1.54 MonitorType

### 1.54.1 Abstract Syntax Module

CSTA-status-reporting

### 1.54.2 Services & Events

MonitorStart

### 1.54.3 Data Type Definition

| Parameter  | Value | TDA/T<br>DE | Description |
|------------|-------|-------------|-------------|
| ENUMERATED |       |             | -           |
| call       | 0     | No          |             |
| device     | 1     | Yes         |             |

## 1.55 NetworkCalledDeviceID

| Parameter        | Data Type | MO | TDA<br>/TD<br>E | Description |
|------------------|-----------|----|-----------------|-------------|
| CHOICE           |           | M  | Yes             |             |
| deviceIdentifier | DeviceID  |    |                 |             |
| notKnown         | NULL      |    |                 |             |

## 1.56 NetworkCallingDeviceID

| Parameter        | Data Type | MO | TDA<br>/TD<br>E | Description |
|------------------|-----------|----|-----------------|-------------|
| CHOICE           |           | M  | Yes             |             |
| deviceIdentifier | DeviceID  |    |                 |             |
| notKnown         | NULL      |    |                 |             |

## 1.57 NumberDigits

IA5String(SIZE(1..64))

Note : The PBX accpets maximum 32 digits.

## 1.58 NumberOfCurrencyUnits

### 1.58.1 Abstract Syntax Module

CSTA-charge-info

### 1.58.2 Services & Events

CallDetailRecordsReport (cdrInfo parameter)

### 1.58.3 Data Type Definition

| Parameter          | Data Type     | MO         | Description                       |              |
|--------------------|---------------|------------|-----------------------------------|--------------|
| SEQUENCE           |               |            |                                   |              |
| currencyType       | OCTET STRING  | M          | size 0 indicates default currency |              |
| currencyAmount     | INTEGER       | M          |                                   |              |
| currencyMultiplier | ENUMERATED    |            | M                                 |              |
|                    | oneThousandth | (0)        |                                   | 1/1000 times |
|                    | oneHundredth  | (1)        |                                   | 1/100 times  |
|                    | oneTenth      | (2)        |                                   | 1/10 times   |
|                    | one           | (3)        |                                   |              |
|                    | ten           | (4)        |                                   | 10 times     |
|                    | hundred       | (5)        |                                   | 100 times    |
| thousand           | (6)           | 1000 times |                                   |              |



## 1.59 OperationErrors

| Parameter                                 | Value | TDA/T<br>DE | Description |
|---|-------|-------------|-------------|
| ENUMERATED                                |       | -           |             |
| 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                         | 2626  |             |             |
| 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 |  |  |
| pulseRateNotSupported                   | 129 |  |  |
| ringCountNotSupported                   | 130 |  |  |
| routeUsedNotSupported                   | 131 |  |  |
| securityNotSupported                    | 132 |  |  |
| swSubdomainCCIETypeNotSupported         | 133 |  |  |
| toneDurationNotSupported                | 134 |  |  |
| sysStatRegIDNNotSupported               | 135 |  |  |
| userDataNotSupported                    | 136 |  |  |
| privilegeViolationSpecifiedDevice       | 8   |  |  |
| privilegeViolationActiveDevice          | 137 |  |  |
| privilegeViolationCalledDevice          | 9   |  |  |
| privilegeViolationCallingDevice         | 10  |  |  |
| privilegeViolationCallToParkDevice      | 138 |  |  |
| privilegeViolationDestinationDevice     | 139 |  |  |
| privilegeViolationOnDivertingDevice     | 140 |  |  |
| privilegeViolationHeldDevice            | 141 |  |  |
| privilegeViolationOnParkToDevice        | 142 |  |  |
| privilegeViolationPickUpDevice          | 143 |  |  |
| routingTimerExpired                     | 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 |  |  |
| connectionReservationOutOfRange          | 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 |  |  |
| ringVolumeOutOfRange                     | 187 |  |  |
| routingAlgorithmOutOfRange               | 188 |  |  |
| speakerMuteOutOfRange                    | 189 |  |  |
| speakerVolumeOutOfRange                  | 190 |  |  |
| switchingCittTypeOutOfRange              | 191 |  |  |
| systemStatusOutOfRange                   | 192 |  |  |
| toneCharacterOutOfRange                  | 193 |  |  |
| toneDurationOutOfRange                   | 194 |  |  |

## 1.60 ParticipationType

### 1.60.1 Abstract Syntax Module

CSTA-device-feature-types

### 1.60.2 Services & Events

IntrudeCall, JoinCall

### 1.60.3 Data Type Definition

| Parameter  | Value | TDA/T<br>DE | Description |
|------------|-------|-------------|-------------|
| ENUMERATED |       | -           |             |
| silent     | 0     | Yes         |             |
| active     | 1     | Yes         |             |



## 1.61 PendingAgentState

| Parameter             | Value | TDA/T<br>DE | Description |
|-----------------------|-------|-------------|-------------|
| ENUMERATED            |       | -           |             |
| agentNotReady         | 0     |             |             |
| agentNull             | 1     |             |             |
| agentReady            | 2     |             |             |
| agentWorkingAfterCall | 3     |             |             |

## 1.62 PerformanceManagementErrors

| Parameter                | Value | TDA/T<br>DE | Description |
|--------------------------|-------|-------------|-------------|
| ENUMERATED               |       | -           |             |
| generic                  | 1     |             |             |
| performanceLimitExceeded | 2     |             |             |

## 1.63 PhysicalDeviceFeatureEvents

### 1.63.1 Abstract Syntax Module

CSTA-application-context-information-csta3

### 1.63.2 Services & Events

MonitorStart - MonitorFilter

### 1.63.3 Data Type Definition

| Parameter         | Bit | Description |
|-------------------|-----|-------------|
| BIT STRING        |     |             |
| buttonInformation | 0   |             |
| buttonPress       | 1   |             |
| displayUpdated    | 2   |             |
| hookswitch        | 3   |             |
| lampMode          | 4   |             |
| messageWaiting    | 5   |             |
| microphoneGain    | 6   |             |
| microphoneMute    | 7   |             |
| ringerStatus      | 8   |             |
| speakerMute       | 9   |             |
| speakerVolume     | 10  |             |

## 1.64 PrivateDataInfoErrors

| Parameter                | Value | TDA/T<br>DE | Description |
|--------------------------|-------|-------------|-------------|
| ENUMERATED               |       | Yes         |             |
| cSTAPrivateDataInfoError | 1     |             |             |

## 1.65 RedirectionDeviceID

### 1.65.1 Abstract Syntax Module

CSTA-device-identifiers

### 1.65.2 Services & Events

CallControl events

### 1.65.3 Data Type Definition

| Parameter    | Data Type | MO | TDA<br>/TD<br>E | Description |
|--------------|-----------|----|-----------------|-------------|
| CHOICE       |           | M  | -               |             |
| numberDialed | DeviceID  |    | Yes             |             |
| notKnown     | NULL      |    | Yes             |             |
| notRequired  | NULL      |    | Yes             |             |
| notSpecified | NULL      |    | Yes             |             |

## 1.66 ReqAgentState

### 1.66.1 Abstract Syntax Module

CSTA-set-agent-state

### 1.66.2 Services & Events

SetAgentState

### 1.66.3 Data Type Definition

| Parameter        | Value | TDA/T<br>DE | Description |
|------------------|-------|-------------|-------------|
| ENUMERATED       |       | -           |             |
| loggedOn         | 0     | Yes         |             |
| loggedOff        | 1     | Yes         |             |
| notReady         | 2     | Yes         |             |
| ready            | 3     | Yes         |             |
| workingAfterCall | 4     | No          |             |

## 1.67 ReqDeviceCategory

### 1.67.1 Abstract Syntax Module

CSTA-get-switching-function-devices

### 1.67.2 Services & Events

GetSwitchingFunctionDevices

**1.67.3 Data Type Definition**

| Parameter        | Value | TDA/TDE | Description                             |
|------------------|-------|---------|---|
| ENUMERATED       |       | -       |   |
| acd              | 0     | No      |   |
| groupACD         | 1     | Yes     | Incoming Gourp - UCD                    |
| groupHunt        | 2     | Yes     | Incoming Gourp - Hunting                |
| groupPick        | 3     | No      |   |
| groupOther       | 4     | Yes     | Incoming Gourp - Ring                   |
| networkInterface | 5     | Yes     | Trunk port                              |
| park             | 6     | Yes     | Park                                    |
| routeingDevice   | 7     | Yes     | Incoming Gourp - ACD mode               |
| station          | 8     | Yes     | Extension                               |
| voiceUnit        | 9     | Yes     | Extension port connected to Voice Unit. |
| other            | 10    | Yes     | Others                                  |

**1.68 SubjectDeviceID****1.68.1 Abstract Syntax Module**

CSTA-device-identifiers

**1.68.2 Services & Events**

CallControl events

**1.68.3 Data Type Definition**

| Parameter        | Data Type | MO | TDA/TDE | Description |
|------------------|-----------|----|---------|-------------|
| CHOICE           |           | M  | -       |             |
| deviceIdentifier | DeviceID  |    |         |             |
| notKnown         | NULL      |    |         |             |

**1.69 ServiceCrossRefID****1.69.1 Abstract Syntax Module**

CSTA-capability-exchange

**1.69.2 Services & Events**

GetSwitchingFunctionDevices

**1.69.3 Data Type Definition**

OCTET STRING (SIZE(0..4))

**1.70 SnapshotDeviceData - 1****1.70.1 Abstract Syntax Module**

CSTA-status-reporting

**1.70.2 Services & Events**

SnapshotDevice, SnapshotDeviceData

**1.70.3 Data Type Definition**

SEQUENCE OF SnapshotDeviceResponseInfo

**1.71 SnapshotDeviceResponseInfo**

| Parameter                | Data Type                | MO | TDA<br>/TD<br>E | Description   |
|--------------------------|--------------------------|----|-----------------|---|
| SEQUENCE                 |                          |    |                 |   |
| connectionIdentifier     | ConnectionID             | M  | Yes             | This may contain a deviceID whose format is Switching Function Representaion format |
| localCallState           | CallState                | M  | Yes             |   |
| servicesPermitted        | ServicesPermitted        | OP | No              |   |
| mediaServiceInfoList     | DeviceMediaInfoList      | OP | No              |   |
| mediaCallCharacteristics | MediaCallCharacteristics | OP | No              |   |

**1.72 StateIncompatibilityErrors**

| Parameter                        | Value | TDA/T<br>DE | Description |
|----------------------------------|-------|-------------|-------------|
| 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 |  |  |
|-----------------|----|--|--|

### 1.73 SubjectDeviceID

| Parameter        | Data Type | MO | TDA<br>/TD<br>E | Description |
|------------------|-----------|----|-----------------|-------------|
| CHOICE           |           | M  | -               |             |
| deviceIdentifier | DeviceID  |    |                 |             |
| notKnown         | NULL      |    |                 |             |

### 1.74 SubscribedResourceAvailabilityErrors

| Parameter                       | Value | TDA/T<br>DE | Description |
|---------------------------------|-------|-------------|-------------|
| ENUMERATED                      |       | Yes         |             |
| generic                         | 1     |             |             |
| objectMonitorLimitExceeded      | 2     |             |             |
| trunkLimitExceeded              | 3     |             |             |
| outstandingReqLimitExceeded     | 4     |             |             |
| objectRegistrationLimitExceeded | 5     |             |             |

### 1.75 SystemResourceAvailabilityErrors

| Parameter                      | Value | TDA/T<br>DE | Description |
|--------------------------------|-------|-------------|-------------|
| ENUMERATED                     |       | Yes         |             |
| 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 |  |  |

## 1.76 SystemStatus - 1

### 1.76.1 Abstract Syntax Module

CSTA-device-feature-types

### 1.76.2 Services & Events

SystemStatus

### 1.76.3 Data Type Definition

| Parameter         | Value | TDA<br>/TD<br>E | Description  |
|-------------------|-------|-----------------|--|
| ENUMERATED        |       | Yes             |  |
| disabled          | 4     | No              |  |
| partiallyDisabled | 8     | No              |  |
| enabled           | 1     | No              |  |
| initializing      | 0     | No              |  |
| messagesLost      | 3     | Yes             | CDR Reports are lost.  |
| normal            | 2     | Yes             | Nothing special happen. This is also used for periodic status reporting. |
| overloadImminent  | 5     | No              |  |
| overloadReached   | 6     | Yes             |  |
| overloadRelieved  | 7     | No              |  |

## 1.77 TelephonyTone

### 1.77.1 Abstract Syntax Module

CSTA-device-feature-types

### 1.77.2 Services & Events

GenerateTelephonyTones

### 1.77.3 Data Type Definition

| Parameter                     | Value | TDA/T<br>DE | Description   |
|-------------------------------|-------|-------------|---|
| ENUMERATED                    |       |             |   |
| beep                          | 0     | No          |   |
| billing                       | 1     | No          |   |
| busy                          | 2     | Yes         |   |
| carrier                       | 3     | No          |   |
| confirmation                  | 4     | Yes         |   |
| dial                          | 5     | Yes         |   |
| faxCNG                        | 6     | No          |   |
| hold                          | 7     | Yes         |   |
| howler                        | 8     | No          |   |
| intrusion                     | 9     | No          |   |
| modemCNG                      | 10    | No          |   |
| park                          | 11    | No          |   |
| recordWarning                 | 12    | No          |   |
| reorder                       | 13    | Yes         |   |
| ringback                      | 14    | Yes         |   |
| silence                       | 15    | Yes         | No sound.   |
| sitVC                         | 16    | No          |   |
| sitC                          | 17    | No          |   |
| sitRO                         | 18    | No          |   |
| sitNC                         | 19    | No          |   |
| switchSpec0                   | 20    | Yes         | Confirmation Tone 1 (Single tone)                           |
| switchSpec1                   | 21    | Yes         | Confirmation Tone 2 (Single tone)                           |
| switchSpec2                   | 22    | Yes         | Confirmation Tone 3-1 (Single tone)                         |
| switchSpec3                   | 23    | Yes         | Confirmation Tone 3-2 (Single tone)                         |
| switchSpec4                   | 24    | Yes         | Confirmation Tone 4-1 (Single tone)                         |
| switchSpec5                   | 25    | Yes         | Confirmation Tone 4-2 (Single tone)                         |
| switchSpec6                   | 26    | Yes         | Confirmation Tone 5 (Single tone)                           |
| switchSpec7                   | 27    | Yes         | Dial Tone 1-A (Cyclic tone)                                 |
| switchSpec8                   | 28    | Yes         | Dial Tone 1-B (Cyclic tone)                                 |
| switchSpec9                   | 29    | Yes         | Dial Tone 2-A (Cyclic tone)                                 |
| switchSpec10                  | 30    | Yes         | Dial Tone 2-B (Cyclic tone)                                 |
| switchSpec11                  | 31    | Yes         | Dial Tone 3-A (Cyclic tone)                                 |
| switchSpec12                  | 32    | Yes         | Dial Tone 3-B (Cyclic tone)                                 |
| switchSpec13                  | 33    | Yes         | Dial Tone 4-A (Cyclic tone)                                 |
| switchSpec14                  | 34    | Yes         | Dial Tone 4-B (Cyclic tone)                                 |
| switchSpec15                  | 35    | Yes         | Busy Tone 1 (Cyclic tone)                                   |
| switchSpec16                  | 36    | Yes         | Busy Tone 2 (Cyclic tone)                                   |
| switchSpec17                  | 37    | Yes         | Reorder Tone 1 (Cyclic tone)                                |
| switchSpec18                  | 38    | Yes         | Reorder Tone 2 (Cyclic tone)                                |
| switchSpec19                  | 39    | Yes         | Ringback Tone 1 (Cyclic tone)                               |
| switchSpec20                  | 40    | Yes         | Ringback Tone 2 (Cyclic tone)                               |
| switchSpec21                  | 41    | Yes         | Warning Tone (Single tone)                                  |
| switchSpec22                  | 42    | Yes         | DND tone (Cyclic tone)                                      |
| switchSpec23                  | 43    | Yes         | CO Warning Tone (Cyclic tone)                               |
| switchSpec24                  | 44    | Yes         | Hold Alarm (Cyclic tone)                                    |
| switchSpec25                  | 45    | Yes         | Call Waiting Tone1 (Cyclic tone)                            |
| switchSpec26                  | 46    | Yes         | Conference Tone 1 (Normal) (Cyclic tone)                    |
| switchSpec27                  | 47    | Yes         | Conference Tone 1 (Override) (Cyclic tone)                  |
| switchSpec28                  | 48    | Yes         | Hold Tone (Cyclic tone)                                     |
| switchSpec29                  | 49    | Yes         | TAFAS Tone (Cyclic tone)                                    |
| switchSpec30                  | 50    | Yes         | External Music Source 1                                     |
| switchSpec31                  | 51    | Yes         | External Music Source 2                                     |
| switchSpec32                  | 52    | No          | External Music Source 3 - This will be supported in future. |
| switchSpec33                  | 53    | No          | External Music Source 4 - This will be supported in future. |
| switchSpec34                  | 54    | No          | External Music Source 5 - This will be supported in future. |
| switchSpec35                  | 55    | No          | External Music Source 6 - This will be supported in future. |
| switchSpec36                  | 56    | No          | External Music Source 7 - This will be supported in future. |
| switchSpec37                  | 57    | No          | External Music Source 8 - This will be supported in future. |
| switchSpec38                  | 58    | Yes         | Cancel tone   |
| switchSpec39... switchSpec100 |       | No          |   |

## 1.78 TimelInfo

### 1.78.1 Abstract Syntax Module

CSTA-security

### 1.78.2 Services & Events

CallDetailRecordsReport (cdrInfo parameter)

### 1.78.3 Data Type Definition

GeneralizedTime

## 1.79 Universal Failure

| Parameter                      | Data Type                             | MO | TDA<br>/TD<br>E | Description |
|--------------------------------|---------------------------------------|----|-----------------|-------------|
| CHOICE                         |                                       |    |                 |             |
| operation                      | OperationErrors,                      | OP | Yes             |             |
| security                       | SecurityErrors,                       | OP | Yes             |             |
| stateIncompatibility           | StateIncompatibilityErrors,           | OP | Yes             |             |
| systemResourceAvailability     | SystemResourceAvailabilityErrors,     | OP | Yes             |             |
| subscribedResourceAvailability | SubscribedResourceAvailabilityErrors, | OP | Yes             |             |
| performanceManagement          | PerformanceManagementErrors           | OP | Yes             |             |
| privateData                    | PrivateDataInfoErrors,                | OP | Yes             |             |
| unspecified                    | UnspecifiedErrors }                   | OP | Yes             |             |

## 1.80 UnspecifiedErrors

NULL

## 1.81 VendorSpecEvents - 1

### 1.81.1 Abstract Syntax Module

CSTA-application-context-information-csta3

### 1.81.2 Services & Events

MonitorStart - MonitorFilter

### 1.81.3 Data Type Definition

| Parameter    | Value | TDA/T<br>DE | Description |
|--------------|-------|-------------|-------------|
| BIT STRING   |       |             |             |
| privateEvent | 0     | 1           |             |



## 1.82 VendorSpecEvents - 2

### 1.82.1 Abstract Syntax Module

CSTA-event-report-definitions

### 1.82.2 Services & Events

CSTAEventReportArgument

### 1.82.3 Data Type Definition

| Parameter    | Data Type    | MO | TDA<br>/TD<br>E | Description |
|--------------|--------------|----|-----------------|-------------|
| CHOICE       |              |    |                 |             |
| privateEvent | PrivateEvent | -  | Yes             |             |

## 2. ACSE User Information For CSTA

### 2.1 ACSEUserInformationForCSTA

| Parameter     | Data Type                      | MO | TDA<br>/TD<br>E | Description |
|---------------|--------------------------------|----|-----------------|-------------|
| CHOICE        |                                |    |                 |             |
| oldDefinition | OldACSEUserInformationForCSTA, | -  | No              |             |
| newDefinition | NewACSEUserInformationForCSTA  | -  | Yes             |             |

### 2.2 OldACSEUserInformationForCSTA

| Parameter                          | Data Type         | MO | TDA<br>/TD<br>E | Description |
|------------------------------------|-------------------|----|-----------------|-------------|
| SEQUENCE                           |                   |    |                 |             |
| cSTAVersion                        | CSTAVersion,      | M  | Yes             |             |
| cSTAFunctionsRequiredByApplication | CSTAFunctionality | OP | No              |             |
| cSTAFunctionsThatCanBeSupplied     | CSTAFunctionality | OP | No              |             |

### 2.3 NewACSEUserInformationForCSTA

| Parameter                          | Data Type                  | MO | TDA<br>/TD<br>E | Description |
|------------------------------------|----------------------------|----|-----------------|-------------|
| SEQUENCE                           |                            |    |                 |             |
| cSTAVersion                        | CSTAVersion,               | M  | Yes             |             |
| cSTAFunctionsRequiredByApplication | CSTAFunctionality          | OP | No              |             |
| cSTAFunctionsThatCanBeSupplied     | CSTAFunctionality          | OP | No              |             |
| cSTAPrivateDataVersionList         | CSTAPrivateDataVersionList | OP | No              |             |

### 2.4 CSTAPrivateDataVersionList

SEQUENCE OF INTEGER

### 2.5 CSTAVersion

| Parameter       | Value | TDA/T<br>DE | Description |
|-----------------|-------|-------------|-------------|
| BIT STRING      |       |             |             |
| versionOne      | 0     | 0           |             |
| versionTwo      | 1     | 0           |             |
| versionThree    | 2     | 0           |             |
| versionFour     | 3     | 0           |             |
| versionFive     | 4     | 1           |             |
| versionSix      | 5     | 0           |             |
| versionSeven    | 6     | 0           |             |
| versionEight    | 7     | 0           |             |
| versionNine     | 8     | 0           |             |
| versionTen      | 9     | 0           |             |
| versionEleven   | 10    | 0           |             |
| versionTwelve   | 11    | 0           |             |
| versionThirteen | 12    | 0           |             |

|                 |    |   |  |
|-----------------|----|---|--|
| versionFourteen | 13 | 0 |  |
| versionFifteen  | 14 | 0 |  |
| versionSixteen  | 15 | 0 |  |

### 3. KME Specific Types

#### 3.1 KmeAbsentMessage (GetSystemData)

```
KmeAbsentMessage ::= CHOICE
{
    single      [0] OCTET STRING (SIZE(0..16)),
    wide       [1] OCTET STRING (SIZE(0..32)) }
```

| Parameter | Data Type                  | MO | Description |
|-----------|----------------------------|----|-------------|
| CHOICE    |                            |    |             |
| single    | OCTET STRING (SIZE(0..16)) | M  |             |
| wide      | OCTET STRING (SIZE(0..32)) |    | Not used    |

#### 3.2 KmeBroadcastGroupList

```
KmeBroadcastGroupList ::= SEQUENCE OF SEQUENCE
{
    groupNo      INTEGER,
    name         KmeExtName OPTIONAL }
```

| Parameter            | Data Type  | MO | Description |
|----------------------|------------|----|-------------|
| SEQUENCE OF SEQUENCE |            |    |             |
| groupNo              | INTEGER    | M  |             |
| name                 | KmeExtName | M  |             |

#### 3.3 KmeBroadcastGrpMembers

```
KmeBroadcastGrpMembers ::= SEQUENCE
{
    groupNo      [0] INTEGER,
    members      [1] IMPLICIT SEQUENCE OF DeviceID }
```

| Parameter | Data Type            | MO | Description |
|-----------|----------------------|----|-------------|
| SEQUENCE  |                      |    |             |
| groupNo   | INTEGER              | M  |             |
| members   | SEQUENCE OF DeviceID | M  |             |

#### 3.4 KmeCallBackInvokeReq

```
KmeCallBackInvokeReq ::= SEQUENCE
{
    callBackID   OCTET STRING (SIZE(0..4)),
    requestingDevice DeviceID,
    targetDevice DeviceID OPTIONAL} -- extension only
```

| Parameter        | Data Type                | MO | Description    |
|------------------|--------------------------|----|----------------|
| SEQUENCE         |                          |    |                |
| callBackID       | OCTET STRING(SIZE(0..4)) | M  |                |
| requestingDevice | DeviceID                 | M  |                |
| targetDevice     | DeviceID                 | O  | Extension only |

### 3.5 KmeCallbackInvokeRsp

KmeCallbackInvokeRsp ::= ConnectionID

| Parameter | Data Type    | MO | Description |
|-----------|--------------|----|-------------|
| -         | ConnectionID | M  |             |

### 3.6 KmeCdrConditionCode

KmeCdrConditionCode ::= ENUMERATED

```
{
    cl          (0),  -- Reverse Charging
    tr          (1),  -- Call Transfer
    fw          (2),  -- Call Forwarding
    d0          (3),  -- DISA/TIE
    rm          (4),  -- Remote Maintenance
    na          (5)}  -- No Answer
```

| Parameter  | Value | MO | Description |
|------------|-------|----|-------------|
| ENUMERATED |       | M  |             |
| cl         | 0     |    |             |
| tr         | 1     |    |             |
| fw         | 2     |    |             |
| d0         | 3     |    |             |
| rm         | 4     |    |             |
| na         | 5     |    |             |

### 3.7 KmeChangeExtNo

KmeChangeExtNo ::= SEQUENCE

```
{
    requestingDevice  DeviceID,
    newExtNo          IA5String(SIZE(1..5))}
```

| Parameter        | Data Type             | MO | Description |
|------------------|-----------------------|----|-------------|
| SEQUENCE         |                       |    |             |
| requestingDevice | DeviceID              | M  |             |
| newExtNo         | IA5String(SIZE(1..5)) | M  |             |

### 3.8 KmeChangeName

KmeChangeName ::= SEQUENCE

```
{
    requestingDevice  DeviceID,
    newName          CHOICE
    {
        single       [0] OCTET STRING(SIZE(0..20)),
        wide         [1] OCTET STRING(SIZE(0..40)) } OPTIONAL}
```

| Parameter        | Data Type | MO                        | Description |
|------------------|-----------|---------------------------|-------------|
| SEQUENCE         |           |                           |             |
| requestingDevice | DeviceID  | M                         |             |
| name             | CHOICE    | O                         |             |
|                  | single    | OCTET STRING(SIZE(0..20)) |             |

|  |      |                           |  |                   |
|--|------|---------------------------|--|-------------------|
|  | wide | OCTET STRING(SIZE(0..40)) |  | wide is not used. |
|--|------|---------------------------|--|-------------------|

### 3.9 KmeDistributionMethod

KmeDistributionMethod ::= SEQUENCE -- V2.0

```
{
    group      DeviceID,
    type       KmeGroupType }
```

| Parameter            | Data Type    | MO | Description     |
|----------------------|--------------|----|-----------------|
| SEQUENCE OF SEQUENCE |              |    |                 |
| group                | DeviceID     | M  |                 |
| type                 | KmeGroupType | M  | UCD, RING, HUNT |

### 3.10 KmeDnMode (GetSystemData)

KmeDnMode ::= ENUMERATED

```
{
    day        (0),
    lunch      (1),
    break      (2),
    night      (3)}
```

| Parameter  | Value | MO | Description |
|------------|-------|----|-------------|
| ENUMERATED |       | M  |             |
| day        | 0     |    |             |
| lunch      | 1     |    |             |
| break      | 2     |    |             |
| night      | 3     |    |             |

### 3.11 KmeDayNightMode (GetSystemData)

KmeDayNightMode ::= SEQUENCE OF SEQUENCE

```
{
    tenantNo  [0] INTEGER,
    mode      [1] KmeDnMode }
```

| Parameter            | Data Type | MO | Description |
|----------------------|-----------|----|-------------|
| SEQUENCE OF SEQUENCE |           |    |             |
| tenantNo             | INTEGER   | M  |             |
| mode                 | KmeDnMode | O  |             |

### 3.12 KmeDeviceCategory

```

KmeDeviceCategory ::= CHOICE
{
    standardDevice [0] ReqDeviceCategory,
    kemDevice      [1] KmeOtherDevice}

```

| Parameter      | Data Type         | MO | Description |
|----------------|-------------------|----|-------------|
| CHOICE         |                   |    |             |
| standardDevice | ReqDeviceCategory | M  |             |
| kemDevice      | KmeOtherDevice    |    |             |

### 3.13 KmeDeviceLock (GetSystemData)

```

KmeDeviceLock ::= ENUMERATED
{
    lock      (0),
    unlock    (1)}

```

| Parameter  | Value | Description |
|------------|-------|-------------|
| ENUMERATED |       |             |
| lock       | 0     |             |
| unlock     | 1     |             |

### 3.14 KmeDeviceState

```

KmeDeviceState ::= ENUMERATED
{
    ins      (0),
    ous      (1)}

```

| Parameter  | Value | Description    |
|------------|-------|----------------|
| ENUMERATED |       |                |
| ins        | 0     | In Service     |
| ous        | 1     | Out Of Service |

### 3.15 KmeDeviceStateList

```

KmeDeviceStateList ::= SEQUENCE OF KmeDeviceStateEntry

```

### 3.16 KmeDeviceStateEntry

```

KmeDeviceStateEntry ::= SEQUENCE
{
    device      DeviceID,
    number      IA5String(SIZE(1..5)) OPTIONAL, -- Extension, CO
    status      KmeDeviceState}

```

| Parameter | Data Type             | MO | Description      |
|-----------|-----------------------|----|------------------|
| SEQUENCE  |                       |    |                  |
| device    | DeviceID              | M  |                  |
| number    | IA5String(SIZE(1..5)) | O  | Extention number |
| status    | KmeDeviceState        | M  | INS/OUS          |

### 3.17 KmeDistributionMethod

```
KmeDistributionMethod ::= SEQUENCE -- V2.0
```

```
{
    group      DeviceID,
    type       KmeGroupType}

```

| Parameter | Data Type    | MO | Description |
|-----------|--------------|----|-------------|
| SEQUENCE  |              |    |             |
| group     | DeviceID     | M  |             |
| type      | KmeGroupType | M  |             |

### 3.18 KmeDoorPhone (GetSystemData)

```
KmeDoorPhone ::= SEQUENCE OF SEQUENCE
```

```
{
    device      [0] DeviceID,
    name        [1] CHOICE
    {
        single   [0] OCTET STRING (SIZE(1..20)),
        wide     [1] OCTET STRING (SIZE(1..40)) } OPTIONAL,
    extNo       [2] IA5String (SIZE(1..5)) OPTIONAL}

```

| Parameter            | Data Type              | MO                         | Description       |
|----------------------|------------------------|----------------------------|-------------------|
| SEQUENCE OF SEQUENCE |                        |                            |                   |
| device               | DeviceID               | M                          |                   |
| name                 | CHOICE                 |                            | wide is not used. |
|                      | single                 | OCTET STRING (SIZE(1..20)) |                   |
|                      | wide                   | OCTET STRING (SIZE(1..40)) |                   |
| extNo                | IA5String (SIZE(1..5)) | O                          | Extension number  |

### 3.19 KmeExternalSensorList

```
KmeExternalSensorList ::= SEQUENCE OF SEQUENCE -- V2.0
```

```
{
    sensorNo    [0] IA5String (SIZE(1..3)),
    device      [1] DeviceID,
    name        [2] CHOICE
    {
        single   [0] OCTET STRING (SIZE(1..20)),
        wide     [1] OCTET STRING (SIZE(1..40)) } OPTIONAL}

```

| Parameter            | Data Type             | MO                         | Description       |
|----------------------|-----------------------|----------------------------|-------------------|
| SEQUENCE OF SEQUENCE |                       |                            |                   |
| sensorNo             | IA5String(SIZE(1..3)) | M                          |                   |
| device               | DeviceID              | M                          |                   |
| name                 | CHOICE                |                            | wide is not used. |
|                      | single                | OCTET STRING (SIZE(1..20)) |                   |
|                      | wide                  | OCTET STRING (SIZE(1..40)) |                   |

### 3.20 KmeExtGroupEntry (GetSystemData)

```
KmeExtGroupEntry ::= SEQUENCE
```

```
{
    device      [0] DeviceID,
    name        [1] CHOICE
    {
        single   [0] OCTET STRING (SIZE(1..20)),
        wide     [1] OCTET STRING (SIZE(1..40)) } OPTIONAL,
    devNumber   [2] DeviceID,
    cabinetNO   [3] INTEGER OPTIONAL,
    psNo        [4] IA5String (SIZE(1..3)) OPTIONAL}

```



| Parameter | Data Type             | MO                         | Description       |
|-----------|-----------------------|----------------------------|-------------------|
| SEQUENCE  |                       |                            |                   |
| device    | DeviceID              | M                          | Extension number  |
| name      | CHOICE                |                            | wide is not used  |
|           | single                | OCTET STRING (SIZE(1..20)) |                   |
|           | wide                  | OCTET STRING (SIZE(1..40)) |                   |
| devNumber | DeviceID              | M                          | DeviceNumber type |
| cabinetNO | INTEGER               | O                          |                   |
| psNo      | IA5String(SIZE(1..3)) | O                          | PS only           |

### 3.21 KmeExtName

```
KmeExtName ::= CHOICE
{
    single      [0] OCTET STRING (SIZE(1..20)),
    wide       [1] OCTET STRING (SIZE(1..40)) }

```

| Parameter | Data Type                 | MO | Description |
|-----------|---------------------------|----|-------------|
| CHOICE    |                           |    |             |
| single    | OCTET STRING(SIZE(1..20)) | M  |             |
| wide      | OCTET STRING(SIZE(1..40)) |    | Not used    |

### 3.22 KmeExtTrkGroupList (GetSystemData)

```
KmeExtTrkGroupList ::= SEQUENCE OF SEQUENCE
{
    groupNo      [0] INTEGER,
    name         [1] CHOICE
    {
        single   [0] OCTET STRING (SIZE(1..20)),
        wide     [1] OCTET STRING (SIZE(1..40)) } OPTIONAL,
    tenantNo    [2] INTEGER OPTIONAL }

```

| Parameter            | Data Type | MO                         | Description         |
|----------------------|-----------|----------------------------|---------------------|
| SEQUENCE OF SEQUENCE |           |                            |                     |
| groupNo              | INTEGER   | M                          |                     |
| name                 | CHOICE    |                            | wide is not used.   |
|                      | single    | OCTET STRING (SIZE(1..20)) |                     |
|                      | wide      | OCTET STRING(SIZE(1..40))  |                     |
| tenantNo             | INTEGER   | O                          | Extension only(1-8) |

### 3.23 KmeExtMembers (GetSystemData)

```
KmeExtMembers ::= SEQUENCE
{
    groupNo      [0] IMPLICIT INTEGER,
    members     [1] IMPLICIT SEQUENCE OF KmeExtGroupEntry}

```

| Parameter | Data Type                    | MO | Description |
|-----------|------------------------------|----|-------------|
| SEQUENCE  |                              |    |             |
| groupNo   | INTEGER                      | M  |             |
| members   | SEQUENCE OF KmeExtGroupEntry | O  |             |

### 3.24 KmeFcoKeyInfo

```
KmeFcoKeyInfo ::= SEQUENCE -- V2.0
{
    button          ButtonID,
    function        OCTET STRING(SIZE(1)) }
```

| Parameter | Data Type             | MO | Description                        |
|-----------|-----------------------|----|------------------------------------|
| SEQUENCE  |                       |    |                                    |
| button    | ButtonID              | M  |                                    |
| function  | OCTET STRING(SIZE(1)) | M  | ID number of flexible key function |

### 3.25 KmeFcoKeyList

```
KmeFcoKeyList ::= SEQUENCE OF KmeFcoKeyInfo -- V2.0
```

### 3.26 KmeFeatureList (GetSystemData)

```
KmeFeatureList ::= SEQUENCE OF SEQUENCE
{
    featureNo      [0] INTEGER,
    featureDigits  [1] IA5String(SIZE(1..6)) OPTIONAL }
```

| Parameter            | Data Type             | MO | Description           |
|----------------------|-----------------------|----|-----------------------|
| SEQUENCE OF SEQUENCE |                       |    |                       |
| featureNo            | INTEGER               | M  | Feature number index  |
| featureDigits        | IA5String(SIZE(1..6)) | O  | Feature number digits |

### 3.27 KmeFeatureNumber

```
KmeFeatureNumber ::= INTEGER
-- 1: Call Waiting(Delivered-Event)
-- 2: Answered by TAM(AnswerCall-Request)
-- 3: Visual Caller ID(CallInformation-Event)
```

### 3.28 KmeForwardType (SetSystemData, SetForwarding-privateData)

```
KmeForwardType ::= 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),
    forwardBusyNoAnswer   (12),
    forwardBusyNoAnswerInt (13),
    forwardBusyNoAnswerExt (14) }
```

| Parameter              | Value | Description   |
|------------------------|-------|---------------|
| ENUMERATED             |       |               |
| forwardImmediate       | 0     | Not Supported |
| forwardBusy            | 1     | Not Supported |
| forwardNoAns           | 2     | Not Supported |
| forwardDND             | 9     | Not Supported |
| forwardBusyInt         | 3     |               |
| forwardBusyExt         | 4     |               |
| forwardNoAnsInt        | 5     |               |
| forwardNoAnsExt        | 6     |               |
| forwardImmInt          | 7     |               |
| forwardImmExt          | 8     |               |
| forwardDNDInt          | 10    |               |
| forwardDNDExt          | 11    |               |
| forwardBusyNoAnswer    | 12    | Not Supported |
| forwardBusyNoAnswerInt | 13    |               |
| forwardBusyNoAnswerExt | 14    |               |

### 3.29 KmeGroupEntry (GetSystemData)

```

KmeGroupEntry ::= SEQUENCE
{
    device          [0] DeviceID,
    name           [1] CHOICE
    {
        single      [0] OCTET STRING (SIZE(1..20)),
        wide        [1] OCTET STRING(SIZE(1..40)) } OPTIONAL,
    number        [2] CHOICE
    {
        extNo       [0] IA5String(SIZE(1..5)),
        coNo        [1] IA5String(SIZE(1..3)) } OPTIONAL,
    cabinetNO     [3] INTEGER OPTIONAL }
    
```

| Parameter | Data Type | MO                         | Description                    |
|-----------|-----------|----------------------------|--------------------------------|
| SEQUENCE  |           |                            |                                |
| device    | DeviceID  | M                          |                                |
| name      | CHOICE    |                            | wide is not used.              |
|           | single    | OCTET STRING (SIZE(1..20)) |                                |
|           | wide      | OCTET STRING(SIZE(1..40))  |                                |
| number    | CHOICE    |                            | Extension number.<br>CO number |
|           | extNo     | IA5String(SIZE(1..5))      |                                |
|           | coNo      | IA5String(SIZE(1..3))      |                                |
| cabinetNo | INTEGER   | O                          | Cabinet number                 |

### 3.30 KmeHoldType

```

KmeHoldType ::= ENUMERATED
{
    cosultation    (0),
    normal         (1),
    exclusive      (2)}
    
```

| Parameter   | Value | MO | Description      |
|-------------|-------|----|------------------|
| ENUMERATED  |       |    | M                |
| cosultation | 0     |    | Consltation hold |
| normal      | 1     |    | Normal hold      |
| exclusive   | 2     |    | Exclusive hold   |

### 3.31 KmeIcmGrpMembers (GetSystemData)

```
KmeIcmGrpMembers ::= SEQUENCE
{
    grpDevice    [0] IMPLICIT DeviceID,
    members     [1] IMPLICIT SEQUENCE OF DeviceID}

```

| Parameter | Data Type            | MO | Description             |
|-----------|----------------------|----|-------------------------|
| SEQUENCE  |                      |    |                         |
| grpDevice | DeviceID             | M  | Incoming group deviceID |
| members   | SEQUENCE OF DeviceID | M  | List of member ID       |

### 3.32 KmeIncomingGroupList (GetSystemData)

```
KmeIncomingGroupList ::= SEQUENCE OF SEQUENCE
{
    groupNo    [0] INTEGER,
    device     [1] DeviceID,
    name       [2] CHOICE
    {
        single [0] OCTET STRING (SIZE(1..20)),
        wide   [1] OCTET STRING (SIZE(1..40)) } OPTIONAL,
    extNo     [3] IA5String(SIZE(1..5)) OPTIONAL,
    groupType [4] KmeGroupType,           -- 3rd Party
    acdMode   [5] BOOLEAN,               -- 3rd Party
    ctiWaitTime [6] INTEGER}             -- 3rd Party

```

| Parameter            | Data Type             | MO                         | Description  |
|----------------------|-----------------------|----------------------------|--|
| SEQUENCE OF SEQUENCE |                       |                            |  |
| groupNo              | INTEGER               | M                          |  |
| device               | DeviceID              | M                          | DeviceID   |
| name                 | CHOICE                |                            | wide is not used.  |
|                      | single                | OCTET STRING (SIZE(1..20)) |  |
|                      | wide                  | OCTET STRING (SIZE(1..40)) |  |
| extNo                | IA5String(SIZE(1..5)) | O                          | Floating extension number  |
| groupType            | KmeGroupType          | M                          | Types of incoming group  |
| acdMode              | BOOLEAN               | M                          | Mods of incoming group (the value would be TRUE in the ACD mode).              |
| ctiWaitTime          | INTEGER               | M                          | The time that waiting for a control request from a computing function(second). |

### 3.33 NumberOfMsgPort

| Parameter        | Data Type | MO | Description                   |
|------------------|-----------|----|-------------------------------|
| SEQUENCE         |           |    |                               |
| numberOfMsgPort  | INTEGER   | M  | Number of message ports.      |
| numberOfFreePort | INTEGER   | M  | Number of free message ports. |

### 3.34 KmeOgmPlayState

KmeOgmPlayState ::= ENUMERATED

```
{
    started      (0),
    ended        (1) }
```

| Parameter  | Value | Description           |
|------------|-------|-----------------------|
| ENUMERATED |       |                       |
| started    | 0     | Replaying is started. |
| ended      | 1     | Replaing is ended.    |

### 3.35 KmeOtherDevice (GetSwitchingFunctionDevices, GetSystemData)

KmeOtherDevice ::= ENUMERATED

```
{
    vm                (0),
    doorPhone         (1),      -- including Door openor
    disa              (2),
    pagingGroup       (3),
    psGruop           (4),
    externalRinger    (5),
    externalSensor    (6),
    externalPager     (7),
    modem             (8),
    hdlc              (9),
    pbxSystem         (10) }
```

| Parameter      | Value | MO | Description |
|----------------|-------|----|-------------|
| ENUMERATED     |       |    |             |
| vm             | 0     | M  | VoiceMail   |
| doorPhone      | 1     |    | Door Phone  |
| disa           | 2     |    |             |
| pagingGroup    | 3     |    |             |
| psGruop        | 4     |    |             |
| externalRinger | 5     |    |             |
| externalSensor | 6     |    |             |
| modem          | 7     |    |             |
| hdlc           | 8     |    |             |
| pbxSystem      | 9     |    |             |

### 3.36 KmePckPagGroupList (GetSystemData)

KmePckPagGroupList ::= SEQUENCE OF SEQUENCE

```
{
    groupNo          [0] INTEGER,
    memberList       [1] KmePckPagMembers OPTIONAL }
```

| Parameter            | Data Type           | MO | Description                             |
|----------------------|---------------------|----|---|
| SEQUENCE OF SEQUENCE |                     |    |   |
| groupNo              | INTEGER             | M  | Group number                            |
| memberList           | SEQUENCE OF INTEGER | O  | Each bit represents an extension group. |

### 3.37 KmePsGroupList

KmePsGroupList ::= SEQUENCE OF SEQUENCE

```
{
    groupNo          INTEGER,
    device           DeviceID,      -- Ext. number
    name             CHOICE
    {
        single       [0] OCTET STRING(SIZE(1..20)),
        wide          [1] OCTET STRING(SIZE(1..40)) } OPTIONAL,
    memberList       [2] KmeGroupMembers OPTIONAL }
```

| Parameter            | Data Type       | MO                         | Description       |
|----------------------|-----------------|----------------------------|-------------------|
| SEQUENCE OF SEQUENCE |                 |                            |                   |
| groupNo              | INTEGER         | M                          |                   |
| device               | DeviceID        | M                          | DeviceID          |
| name                 | CHOICE          |                            | wide is not used. |
|                      | single          | OCTET STRING (SIZE(1..20)) |                   |
|                      | wide            | OCTET STRING (SIZE(1..40)) |                   |
| memberList           | KmeGroupMembers | O                          |                   |

### 3.38 KmeRevisionType

KmeRevisionType ::= ENUMERATED -- V2.0

```
{
    systemDataRevision    (0),
    speedDialRevision     (1) }
```

| Parameter          | Value | Description                                   |
|--------------------|-------|---|
| ENUMERATED         |       |   |
| systemDataRevision | 0     | System data revision information is requested |
| speedDialRevision  | 1     | Speed dial revision information is requested  |

### 3.39 KmeGroupMembers (GetSystemData)

KmePckPagMembers ::= BIT STRING

```
{
    one           ( 0),
    two          ( 1),
    three        ( 2),
    four         ( 3),
    five         ( 4),
    six          ( 5),
    seven        ( 6),
    eight        ( 7),
    nine         ( 8),
    ten          ( 9),
    eleven       (10),
    twelve       (11),
    thirteen     (12),
    fourteen     (13),
    fifteen      (14),
    sixteen      (15),
    seventeen    (16),
    eighteen     (17),
    nineteen     (18),
    twenty       (19),
    twentyOne    (20),
    twentyTwo    (21),
    twentyThree  (22),
    twentyFour   (23),
    twentyFive   (24),
    twentySix    (25),
    twentySeven  (26),
    twentyEight  (27),
    twentyNine   (28),
    thirty       (29),
    thirtyOne    (30),
    thirtyTwo    (31),
    thirtyThree  (32),
    thirtyFour   (33),
    thirtyFive   (34),
    thirtySix    (35),
    thirtySeven  (36),
    thirtyEight  (37),
    thirtyNine   (38),
    forty        (39),
    fortyOne     (40),
```

|                     |        |
|---------------------|--------|
| fourtyTwo           | ( 41), |
| fourtyThree         | ( 42), |
| fourtyFour          | ( 43), |
| fourtyFive          | ( 44), |
| fourtySix           | ( 45), |
| fourtySeven         | ( 46), |
| fourtyEight         | ( 47), |
| fourtyNine          | ( 48), |
| fifty               | ( 49), |
| fiftyOne            | ( 50), |
| fiftyTwo            | ( 51), |
| fiftyThree          | ( 52), |
| fiftyFour           | ( 53), |
| fiftyFive           | ( 54), |
| fiftySix            | ( 55), |
| fiftySeven          | ( 56), |
| fiftyEight          | ( 57), |
| fiftyNine           | ( 58), |
| sixty               | ( 59), |
| sixtyOne            | ( 60), |
| sixtyTwo            | ( 61), |
| sixtyThree          | ( 62), |
| sixtyFour           | ( 63), |
| sixtyFive           | ( 64), |
| sixtySix            | ( 65), |
| sixtySeven          | ( 66), |
| sixtyEight          | ( 67), |
| sixtyNine           | ( 68), |
| seventy             | ( 69), |
| seventyOne          | ( 70), |
| seventyTwo          | ( 71), |
| seventyThree        | ( 72), |
| seventyFour         | ( 73), |
| seventyFive         | ( 74), |
| seventySix          | ( 75), |
| seventySeven        | ( 76), |
| seventyEight        | ( 77), |
| seventyNine         | ( 78), |
| eighty              | ( 79), |
| eightyOne           | ( 80), |
| eightyTwo           | ( 81), |
| eightyThree         | ( 82), |
| eightyFour          | ( 83), |
| eightyFive          | ( 84), |
| eightySix           | ( 85), |
| eightySeven         | ( 86), |
| eightyEight         | ( 87), |
| eightyNine          | ( 88), |
| ninety              | ( 89), |
| ninetyOne           | ( 90), |
| ninetyTwo           | ( 91), |
| ninetyThree         | ( 92), |
| ninetyFour          | ( 93), |
| ninetyFive          | ( 94), |
| ninetySix           | ( 95), |
| ninetySeven         | ( 96), |
| ninetyEight         | ( 97), |
| ninetyNine          | ( 98), |
| oneHundred          | ( 99), |
| oneHundredOne       | (100), |
| oneHundredTwo       | (101), |
| oneHundredThree     | (102), |
| oneHundredFour      | (103), |
| oneHundredFive      | (104), |
| oneHundredSix       | (105), |
| oneHundredSeven     | (106), |
| oneHundredEiht      | (107), |
| oneHundredNine      | (108), |
| oneHundredTen       | (109), |
| oneHundredEleven    | (110), |
| oneHundredTwelve    | (111), |
| oneHundredThirteen  | (112), |
| oneHundredFourteen  | (113), |
| oneHundredFifteen   | (114), |
| oneHundredSixteen   | (115), |
| oneHundredSeventeen | (116), |
| oneHundredEithteen  | (117), |
| oneHundredNineteen  | (118), |
| oneHundredTwenty    | (119), |
| oneHundredTwentyOne | (120), |
| oneHundredTwentyTwo | (121), |

```

oneHundredTwentyThree    (122),
oneHundredTwentyFour    (123),
oneHundredTwentyFive    (124),
oneHundredTwentySix     (125),
oneHundredTwentySeven   (126),
oneHundredTwentyEight   (127) }

```

### 3.40 KmePhoneProperty

```

KmePhoneProperty ::= SEQUENCE
{
    portType          INTEGER,
    phoneCode         INTEGER,
    lcdRows           INTEGER,
    lcdColumns        INTEGER,
    numberOfCoKeys    INTEGER,
    numberOfSoftKeys  INTEGER,
    spPhone           BOOLEAN}

```

| Parameter        | Data Type | MO | Description  |
|------------------|-----------|----|--|
| SEQUENCE         |           |    |  |
| portType         | INTEGER   | M  | Type of extension port                               |
| phoneCode        | INTEGER   | M  | Code of telephone set                                |
| lcdRows          | INTEGER   | M  | Line number of LCD                                   |
| lcdColumns       | INTEGER   | M  | Digit number of LCD                                  |
| numberOfCoKeys   | INTEGER   | M  | The number of CO button                              |
| numberOfSoftKeys | INTEGER   | M  | The number of soft key                               |
| spPhone          | BOOLEAN   | M  | Whether or not a speaker phone exists (true=exists). |

Note : Value of parameters in KmePhoneProperty is indefinite while the extension is out of service.

| PortType    | Value |
|-------------|-------|
| none        | 0     |
| slt         | 1     |
| apt         | 2     |
| dptOld      | 3     |
| dpt         | 4     |
| isdn        | 8     |
| wireless    | 10    |
| ip-pt       | 12    |
| ip-pt (P2P) | 13    |
| sip         | 14    |

### 3.41 KmeProprietaryChars

```

KmeProprietaryChars ::= OCTET STRING(SIZE(0..144))

```

### 3.42 KmeRequestedDevice

```

KmeRequestedDevice ::= CHOICE
{
    device          [0] DeviceID,
    category        [1] KmeDeviceCategory}

```



| Parameter     | Data Type         | MO | Description |
|---------------|-------------------|----|-------------|
| <b>CHOICE</b> |                   |    |             |
| device        | DeviceID          | M  |             |
| category      | KmeDeviceCategory |    |             |

### 3.43 KmeSetForwardInfo (SetSystemData)

```
KmeSetForwardInfo ::= SEQUENCE
{
    forwardingType      [0] KmeForwardType,
    activateForward     [1] BOOLEAN,
    forwardDN           [2] DeviceID OPTIONAL}

```

| Parameter       | Data Type      | MO | Description  |
|-----------------|----------------|----|--|
| <b>SEQUENCE</b> |                |    |  |
| forwardingType  | KmeForwardType | M  |  |
| activateForward | BOOLEAN        | M  | TRUE : Enable forwarding<br>FALSE : Disable forwarding |
| forwardDN       | DeviceID       | O  |  |

### 3.44 KmeSpeedDial (GetSystemData)

```
KmeSpeedDial ::= SEQUENCE OF SEQUENCE
{
    serialNumber      [0] INTEGER(0..999),
    registeredDigits  [1] IA5String(SIZE(1..32)) OPTIONAL,
    callerName        [2] CHOICE
    {
        single        [0] OCTET STRING (SIZE(1..20)),
        wide           [1] OCTET STRING(SIZE(1..40)) } OPTIONAL}

```

| Parameter                   | Data Type              | MO                         | Description         |
|-----------------------------|------------------------|----------------------------|---------------------|
| <b>SEQUENCE OF SEQUENCE</b> |                        |                            |                     |
| serialNumber                | INTEGER(0..999)        | M                          |                     |
| registeredDigits            | IA5String(SIZE(1..32)) | O                          |                     |
| callerName                  | CHOICE                 |                            | O wide is not used. |
|                             | single                 | OCTET STRING (SIZE(1..20)) |                     |
|                             | wide                   | OCTET STRING(SIZE(1..40))  |                     |

### 3.45 KmeSpeedDialRequest (GetSystemData)

```
KmeSpeedDialRequest ::= SEQUENCE
{
    startSerialNo INTEGER(0..999),
    number         INTEGER(1..1000), -- Currently 0..50
    tenantNo       [0] INTEGER OPTIONAL} -- TDA600V4.0

```

| Parameter       | Data Type        | MO | Description                                   |
|-----------------|------------------|----|---|
| <b>SEQUENCE</b> |                  |    |   |
| startSerialNo   | INTEGER(0..999)  | M  |   |
| number          | INTEGER(1..1000) | M  | Number of speed dial records to be retrieved. |
| tenantNo        | INTEGER          | O  |   |

### 3.46 KmeTenantSpeedDial

```
KmeTenantSpeedDial ::= SEQUENCE -- V2.0
```

```
{
    tenantNo      [0] INTEGER,
    kmeSpeedDial  [1] KmeSpeedDial}
```

| Parameter    | Data Type    | MO | Description |
|--------------|--------------|----|-------------|
| SEQUENCE     |              |    |             |
| tenantNo     | INTEGER      | M  |             |
| kmeSpeedDial | KmeSpeedDial | M  |             |

### 3.47 KmeTimeStamp (GetSystemData)

KmeTimeStamp ::= GeneralizedTime

### 3.48 KmeTrkGroupEntry (GetSystemData)

```
KmeTrkGroupEntry ::= SEQUENCE
{
    device      [0] DeviceID,
    name        [1] CHOICE
    {
        single  [0] IA5String(SIZE(1..20)),
        wide    [1] OCTET STRING(SIZE(1..40)) } OPTIONAL,
    devNumber   [2] DeviceID,
    cabinetNO   [3] INTEGER OPTIONAL}
```

| Parameter | Data Type             | MO                         | Description      |
|-----------|-----------------------|----------------------------|------------------|
| SEQUENCE  |                       |                            |                  |
| device    | DeviceID              | M                          |                  |
| name      | CHOICE                |                            | wide is not used |
|           | single                | OCTET STRING (SIZE(1..20)) |                  |
|           | wide                  | OCTET STRING (SIZE(1..40)) |                  |
| coNo      | IA5String(SIZE(1..3)) | M                          | CO number        |
| cabinetNO | INTEGER               | O                          |                  |

### 3.49 KmeTrkMembers (GetSystemData)

```
KmeTrkMembers ::= SEQUENCE
{
    groupNo     [0] IMPLICIT INTEGER,
    members     [1] IMPLICIT SEQUENCE OF KmeTrkGroupEntry}
```

| Parameter | Data Type                    | MO | Description        |
|-----------|------------------------------|----|--------------------|
| SEQUENCE  |                              |    |                    |
| groupNo   | INTEGER                      | M  | Group number       |
| members   | SEQUENCE OF KmeTrkGroupEntry | O  | Member information |

### 3.50 KmeVmDtmfType

```
KmeVmGroup ::= ENUMERATED
{
    dpt      (0),
    dtmf     (1)}
```

| Parameter | Value | Description |
|-----------|-------|-------------|
|-----------|-------|-------------|

| ENUMERATED |   |      |
|------------|---|------|
| dpt        | 0 | DPT  |
| dtmf       | 1 | DTMF |

### 3.51 KmeVmGroup

```
KmeVmDtmfType ::= ENUMERATED
{
    aa          (0),
    vm          (1)}

```

| Parameter  | Value | Description    |
|------------|-------|----------------|
| ENUMERATED |       |                |
| aa         | 0     | Auto Attendant |
| vm         | 1     | Voice Mail     |

### 3.52 KmeVmGroupList

```
KmeVmGroupList ::= SEQUENCE OF SEQUENCE
{
    device      DeviceID,
    vmType      KmeVmGroup,
    name        CHOICE
    {
        single   [0] OCTET STRING(SIZE(1..20)),
        wide     [1] OCTET STRING(SIZE(1..40)) } OPTIONAL,
    extNo       IA5String(SIZE(1..5)) OPTIONAL,
    dtmfType    KmeVmDtmfType OPTIONAL}

```

| Parameter            | Data Type             | MO                        | Description                               |
|----------------------|-----------------------|---------------------------|---|
| SEQUENCE OF SEQUENCE |                       |                           |   |
| device               | DeviceID              | M                         | DeviceID                                  |
| vmType               | KmeVmGroup            | M                         | Interface type : DPT or DTMF              |
| name                 | CHOICE                |                           | wide is not used.                         |
|                      | single                | OCTET STRING(SIZE(1..20)) |   |
|                      | wide                  | OCTET STRING(SIZE(1..40)) |   |
| extNo                | IA5String(SIZE(1..5)) | O                         | Extension number                          |
| dtmfType             | KmeVmDtmfType         | M                         | AA(Automated Attendant) or VM(Voice Mail) |

### 3.53 KmeWakeUpInfo (GetSystemData)

```
KmeWakeUpInfo ::= SEQUENCE
{
    time        [0] KmeWakeUpTime,
    schedule    [1] KmeWakeUpSchedule}

```

| Parameter | Data Type         | MO | Description |
|-----------|-------------------|----|-------------|
| SEQUENCE  |                   |    |             |
| time      | KmeWakeUpTime     | O  |             |
| schedule  | KmeWakeUpSchedule | M  |             |

### 3.54 KmeWakeUpSchedule (GetSystemData)

```
KmeWakeUpSchedule ::= ENUMERATED
{
    noSchedule      (0),
    once            (1),
    everyday        (2) }
```

| Parameter  | Value | Description  |
|------------|-------|--|
| ENUMERATED |       |  |
| noSchedule | 0     | The wakeup Call feature has not been set.                      |
| once       | 1     | The wakeup Call feature has been set so as to use it once.     |
| everyday   | 2     | The wakeup Call feature has been set so as to use it everyday. |

### 3.55 WakeupState

```
KmeWakeupState ::= ENUMERATED
{
    answered      (0),
    noAnswer      (1) }
```

| Parameter  | Value | Description |
|------------|-------|-------------|
| ENUMERATED |       |             |
| answered   | 0     |             |
| noAnswer   | 1     |             |

### 3.56 KmeWakeUpTime (GetSystemData)

```
KmeWakeUpTime ::= SEQUENCE
{
    hour      [0] IA5String(SIZE(2)),
    minute    [1] IA5String(SIZE(2)) }
```

| Parameter | Data Type          | MO | Description                     |
|-----------|--------------------|----|---------------------------------|
| SEQUENCE  |                    |    |                                 |
| hour      | IA5String(SIZE(2)) | M  | Indicated in 24-hour time stamp |
| minute    | IA5String(SIZE(2)) | M  |                                 |

## 4. PBX Hospitality Features

### 4.1 KmeCheckStatusList

-- Used in KmeGetSystemDataRsp as response to KmeGetSystemData request.

KmeCheckStatusList ::= SEQUENCE OF SEQUENCE

```
{
    extNo          DeviceID,
    status         KmeRoomStatus,
    cleanUpStatus  KmeCleanUpStatus OPTIONAL}
```

| Parameter            | Data Type        | MO | Description                               |
|----------------------|------------------|----|---|
| SEQUENCE OF SEQUENCE |                  |    |   |
| extNo                | cleanUpStatus    | M  | Extension number of a guest room.         |
| status               | KmeRoomStatus    | M  | Status whether checked-in or checked-out. |
| cleanUpStatus        | KmeCleanUpStatus | O  | Status of guest room cleanup.             |

### 4.2 KmeCleanUpStatus

KmeCleanUpStatus ::= ENUMERATED

```
{
    ready          (0),
    notReady       (1)}
```

| Parameter  | Value | MO | Description                                  |
|------------|-------|----|--|
| ENUMERATED |       |    |  |
| ready      | (0)   | M  | The guest room is cleaned up.                |
| notReady   | (1)   | M  | The guest room is required to be cleaned up. |

### 4.3 KmeHotelSrvEvt

-- TDA600 V4.0 : PBX internal hotel feature control interface

KmeHotelSrvEvt ::= CHOICE

```
{
    guestCheckIn  [0] IMPLICIT DeviceID,
    guestCheckOut [1] IMPLICIT DeviceID,
    checkedIn     [2] IMPLICIT DeviceID,
    checkedOut    [3] IMPLICIT DeviceID,
    cleanUp       [4] IMPLICIT DeviceID, -- Req.(toggle:Ready<->NotReady)
    cleanUpReady  [5] IMPLICIT DeviceID, -- Event
    cleanUpNotReady [6] IMPLICIT DeviceID} -- Event
```

| Parameter       | Data Type | MO | Description  |
|-----------------|-----------|----|--|
| CHOICE          |           |    |  |
| guestCheckIn    | DeviceID  | M  | Escape service to request check in.                              |
| guestCheckOut   | DeviceID  |    | Escape service to request check out.                             |
| checkedIn       | DeviceID  |    | Private event to notify guest is checked in.                     |
| checkedOut      | DeviceID  |    | Private event to notify guest is checked out                     |
| cleanUp         | DeviceID  |    | Escape service to request clean up.                              |
| cleanUpReady    | DeviceID  |    | Private event to notify guest room is cleaned up.                |
| cleanUpNotReady | DeviceID  |    | Private event to notify guest room is required to be cleaned up. |

#### 4.4 KmeRoomStatus

KmeRoomStatus ::= ENUMERATED

```
{
    checkIn      (0),
    checkOut     (1)}

```

| Parameter  | Value | MO | Description                         |
|------------|-------|----|-------------------------------------|
| ENUMERATED |       |    |                                     |
| checkIn    | (0)   | M  | The guest room is check-in status.  |
| checkOut   | (1)   | M  | The guest room is check-out status. |

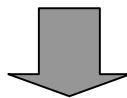
## 5. Panasonic Specific Types ASN.1 Definition

### 5.1 Location of Panasonic Specific Types

KX-TDA/TDE PBX specific data types are defined in KME Specific Data Types module to implement KX-TDA/TDE PBX specific services and events. The root data type of this module is `KMESpecificPrivateData`. This is used as the data type of “private” parameter in `CSTAPrivateData` instead of “NULL” data type as follows.

#### Standard ASN.1 Definition from ECMA-285

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



Modified

#### KX-TDA/TDE PBX uses following ASN.1 Definition

```
CSTAPrivateData ::= CHOICE
{
    string          OCTET STRING,
    private         KMESpecificPrivateData }
```

## 5.2 Panasonic Specific Data Types ASN.1 Definition

```

--
-- Panasonic Specific Data Types for CSTA Phase III
--
-- Version : 4.6 (for TDA 600 V4.0)
-- Date : 2008/04/01
--
-- Copyright Panasonic Communications Co.,Ltd.
-- Office Network Company
--

KME-specific-types
    { iso(1) identified-organization(3) icd-ecma(12)
      member-company(2) panasonic(1019) kme(1) telecom(1) pbx(1) software(1) tda-types(1) }

DEFINITIONS ::=
BEGIN

EXPORTS
KMESpecificPrivateData:

IMPORTS
DeviceID, SubjectDeviceID FROM CSTA-device-identifiers
    { iso(1) identified-organization(3) icd-ecma(12)
      standard(0) csta3(285) device-identifiers(123) }
ConnectionID, CallID FROM CSTA-call-connection-identifiers
    { iso(1) identified-organization(3) icd-ecma(12)
      standard(0) csta3(285) call-connection-identifiers(124) }
AccountInfo FROM CSTA-device-feature-types
    { iso(1) identified-organization(3) icd-ecma(12)
      standard(0) csta3(285) device-feature-types(127) }
ForwardList FROM CSTA-device-feature-types
    { iso(1) identified-organization(3) icd-ecma(12)
      standard(0) csta3(285) device-feature-types(127) }
EventCause FROM CSTA-event-causes
    { iso(1) identified-organization(3) icd-ecma(12)
      standard(0) csta3(285) event-causes(121) }
LocalConnectionState FROM CSTA-connection-states
    { iso(1) identified-organization(3) icd-ecma(12)
      standard(0) csta3(285) connection-states(125) }
DeviceCategory FROM CSTA-capability-exchange
    { iso(1) identified-organization(3) icd-ecma(12)
      standard(0) csta3(285) capability-exchange(131) }
ReqDeviceCategory FROM CSTA-get-switching-function-devices
    { iso(1) identified-organization(3) icd-ecma(12)
      standard(0) csta3(285) get-switching-function-devices(204) }
ServiceCrossRefID FROM CSTA-capability-exchange
    { iso(1) identified-organization(3) icd-ecma(12)
      standard(0) csta3(285) capability-exchange(131) }

```



ButtonID FROM CSTA-physical-device-feature

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

KmeDeviceLock ::= ENUMERATED

```
{ lock (0),
  unlock (1)}
```

KmeTimeStamp ::= GeneralizedTime

KmeSpeedDialRequest ::= SEQUENCE

```
{ startSerialNo INTEGER(0..999),
  number INTEGER(1..1000), -- Currently 0..50
  tenantNo [0] INTEGER OPTIONAL} -- TDA600V4.0
```

KmeSpeedDial ::= SEQUENCE OF SEQUENCE

```
{ serialNumber [0] INTEGER(0..999),
  registeredDigits [1] IA5String(SIZE(1..32)) OPTIONAL,
  callerName [2] CHOICE
  { single [0] OCTET STRING(SIZE(1..20)),
    wide [1] OCTET STRING(SIZE(1..40))} OPTIONAL}
```

KmeWakeUpTime ::= SEQUENCE

```
{ hour [0] IA5String(SIZE(2)),
  minute [1] IA5String(SIZE(2))}
```

KmeWakeUpSchedule ::= ENUMERATED

```
{ noSchedule (0),
  once (1),
  everyday (2)}
```

KmeWakeUpInfo ::= SEQUENCE

```
{ time [0] KmeWakeUpTime OPTIONAL,
  schedule [1] KmeWakeUpSchedule}
```

KmeWakeupState ::= ENUMERATED

```
{ answered (0),
  noAnswer (1)}
```

-- 2002/10/29 Changed

KmeAbsentMessage ::= CHOICE

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```
{
    single      [0] OCTET STRING(SIZE(0..16)),
    wide        [1] OCTET STRING(SIZE(0..32))}
```

KmeDnMode ::= ENUMERATED

```
{
    day          (0),
    lunch        (1),
    break        (2),
    night        (3)}
```

KmeDayNightMode ::= SEQUENCE OF SEQUENCE

```
{
    tenantNo     [0] INTEGER,
    mode         [1] KmeDnMode }
```

KmeOgmPlayState ::= ENUMERATED

```
{
    started      (0),
    ended        (1)}
```

KmeForwardType ::= 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),
    forwardBusyNoAnswer   (12),      -- KmeProprietary
    forwardBusyNoAnswerInt (13),     -- KmeProprietary
    forwardBusyNoAnswerExt (14)}     -- KmeProprietary
```

KmeSetForwardInfo ::= SEQUENCE

```
{
    forwardingType [0] KmeForwardType,
    activateForward [1] BOOLEAN,
    forwardDN      [2] DeviceID  OPTIONAL}
```

KmeFeatureList ::= SEQUENCE OF SEQUENCE

```
{
    featureNo      [0] INTEGER,
    featureDigits [1] IA5String(SIZE(1..6))  OPTIONAL}
```

KmeExtGroupEntry ::= SEQUENCE

```
{
    device          [0] DeviceID,  -- ext. number
    name            [1] CHOICE
    {
        single      [0] OCTET STRING(SIZE(1..20)),
        wide        [1] OCTET STRING(SIZE(1..40)) }    OPTIONAL,
    devNumber      [2] DeviceID,  -- device number
    cabinetNO      [3] INTEGER          OPTIONAL,
    psNo           [4] IA5String(SIZE(1..3))    OPTIONAL,
    numberOfBch    [5] INTEGER          OPTIONAL}

```

KmeTrkGroupEntry ::= SEQUENCE

```
{
    device          [0] DeviceID,  -- device number
    name            [1] CHOICE
    {
        single      [0] OCTET STRING(SIZE(1..20)),
        wide        [1] OCTET STRING(SIZE(1..40)) }    OPTIONAL,
    coNo           [2] IA5String(SIZE(1..3)),
    cabinetNO      [3] INTEGER OPTIONAL}

```

KmeExtMembers ::= SEQUENCE

```
{
    groupNo        [0] IMPLICIT INTEGER,
    members        [1] IMPLICIT SEQUENCE OF KmeExtGroupEntry}

```

KmeTrkMembers ::= SEQUENCE

```
{
    groupNo        [0] IMPLICIT INTEGER,
    members        [1] IMPLICIT SEQUENCE OF KmeTrkGroupEntry}

```

KmeExtTrkGroupList ::= SEQUENCE OF SEQUENCE

```
{
    groupNo        [0] INTEGER,
    name            [1] CHOICE
    {
        single      [0] OCTET STRING(SIZE(1..20)),
        wide        [1] OCTET STRING(SIZE(1..40)) }    OPTIONAL,
    tenantNo       [2] INTEGER    OPTIONAL}

```

KmeGroupMembers ::= BIT STRING

```
{
    one            ( 0),
    two            ( 1),
    three          ( 2),
    four           ( 3),
    five           ( 4),
    six            ( 5),
    seven          ( 6),
    eight          ( 7),
    nine           ( 8),

```

|             |        |
|-------------|--------|
| ten         | ( 9),  |
| eleven      | ( 10), |
| twelve      | ( 11), |
| thirteen    | ( 12), |
| fourteen    | ( 13), |
| fifteen     | ( 14), |
| sixteen     | ( 15), |
| seventeen   | ( 16), |
| eighteen    | ( 17), |
| nineteen    | ( 18), |
| twenty      | ( 19), |
| twentyOne   | ( 20), |
| twentyTwo   | ( 21), |
| twentyThree | ( 22), |
| twentyFour  | ( 23), |
| twentyFive  | ( 24), |
| twentySix   | ( 25), |
| twentySeven | ( 26), |
| twentyEight | ( 27), |
| twentyNine  | ( 28), |
| thirty      | ( 29), |
| thirtyOne   | ( 30), |
| thirtyTwo   | ( 31), |
| thirtyThree | ( 32), |
| thirtyFour  | ( 33), |
| thirtyFive  | ( 34), |
| thirtySix   | ( 35), |
| thirtySeven | ( 36), |
| thirtyEight | ( 37), |
| thirtyNine  | ( 38), |
| fourty      | ( 39), |
| fourtyOne   | ( 40), |
| fourtyTwo   | ( 41), |
| fourtyThree | ( 42), |
| fourtyFour  | ( 43), |
| fourtyFive  | ( 44), |
| fourtySix   | ( 45), |
| fourtySeven | ( 46), |
| fourtyEight | ( 47), |
| fourtyNine  | ( 48), |
| fifty       | ( 49), |
| fiftyOne    | ( 50), |
| fiftyTwo    | ( 51), |
| fiftyThree  | ( 52), |
| fiftyFour   | ( 53), |
| fiftyFive   | ( 54), |
| fiftySix    | ( 55), |
| fiftySeven  | ( 56), |
| fiftyEight  | ( 57), |
| fiftyNine   | ( 58), |

|                 |        |
|-----------------|--------|
| sixty           | ( 59), |
| sixtyOne        | ( 60), |
| sixtyTwo        | ( 61), |
| sixtyThree      | ( 62), |
| sixtyFour       | ( 63), |
| sixtyFive       | ( 64), |
| sixtySix        | ( 65), |
| sixtySeven      | ( 66), |
| sixtyEight      | ( 67), |
| sixtyNine       | ( 68), |
| seventy         | ( 69), |
| seventyOne      | ( 70), |
| seventyTwo      | ( 71), |
| seventyThree    | ( 72), |
| seventyFour     | ( 73), |
| seventyFive     | ( 74), |
| seventySix      | ( 75), |
| seventySeven    | ( 76), |
| seventyEight    | ( 77), |
| seventyNine     | ( 78), |
| eighty          | ( 79), |
| eightyOne       | ( 80), |
| eightyTwo       | ( 81), |
| eightyThree     | ( 82), |
| eightyFour      | ( 83), |
| eightyFive      | ( 84), |
| eightySix       | ( 85), |
| eightySeven     | ( 86), |
| eightyEight     | ( 87), |
| eightyNine      | ( 88), |
| ninety          | ( 89), |
| ninetyOne       | ( 90), |
| ninetyTwo       | ( 91), |
| ninetyThree     | ( 92), |
| ninetyFour      | ( 93), |
| ninetyFive      | ( 94), |
| ninetySix       | ( 95), |
| ninetySeven     | ( 96), |
| ninetyEight     | ( 97), |
| ninetyNine      | ( 98), |
| oneHundred      | ( 99), |
| oneHundredOne   | (100), |
| oneHundredTwo   | (101), |
| oneHundredThree | (102), |
| oneHundredFour  | (103), |
| oneHundredFive  | (104), |
| oneHundredSix   | (105), |
| oneHundredSeven | (106), |
| oneHundredEiht  | (107), |
| oneHundredNine  | (108), |

```

oneHundredTen      (109),
oneHundredEleven   (110),
oneHundredTwelve   (111),
oneHundredThirteen (112),
oneHundredFourteen (113),
oneHundredFifteen  (114),
oneHundredSixteen   (115),
oneHundredSeventeen (116),
oneHundredEighteen  (117),
oneHundredNineteen (118),
oneHundredTwenty    (119),
oneHundredTwentyOne (120),
oneHundredTwentyTwo (121),
oneHundredTwentyThree (122),
oneHundredTwentyFour (123),
oneHundredTwentyFive (124),
oneHundredTwentySix (125),
oneHundredTwentySeven (126),
oneHundredTwentyEight (127) }

```

KmePckPagGroupList ::= SEQUENCE OF SEQUENCE

```

{
    groupNo      [0] INTEGER,
    memberList   [1] KmeGroupMembers OPTIONAL}

```

KmeIcmGrpMembers ::= SEQUENCE

```

{
    grpDevice    [0] IMPLICIT DeviceID,
    members      [1] IMPLICIT SEQUENCE OF DeviceID}

```

KmeIncomingGroupList ::= SEQUENCE OF SEQUENCE

```

{
    groupNo      [0] INTEGER,
    device       [1] DeviceID,
    name         [2] CHOICE
    {
        single   [0] OCTET STRING(SIZE(1..20)),
        wide     [1] OCTET STRING(SIZE(1..40)) } OPTIONAL,
    extNo       [3] IA5String(SIZE(1..5)) OPTIONAL,
    groupType   [4] KmeGroupType,                -- 3rd Party
    acdMode     [5] BOOLEAN,                      -- 3rd Party
    ctiWaitTime [6] INTEGER,                      -- 3rd Party
    queueSize   [7] INTEGER OPTIONAL}            -- 3rd Party

```

-- 2001.05.15 Modified

KmeDoorPhone ::= SEQUENCE OF SEQUENCE

```

{
    doorPhoneNo [0] IA5String(SIZE(1..2)),
    device      [1] DeviceID,
    name       [2] CHOICE

```

```

{      single      [0] OCTET STRING(SIZE(1..20)),
      wide        [1] OCTET STRING(SIZE(1..40)) }  OPTIONAL}

-- 2001.05.10 added
KmeVmGroup ::= ENUMERATED
{      dpt          (0),
      dtmf          (1)}

-- 2001.05.10 added
KmeVmDtmfType ::= ENUMERATED
{      aa           (0),
      vm            (1)}

-- 2001.05.10 added
KmeVmGroupList ::= SEQUENCE OF SEQUENCE
{
    device          DeviceID,      -- Ext.Number
    vmType          KmeVmGroup,
    name            CHOICE
    {      single      [0] OCTET STRING(SIZE(1..20)),
      wide        [1] OCTET STRING(SIZE(1..40)) }  OPTIONAL,
    dtmfType       KmeVmDtmfType  OPTIONAL} -- dtmf type only

-- 01/12/17
KmePsGroupList ::= SEQUENCE OF SEQUENCE
{      groupNo      INTEGER,
    device          DeviceID,      -- Ext. number
    name            CHOICE
    {      single      [0] OCTET STRING(SIZE(1..20)),
      wide        [1] OCTET STRING(SIZE(1..40)) }  OPTIONAL,
    memberList     [2] KmeGroupMembers  OPTIONAL,
    memberList2    [3] KmeGroupMembers  OPTIONAL,
    memberList3    [4] KmeGroupMembers  OPTIONAL,
    memberList4    [5] KmeGroupMembers  OPTIONAL}

KmeChangeExtNo ::= SEQUENCE
{      requestingDevice  DeviceID,
    newExtNo            IA5String(SIZE(1..5))}

KmeChangeName ::= SEQUENCE
{      requestingDevice  DeviceID,
    newName             CHOICE
    {      single      [0] OCTET STRING(SIZE(1..20)),
      wide        [1] OCTET STRING(SIZE(1..40))}  OPTIONAL}

```

```
-- GetSystemData for Third Party Function
```

```
KmeDeviceCategory ::= CHOICE
```

```
{
    standardDevice [0] DeviceCategory,
    kmeDevice      [1] KmeOtherDevice}
```

```
KmeRequestedDevice ::= CHOICE          -- for GetSystemData.deviceList
```

```
{
    device          [0] DeviceID,
    category        [1] KmeDeviceCategory}
```

```
KmeChangedDeviceCategory ::= CHOICE    -- for SWF.DeviceChanged
```

```
{
    standardDevice [0] ReqDeviceCategory,
    kmeDevice      [1] KmeOtherDevice}
```

```
KmeDeviceStateList ::= SEQUENCE OF KmeDeviceStateEntry
```

```
KmeDeviceStateEntry ::= SEQUENCE
```

```
{
    device          DeviceID,
    number          IA5String(SIZE(1..5)) OPTIONAL, -- Ext No, CO No, Park Area No.
    status          KmeDeviceState}
```

```
KmeDeviceState ::= ENUMERATED
```

```
{
    ins            (0),
    ous            (1)}
```

```
KmeGroupType ::= ENUMERATED
```

```
{
    ucd            (0),
    ring           (1),
    hunt           (2)}
```

```
KmePhoneProperty ::= SEQUENCE
```

```
{
    portType       INTEGER,
    phoneCode      INTEGER,
    lcdRows        INTEGER,
    lcdColumns     INTEGER,
    numberOfCoKeys INTEGER,
    numberOfSoftKeys INTEGER,
    spPhone        BOOLEAN}
```

```
-- PortType
```

```
-- none          0x00
```



```

-- slt/OPX      0x01
-- apt          0x02
-- dptOld       0x03
-- dpt          0x04
-- isdn         0x08
-- wireless     0x0A
-- ip-pt        0x0C
-- ip-pt(p2p)   0x0D
-- sip          0x0E

```

```

--
-- Version 1.1
--

```

KmeDeviceExtNo ::= SEQUENCE

```

{
    devNumber      DeviceID,    -- DeviceNumber type
    extNo          IA5String(SIZE(1..5)) OPTIONAL}

```

KmeDeviceName ::= SEQUENCE

```

{
    extNo          IA5String(SIZE(1..5)),
    name           KmeExtName}

```

KmeFcoKeyInfo ::= SEQUENCE -- V2.0

```

{
    button         ButtonID,
    function       OCTET STRING(SIZE(1))}

```

KmeFcoKeyList ::= SEQUENCE OF KmeFcoKeyInfo -- V2.0

KmeExternalSensorList ::= SEQUENCE OF SEQUENCE -- V2.0

```

{
    sensorNo       [0] IA5String(SIZE(1..3)),
    device         [1] DeviceID,
    name           [2] CHOICE
    {
        single     [0] OCTET STRING(SIZE(1..20)),
        wide       [1] OCTET STRING(SIZE(1..40)) } OPTIONAL}

```

KmeTenantSpeedDial ::= SEQUENCE -- V2.0

```

{
    tenantNo       [0] INTEGER,
    kmeSpeedDial  [1] KmeSpeedDial}

```

KmeDistributionMethod ::= SEQUENCE -- V2.0

```

{
    group          DeviceID,
    type           KmeGroupType}

```

```
KmePDFStart ::= SEQUENCE -- V2.0
{
    device          DeviceID}

```

```
KmePDFStop ::= DeviceID -- V2.0
```

```
KmePDFStatus ::= SEQUENCE -- V2.0
{
    targetDevice    DeviceID,
    originatingDevice DeviceID,
    status          BOOLEAN}

```

```
KmePDFSrvEvt ::= CHOICE -- V2.0
{
    pDFStart [0] KmePDFStart,
    pDFStop  [1] KmePDFStop}

```

```
-- TDA30 V2.2
```

```
KmeSvmList ::= SEQUENCE OF SEQUENCE
{
    device          DeviceID, -- Ext.Number
    name           KmeExtName OPTIONAL}

```

```
-----
-- SetSystemData for Third Party Function
-----
```

```
KmeExtName ::= CHOICE
{
    single [0] OCTET STRING(SIZE(0..20)),
    wide   [1] OCTET STRING(SIZE(0..40)) }

```

```
NumberOfMsgPort ::= SEQUENCE
{
    numberOfMsgPort INTEGER,
    numberOfFreePort INTEGER}

```

```
-----
-- KmeCallControlSrvExt
-----
```

```
KmeDndOverride ::= ConnectionID
```

```
KmeInterruptCall ::= ConnectionID
```

```
KmeExternalFeatureAccess ::= ConnectionID -- Request Only. Response = noData in EscapeResult.
```

```
KmeTempTollChange ::= SEQUENCE
{
    connection      ConnectionID,
    tollLevel       INTEGER}
```

```
KmeDoorOpen ::= ConnectionID
```

```
KmeTwoWayRec ::= SEQUENCE
{
    connection      ConnectionID,
    vmGroupExtNo    IA5String(SIZE(1..5))}
```

```
-- 2002/05/28 Added
```

```
KmeCallBackInvokeReq ::= SEQUENCE
{
    callBackID      OCTET STRING (SIZE(0..4)),
    requestingDevice DeviceID,
    targetDevice    DeviceID    OPTIONAL} -- extension only
```

```
-- 2002/05/28 Added
```

```
KmeCallBackInvokeRsp ::= ConnectionID
```

```
-- 2002/05/28 Added
```

```
CallBackNotification ::= SEQUENCE
{
    callBackID      OCTET STRING (SIZE(0..4)),
    prompted        BOOLEAN,
    requestingDevice DeviceID,
    targetDevice    SubjectDeviceID}
```

```
-- 2002/05/28 Mod
```

```
KmeCallBackInvoke ::= CHOICE
{
    request      KmeCallBackInvokeReq,
    result       KmeCallBackInvokeRsp}
```

```
-- 2002/04/03
```

```
KmePcRec ::= SEQUENCE
{
    connection      ConnectionID,
    pcRecOn         BOOLEAN}
```

```
--
```

```
-- KmeDeviceStatus
```

```
--
```

KmeDeviceAgentStatus ::= SEQUENCE

```
{
    device          [0] DeviceID,
    status          [1] ENUMERATED
    {
        logout      (0),
        login       (1)},
    imcomingGroup  [2] DeviceID}
```

-- Changed 2001.04.24

KmeDeviceCallStatus ::= SEQUENCE OF SEQUENCE

```
{
    device          [0] DeviceID,
    status          [1] CHOICE
    {
        lineStatus  [0] ENUMERATED
        {
            idle     (0),
            ring     (1),
            busy     (2),
            hold     (3)},
        parkStatus  [1] SEQUENCE
        {
            area     [0] INTEGER(0..999),
            call     [1] CallID,
            action   ENUMERATED
            {
                parkin      (0),
                parkout     (1)}}}}
```

KmeDeviceServiceStatus ::= SEQUENCE

```
{
    source          [0] CHOICE
    {
        device      [0] DeviceID,
        cabinet     [1] INTEGER},
    status          [1] ENUMERATED
    {
        ous         (0),
        ins         (1)} }
```

-- TDA600

KmeLineStatus ::= SEQUENCE

```
{
    segmentId      KmeLineStatusSegment,
    lineInformation OCTET STRING(SIZE(0..384))}
```

KmeLineStatusSegment ::= ENUMERATED

```
{
    wired1        (0),
    wired2        (1),
    wireless      (2),
    trunk         (3)}
```

-- End of KmeDeviceStatus

--

-- KmeDeviceMonitor

--

```

KmeStartDeviceMonitor ::= CHOICE
{
    null          NULL,
    event        CallMonitorEvent} -- TDA600

KmeStopDeviceMonitor ::= NULL -- Request Only. Response = noData in EscapeResult.

-- TDA600
CallMonitorEvent ::= ENUMERATED
{
    deviceCallStatus    (0),
    deviceLineStatus    (1)}

-- End of KmeDeviceMonitor

--
-- TDA Version 1.1
--

KmeBroadcastGroupList ::= SEQUENCE OF SEQUENCE
{
    groupNo    INTEGER,
    name       KmeExtName  OPTIONAL}

KmeBroadcastGrpMembers ::= SEQUENCE
{
    groupNo    [0] INTEGER,
    members    [1] IMPLICIT SEQUENCE OF DeviceID}

--
-- TDA600
--

KmeAlterIfSrvEvt ::= CHOICE
{
    alterIf    [0] KmeAlterIf,
    ifAltered  [1] KmeIfAltered}

KmeAlterIf ::= IfVersion

KmeIfAltered ::= IfVersion

IfVersion ::= ENUMERATED
{
    version0    (0),
    version1    (1)}

KmeDeviceDataList ::= SEQUENCE OF SEQUENCE
{
    device      [0] DeviceID,
    sysData     [1] CHOICE
    {
        standardInfo    SEQUENCE

```

```

    {
        wakeUp          [ 9] KmeWakeUpInfo          OPTIONAL,
        remoteLock      [10] KmeDeviceLock          OPTIONAL,
        callLogLock     [11] KmeDeviceLock          OPTIONAL,
        absentMessage   [12] KmeAbsentMessage       OPTIONAL,
        forwardDnd      [13] ForwardList            OPTIONAL,
        cos              [34] INTEGER                OPTIONAL,
        phoneProperty   [35] KmePhoneProperty       OPTIONAL,
        assocIncomGroup [36] KmeGroupMembers        OPTIONAL,
        messageWaiting  [37] SEQUENCE OF DeviceID  OPTIONAL,
        assocExtGroup   [39] INTEGER                OPTIONAL
    },
    extName            [41] KmeExtName,
    fcoKeyList         [44] KmeFcoKeyList,
    sxdpMaster         [45] DeviceID} }

```

-- TDA600 V3.1

KmePdnGMembers ::= SEQUENCE

```

{
    groupDevice    [0] IMPLICIT DeviceID,
    members        [1] IMPLICIT SEQUENCE OF DeviceID}

```

-- TDA600 V4.0 : PBX internal hotel feature control interface

KmeHotelSrvEvt ::= CHOICE

```

{
    guestCheckIn   [0] IMPLICIT DeviceID,
    guestCheckOut  [1] IMPLICIT DeviceID,
    checkedIn      [2] IMPLICIT DeviceID,
    checkedOut     [3] IMPLICIT DeviceID,
    cleanUp        [4] IMPLICIT DeviceID,    -- Req.(toggle:Ready<->NotRready)
    cleanUpReady   [5] IMPLICIT DeviceID,    -- Event
    cleanUpNotReady [6] IMPLICIT DeviceID}    -- Event

```

-- Used in KmeGetSystemDataRsp

KmeCheckStatusList ::= SEQUENCE OF SEQUENCE

```

{
    extNo          DeviceID,
    status         KmeRoomStatus,
    cleanUpStatus  KmeCleanUpStatus    OPTIONAL}

```

KmeRoomStatus ::= ENUMERATED

```

{
    checkIn        (0),
    checkOut       (1)}

```

KmeCleanUpStatus ::= ENUMERATED

```

{
    ready          (0),
    notReady       (1)}

```

--

-- KmeSystemData

--

```

KmeGetSystemDataReq ::= CHOICE
{
    systemData    [0] ENUMERATED
        {
            sysTimeStamp    ( 0),
            devTimeStamp    ( 1),      -- Not used
            featureList     ( 2),
            speedDial       ( 3),      -- Not used
            trunkGroup      ( 4),
            extensionGroup  ( 5),
            pickupGroup     ( 6),
            pagingGroup     ( 7),
            incomingGroup   ( 8),
            dayNightMode    ( 9),
            doorPhone       (10),
            vmGroup         (11),
            manufacturerName (12),    -- 3rd Party
            subdomainName   (13),    -- 3rd Party
            softwareVersion  (14),    -- 3rd Party
            ctiVersion       (15),    -- 3rd Party
            regionCode      (16),    -- 3rd Party
            systemTime      (17),    -- 3rd Party
            numberOfMsgPort (18),    -- 3rd Party
            psGroup         (19),    -- 3rd Party
            whoAmI          (20),    -- V1.1
            broadcastGroup  (21),    -- V1.1
            pbxType         (22),    -- V2.0
            externalSensor  (23),    -- V2.0
            svm              (24),    -- TDA30 V2.2
            pdn             (25)},   -- TDA600 V3.1

    deviceData    [1] SEQUENCE      -- Extension(Station) Device
        {
            device    [0] DeviceID,
            sysData   [1] CHOICE
                {
                    standardInfo  BIT STRING
                        {
                            wakeUp           (0),
                            remoteStationLock (1),
                            callLogLock     (2),
                            absentMessage   (3),
                            forwardDnd      (4),
                            cos              (5),      -- 3rd Party
                            phoneProperty    (6),      -- 3rd Party
                            assocIncomGroup (7),      -- 3rd Party
                            messageWating   (8),      -- 3rd Party
                            assocExtGroup   (9)},      -- 3rd Party
                            extName         [1] NULL,    -- V1.1
                            fcoKey          [2] NULL,    -- V2.0
                            sxdpMaster     [3] NULL}},   -- V2.0

            trkExtGMember [2] IMPLICIT SEQUENCE
                {
                    groupNo    INTEGER,
                    groupType  ENUMERATED
                        {
                            trunkGMembers (0),

```

```

                                extGMembers      (1) }},
incomGMember  [3] IMPLICIT SEQUENCE
  {      groupNo      DeviceID },
deviceList    [4] KmeRequestedDevice,
vmGMember     [5] DeviceID,                -- 02/05/20
speedDial     [6] KmeSpeedDialRequest,     -- 02/11/26
broadcastGMembers [7] INTEGER,            -- V1.1
guestCheckStatus [8] IMPLICIT DeviceID}   -- TDA600 V4.0

```

KmeGetSystemDataRsp ::= SEQUENCE

```

{ -- Whole system data
  timeStamp      [ 0] KmeTimeStamp      OPTIONAL, -- PCC
  featureList    [ 1] KmeFeatureList     OPTIONAL, -- PCC
  speedDial      [ 2] KmeSpeedDial      OPTIONAL, -- PCC
  trunkGroup     [ 3] KmeExtTrkGroupList OPTIONAL, -- PCC
  extGroup       [ 4] KmeExtTrkGroupList OPTIONAL, -- PCC
  pickGroup      [ 5] KmePckPagGroupList OPTIONAL, -- PCC
  pagingGroup    [ 6] KmePckPagGroupList OPTIONAL, -- PCC
  incomingGroup  [ 7] KmeIncomingGroupList OPTIONAL, -- PCC
  dayNightMode   [ 8] KmeDayNightMode   OPTIONAL, -- PCC
  wakeUp         [ 9] KmeWakeUpInfo     OPTIONAL, -- PCC
  remoteLock     [10] KmeDeviceLock     OPTIONAL, -- PCC
  callLogLock    [11] KmeDeviceLock     OPTIONAL, -- PCC
  absentMessage  [12] KmeAbsentMessage   OPTIONAL, -- PCC
  forwardDnd     [13] ForwardList       OPTIONAL, -- PCC
  trkGMembers    [14] KmeTrkMembers     OPTIONAL, -- PCC
  extGMembers    [15] KmeExtMembers     OPTIONAL, -- PCC
  incomGMembers  [16] KmeIcmGrpMembers  OPTIONAL, -- PCC
  doorPhone      [17] KmeDoorPhone     OPTIONAL, -- PCC
  vmGroup        [18] KmeVmGroupList    OPTIONAL, -- PCC
  manufacturerName [19] IA5String(SIZE(0..64)) OPTIONAL, -- 3rd Party
  subdomainName  [20] IA5String(SIZE(0..20)) OPTIONAL, -- 3rd Party
  softwareVersion [21] IA5String(SIZE(0..32)) OPTIONAL, -- 3rd Party
  ctiVersion     [22] IA5String(SIZE(0..32)) OPTIONAL, -- 3rd Party
  regionCode     [23] IA5String(SIZE(0..32)) OPTIONAL, -- 3rd Party
  systemTime     [24] GeneralizedTime   OPTIONAL, -- 3rd Party
  numberOfMsgPort [25] NumberOfMsgPort  OPTIONAL, -- 3rd Party
  psGroup        [26] KmePsGroupList    OPTIONAL, -- 3rd Party
  youAre         [27] DeviceID          OPTIONAL, -- V1.1
  svm            [28] KmeSvmList         OPTIONAL, -- TDA30 V2.2
  pdn            [29] KmePdnGMembers    OPTIONAL, -- TDA600 V3.1

-- Each device data
  cos            [34] INTEGER            OPTIONAL, -- 3rd Party
  phoneProperty  [35] KmePhoneProperty  OPTIONAL, -- 3rd Party
  assocIncomGroup [36] KmeGroupMembers  OPTIONAL, -- 3rd Party
  messageWaiting [37] SEQUENCE OF DeviceID OPTIONAL, -- 3rd Party
  deviceList     [38] KmeDeviceStateList OPTIONAL, -- 3rd Party
  assocExtGroup  [39] INTEGER            OPTIONAL, -- 01/12/17
  vmGMembers     [40] KmeIcmGrpMembers  OPTIONAL, -- 02/05/20

```



```

extName          [41] KmeExtName          OPTIONAL,    -- V1.1
broadcastGroup   [42] KmeBroadcastGroupList  OPTIONAL,    -- V1.1
broadcastGMembers [43] KmeBroadcastGrpMembers  OPTIONAL,    -- V1.1
fcoKeyList       [44] KmeFcoKeyList         OPTIONAL,    -- V2.0
sxdpMaster       [45] DeviceID             OPTIONAL,    -- V2.0
pbxType          [46] INTEGER              OPTIONAL,    -- V2.0
externalSensor   [47] KmeExternalSensorList OPTIONAL,    -- V2.0
deviceDataList   [48] KmeDeviceDataList     OPTIONAL,    -- TDA600
guestCheckStatus [49] KmeCheckStatusList     OPTIONAL}    -- TDA600 V4.0

```

KmeGetSystemData ::= CHOICE

```

{
    request      KmeGetSystemDataReq,
    result       KmeGetSystemDataRsp}

```

-- KmeDnMode changed to KmeDayNightMode 2001.03.09

KmeSetSystemData ::= CHOICE -- Request Only. Response = noData in EscapeResult.

```

{
    systemData    [0] CHOICE -- Whole system data
    {
        speedDial      [0] KmeSpeedDial,          -- PCC
        dayNightMode   [1] KmeDayNightMode,      -- PCC
        time           [2] GeneralizedTime,      -- PCC
        extNo          [3] KmeChangeExtNo,       -- 2002/01/24
        name           [4] KmeChangeName,       -- 2002/01/24
        subdomainName [5] IA5String(SIZE(0..20)), -- V2.0(Lock)
        tenantSpeedDial [6] KmeTenantSpeedDial,  -- V2.0(Lock)
        distributionMethod [7] KmeDistributionMethod}, -- V2.0(Lock)
    deviceData    [1] SEQUENCE -- Each device data for extension
    {
        device        [1] DeviceID,
        sysData       [2] CHOICE
        {
            wakeUp      [0] KmeWakeUpInfo,      -- PCC
            remoteLock  [1] KmeDeviceLock,      -- PCC
            forwardDnd  [2] KmeSetForwardInfo,  -- PCC
            absentMessage [3] KmeAbsentMessage, -- PCC
            passwordClear [4] NULL,             -- PCC
            extNumber   [5] IA5String(SIZE(1..5)),
            extName     [6] KmeExtName,
            cos         [7] INTEGER,
            joinGroup   [8] DeviceID,
            leaveGroup  [9] DeviceID,
            inService   [10] BOOLEAN,           -- 2002/01/24
            fcoKey      [11] KmeFcoKeyList}}, -- V2.0(No lock)
        acdQueue      [3] SEQUENCE -- No lock(V2.0 modified)
        {
            device      DeviceID,
            attribute   CHOICE
            {
                groupType [1] KmeGroupType,     -- Not used(V2.0)
                acdMode   BOOLEAN,
                ctiWaitTime INTEGER} } } }

```

KmeSystemDataChanged ::= CHOICE

```

{
    systemData      [0] ENUMERATED
    {
        featureList      ( 1),
        speedDial        ( 2),
        trunkGroup       ( 3),
        extGroup         ( 4),
        pickGroup        ( 5),
        pagingGroup      ( 6),
        incomingGroup    ( 7),
        dayNightMode     ( 8),
        doorPhone        ( 9),
        vmGroup          (10),
        systemTime       (11),
        psGroup          (12),
        trunkGMembers    (13),           -- 02/01/24
        incomingGMembers (14),           -- 02/01/24
        psGMembers       (15),           -- 02/01/24
        vmGMembers       (16),           -- 02/05/20
        broadcastGroup   (17),           -- V1.1
        broadcastGMembers (18),         -- V1.1
        subdomainName    (19),           -- V2.0
        externalSensor   (20),           -- V2.0
        svm              (21)},         -- TDA30 V2.2

    deviceData      [1] SEQUENCE
    {
        device        [0] DeviceID,
        sysData       [1] ENUMERATED
        {
            wakeUp          ( 0),
            remoteStattionLock ( 1),
            callLogLock     ( 2),
            absentMessage   ( 3),
            forwardDnd      ( 4),
            cos              ( 5),
            extName         ( 6),       -- 01/12/17
            assocExtGroup   ( 7),       -- 01/12/17
            fcoKey          ( 8),       -- V2.0
            sxdpMaster      ( 9)},     -- V2.0

        deviceBasicInfo [2] DeviceID,
        reconfiguration [3] NULL}      -- 02/04/03
}

```

KmeSystemDataLinkedReply ::= SEQUENCE

```

{
    crossRefID      [0] ServiceCrossRefID,   -- 01/12/17
    segmentID       [1] INTEGER,
    lastSegment     [2] BOOLEAN,
    sysData         [3] KmeGetSystemDataRsp  OPTIONAL} -- 02/04/22

```

KmeGetSystemDataPosAck ::= ServiceCrossRefID -- Cross Reference Identifier 01/12/17

-- 2002/07/02 Moditified

KmeSystemCrossRefID ::= OCTET STRING(SIZE(4))

KmeLockSystemData ::= CHOICE

```
{
    request      SEQUENCE
    {
        systemDataLock    BOOLEAN, -- true:lock, false:unlock
        CHOICE
        {
            lock          DeviceID,
            unlock        KmeSystemCrossRefID} },
    lockResult    KmeSystemCrossRefID}
```

KmeSystemDataStatus ::= SEQUENCE

```
{
    systemDataLock    BOOLEAN,
    lockingDevice     DeviceID    OPTIONAL}
```

-- 2002/12/19 added

KmeSystemDataRevision ::= OCTET STRING(SIZE(0..128))

KmeGetSystemDataRevision ::= CHOICE -- V2.0

```
{
    request      KmeRevisionType,
    result       KmeSystemDataRevision}
```

KmeRevisionType ::= ENUMERATED -- V2.0

```
{
    systemDataRevision    (0),
    speedDialRevision     (1)}
```

--true:Event is enable

ProgrammingEventOn ::= BOOLEAN -- V2.0

KmeSetProgrammingEventOn ::= CHOICE -- V2.0

```
{
    request      ProgrammingEventOn}
```

-- End of KmeSystemData

--

-- KmeLocalAlarmMessage

--

KmeLocalAlarm ::= CHOICE

```
{
    singleMessage    [0] OCTET STRING(SIZE(0..24)),
    wideMessage     [1] OCTET STRING(SIZE(0..48))}
```

-- End of KmeLocalAlarmMessage

--

--

-- KmeAdditionalData (PrivateData in a CSTA standard service/event)

--

--

-- MakeCall-Request

KmeTrunkId ::= DeviceID

-- GetSwitchingFunctionDevices-Request

KmeOtherDevice ::= ENUMERATED

```
{
    vm                (0),
    doorPhone         (1),    -- including Door opener
    disa              (2),
    pagingGroup       (3),    -- 2001/12/17
    psGruop           (4),    -- 2001/12/17
    externalRinger    (5),    -- 2002/04/26
    externalSensor    (6),    -- 2002/04/26
    externalPager     (7),    -- 2002/04/26
    modem             (8),    -- 2002/04/26
    hdlc              (9),    -- 2002/04/26
    pbxSystem         (10),   -- 2002/04/26
    svm               (11)}   -- 2004/10/04 for TDA30 V2.2
```

-- Call Detail Record Report

KmeCdrConditionCode ::= ENUMERATED

```
{
    cl                (0),    -- Reverse Charging
    tr                (1),    -- Call Transfer
    fw                (2),    -- Call Forwarding
    d0                (3),    -- DISA/TIE
    rm                (4),    -- Remote Maintenance
    na                (5)}   -- No Answer
```

KmeFeatureNumber ::= INTEGER

-- 1: Call Waiting(Delivered-Event)

-- Not used

-- 2: Answered by TAM(AnswerCall-Request)

-- PCC PC Console/PC Phone only

-- 3: Visual Caller ID(CallInformation-Event) 2002/05/27

-- 4: New Call with temporary COS(ServiceInitiated-Event) 2004/11/08

-- Set Display mod. 2002/08/08

KmeProprietaryChars ::= OCTET STRING(SIZE(0..144))

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-- Held Event

KmeHoldType ::= ENUMERATED

```
{
    consultation      (0),
    normal            (1),
    exclusive         (2)}
```

-- Deflect Call 2002/07/17

KmeForcedAlerting ::= BIT STRING

```
{
    fwdDnd           (0),
    timer            (1)}
```

-----  
-- Kme Private Events  
-----

KmeDigitsReport ::= SEQUENCE

```
{
    connection      ConnectionID,
    digits           IA5String(SIZE(0..64))}
```

KmeOgmStatus ::= SEQUENCE

```
{
    connection      ConnectionID,
    state           KmeOgmPlayState,
    ogmId           INTEGER,
    ogmPortNumber   DeviceID}
```

KmeWakeupResult ::= SEQUENCE

```
{
    device          DeviceID,
    state           KmeWakeupState,
    wakeupTime      KmeWakeUpTime,
    invokeTime      GeneralizedTime,
    restOfRetry     INTEGER          OPTIONAL}
```

KmeUnconferenced ::= SEQUENCE

```
{
    unconferencingDevice DeviceID,
    primaryCall          ConnectionID,
    secondaryCall        ConnectionID          OPTIONAL,
    primaryNID           [1] DeviceID         OPTIONAL,
    secondaryNID         [2] DeviceID         OPTIONAL,
    primaryConnectionInfo LocalConnectionState,
    secondaryConnectionInfo LocalConnectionState OPTIONAL}
```

-- 2002/04/26 05/17 mod.

KmeTamEnded ::= ConnectionID

-- 2002/05/17 Added.

KmePcRecEnded ::= ConnectionID

-- 2002/07/22 Added

KmeSwitchChannel ::= ConnectionID

-- 2002/07/26 Added

KmeFreeOgmPort ::= INTEGER

KmeCallControlSrvEvt ::= CHOICE

```
{
    dndOverride          [0] KmeDndOverride,
    interruptCall        [1] KmeInterruptCall,
    eFA                  [2] KmeExternalFeatureAccess,
    tempTollChange       [3] KmeTempTollChange,
    doorOpen             [4] KmeDoorOpen,
    twoWayRec            [5] KmeTwoWayRec,
    callBackInvoke       [6] KmeCallBackInvoke,
    pcRec                [7] KmePcRec,
    switchChannel        [8] KmeSwitchChannel}
```

KmeDeviceStatus ::= CHOICE

```
{
    agentStatus          [0] KmeDeviceAgentStatus,
    callStatus           [1] KmeDeviceCallStatus,
    serviceStatus        [2] KmeDeviceServiceStatus,
    lineStatus           [3] KmeLineStatus}    -- TDA600
```

KmeDeviceMonitor ::= CHOICE

```
{
    startDeviceMonitor   [0] KmeStartDeviceMonitor,
    stopDeviceMonitor    [1] KmeStopDeviceMonitor}
```

KmeSystemData ::= CHOICE

```
{
    getSystemData        [0] KmeGetSystemData,
    setSystemData        [1] KmeSetSystemData,
    systemDataChanged    [2] KmeSystemDataChanged,
    systemDataLinkedReply [3] KmeSystemDataLinkedReply,
    getSystemDataPosAck  [4] KmeGetSystemDataPosAck,
    lockSystemData       [5] KmeLockSystemData,      -- 2002/05/17
    systemDataStatus     [6] KmeSystemDataStatus,    -- 2002/05/17
    dataRevisionRecord   [7] KmeSystemDataRevision,  -- 2002/12/19
    getDataRevisionRecord [8] KmeGetSystemDataRevision, -- V2.0
    setprogrammingEventOn [9] KmeSetProgrammingEventOn} -- V2.0
```

-- Private Data added in Standard Services

KmeAdditionalData ::= CHOICE

```
{
    fowardType          [1] KmeForwardType,          -- SetForwarding
    trunkId             [2] KmeTrunkId,              -- Not Used.
    otherDevice         [3] KmeOtherDevice,          -- GetSwitchingFunctionDevices
    vmRecExtNo          [4] IA5String(SIZE(1..5)),    -- ConsultationCall
    deviceCategory      [5] KmeChangedDeviceCategory, -- SwitchingFunctionDevice Changed
    device              [6] DeviceID,                -- GetAutoWorkMode-Request,
SetAutoWorkMode-Request
    featureNumber       [7] KmeFeatureNumber,        -- AnswerCall-Request, Delivered-Event
    proprietaryContents [8] KmeProprietaryChars,     -- Set Display
    holdType            [9] KmeHoldType,             -- Held Event
    conditionCode       [10] KmeCdrConditionCode,    -- Call Detail Records Report
    lockDisplay         [11] BOOLEAN,                -- SetDisplay
    forcedAlerting      [12] KmeForcedAlerting,     -- DeflectCall
    callID              [13] CallID,                 -- RingStatus
    ogmContinuation     [14] BOOLEAN,                -- DeflectCall
    broadcastGroupNo    [15] INTEGER,                -- SInit,Orig,Delivered,Established
    ringPattern         [16] INTEGER,                -- DeflectCall V2.0
    didNo               [17] DeviceID}              -- Delivered V2.0
```

KmePrivateEvent ::= CHOICE

```
{
    digitsReport        [1] KmeDigitsReport,
    ogmStatus           [2] KmeOgmStatus,
    wakeupResult        [3] KmeWakeupResult,
    unconferenced      [4] KmeUnconferenced,
    tamEnded            [5] KmeTamEnded,            -- 2002/04/26 05/17 mod.
    pcRecEnded         [6] KmePcRecEnded,          -- 2002/05/17 Added.
    callbackNotification [7] CallBackNotification, -- 2002/05/28 Added
    freeOgmPort         [8] KmeFreeOgmPort,        -- 2002/08/26 Added
    pDFStatus          [9] KmePDFStatus}           -- Ver2.0
```

--

-- Resource Control

--

KmeResourceControl ::= CHOICE

```
{
    ogmStart            [0] KmeOgmStart,
    ogmStop             [1] KmeOgmStop}
```

KmeOgmStart ::= SEQUENCE

```
{
    connection          ConnectionID,
    ogmId               INTEGER}
```

KmeOgmStop ::= ConnectionID

--

-- Generic Services/Events

--

KmeGenericSrvEvt ::= CHOICE

```
{
    serviceRequest      [0] KmeGenericServiceReq,
    serviceResult       [1] KmeGenericServiceRsp,
    event                [2] KmeGenericEvent}
```

KmeGenericServiceReq ::= SEQUENCE

```
{
    serviceNo           INTEGER,
    device              DeviceID           OPTIONAL,
    connection          ConnectionID       OPTIONAL,
    number              INTEGER             OPTIONAL,
    string              IA5String(SIZE(0..128)) OPTIONAL}
```

KmeGenericServiceRsp ::= SEQUENCE

```
{
    number              INTEGER             OPTIONAL,
    string              IA5String(SIZE(0..128)) OPTIONAL}
```

KmeGenericEvent ::= SEQUENCE

```
{
    eventNo            INTEGER,
    device             DeviceID           OPTIONAL,
    connection         ConnectionID       OPTIONAL,
    state              LocalConnectionState OPTIONAL,
    cause              INTEGER             OPTIONAL,
    message            IA5String(SIZE(1..128)) OPTIONAL}
```

--- Root data structure of KME Specific Data

KMESpecificPrivateData ::= CHOICE

```
{
    kmeCallControl      [1] KmeCallControlSrvEvt,
    kmeDeviceStatus     [2] KmeDeviceStatus,
    kmeDeviceMonitor    [3] KmeDeviceMonitor,
    kmeSystemData       [4] KmeSystemData,
    kmeLocalAlarm       [5] KmeLocalAlarm,
    kmeAdditionalData   [6] KmeAdditionalData,
    kmePrivateEvent     [7] KmePrivateEvent,
    kmeResourceControl  [8] KmeResourceControl,
    kmeGeneric          [9] KmeGenericSrvEvt,
    kmeExtendedDataAccess [10] OCTET STRING(SIZE(0..200)),
    kmePDFControl       [11] KmePDFSrvEvt,      -- Ver2.0
    kmeAlterIf          [12] KmeAlterIfSrvEvt,  -- TDA600
    kmeHotelControl     [13] KmeHotelSrvEvt} -- TDA600 v4.0
```

END -- of KME-specific-types



