

Layered DAE Provisioning over CAI3G

Ericsson Dynamic Activation 1

INTERFACE DESCRIPTION

Copyright

© Ericsson AB 2017. All rights reserved. No part of this document may be reproduced in any form without the written permission of the copyright owner.

Disclaimer

The contents of this document are subject to revision without notice due to continued progress in methodology, design and manufacturing. Ericsson shall have no liability for any error or damage of any kind resulting from the use of this document.

Trademark List

All trademarks mentioned herein are the property of their respective owners. These are shown in the document Trademark Information.



Contents

1	Introduction	1
1.1	Purpose and Scope	1
1.2	Target Group	1
1.3	Typographic Conventions	1
1.4	Prerequisites	2
1.5	Namespaces	2
1.6	Legends	2
1.7	Operations	3
1.8	Web Service Interface	3
1.9	MOType	3
1.10	MOld	4
2	Create Subscription	5
2.1	Request Data	5
2.2	Examples	6
3	Get Subscription	9
3.1	Request Data	9
3.2	Response Data	9
3.3	Examples	10
4	Set Subscription	13
4.1	Request Data	13
4.2	Examples	14
5	Delete Subscription	15
5.1	Request Data	15
5.2	Examples	15
6	Create Device Group Profile	17
6.1	Request Data	17
6.2	Examples	22
7	Get Device Group Profile	25
7.1	Request Data	25
7.2	Response Data	25



7.3	Examples	31
8	Set Device Group Profile	33
8.1	Request Data	33
8.2	Examples	38
9	Delete Device Group Profile	41
9.1	Request Data	41
9.2	Examples	41
10	Faults and Errors	43
10.1	Subordinate DAE Error Codes	43
10.2	CAI3G Error Message Example	43
	Reference List	45



1 Introduction

This document describes the interface exposed by Ericsson™ Dynamic Activation (EDA) for provisioning of Data Access Enabler (DAE) data. The interface exposes a number of Customers Service Orders (CSOs) that enables management of devices stored in a Centralized User Data Base (CUDB).

The exposed interface can be used by a Customer Administration System (CAS) or any other provisioning system.

1.1 Purpose and Scope

This document describes the supported Customers Service Orders (CSOs) in the CAI3G interface which is used for provisioning of DAE data.

CAI3G is an Ericsson propriety interface which enables provisioning of user and subscriber data in telecommunication and IT networks. It is a web service interface based on Simple Object Access Protocol (SOAP) 1.1. This document is not a tutorial of CAI3G, the document must be read together with the Generic CAI3G specification, which is described in *Generic CAI3G Interface 1.2*, Reference [2].

1.2 Target Group

The target groups for this document are as follows:

- System Integrator

For more information about the different target groups, see *Library Overview*, Reference [3].

1.3 Typographic Conventions

Typographic conventions are described in *Library Overview*, Reference [3].

In addition, this document uses the following to indicate operations:

C	Create
S	Set
G	Get
D	Delete



1.4 Prerequisites

To use this document fully, users must meet the following prerequisites:

- Basic knowledge about the Dynamic Activation product
- Knowledge about *Generic CAI3G Interface 1.2*, Reference [2].

1.5 Namespaces

The following namespaces are referred to in this document:

- CAI3G 1.2 Namespace:

`http://schemas.ericsson.com/cai3g1.2/`

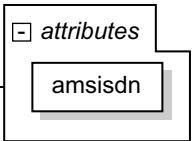
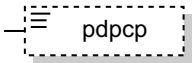

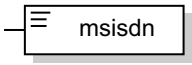
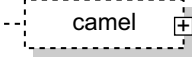
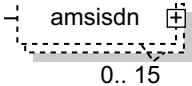
- DAE Provisioning Namespace:

`http://schemas.ericsson.com/ma/DAE/`

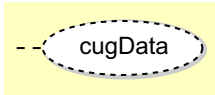
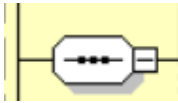
1.6 Legends

The following table shows the legends used in XML schema figures in this specification.

Table 1 Legends Used in XML Schema Figures in This Specification

Legend	Description
	XML attribute
	Optional XML element
	Choice icon
	Mandatory XML element
	Structured element
	Subobject element The occurrence of this element is 0–15.



Legend	Description
	<p>User-defined type</p> <p>This is not a standard XML schema type. It is introduced to describe MO schema structure more clearly. In practice, this type is to be replaced by the corresponding elements.</p>
	<p>Sequence icon</p> <p>A list of elements, the sequence order must be followed.</p>

1.7 Operations

See the following table for the operations, or Managed Objects (MOs), and valid operations covered in this document.

Table 2 DAE Provisioning CSOs

MO	Operations			
	Create	Get	Set	Delete
Subscription	x	x	x	x
DeviceGroupProfile	x	x	x	x

1.8 Web Service Interface

The Web Services Definition Language (WSDL) and XML Schema Definition Language (XSD) files that describe the provisioning interface can be found in `/home/dveinstaller/ma/`. It is also possible to download the files and view or store them in an appropriate area by following below instruction:

1. Save the zip file, [Multi Activation WSDL and XSD files.zip](#), to a local folder.
2. Unpack the zip file.

1.9 MOType

MOType is a plain text string based on the type `xs:string`. An MO type consists of two parts. One is the namespace of the MO, and the other is the MO name string that is always starting with an alphabetical character in either upper or lower case, followed by zero or more alphabetical characters, digits or underscores.

Those two parts are connected with symbol @. The syntax of the MOType string is `MO_Name@MO_Namespace`. The name string of an MO type must follow the regular expression: `[A-Za-z][A-Za-z0-9]*`

The MO name together with the MO namespace must be globally unique.



1.10 MOld

MOld is an Extensible Markup Language (XML) fragment containing the MOld parameter value pairs that are used to identify an MO instance in the interface data model. CAI3G 1.2 standard supports compound MO identifiers or multiple MO identifier. The following is an example of an MOld:

```
<MOld>
  <msisdn>46455395000</msisdn>
  <imsi>46234563545000</imsi>
</MOld>
```

Example 1 Example of MOld

The MOld is defined as a sequence of `xs:any` element in CAI3G schema file. It is the developers responsibility to define the real schema for this parameter.

The MOld is also the key attributes that must be defined in the top-level element, `CreateMODefinition` or `SetMODefinition`, within `MOAttributes` parameter.

Each implementation of CAI3G interface is to define own logic relationship of MOld. It is also the CAI3GAgents responsibility to interpret this parameter correctly by either the hard-coded logic or the dynamic parsing of the schema.

2 Create Subscription

This section covers the DAE Subscription command `CreateSubscription`.

The `CreateSubscription` operation creates an IMSI that points to a `DeviceGroupProfile`.

MOType

`Subscription@http://schemas.ericsson.com/ma/DAE/`

2.1 Request Data

2.1.1 Parameters

MOId

Table 3 Create Subscription MO Id

Parameter	Type	Occurrence	Description
imsi	String Pattern value="[0-9]*" minLength value="6" maxLength value="15"	Mandatory	This attribute contains the IMSI associated with the subscriber.

MOAttributes

The parameters that are used in the operation are shown in Figure 1.

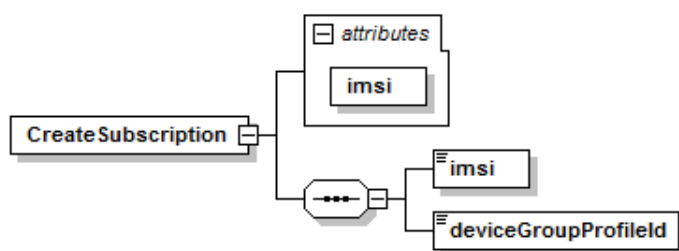


Figure 1 Parameters in Create Subscription

The following table covers the parameters that can be used in a `CreateSubscription` request.

**Table 4** *Create Subscription MO Attributes*

Parameter	Type	Occurrence	Description
imsi	String Pattern value="[0-9]*" minLength value="6" maxLength value="15"	Mandatory	This attribute contains the IMSI associated with the subscriber.
deviceGroupProfileId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device group profile.

2.2 Examples

Request Example

This section gives an example of a CreateSubscription request message, as shown in Example 2.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:cai3="http://schemas.ericsson.com/cai3g1.2/"
xmlns:dae="http://schemas.ericsson.com/ma/DAE/">
  <soapenv:Header>
    <cai3:SessionId>8ff2c44153094bf7a6e14abc047d445d</cai3:SessionId>
  </soapenv:Header>
  <soapenv:Body>
    <cai3:Create>
      <cai3:MOType>Subscription@http://schemas.ericsson.com/ma/DAE/</cai3:MOType>
      <cai3:MOId>
        <dae:imsi>850455391027</dae:imsi>
      </cai3:MOId>
      <cai3:MOAttributes>
        <dae:CreateSubscription imsi="850455391027">
          <dae:imsi>850455391027</dae:imsi>
          <dae:deviceGroupProfileId>1001</dae:deviceGroupProfileId>
        </dae:CreateSubscription>
      </cai3:MOAttributes>
    </cai3:Create>
  </soapenv:Body>
</soapenv:Envelope>
```

Example 2 Create Subscription Request Message

A subscriber with IMSI 850455391027 is created and set to use deviceGroupProfile 1001.

Response Example

This section gives an example of a CreateSubscription response message, as shown in Example 3.



```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:cai3g="http://schemas.ericsson.com/cai3g1.2/">
  <S:Header>
    <cai3g:SessionId>eaf3e970a6394d4eaa9b76699d2d88b7</cai3g:SessionId>
  </S:Header>
  <S:Body>
    <ns2:CreateResponse xmlns:ns2="http://schemas.ericsson.com/cai3g1.2/">
      <ns2:MOId>
        <dae:imsi xmlns:dae="http://schemas.ericsson.com/ma/DAE/">850455391027
        </dae:imsi>
      </ns2:MOId>
    </ns2:CreateResponse>
  </S:Body>
</S:Envelope>
```

Example 3 *Create Subscription Response Message*





3 Get Subscription

This section covers the DAE Subscription command `GetSubscription`.

The `GetSubscription` operation returns the current `DeviceGroupProfile` using the provided IMSI value.

MOType

`Subscription@http://schemas.ericsson.com/ma/DAE/`

3.1 Request Data

3.1.1 Parameters

The following table covers the parameters that can be received in a `GetSubscription` request.

MOId

Table 5 *Get Subscription MO Id*

Parameter	Type	Occurrence	Description
imsi	String Pattern value="[0-9]*" minLength value="6" maxLength value="15"	Mandatory	This attribute contains the IMSI associated with the subscriber.

3.2 Response Data

3.2.1 Parameters

MOId

N/A

MOAttributes

The parameters that are used in the operation are shown in Figure 2.

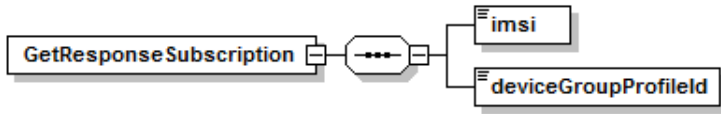


Figure 2 Parameters in Get Response Subscription

The following table covers the parameters that can be received in a GetSubscription response.

Table 6 Get Response Subscription MO Attributes

Parameter	Type	Occurrence	Description
imsi	Numeric string pattern value="[0-9]*" minLength value="6" maxLength value="15"	Mandatory	This attribute contains the IMSI associated with the subscriber.
deviceGroupProfileId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device group profile.

3.3 Examples

Request Example

This section gives an example of a GetSubscription request message, as shown in Example 4.

```

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:cai3="http://schemas.ericsson.com/cai3gl.2/"
  xmlns:dae="http://schemas.ericsson.com/ma/DAE/">
  <soapenv:Header>
    <cai3:SessionId>8ff2c44153094bf7a6e14abc047d445d</cai3:SessionId>
  </soapenv:Header>
  <soapenv:Body>
    <cai3:Get>
      <cai3:MOType>Subscription</cai3:MOType>
      <cai3:MOId>
        <dae:imsi>850455391027</dae:imsi>
      </cai3:MOId>
    </cai3:Get>
  </soapenv:Body>
</soapenv:Envelope>
  
```

Example 4 Get Subscription Request Message

Response Example

This section gives an example of a GetSubscription response message, as shown in Example 5.



```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:cai3g="http://schemas.ericsson.com/cai3g1.2/">
  <S:Header>
    <cai3g:SessionId>eaf3e970a6394d4eaa9b76699d2d88b7</cai3g:SessionId>
  </S:Header>
  <S:Body>
    <ns2:GetResponse xmlns:ns2="http://schemas.ericsson.com/cai3g1.2/">
      <ns2:MOAttributes>
        <ns:GetResponseSubscription xmlns:ns="http://schemas.ericsson.com/ma/DAE/">
          <ns:imsi>850455391027</ns:imsi>
          <ns:deviceGroupProfileId>1</ns:deviceGroupProfileId>
        </ns:GetResponseSubscription>
      </ns2:MOAttributes>
    </ns2:GetResponse>
  </S:Body>
</S:Envelope>
```

Example 5 Get Subscription Response Message

The subscriber with IMSI 850455391027 connected to deviceGroupProfile with id 1001 is printed.



4 Set Subscription

This section covers the DAE Subscription command `SetSubscription`.

The `SetSubscription` operation can change the subscription to use a different `DeviceGroupProfile`.

MOType

`Subscription@http://schemas.ericsson.com/ma/DAE/`

4.1 Request Data

4.1.1 Parameters

MOId

Table 7 Set Subscription MO Id

Parameter	Type	Occurrence	Description
imsi	String Pattern value="[0-9]*" minLength value="6" maxLength value="15"	Mandatory	This attribute contains the IMSI associated with the subscriber.

MOAttributes

The parameters that are used in the operation are shown in Figure 3.

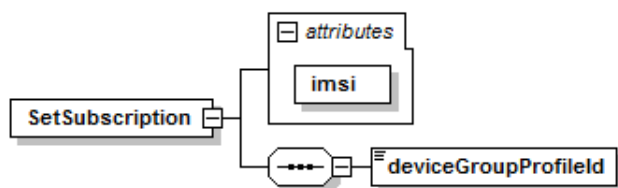


Figure 3 Parameters in Set Subscription

The following table covers the parameters that can be used in a `SetSubscription` request.

**Table 8** Set Subscription MO Attributes

Parameter	Type	Occurrence	Description
deviceGroupProfileId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device group profile.

4.2 Examples

Request Example

This section gives an example of a SetSubscription request message, as shown in Example 6.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:cai3="http://schemas.ericsson.com/cai3gl.2/"
xmlns:dae="http://schemas.ericsson.com/ma/DAE/">
  <soapenv:Header>
    <cai3:SessionId>8ff2c44153094bf7a6e14abc047d445d</cai3:SessionId>
  </soapenv:Header>
  <soapenv:Body>
    <cai3:Set>
      <cai3:MOType>Subscription@http://schemas.ericsson.com/ma/DAE/</cai3:MOType>
      <cai3:MOId>
        <dae:imsi>850455391027</dae:imsi>
      </cai3:MOId>
      <cai3:MOAttributes>
        <dae:SetSubscription imsi="850455391027">
          <dae:deviceGroupProfileId>1002</dae:deviceGroupProfileId>
        </dae:SetSubscription>
      </cai3:MOAttributes>
    </cai3:Set>
  </soapenv:Body>
</soapenv:Envelope>
```

Example 6 Set Subscription Request Message

The subscriber with IMSI 850455391027 is set to use the deviceGroupProfile 1002.

Response Example

This section gives an example of a SetSubscription response message, as shown in Example 7.

```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:cai3g="http://schemas.ericsson.com/cai3gl.2/">
  <S:Header>
    <cai3g:SessionId>8ff2c44153094bf7a6e14abc047d445d</cai3g:SessionId>
  </S:Header>
  <S:Body>
    <ns2:SetResponse xmlns:ns2="http://schemas.ericsson.com/cai3gl.2/">
    </S:Body>
</S:Envelope>
```

Example 7 Set Subscription Response Message



5 Delete Subscription

This section covers the DAE Subscription command `DeleteSubscription`.

The `DeleteSubscription` operation removes a DAE subscription from the CUDB.

MOType

`Subscription@http://schemas.ericsson.com/ma/DAE/`

5.1 Request Data

5.1.1 Parameters

MOId

Table 9 Delete Subscription MO Id

Parameter	Type	Occurrence	Description
imsi	Numeric string pattern value="[0-9]*" minLength value="6" maxLength value="15"	Mandatory	This attribute contains the IMSI associated with the subscriber.

MOAttributes

N/A

5.2 Examples

Request Example

This section gives an example of a `DeleteSubscription` request message, as shown in Example 8.



```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:cai3="http://schemas.ericsson.com/cai3g1.2/"
  xmlns:dae="http://schemas.ericsson.com/ma/DAE/">
  <soapenv:Header>
    <cai3:SessionId>8ff2c44153094bf7a6e14abc047d445d</cai3:SessionId>
  </soapenv:Header>
  <soapenv:Body>
    <cai3>Delete>
      <cai3:MOType>Subscription@http://schemas.ericsson.com/ma/DAE/</cai3:MOType>
      <cai3:MOId>
        <dae:imsi>850455391027</dae:imsi>
      </cai3:MOId>
    </cai3>Delete>
  </soapenv:Body>
</soapenv:Envelope>
```

Example 8 Delete Subscription Request Message

The subscriber with IMSI 850455391027 is deleted.

Response Example

This section gives an example of a DeleteSubscription response message, as shown in Example 9.

```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:cai3g="http://schemas.ericsson.com/cai3g1.2/">
  <S:Header>
    <cai3g:SessionId>eaf3e970a6394d4eaa9b76699d2d88b7</cai3g:SessionId>
  </S:Header>
  <S:Body>
    <ns2>DeleteResponse xmlns:ns2="http://schemas.ericsson.com/cai3g1.2/">
      <ns2:MOId>
        <dae:imsi xmlns:dae="http://schemas.ericsson.com/ma/DAE/">850455391027</dae:imsi>
      </ns2:MOId>
    </ns2>DeleteResponse>
  </S:Body>
</S:Envelope>
```

Example 9 Delete Subscription Response Message



6 Create Device Group Profile

This section covers the DAE Device Group Profile command `CreateDeviceGroupProfile`.

The `CreateDeviceGroupProfile` operation creates a Device Group Profile in the CUDB.

MOType

`DeviceGroupProfile@http://schemas.ericsson.com/ma/DAE/`

6.1 Request Data

6.1.1 Parameters

MOId

Table 10 Create Device Group Profile MO Id

Parameter	Type	Occurrence	Description
deviceGroupProfileId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device group profile.

MOAttributes

The parameters that are used in the operation are shown in Figure 4 and Figure 5.

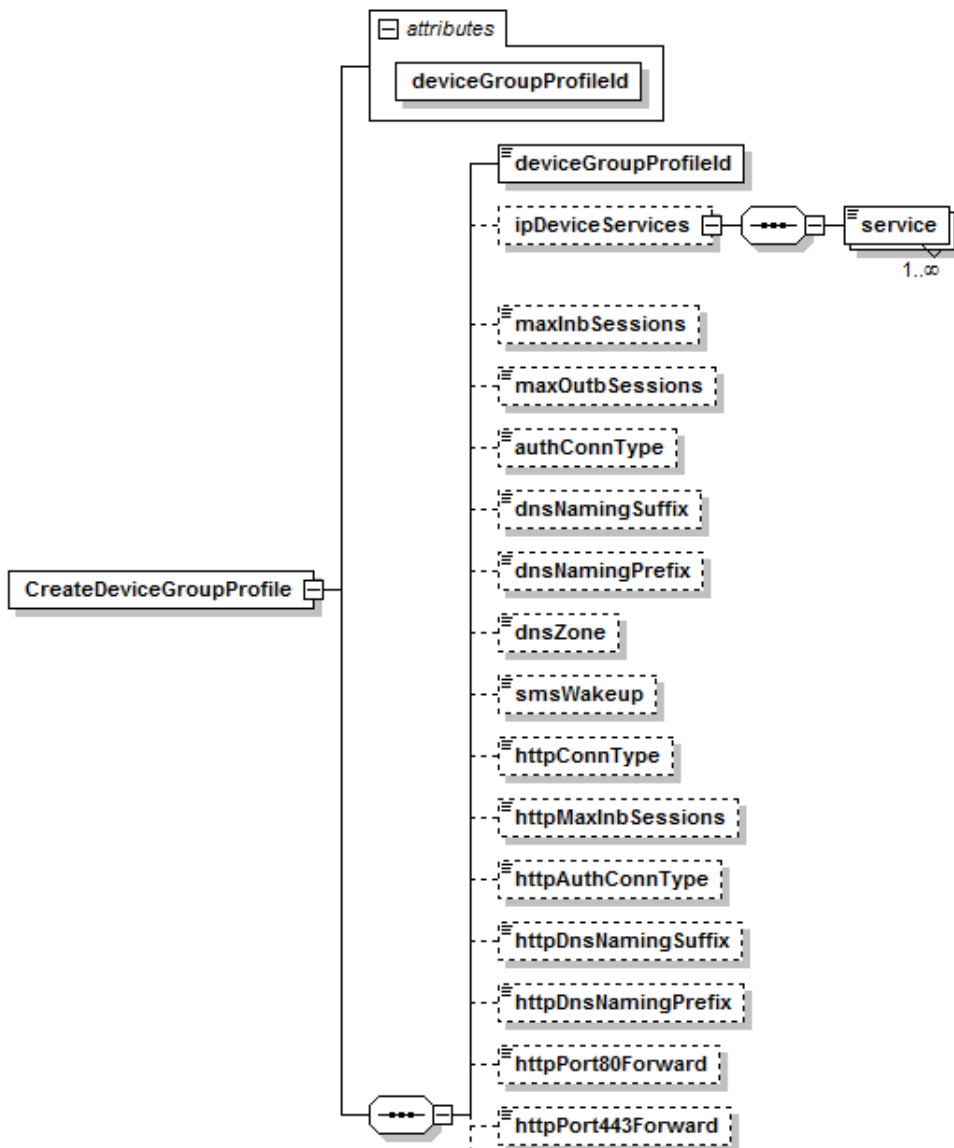


Figure 4 Parameters in Create Device Group Profile part 1

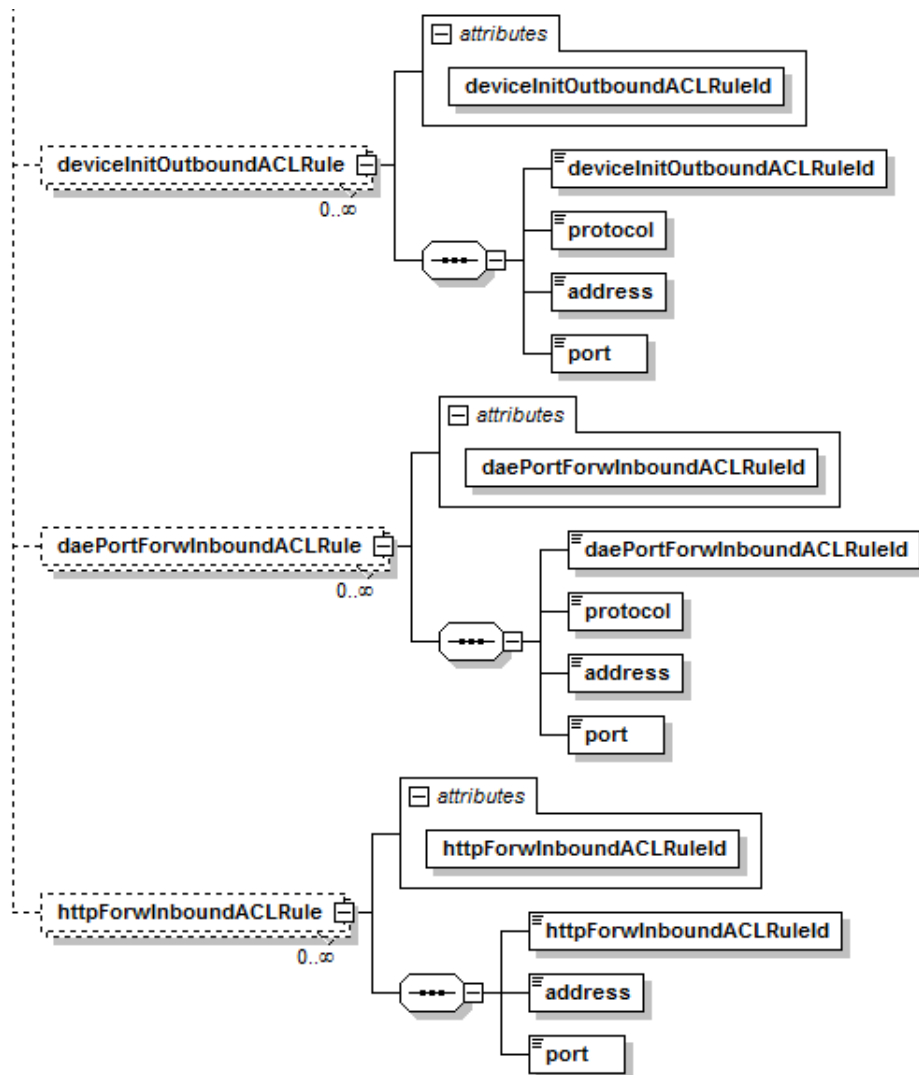


Figure 5 Parameters in Create Device Group Profile part 2

The following table covers the parameters that can be used in a CreateDeviceGroupProfile request.

Table 11 Create Device Group Profile MO Attributes

Parameter	Type	Occurrence	Description
deviceGroupProfileId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device group profile.
service	String	Mandatory	This attribute identifies the services provide by the device. The values can be either a service name (Keyword) as defined in RFC 1700 or a service port. For known ports (port 0-1023) the service name is to be used.



Table 11 Create Device Group Profile MO Attributes

Parameter	Type	Occurrence	Description
maxInbSessions	Integer minInclusive value="0" maxInclusive value="2147483647"	Mandatory	This attribute defines the maximum number of simultaneous inbound sessions a device can have.
maxOutbSessions	Integer minInclusive value="0" maxInclusive value="2147483647"	Mandatory	This attribute defines the maximum number of simultaneous outbound sessions a device can have.
authConnType	String Enumeration value = "none" Enumeration value = "weak" Enumeration value = "strong" Enumeration value = "weakAndStrong"	Mandatory	This attribute defines if the connection is to be secured for a device, either by using ACLs (=Weak) or by cryptographical means (=Strong) or no authentication at all (=None). Weak and Strong can be supported by a device at the same time.
dnsNamingSuffix	String	Mandatory	This attribute defines the suffix to be used in generating a full qualified domain name for the device.
dnsNamingPrefix	String Enumeration value = "IMSI" Enumeration value = "IMEI" Enumeration value = "MSISDN" Enumeration value = "MD5ofIMSI"	Mandatory	This attribute defines the prefix to be used in generating a full qualified domain name for the device.
dnsZone	String	Mandatory ⁽¹⁾	This attribute defines the DNS zone in the DNS server where the DNS A or SRV records of the device are populated. It is either the same as the <code>dnsNamingSuffix</code> or a higher-level domain name on the right in the <code>dnsNamingSuffix</code> .
smsWakeup	Boolean {true, false}	Mandatory	This attribute defines if the SMS wakeup functionality for the device is enabled or not
httpConnType	String Enumeration value="disabled" Enumeration value="http" Enumeration value="https" Enumeration value="httpAndHttps"	Optional	This attribute defines the HTTP Forwarding connection type.
httpMaxInbSessions	Integer minInclusive value="0" maxInclusive value="2147483647"	Mandatory ⁽²⁾	This attribute defines the maximum number of simultaneous inbound HTTP sessions that the device group can have.



Table 11 Create Device Group Profile MO Attributes

Parameter		Type	Occurrence	Description
httpAuthConnType		String Enumeration value = "none" Enumeration value = "weak" Enumeration value = "strong" Enumeration value = "weakAndStrong"	Mandatory ⁽²⁾	This attribute defines if the connection is to be secured for a device, either by using ACLs (=Weak) and by cryptographical means (=Strong) or no authentication at all(=None). Weak and Strong can be supported by a device at the same time.
httpDnsNamingSuffix		String	Mandatory ⁽²⁾	This attribute defines the prefix to be used in generating a full qualified domain name for the device.
httpDnsNamingPrefix		String Enumeration value = "IMSI" Enumeration value = "IMEI" Enumeration value = "MSISDN" Enumeration value = "MD5ofIMSI"	Mandatory ⁽²⁾	This attribute defines the prefix to be used in generating a full qualified domain name for the device.
httpPort80Forward		Integer minInclusive value="1" maxInclusive value="65535"	Mandatory ⁽²⁾	This attribute defines the destination port on device for traffic received on external (public) port 80 (HTTP).
httpPort443Forward		Integer minInclusive value="1" maxInclusive value="65535"	Mandatory ⁽³⁾	This attribute defines the destination port on device for traffic received on external port 443 (HTTPS).
deviceInitOutboundACLRule		Sub MO	Optional	Device Initiated Outbound Session Policy (ACL) Objectclass.
	deviceInitOutboundACLRuleId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device initiated outbound session ACL rule Id.
	protocol	String Enumeration value = "ip" Enumeration value = "tcp" Enumeration value = "udp"	Mandatory	This attribute identifies the allowed protocol for device initiated outbound sessions.
	address	String	Mandatory	This attribute identifies the allowed IP subnet or individual IP address for the destination (Enterprise).
	port	String Valid values 0 - 65535 or Valid service name	Mandatory	This attribute identifies the allowed service name or port number for the destination (Enterprise). "0" means that all ports are allowed. Valid service names are found in Reference [5].



Table 11 Create Device Group Profile MO Attributes

Parameter		Type	Occurrence	Description
daePortForwInboundACLRule		Sub MO	Optional	DAE Port Forwarder Inbound Session Policy (ACL) Objectclass.
	daePortForwInboundACLRuleId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the DAE Port Forwarding inbound session ACL rule Id.
	protocol	String Enumeration value = "ip" Enumeration value = "tcp" Enumeration value = "udp"	Mandatory	This attribute identifies the allowed protocol for device initiated outbound sessions.
	address	String	Mandatory	This attribute identifies the allowed IP subnet or individual IP address for the destination (Enterprise).
	port	String Valid values 0 - 65535 or Valid service name	Mandatory	This attribute identifies the allowed service name or port number for the destination (Enterprise). "0" means that all ports are allowed. Valid service names are found in Reference [5].
httpForwInboundACLRule		Sub MO	Optional	HTTP Forwarder Inbound Session Policy (ACL) Objectclass.
	httpForwInboundACLRuleId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the DAE HTTP Forwarding inbound session ACL rule Id.
	address	String	Mandatory	This attribute identifies the allowed IP subnet or individual IP address for the destination (Enterprise).
	port	String Valid values 0 - 65535 or Valid service name	Mandatory	This attribute identifies the allowed service name or port number for the destination (Enterprise). "0" means that all ports are allowed. Valid service names are found in Reference [5].

(1) Mandatory when any IP service is enabled in attribute ipDeviceServices

(2) Mandatory when HTTP forwarding is enabled in attribute httpConnType

(3) Mandatory when HTTPS forwarding is enabled in attribute httpConnType

6.2 Examples

Request Example

This section gives an example of a CreateDeviceGroupProfile request message, as shown in Example 10.



```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:cai3="http://schemas.ericsson.com/cai3gl.2/"
  xmlns:dae="http://schemas.ericsson.com/ma/DAE/">
  <soapenv:Header>
    <cai3:SessionId>b8f08ac7858547e687c3c9fcc88b5f3e</cai3:SessionId>
  </soapenv:Header>
  <soapenv:Body>
    <cai3:Create>
      <cai3:MOType>DeviceGroupProfile@http://schemas.ericsson.com/ma/DAE/</cai3:MOType>
      <cai3:MOId>
        <dae:deviceGroupProfileId>1001</dae:deviceGroupProfileId>
      </cai3:MOId>
      <cai3:MOAttributes>
        <dae:CreateDeviceGroupProfile deviceGroupProfileId="1001">
          <dae:deviceGroupProfileId>1001</dae:deviceGroupProfileId>
          <dae:ipDeviceServices>
            <dae:service>http</dae:service>
            <dae:service>ftp</dae:service>
            <dae:service>443</dae:service>
          </dae:ipDeviceServices>
          <dae:maxInbSessions>10</dae:maxInbSessions>
          <dae:maxOutbSessions>25</dae:maxOutbSessions>
          <dae:authConnType>weak</dae:authConnType>
          <dae:dnsNamingSuffix>domain.com</dae:dnsNamingSuffix>
          <dae:dnsNamingPrefix>MD5ofIMSI</dae:dnsNamingPrefix>
          <dae:dnsZone>zone.domain.com</dae:dnsZone>
          <dae:smsWakeup>true</dae:smsWakeup>
          <dae:httpConnType>http</dae:httpConnType>
          <dae:httpMaxInbSessions>10</dae:httpMaxInbSessions>
          <dae:httpAuthConnType>none</dae:httpAuthConnType>
          <dae:httpDnsNamingSuffix>http.domain.com</dae:httpDnsNamingSuffix>
          <dae:httpDnsNamingPrefix>MD5ofIMSI</dae:httpDnsNamingPrefix>
          <dae:httpPort80Forward>8080</dae:httpPort80Forward>
          <dae:httpPort443Forward>8443</dae:httpPort443Forward>
          <dae:deviceInitOutboundACLRule deviceInitOutboundACLRuleId="1">
            <dae:deviceInitOutboundACLRuleId>1</dae:deviceInitOutboundACLRuleId>
            <dae:protocol>ip</dae:protocol>
            <dae:address>123.123.0.0 255.255.0.0</dae:address>
            <dae:port>22</dae:port>
          </dae:deviceInitOutboundACLRule>
          <dae:daePortForwInboundACLRule daePortForwInboundACLRuleId="23">
            <dae:daePortForwInboundACLRuleId>23</dae:daePortForwInboundACLRuleId>
            <dae:protocol>tcp</dae:protocol>
            <dae:address>111.112.113.114/16</dae:address>
            <dae:port>2323</dae:port>
          </dae:daePortForwInboundACLRule>
          <dae:httpForwInboundACLRule httpForwInboundACLRuleId="45">
            <dae:httpForwInboundACLRuleId>45</dae:httpForwInboundACLRuleId>
            <dae:address>111.112.113.114</dae:address>
            <dae:port>89</dae:port>
          </dae:httpForwInboundACLRule>
        </dae:CreateDeviceGroupProfile>
      </cai3:MOAttributes>
    </cai3:Create>
  </soapenv:Body>
</soapenv:Envelope>
```

Example 10 Create Device Group Profile Request Message

A DeviceGroupProfile is created with id 1001 with all parameters set and all SubMOs defined.

Response Example

This section gives an example of a CreateDeviceGroupProfile response message, as shown in Example 11.



```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:cai3g="http://schemas.ericsson.com/cai3g1.2/">
  <S:Header>
    <cai3g:SessionId>b8f08ac7858547e687c3c9fcc88b5f3e</cai3g:SessionId>
  </S:Header>
  <S:Body>
    <ns2:CreateResponse xmlns:ns2="http://schemas.ericsson.com/cai3g1.2/">
      <ns2:MOId>
        <dae:deviceGroupProfileId xmlns:dae="http://schemas.ericsson.com/ma/DAE/">
          1001</dae:deviceGroupProfileId>
        </ns2:MOId>
      </ns2:CreateResponse>
    </S:Body>
  </S:Envelope>
```

Example 11 *Create Device Group Profile Response Message*



7 Get Device Group Profile

This section covers the DAE Device Group Profile command `GetDeviceGroupProfile`.

The `GetDeviceGroupProfile` operation retrieves a Device Group Profile in the CUDB.

MOType

`DeviceGroupProfile@http://schemas.ericsson.com/ma/DAE/`

7.1 Request Data

7.1.1 Parameters

The following table covers the parameters that can be received in a `GetDeviceGroupProfile` request.

MOId

Table 12 Get Device Group Profile MO Id

Parameter	Type	Occurrence	Description
deviceGroupProfileId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device group profile.

7.2 Response Data

7.2.1 Parameters

MOId

N/A

MOAttributes

The parameters that are used in the operation are shown in Figure 6 and Figure 7.



Figure 6 Parameters in Get Device Group Profile part 1

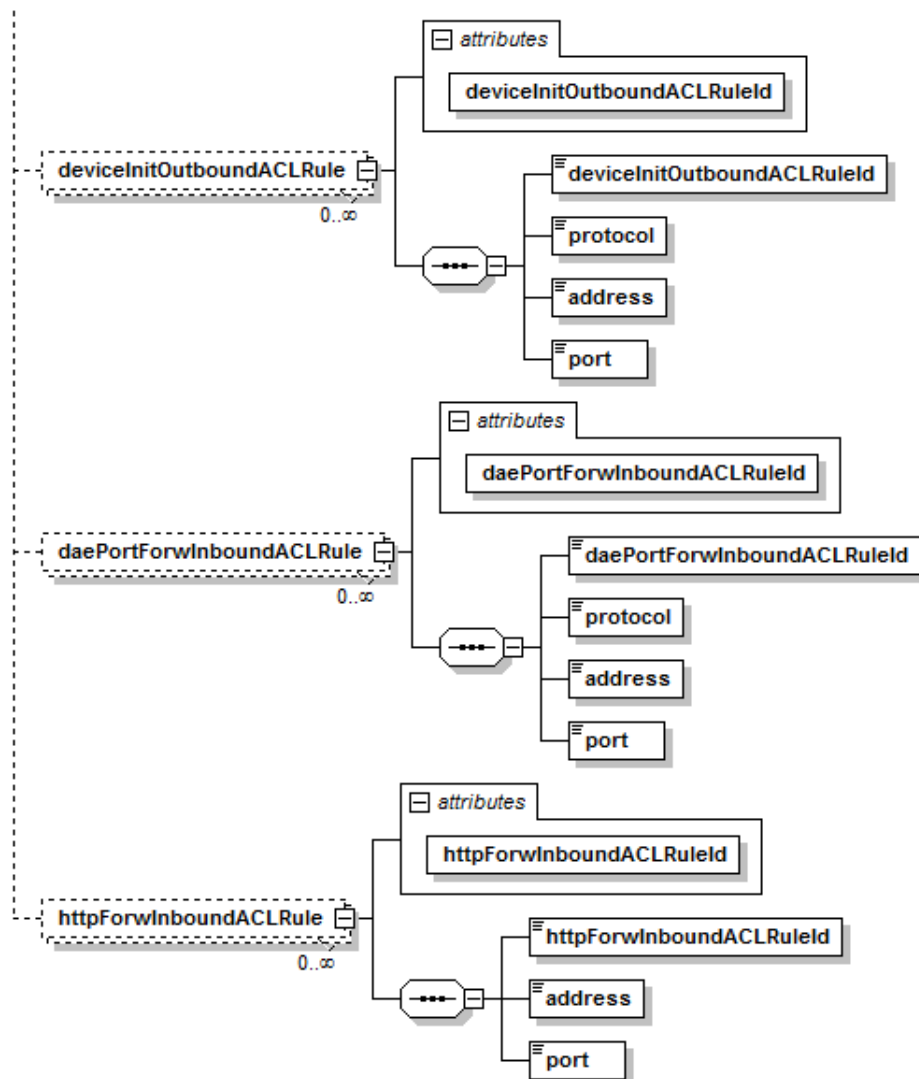


Figure 7 Parameters in Get Device Group Profile part 2

The following table covers the parameters that can be received in a GetDeviceGroupProfile response.

Table 13 Get Device Group Profile MO Attributes

Parameter	Type	Occurrence	Description
deviceGroupProfileId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device group profile.



Table 13 Get Device Group Profile MO Attributes

Parameter	Type	Occurrence	Description
service	String	Mandatory	This attribute identifies the services provide by the device. The values can be either a service name (Keyword) as defined in RFC 1700 or a service port. For known ports (port 0-1023) the service name is to be used.
maxInbSessions	Integer minInclusive value="0" maxInclusive value="2147483647"	Mandatory	This attribute defines the maximum number of simultaneous inbound sessions a device can have.
maxOutbSessions	Integer minInclusive value="0" maxInclusive value="2147483647"	Mandatory	This attribute defines the maximum number of simultaneous outbound sessions a device can have.
authConnType	String Enumeration value = "none" Enumeration value = "weak" Enumeration value = "strong" Enumeration value = "weakAndStrong"	Mandatory	This attribute defines if the connection is to be secured for a device, either by using ACLs (=Weak) or by cryptographical means (=Strong) or no authentication at all (=None). Weak and Strong can be supported by a device at the same time.
dnsNamingSuffix	String	Mandatory	This attribute defines the suffix to be used in generating a full qualified domain name for the device.
dnsNamingPrefix	String Enumeration value = "IMSI" Enumeration value = "IMEI" Enumeration value = "MSISDN" Enumeration value = "MD5ofIMSI"	Mandatory	This attribute defines the prefix to be used in generating a full qualified domain name for the device.
dnsZone	String	Mandatory ⁽¹⁾	This attribute defines the DNS zone in the DNS server where the DNS A or SRV records of the device are populated. It is either the same as the <code>dnsNamingSuffix</code> or a higher-level domain name on the right in the <code>dnsNamingSuffix</code> .
smsWakeup	Boolean {true, false}	Mandatory ⁽²⁾	This attribute defines if the SMS wakeup functionality for the device is enabled or not



Table 13 Get Device Group Profile MO Attributes

Parameter	Type	Occurrence	Description
httpConnType	String Enumeration value="disabled" Enumeration value="http" Enumeration value="https" Enumeration value="httpAndHttps"	Optional	This attribute defines the HTTP Forwarding connection type.
httpMaxInbSessions	Integer minInclusive value="0" maxInclusive value="2147483647"	Mandatory ⁽³⁾	This attribute defines the maximum number of simultaneous inbound HTTP sessions that the device group can have.
httpAuthConnType	String Enumeration value = "none" Enumeration value = "weak" Enumeration value = "strong" Enumeration value = "weakAndStrong"	Mandatory ⁽²⁾	This attribute defines if the connection is to be secured for a device, either by using ACLs (=Weak) and by cryptographic means (=Strong) or no authentication at all(=None). Weak and Strong can be supported by a device at the same time.
httpDnsNamingSuffix	String	Mandatory ⁽²⁾	This attribute defines the prefix to be used in generating a full qualified domain name for the device.
httpDnsNamingPrefix	String Enumeration value = "IMSI" Enumeration value = "IMEI" Enumeration value = "MSISDN" Enumeration value = "MD5ofIMSI"	Mandatory ⁽²⁾	This attribute defines the prefix to be used in generating a full qualified domain name for the device.
httpPort80Forward	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory ⁽⁴⁾	This attribute defines the destination port on device for traffic received on external (public) port 80 (HTTP).
httpPort443Forward	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory ⁽⁵⁾	This attribute defines the destination port on device for traffic received on external port 443 (HTTPS)
deviceInitOutboundACLRule	Sub MO	Optional	Device Initiated Outbound Session Policy (ACL) Objectclass



Table 13 Get Device Group Profile MO Attributes

Parameter		Type	Occurrence	Description
	deviceInitOutboundACLRuleId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device initiated outbound session ACL rule Id.
	protocol	String Enumeration value = "ip" Enumeration value = "tcp" Enumeration value = "udp"	Mandatory	This attribute identifies the allowed protocol for device initiated outbound sessions.
	address	String	Mandatory	This attribute identifies the allowed IP subnet or individual IP address for the destination (Enterprise).
	port	String Valid values 0 - 65535 or Valid service name	Mandatory	This attribute identifies the allowed service name or port number for the destination (Enterprise). "0" means that all ports are allowed. Valid service names are found in Reference [5].
daePortForwInboundACLRule		Sub MO	Optional	DAE Port Forwarder Inbound Session Policy (ACL) Objectclass.
	daePortForwInboundACLRuleId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the DAE Port Forwarding inbound session ACL rule Id
	protocol	String Enumeration value = "ip" Enumeration value = "tcp" Enumeration value = "udp"	Mandatory	This attribute identifies the allowed protocol for device initiated outbound sessions.
	address	String	Mandatory	This attribute identifies the allowed IP subnet or individual IP address for the destination (Enterprise).
	port	String Valid values 0 - 65535 or Valid service name	Mandatory	This attribute identifies the allowed service name or port number for the destination (Enterprise). "0" means that all ports are allowed. Valid service names are found in Reference [5].
httpForwInboundACLRule		Sub MO	Optional	HTTP Forwarder Inbound Session Policy (ACL) Objectclass.



Table 13 Get Device Group Profile MO Attributes

Parameter	Type	Occurrence	Description
httpForwInboundACLRuleId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the DAE HTTP Forwarding inbound session ACL rule Id.
address	String	Mandatory	This attribute identifies the allowed IP subnet or individual IP address for the destination (Enterprise).
port	String Valid values 0 - 65535 or Valid service name	Mandatory	This attribute identifies the allowed service name or port number for the destination (Enterprise). "0" means that all ports are allowed. Valid service names are found in Reference [5].

(1) Mandatory when any IP service is enabled

(2) Mandatory only if any IP service or HTTP Forwarding is enabled

(3) Mandatory only if HTTP Forwarding is enabled

(4) Mandatory only if HTTP Port 80 Forwarding is enabled

(5) Mandatory only if HTTP Port 443 Forwarding is enabled

7.3 Examples

Request Example

This section gives an example of a GetDeviceGroupProfile request message, as shown in Example 12.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:cai3="http://schemas.ericsson.com/cai3g1.2/"
  xmlns:dae="http://schemas.ericsson.com/ma/DAE/">
  <soapenv:Header>
    <cai3:SessionId>b8f08ac7858547e687c3c9fcc88b5f3e</cai3:SessionId>
  </soapenv:Header>
  <soapenv:Body>
    <cai3:Get>
      <cai3:MOType>DeviceGroupProfile@http://schemas.ericsson.com/ma/DAE/</cai3:MOType>
      <cai3:MOId>
        <dae:deviceGroupProfileId>1001</dae:deviceGroupProfileId>
      </cai3:MOId>
    </cai3:Get>
  </soapenv:Body>
</soapenv:Envelope>
```

Example 12 Get Device Group Profile Request Message

Response Example

This section gives an example of a GetDeviceGroupProfile response message, as shown in Example 13.



```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:cai3g="http://schemas.ericsson.com/cai3gl.2/">
  <S:Header>
    <cai3g:SessionId>b8f08ac7858547e687c3c9fcc88b5f3e</cai3g:SessionId>
  </S:Header>
  <S:Body>
    <ns2:GetResponse xmlns:ns2="http://schemas.ericsson.com/cai3gl.2/">
      <ns2:MOAttributes>
        <ns:GetResponseDeviceGroupProfile deviceGroupProfileId="1001"
xmlns:ns="http://schemas.ericsson.com/ma/DAE/">
          <ns:deviceGroupProfileId>1001</ns:deviceGroupProfileId>
          <ns:ipDeviceServices>
            <ns:service>http</ns:service>
            <ns:service>ftp</ns:service>
            <ns:service>443</ns:service>
          </ns:ipDeviceServices>
          <ns:maxInbSessions>10</ns:maxInbSessions>
          <ns:maxOutbSessions>25</ns:maxOutbSessions>
          <ns:authConnType>weak</ns:authConnType>
          <ns:dnsNamingSuffix>domain.com</ns:dnsNamingSuffix>
          <ns:dnsNamingPrefix>MD5ofIMSI</ns:dnsNamingPrefix>
          <ns:dnsZone>zone.domain.com</ns:dnsZone>
          <ns:smsWakeup>true</ns:smsWakeup>
          <ns:httpConnType>http</ns:httpConnType>
          <ns:httpMaxInbSessions>10</ns:httpMaxInbSessions>
          <ns:httpAuthConnType>none</ns:httpAuthConnType>
          <ns:httpDnsNamingSuffix>http.domain.net</ns:httpDnsNamingSuffix>
          <ns:httpDnsNamingPrefix>MD5ofIMSI</ns:httpDnsNamingPrefix>
          <ns:httpPort80Forward>8080</ns:httpPort80Forward>
          <ns:httpPort443Forward>8443</ns:httpPort443Forward>
          <ns:deviceInitOutboundACLRule deviceInitOutboundACLRuleId="1">
            <ns:protocol>ip</ns:protocol>
            <ns:address>123.123.0.0 255.255.0.0</ns:address>
            <ns:port>22</ns:port>
          </ns:deviceInitOutboundACLRule>
          <ns:daePortForwInboundACLRule daePortForwInboundACLRuleId="23">
            <ns:daePortForwInboundACLRuleId>23</ns:daePortForwInboundACLRuleId>
            <ns:protocol>tcp</ns:protocol>
            <ns:address>111.112.113.114/16</ns:address>
            <ns:port>2323</ns:port>
          </ns:daePortForwInboundACLRule>
          <ns:httpForwInboundACLRule httpForwInboundACLRuleId="45">
            <ns:httpForwInboundACLRuleId>45</ns:httpForwInboundACLRuleId>
            <ns:address>111.112.113.114</ns:address>
            <ns:port>89</ns:port>
          </ns:httpForwInboundACLRule>
        </ns:GetResponseDeviceGroupProfile>
      </ns2:MOAttributes>
    </ns2:GetResponse>
  </S:Body>
</S:Envelope>
```

Example 13 Get Device Group Profile Response Message

The DeviceGroupProfile with id 1001 with all parameters and all related SubMOs is printed.



8 Set Device Group Profile

This section covers the DAE Device Group Profile command `SetDeviceGroupProfile`.

The `SetDeviceGroupProfile` operation modifies a `DeviceGroupProfile` that exist in the CUDB, with new attribute values.

MOType

`DeviceGroupProfile@http://schemas.ericsson.com/ma/DAE/`

8.1 Request Data

8.1.1 Parameters

MOId

Table 14 Set Device Group Profile MO Id

Parameter	Type	Occurrence	Description
deviceGroupProfileId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device group profile.

MOAttributes

The parameters that are used in the operation are shown in Figure 8 and Figure 9.

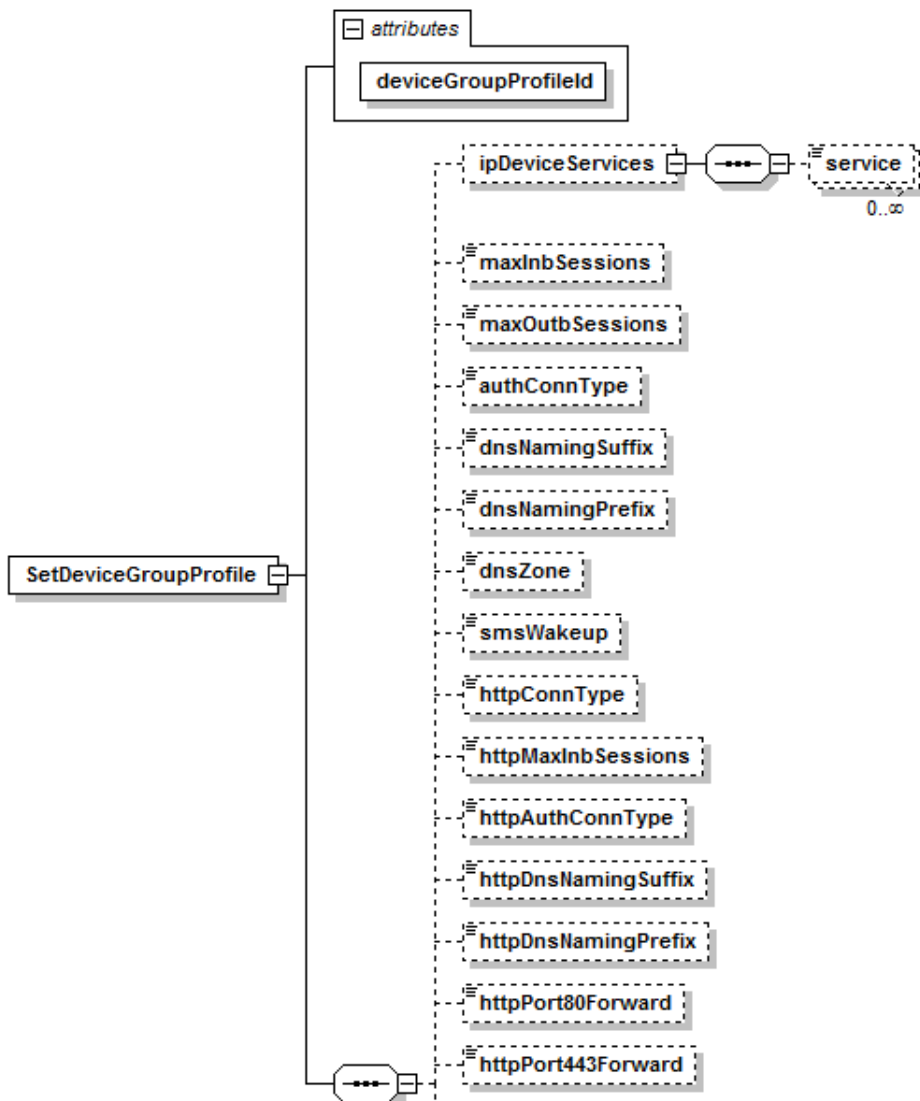


Figure 8 Parameters in Set Device Group Profile part 1

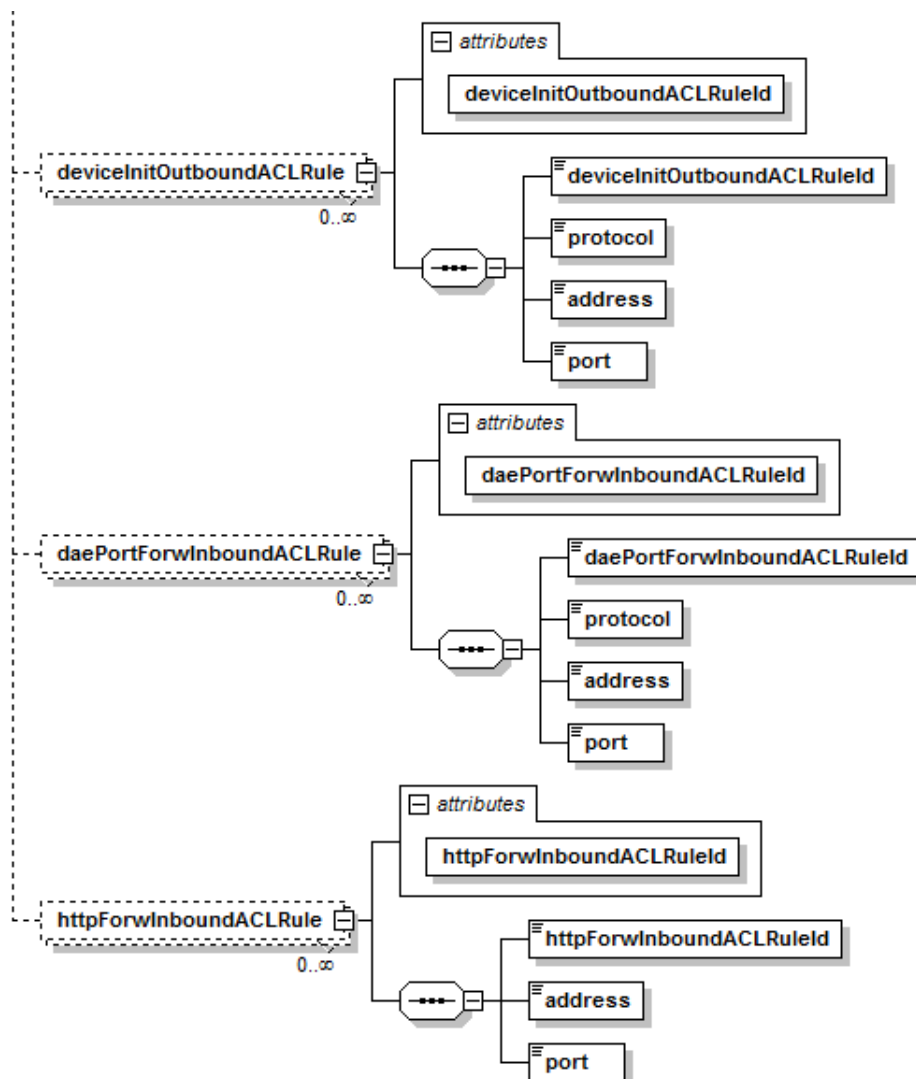


Figure 9 Parameters in Set Device Group Profile part 2

The following table covers the parameters that can be used in a SetDeviceGroupProfile request.

Table 15 Set Device Group Profile MO Attributes

Parameter	Type	Occurrence	Description
deviceGroupProfileId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device group profile.
service	String	Optional	This attribute identifies the services provide by the device. The values can be either a service name (Keyword) as defined in RFC 1700 or a service port. For known ports (port 0-1023) the service name is to be used.



Table 15 Set Device Group Profile MO Attributes

Parameter	Type	Occurrence	Description
maxInbSessions	Integer minInclusive value="0" maxInclusive value="2147483647"	Optional	This attribute defines the maximum number of simultaneous inbound sessions a device can have.
maxOutbSessions	Integer minInclusive value="0" maxInclusive value="2147483647"	Optional	This attribute defines the maximum number of simultaneous outbound sessions a device can have.
authConnType	String Enumeration value = "none" Enumeration value = "weak" Enumeration value = "strong" Enumeration value = "weakAndStrong"	Optional	This attribute defines if the connection is to be secured for a device, either by using ACLs (=Weak) or by cryptographical means (=Strong) or no authentication at all (=None). Weak and Strong can be supported by a device at the same time.
dnsNamingSuffix	String	Optional	This attribute defines the suffix to be used in generating a full qualified domain name for the device.
dnsNamingPrefix	String Enumeration value = "IMSI" Enumeration value = "IMEI" Enumeration value = "MSISDN" Enumeration value = "MD5ofIMSI"	Optional	This attribute defines the prefix to be used in generating a full qualified domain name for the device.
dnsZone	String	Optional	This attribute defines the DNS zone in the DNS server where the DNS A or SRV records of the device are populated. It is either the same as the <code>dnsNamingSuffix</code> or a higher-level domain name on the right in the <code>dnsNamingSuffix</code> .
smsWakeup	Boolean {true, false}	Optional	This attribute defines if the SMS wakeup functionality for the device is enabled or not
httpConnType	String Enumeration value="disabled" Enumeration value="http" Enumeration value="https" Enumeration value="httpAndHttps"	Optional	This attribute defines the HTTP Forwarding connection type.
httpMaxInbSessions	Integer minInclusive value="0" maxInclusive value="2147483647"	Optional	This attribute defines the maximum number of simultaneous inbound HTTP sessions that the device group can have.



Table 15 Set Device Group Profile MO Attributes

Parameter		Type	Occurrence	Description
httpAuthConnType		String Enumeration value = "none" Enumeration value = "weak" Enumeration value = "strong" Enumeration value = "weakAndStrong"	Optional	This attribute defines if the connection is to be secured for a device, either by using ACLs (=Weak) and by cryptographical means (=Strong) or no authentication at all(=None). Weak and Strong can be supported by a device at the same time.
httpDnsNamingSuffix		String	Optional	This attribute defines the prefix to be used in generating a full qualified domain name for the device.
httpDnsNamingPrefix		String Enumeration value = "IMSI" Enumeration value = "IMEI" Enumeration value = "MSISDN" Enumeration value = "MD5ofIMSI"	Optional	This attribute defines the prefix to be used in generating a full qualified domain name for the device.
httpPort80Forward		Integer minInclusive value="1" maxInclusive value="65535"	Optional	This attribute defines the destination port on device for traffic received on external (public) port 80 (HTTP).
httpPort443Forward		Integer minInclusive value="1" maxInclusive value="65535"	Optional	This attribute defines the destination port on device for traffic received on external port 443 (HTTPS)
deviceInitOutboundACLRule		Sub MO	Optional	Device Initiated Outbound Session Policy (ACL) Objectclass
	deviceInitOutboundACLRuleId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device initiated outbound session ACL rule Id.
	protocol	String Enumeration value = "ip" Enumeration value = "tcp" Enumeration value = "udp"	Mandatory	This attribute identifies the allowed protocol for device initiated outbound sessions.
	address	String	Mandatory	This attribute identifies the allowed IP subnet or individual IP address for the destination (Enterprise).
	port	String Valid values 0 - 65535 or Valid service name	Mandatory	This attribute identifies the allowed service name or port number for the destination (Enterprise). "0" means that all ports are allowed
daePortForwardInboundACLRule		Sub MO	Optional	DAE Port Forwarder Inbound Session Policy (ACL) Objectclass

**Table 15** Set Device Group Profile MO Attributes

Parameter		Type	Occurrence	Description
	daePortForwInboundACLRuleId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the DAE Port Forwarding inbound session ACL rule Id
	protocol	String Enumeration value = "ip" Enumeration value = "tcp" Enumeration value = "udp"	Mandatory	This attribute identifies the allowed protocol for device initiated outbound sessions.
	address	String	Mandatory	This attribute identifies the allowed IP subnet or individual IP address for the destination (Enterprise).
	port	String Valid values 0 - 65535 or Valid service name	Mandatory	This attribute identifies the allowed service name or port number for the destination (Enterprise). "0" means that all ports are allowed
httpForwInboundACLRule		Sub MO	Optional	HTTP Forwarder Inbound Session Policy (ACL) Objectclass
	httpForwInboundACLRuleId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the DAE HTTP Forwarding inbound session ACL rule Id
	address	String	Mandatory	This attribute identifies the allowed IP subnet or individual IP address for the destination (Enterprise).
	port	String Valid values 0 - 65535 or Valid service name	Mandatory	This attribute identifies the allowed service name or port number for the destination (Enterprise). "0" means that all ports are allowed

8.2 Examples

Request Example

This section gives an example of a `SetDeviceGroupProfile` request message, as shown in Example 14.



```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:cai3="http://schemas.ericsson.com/cai3gl.2/"
  xmlns:dae="http://schemas.ericsson.com/ma/DAE/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Header>
    <cai3:SessionId>b8f08ac7858547e687c3c9fcc88b5f3e</cai3:SessionId>
  </soapenv:Header>
  <soapenv:Body>
    <cai3:Set>
      <cai3:MOType>DeviceGroupProfile@http://schemas.ericsson.com/ma/DAE/</cai3:MOType>
      <cai3:MOId>
        <dae:deviceGroupProfileId>1001</dae:deviceGroupProfileId>
      </cai3:MOId>
      <cai3:MOAttributes>
        <dae:SetDeviceGroupProfile deviceGroupProfileId="1001">
          <dae:ipDeviceServices>
            <dae:service>8080</dae:service>
            <dae:service>22</dae:service>
          </dae:ipDeviceServices>
          <dae:maxInbSessions>11</dae:maxInbSessions>
          <dae:maxOutbSessions>26</dae:maxOutbSessions>
          <dae:authConnType>strong</dae:authConnType>
          <dae:dnsNamingSuffix>domain.net</dae:dnsNamingSuffix>
          <dae:dnsNamingPrefix>MSISDN</dae:dnsNamingPrefix>
          <dae:httpConnType>https</dae:httpConnType>
          <dae:httpMaxInbSessions>11</dae:httpMaxInbSessions>
          <dae:httpAuthConnType>weak</dae:httpAuthConnType>
          <dae:httpDnsNamingSuffix>http.domain.net</dae:httpDnsNamingSuffix>
          <dae:httpDnsNamingPrefix>MSISDN</dae:httpDnsNamingPrefix>
          <dae:httpPort80Forward>8081</dae:httpPort80Forward>
          <dae:httpPort443Forward>8444</dae:httpPort443Forward>
          <dae:deviceInitOutboundACLRule deviceInitOutboundACLRuleId="1"
            xsi:nil="true"/>
          <dae:deviceInitOutboundACLRule deviceInitOutboundACLRuleId="2">
            <dae:protocol>tcp</dae:protocol>
            <dae:address>111.112.113.114/16</dae:address>
            <dae:port>2323</dae:port>
          </dae:deviceInitOutboundACLRule>
          <dae:daePortForwInboundACLRule daePortForwInboundACLRuleId="23">
            <dae:protocol>udp</dae:protocol>
            <dae:address>111.112.113.114</dae:address>
            <dae:port>89</dae:port>
          </dae:daePortForwInboundACLRule>
          <dae:httpForwInboundACLRule httpForwInboundACLRuleId="45" xsi:nil="true"/>
          <dae:httpForwInboundACLRule httpForwInboundACLRuleId="4545">
            <dae:httpForwInboundACLRuleId>4545</dae:httpForwInboundACLRuleId>
            <dae:address>123.123.0.0 255.255.0.0</dae:address>
            <dae:port>80</dae:port>
          </dae:httpForwInboundACLRule>
        </dae:SetDeviceGroupProfile>
      </cai3:MOAttributes>
    </cai3:Set>
  </soapenv:Body>
</soapenv:Envelope>
```

Example 14 Set Device Group Profile Request Message

The DeviceGroupProfile with id 1001 is modified. All parameters are included in this example, a SubMU of the type deviceInitOutboundACLRule with id 1 is deleted and one with id 2 is added. The SubMO of the type daePortForwInboundACLRule with id 23 is modified, a SubMU of the type httpForwInboundACLRule with id 45 is deleted, and one with id 4545 is added.

Response Example

This section gives an example of a SetDeviceGroupProfile response message, as shown in Example 15.



```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:cai3g="http://schemas.ericsson.com/cai3gl.2/">
  <S:Header>
    <cai3g:SessionId>b8f08ac7858547e687c3c9fcc88b5f3e</cai3g:SessionId>
  </S:Header>
  <S:Body>
    <ns2:SetResponse xmlns:ns2="http://schemas.ericsson.com/cai3gl.2/" />
  </S:Body>
</S:Envelope>
```

Example 15 Set Device Group Profile Response Message



9 Delete Device Group Profile

This section covers the DAE Device Group Profile command `DeleteDeviceGroupProfile`.

The `DeleteDeviceGroupProfile` operation removes a `DeviceGroupProfile` from the CUDB if it is not connected to any subscribers.

MOType

`DeviceGroupProfile@http://schemas.ericsson.com/ma/DAE/`

9.1 Request Data

9.1.1 Parameters

MOId

Table 16 Delete Device Group Profile MO Id

Parameter	Type	Occurrence	Description
deviceGroupProfileId	Integer minInclusive value="1" maxInclusive value="65535"	Mandatory	This attribute identifies the device group profile.

MOAttributes

N/A

9.2 Examples

Request Example

This section gives an example of a `DeviceGroupProfile` request message, as shown in Example 16.



```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:cai3="http://schemas.ericsson.com/cai3g1.2/"
  xmlns:dae="http://schemas.ericsson.com/ma/DAE/">
  <soapenv:Header>
    <cai3:SessionId>b8f08ac7858547e687c3c9fcc88b5f3e</cai3:SessionId>
  </soapenv:Header>
  <soapenv:Body>
    <cai3:Delete>
      <cai3:MOType>DeviceGroupProfile@http://schemas.ericsson.com/ma/DAE/</cai3:MOType>
      <cai3:MOId>
        <dae:deviceGroupProfileId>1001</dae:deviceGroupProfileId>
      </cai3:MOId>
    </cai3:Delete>
  </soapenv:Body>
</soapenv:Envelope>
```

Example 16 Delete Device Group Profile Request Message

The DeviceGroupProfile with id 1001 is deleted.

Response Example

This section gives an example of a DeviceGroupProfile response message, as shown in Example 17.

```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:cai3g="http://schemas.ericsson.com/cai3g1.2/">
  <S:Header>
    <cai3g:SessionId>b8f08ac7858547e687c3c9fcc88b5f3e</cai3g:SessionId>
  </S:Header>
  <S:Body>
    <ns2:DeleteResponse xmlns:ns2="http://schemas.ericsson.com/cai3g1.2/">
      <ns2:MOId>
        <dae:deviceGroupProfileId xmlns:dae="http://schemas.ericsson.com/ma/DAE/">
          1001</dae:deviceGroupProfileId>
        </ns2:MOId>
      </ns2:DeleteResponse>
    </S:Body>
</S:Envelope>
```

Example 17 Delete Device Group Profile Response Message



10 Faults and Errors

The generic structure for fault responses is covered in *Generic CAI3G Interface 1.2*, Reference [2]. That document also covers the generic fault codes, which are applicable to all CAI3G operations.

This section covers the subordinate CAI3G errors. They can appear in the `errorcode` element in the error message.

Only DAE specific error codes are described in this section. These error codes are included in the Fault type `PGFault`.

For generic error codes, and information about the different Fault types, see *CAI3G Implementation*, Reference [4].

10.1 Subordinate DAE Error Codes

The following table covers subordinate error codes for DAE commands over the CAI3G interface.

Table 17 Subordinate DAE Error Codes

Error Code	Error Message	MO	Operation
12007	SUBSCRIBER USED BY APPLICATION	DAE Subscription	C
16001	DAE SUBSCRIPTION ALREADY EXISTS	DAE Subscription	C
16002	DEVICEGROUPPROFILE NOT DEFINED	DAE Subscription	C
		DeviceGroupProfile	G/S/D
16003	IMSI NOT DEFINED	DAE Subscription	G/S/D
16004	IDENTIFIER NOT DEFINED	DAE Subscription	C/G/S
16005	DAE SUBSCRIPTION DOES NOT EXIST	DAE Subscription	G
16006	DAE SUBSCRIPTION LDAP SEARCH ERROR	DAE Subscription	G
16007	DEVICEGROUPPROFILE ALREADY EXISTS	DeviceGroupProfile	C
16008	DEVICEGROUPPROFILE IS IN USE	DeviceGroupProfile	D

10.2 CAI3G Error Message Example

The following is an example of a CAI3G error message:



```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:cai3g="http://schemas.ericsson.com/cai3g1.2/">
  <S:Header>
    <cai3g:SessionId>28f3e8a5f48d40dc9610fcf225036a12</cai3g:SessionId>
  </S:Header>
  <S:Body>
    <ns2:Fault xmlns:ns2="http://schemas.xmlsoap.org/soap/envelope/"
      xmlns:ns3="http://www.w3.org/2003/05/soap-envelope">
      <faultcode>ns2:Server</faultcode>
      <faultstring>This is a server fault</faultstring>
      <detail>
        <Cai3gFault:Cai3gFault xmlns="http://schemas.ericsson.com/cai3g1.2/"
          xmlns:Cai3gFault="http://schemas.ericsson.com/cai3g1.2/">
          <faultcode>4006</faultcode>
          <faultreason>
            <reasonText>External error.</reasonText>
          </faultreason>
          <faultrole>MF</faultrole>
          <details>
            <PGFault:PGFault xmlns="http://schemas.ericsson.com/pg/1.0"
              xmlns:PGFault="http://schemas.ericsson.com/pg/1.0">
              <errorcode>16001</errorcode>
              <errormessage>DAE SUBSCRIPTION ALREADY EXISTS</errormessage>
              <errordetails>DAE entry already exist -
                [Processed by PG Node: vmx1771]</errordetails>
            </PGFault:PGFault>
          </details>
        </Cai3gFault:Cai3gFault>
      </detail>
    </ns2:Fault>
  </S:Body>
</S:Envelope>
```

Example 18 CAI3G Error Message



Reference List

Ericsson Documents

- [1] *Glossary of Terms and Acronyms*, 0033-CSH 109 628
- [2] *Generic CAI3G Interface 1.2*, 2/155 19-FAY 302 0003 Uen
- [3] *Library Overview*, 18/1553-CSH 109 628 Uen
- [4] *CAI3G Implementation*, 26/155 19-CSH 109 628 Uen

Other Documents

- [5] *IANA Service Name and Transport Protocol Port Number Registry*,
<http://www.iana.org/assignments/service-names-port-numbers/service-names-port-numbers.xml>