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Approved BDGSEACK [Jeff Li]	Checked	Date 2018-03-12	Rev AB	Reference

## MTAS Ut Interface

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## 1 General Information

### 1.1 Revision history

REVISION	RELEASE DATE	REVISED BY	REASON FOR REVISION
B	2013-09-03	EVBSAL	Added: <ul style="list-style-type: none"><li>- Multi Subscriber Number (MSN) support for CDIV, CB and FCD services.</li><li>- Distinctive Ring Feature.</li></ul>
C	2013-09-23	ERATLIM	Added a reject message in table 6.
D	2013-11-24	ERATLIM	Remove the reject messages for the licenses that are that are not check during provisioning.
E	2014-05-19	ERATLIM	Summary of updates: <ul style="list-style-type: none"><li>• Updated chapter 1.4 to clarify IPv4 and IPv6 are supported</li><li>• Updated for FCD auto-answer-avoidance</li><li>• Updated Error messages in table 2 Num. 29-30 (Conflict → conflict).</li><li>• Update for multi device support.</li><li>• &lt;target-identity&gt; changed to &lt;target&gt;</li><li>• New application checks added and some of the existing checks edited in Table 3 in Chapter 4.7.3.3 due to the introduction of PRIMARY_MOBILE target and in-sip-request condition in FCD.</li><li>• Add chapter 3.1 Name Space</li><li>• In chapter 3.3.1 is a note added "If '#' is used in element target it must be escaped (%23)"</li><li>• Title of document changed</li></ul>
F	2014-06-30	ERATLIM	Removed application rules for condition="served-identity", illegal element "<element-name>", in table 2 NUM 51, table 3 NUM 50 and table 4 NUM 39. Added application rules for communication diversion when checks towards service OCOBP, in table 2 NUM 51-52.

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G	2014-12-02	EANSAHM	<p>Summary of Updates</p> <ul style="list-style-type: none"> <li>• In chapter 3 added note about quoted ETag</li> <li>• Renamed the chapter 4</li> <li>• Add chapter 4.1 HTTP Redirection 304 Not Modified</li> <li>• Add chapter 4.9 HTTP Error 413 Request Entity Too Large</li> <li>• Updated application rules 16-17, 27 and 29 in table 3</li> <li>• Added applications rules 55-57, in table 3.</li> <li>• In table 1 updated application rule 1</li> <li>• Updated table 2, added unconditional in NUM 1-4</li> <li>• Added vtaCDivBlackList to description for the following reason phrases: <ul style="list-style-type: none"> <li>○ Number 34 in Table 2</li> <li>○ Number 22 and 34 in Table 3</li> </ul> </li> <li>• In Table 3, Number 45, description is corrected.</li> </ul>
H	2015-06-23	ERATLIM	Added support of standard Content-Type "application/vnd.etsi.simserv+xml".
J	2015-11-07	ERATLIM	Table 2 for Communication Diversion is extended to check if the operator has deactivated the unconditional-condition.
K	2016-01-29	ERATLIM	<p>Updated in table 4 for Communication Barring for Incoming and Outgoing Communication Barring are the checks if unconditional is absent removed.</p> <p>Added missing application constraints, in table 7 – Other services. The service element, OIR/TIR, cannot have user configuration when restriction mode is "permanent"</p>
L	2016-03-24	XMILMAT	MTASv 1.0 -Updated References: CBA link to MOM
M	2016-04-06	XSOFSSTE	Header repair
N	2016-04-11	XSOFSSTE	History cleared properly.
S	2016-07-04	ERATLIM	<p>In chapter 4.7.3.3 added information that the order of the errors are not predictable.</p> <p>Corrected application constraint description for "Invalid targets in Document, failure against Outgoing Communication Barring rules containing carrier condition, failed targets are : &lt;invalid-targets&gt; in &lt;service&gt;."</p>

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T	2016-09-22	ERATLIM	<p>Added a note in chapter 4.7.9.1</p> <p>Note:</p> <p>For service Communication Diversion in the GSMA standard IMS Profile for Voice and SMS Version 10.0 in chapter 2.3.8 Communication Diversion. It is a Note (3)</p> <p>It is not possible to create a no-reply timer without including the rule set in a document where a rule set already exists since this would create an invalid XML document according to IETF RFC 4825 [2].</p> <p>The Ericsson proprietary service Communication Distribution is working in the same way as the standard Communication Diversion service. In Communication Distribution is the following elements divert-primary, no-reply timer, target-list and ruleset in a sequence, which means the order must be followed.</p> <p>Example: If element ruleset already exist. The following XCAP request must include the new element/s as well as the existing ruleset.</p>
U	2016-11-16	ERATLIM	In chapter 3.3.2 Element Granularity PUT corrected the body data, from <ss:identity> to <ss:target>.
V	2017-01-26	ERATLIM	Removed Note in chapter 4.7.9.1, because it will be supported to add an element in Communication Diversion and Communication Distribution even when a later element in order already exist in the initial document.
X	2017-03-14	ERATLIM	In chapter 3.4 added that Service Profile license is checked.
Y	2017-08-23	ESSAMEE	Update for vMTAS Licensing
Z	2017-08-23	ERATLIM	Updated chapter 4.4, because of BL Voice Base license.

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AA	2017-11-20	ERATLIM	<p>Updated in chapter 4.7.3.3 and describe validation when CM parameter mtasXdmsUtValidation is set to 1, MMTel AS validates the received request together with the user document stored in HSS, but allows conflicts in the user document.</p> <p>Updated table 2 to reflect the validation handling, corrected reject message (31) and removed two superfluous application constraints 51-52.</p> <p>Updated application constraint in table 3 for Communication Distribution that action, rule-no-reply-timer, is checked.</p> <p>Added application constraints in table 3,</p> <ul style="list-style-type: none"> <li>Failed to meet an application constraint: Communication Distribution Failure: The usage of NoReplyTimer on rule level is not allowed by the Operator</li> <li>Failed to meet an application constraint: Communication Distribution Failure: user "NoReplyTimer" is greater or equal to mtasMmtNoReplyTimer</li> <li>Failed to meet an application constraint: Communication Distribution Failure: Rule id="&lt;rule-id&gt;", "NoReplyTimer" is greater or equal to mtasMmtNoReplyTimer</li> </ul> <p>Added application constraints in table 7,</p> <ul style="list-style-type: none"> <li>Failed to meet an application constraint: Flexible Identity Presentation Failure: FIP served user cannot assign/remove "&lt;fip-use-default-impu-identity&gt;"</li> <li>Failed to meet an application constraint: Session Transfer to Own Device Failure: The usage of Element "NoReplyTimer" is not supported</li> </ul>
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AB	2018-0311	ERATLIM	<p>Updated Table 2 to reflect the application cosnatrains applied for selective validation handling.</p> <p>Added application constraint in Table 3:</p> <ul style="list-style-type: none"> <li>Failed to meet an application constraint: Communication Distribution Failure: Rule id="&lt;rule-id&gt;", identity is not SIP or TEL URI in "one"</li> </ul> <p>Added missing application constraints in Table 5:</p> <ul style="list-style-type: none"> <li>Failed to meet an application constraint: Distinctive Ring Failure: Rule id="&lt;rule-id&gt;", multiple "&lt;action&gt;" elements</li> <li>Failed to meet an application constraint: Distinctive Ring Failure: Rule id="&lt;rule-id&gt;", illegal "conditions" element "&lt;element-name&gt;"</li> <li>Failed to meet an application constraint: Distinctive Ring Failure: Rule id="&lt;rule-id&gt;", not SIP or TEL URI in "one"</li> </ul> <p>Added application constraint in Table 7</p> <ul style="list-style-type: none"> <li>Failed to meet an application constraint: Flexible Identity Presentation Failure: FIP served user cannot assign/modify/remove "&lt;fip-alternative-user-identity&gt;"</li> </ul> <p>Modified application constraint in Table 7 to:</p> <ul style="list-style-type: none"> <li>Failed to meet an application constraint: Flexible Identity Presentation Failure: Activation without at least one of fip-identity, msn-fip-identity, fip-use-default-impu-identity or fip-alternative-user-identity is not allowed</li> </ul>
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## 1.2 Purpose

The purpose of this document is to specify the compliance of the MTAS XDMS against the Ut interface as defined by ref [1] and ref [2].

## 1.3 Scope

This document covers the Ut interface from the MTAS towards the user equipment. There will always be a node performing the role of an authentication proxy between the MTAS XDMS and the user equipment. This role can be performed by the Ericsson Aggregation Proxy.

## 1.4 Introduction

The Ut interface is an XCAP interface that can use either IPv4, IPv6 or both for the supplementary services application usage. The supplementary services application usage is defined in ref [1]. The XCAP protocol on which it is based is defined in IETF draft-ietf-simple-xcap-11 ref [2]. The XCAP protocol in turn is based on HTTP - RFC2616 ref [4]. GET, PUT and DELETE methods allow updates to XML documents. The XCAP protocol defines how XCAP URIs refer to precise locations within XML documents on the XCAP server. See ref [10] for the XML schemas applying to this interface.

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## 2 Procedures

### 2.1 Read User Data over Ut

This procedure is used between the user equipment and the MTAS, via the authentication proxy. The procedure is invoked by the user equipment and is used to read the Subscriber's Simulation Services configuration data.

The procedure is mapped to the GET request/200 OK response in HTTP (ref [4]). Further details of these messages are given in section 3.1.

### 2.2 Update User Data over Ut

This procedure is used between the user equipment and the MTAS, via the authentication proxy. The procedure is invoked by the user equipment and is used to update the Subscriber's Simulation Services configuration data.

In the case of modifying an existing element the procedure is mapped to the PUT request/200 OK response in HTTP (ref [4]). Further details of these messages are given in section 3.3.

In the case of creating a new element or attribute, the procedure is mapped to the PUT request/201 Created response in HTTP (ref [4]).

In the case of deleting an existing element or attribute, the procedure is mapped to the DELETE request/200 OK response in HTTP (ref [4]). Further details of these messages are given in section 3.4.

### 2.3 Read XCAP Capabilities

This procedure is used between the user equipment and the MTAS, via the authentication proxy. The procedure is invoked by the user equipment and is used to read the capabilities of the MTAS as an XCAP server.

The procedure is mapped to the GET request/200 OK response in HTTP (ref [4]). Further details of these messages are given in section 3.2.5.



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### 3 Message Format

The format of the messages used is defined by the combination of the Ut interface document ref [1], XCAP ref [2] and the underlying HTTP protocol ref [4]. The aim here is not to reproduce the detailed message format definition in these specifications, particularly the XCAP syntax. The intention is to give examples of the use of each of the messages to show how these specifications work together for the supplementary services application usage.

The XCAP root for the MTAS XDMS is as follows:

```
http://<hostname>:8090/mtasxdms
```

Where <hostname> is the hostname of the node running the MTAS XDMS. If <hostname> is a numeric IPv6 address, the address must be enclosed in brackets (for example: [2000::4:66]).

The supplementary services application usage has an AUID of “simservs.ngn.etsi.org”. The document name for individual subscriber’s configuration is “simservs.xml”. This means that the URL to access the user’s document is of the following form:

```
http://<hostname>:8090/mtasxdms/simservs.ngn.etsi.org/users/<XUI>/simservs.xml
```

Where <XUI> is the URI of the subscriber.

All requests on this interface must be valid XCAP requests and must have the XUI present in the X-3GPP-Asserted-Identity or the X-XCAP-Asserted-Identity headers or in the fetched IRS to prove the authentication proxy has authenticated them.

Access at element or attribute granularity requires an additional node selector in accordance with ref [2]. This means a URL of the following form:

```
http://<hostname>:8090/mtasxdms/simservs.ngn.etsi.org/users/<XUI>/simservs.xml/~/<node-selector>
```

The MTAS also supports the XCAP server capabilities application usage with AUID “xcap-caps”. The URL to access the XCAP server capabilities is of the following form:

```
http://<hostname>:8090/mtasxdms/xcap-caps/global/index
```

In the following sections examples are given for a user with XUI sip:abc@ericsson.com and the following initial simservs.xml configuration data:

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```
<?xml version="1.0" encoding="UTF-8"?>
<ss:simservs xmlns:ss="http://uri.etsi.org/ngn/params/xml/simservs/xcap">
  <ss:communication-diversion xmlns:cp="urn:ietf:params:xml:ns:common-policy"
    active="true">
    <cp:ruleset>
      <cp:rule id="rule1">
        <cp:conditions/>
        <cp:actions>
          <ss:forward-to>
            <ss:target>sip:voice.mail@telco.com</ss:target>
            <ss:notify-caller>true</ss:notify-caller>
          </ss:forward-to>
        </cp:actions>
      </cp:rule>
    </cp:ruleset>
  </ss:communication-diversion>
</ss:simservs>
```

The parameter ETag is by default a plain numeric value. If a request contains a quoted value in If-Match or If-None-Match header the response will also include a quoted value.

### 3.1 Name spaces

#### 3.1.1 Default document namespace

It is possible to request a document without specifying the “Default document name” in the URL request, if it is part of the name space “http://uri.etsi.org/ngn/params/xml/simservs/xcap”.

For more information see ref [2] section 5.2 and example in this document in chapter 3.2.2.

#### 3.1.2 Default namespace

When the operator creates the service setting for a user the “default name space” is set to xmlns="http://uri.etsi.org/ngn/params/xml/simservs/xcap" and a prefix is defined xmlns:ss="http://uri.etsi.org/ngn/params/xml/simservs/xcap".

### 3.2 GET Message

#### 3.2.1 Document Granularity GET

The entire `simservs.xml` document can be read using a URI with no node selector as follows:

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GET /mtasxdms/simservs.ngn.etsi.org/users/sip:abc@ericsson.com/simservs.xml  
HTTP/1.1  
X-3GPP-Asserted-Identity: "sip:abc@ericsson.com"  
Host: 130.100.144.4:8090  
Content-Length: 0  
Connection: Keep-Alive

An example of a successful, 200 OK responses to this document granularity  
GET is as follows:

HTTP/1.1 200 OK  
Server: Apache-Coyote/1.1  
Cache-Control: no-cache  
ETag: 0  
Content-Type: application/vnd.etsi.simservs+xml  
Content-Length: 643  
Date: Wed, 28 Mar 2007 12:21:32 GMT

```
<?xml version="1.0" encoding="UTF-8"?>
<ss:simservs xmlns:ss="http://uri.etsi.org/ngn/params/xml/simservs/xcap">
  <ss:communication-diversion xmlns:cp="urn:ietf:params:xml:ns:common-policy"
active="true">
    <cp:ruleset>
      <cp:rule id="rule1">
        <cp:conditions/>
        <cp:actions>
          <ss:forward-to>
            <ss:target>sip:voice.mail@telco.com</ss:target>
            <ss:notify-caller>true</ss:notify-caller>
          </ss:forward-to>
        </cp:actions>
      </cp:rule>
    </cp:ruleset>
  </ss:communication-diversion>
</ss:simservs>
```

**Note:** The content type in GET responses from MTAS is set to standard  
“application/vnd.etsi.simservs+xml” per default. For legacy reason, the  
content type can be set to “application simservs+xml” instead, via parameter

### 3.2.2 Element Granularity GET

An individual element can be read by using a node selector (following the  
node selector separator “~~”). For example to GET the element  
communication-diversion and its contents a node selector of  
simservs/communication-diversion can be used as follows:

GET  
/mtasxdms/simservs.ngn.etsi.org/users/sip:abc@ericsson.com/simservs.xml/~~/sims  
ervs/communication-diversion HTTP/1.1  
X-3GPP-Asserted-Identity: "sip:abc@ericsson.com"  
Host: 130.100.144.4:8090  
Content-Length: 0  
Connection: Keep-Alive

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Note that communication-diversion is in the default namespace for the application usage and so it does not require a namespace prefix and binding in the URI.

An example of a successful 200 OK response to this element granularity GET is as follows:

HTTP/1.1 200 OK  
Server: Apache-Coyote/1.1  
Cache-Control: no-cache  
ETag: 0  
Content-Type: application/xcap-el+xml  
Content-Length: 513  
Date: Mon, 19 Mar 2007 09:11:10 GMT

```
<ss:communication-diversion xmlns:cp="urn:ietf:params:xml:ns:common-policy"
active="true">
  <cp:ruleset>
    <cp:rule id="rule1">
      <cp:conditions/>
      <cp:actions>
        <ss:forward-to>
          <ss:target>sip:voice.mail@telco.com</ss:target>
          <ss:notify-caller>true</ss:notify-caller>
        </ss:forward-to>
      </cp:actions>
    </cp:rule>
  </cp:ruleset>
</ss:communication-diversion>
```

Note that this includes the child elements within communication-diversion and the associated whitespace.

### 3.2.3 Attribute Granularity GET

An individual attribute can be read by using a node selector (following the node selector separator “~~”). For example to GET the “active” attribute from the communication-diversion element, a node selector of `simserve/simulation-diversion/@active` can be used as follows:

GET  
/mtasxdms/simserve.ngn.etsi.org/users/sip:abc@ericsson.com/simserve.xml/~/simserve/simulation-diversion/@active HTTP/1.1  
X-3GPP-Asserted-Identity: "sip:abc@ericsson.com"  
Host: 130.100.144.4:8090  
Content-Length: 0  
Connection: Keep-Alive

An example of a successful 200 OK response to this attribute granularity GET is as follows:

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HTTP/1.1 200 OK  
 Server: Apache-Coyote/1.1  
 Cache-Control: no-cache  
 ETag: 0  
 Content-Type: application/xcap-att+xml  
 Content-Length: 6  
 Date: Wed, 28 Feb 2007 15:56:40 GMT

"true"

### 3.2.4 GET Namespace Bindings

The namespace bindings that apply at a particular element within the document are determined by namespace bindings on the element itself and also those on parent elements. XCAP is designed to allow updates without the need to GET or PUT the entire document. This is covered by the element granularity GET and PUT examples. The user equipment needs to be able to GET the namespace bindings that apply to the associated element. For example to GET the namespace bindings applying to the communication-diversion element, a node selector of `simservs/communication-diversion/namespace::*` can be used as follows:

GET  
 /mtasxdms/simservs.ngn.etsi.org/users/sip:abc@ericsson.com/simservs.xml/~~/simservs/communication-diversion/namespace::\* HTTP/1.1  
 X-3GPP-Asserted-Identity: "sip:abc@ericsson.com"  
 Host: 130.100.144.4:8090  
 Content-Length: 0  
 Connection: Keep-Alive

An example of a successful 200 OK response to this request is as follows:

HTTP/1.1 200 OK  
 Server: Apache-Coyote/1.1  
 Cache-Control: no-cache  
 ETag: 0  
 Content-Type: application/xcap-ns+xml  
 Content-Length: 137  
 Date: Wed, 28 Feb 2007 16:01:53 GMT

<ss:communication-diversion xmlns:cp="urn:ietf:params:xml:ns:common-policy" xmlns:ss="http://uri.etsi.org/ngn/params/xml/simservs/xcap" />

### 3.2.5 GET XCAP Capabilities

The XCAP capabilities of the MTAS XDMS can be queried as follows:

GET /mtasxdms/xcap-caps/global/index HTTP/1.1  
 Host: 130.100.144.4:8090  
 Content-Length: 0  
 Connection: Keep-Alive

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An example of a successful 200 OK response containing the XCAP capabilities is as follows:

HTTP/1.1 200 OK  
Server: Apache-Coyote/1.1  
Cache-Control: no-cache  
ETag: 0  
Content-Type: application/xcap-caps+xml  
Content-Length: 651  
Date: Wed, 28 Mar 2007 14:44:24 GMT

```
<?xml version="1.0" encoding="UTF-8"?>
<xcap-caps xmlns="urn:ietf:params:xml:ns:xcap-caps">
  <auids>
    <aid>simsservs.ngn.etsi.org</aid>
    <aid>xcap-caps</aid>
  </auids>
  <extensions/>
  <namespaces>
    <namespace>http://schemas.ericsson.com/mmtel/services</namespace>
    <namespace>http://uri.etsi.org/ngn/params/xml/simsservs/xcap</namespace>
    <namespace>http://www.w3.org/2001/XMLSchema</namespace>
    <namespace>urn:ietf:params:xml:ns:common-policy</namespace>
    <namespace>urn:ietf:params:xml:ns:xcap-caps</namespace>
    <namespace>urn:oma:xml:xm:common-policy</namespace>
  </namespaces>
</xcap-caps>
```

### 3.3 PUT Message

#### 3.3.1 Document Granularity PUT

The entire `simsservs.xml` document can be updated using a URI with no node selector as follows:

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PUT /mtasxdms/simservs.ngn.etsi.org/users/sip:abc@ericsson.com/simservs.xml  
 HTTP/1.1  
 X-3GPP-Asserted-Identity: "sip:abc@ericsson.com"  
 Host: 130.100.144.4:8090  
 Content-Type: application/vnd.etsi.simservs+xml  
 Content-Length: 645  
 Connection: Keep-Alive  
 If-Match: 0

```

<?xml version="1.0" encoding="UTF-8"?>
<ss:simservs xmlns:ss="http://uri.etsi.org/ngn/params/xml/simservs/xcap">
  <ss:communication-diversion xmlns:cp="urn:ietf:params:xml:ns:common-policy"
    active="true">
    <cp:ruleset>
      <cp:rule id="rule1">
        <cp:conditions/>
        <cp:actions>
          <ss:forward-to>
            <ss:target>sip:voice.mail@telco.com</ss:target>
            <ss:notify-caller>true</ss:notify-caller>
          </ss:forward-to>
        </cp:actions>
      </cp:rule>
    </cp:ruleset>
  </ss:communication-diversion>
</ss:simservs>
  
```

An example of a successful 200 OK response to this document granularity PUT is as follows:

HTTP/1.1 200 OK  
 Server: Apache-Coyote/1.1  
 ETag: 1  
 Content-Length: 0  
 Date: Wed, 28 Feb 2007 16:05:03 GMT

Note:

If "#" is used in element target it must be escaped (%23).

MTAS accepts standard content type "application/vnd.etsi.simservs+xml" and legacy content type "application/simservs+xml".

### 3.3.2 Element Granularity PUT

An individual element can be updated using a PUT request with a node selector (following the node selector separator "~"). For example to use PUT to update the identity to which calls are forwarded can be done as follows:

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PUT

/mtasxdms/simservs.ngn.etsi.org/users/sip:abc@ericsson.com/simservs.xml/~/simservs/communication-diversion/cp:ruleset/cp:rule%5b@id=%22rule1%22%5d/cp:actions/forward-to/target?xmlns(cp=urn:ietf:params:xml:ns:common-policy) HTTP/1.1  
X-3GPP-Asserted-Identity: "sip:abc@ericsson.com"  
Host: 130.100.144.4:8090  
Content-Type: application/xcap-el+xml  
Content-Length: 50  
Connection: Keep-Alive  
If-Match: 0

<ss:target>sip:def@ericsson.com</ss:target>

Note the Content-Type value specific for individual elements.

Note the use of elements ruleset and rule which are not in the default namespace for the application. These require a namespace binding in the query component and use of a namespace prefix (cp in this case).

Note also the requirement for percent encoding within the URI (in this case to cover square brackets and double quote characters)

### 3.3.3 Attribute Granularity PUT

An individual attribute can be updated using a PUT request with a node selector (following the node selector separator "~~"). For example to use PUT to update the active attribute in the communication-diversion service can be done as follows:

PUT

/mtasxdms/simservs.ngn.etsi.org/users/sip:abc@ericsson.com/simservs.xml/~/simservs/communication-diversion/@active HTTP/1.1  
X-3GPP-Asserted-Identity: "sip:abc@ericsson.com"  
Host: 130.100.144.4:8090  
Content-Type: application/xcap-att+xml  
Content-Length: 6  
Connection: Keep-Alive  
If-Match: 0

"true"

Note the Content-Type value specific for individual attributes

## 3.4 DELETE Message

The MTAS XDMS supports deletion at element and attribute granularity. Deletion at document granularity is rejected. This would represent removing a user's subscription to multimedia telephony and is covered by provisioning requests on the CAI3G interface – ref [8].



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### 3.4.1 Element Granularity DELETE

An individual element can be deleted using a DELETE request with a node selector (following the node selector separator “~~”). For example to use DELETE to remove the rule with identity “rule1” can be done as follows:

```
DELETE
/imsasxdms/simservs.ngn.etsi.org/users/sip:abc@ericsson.com/simservs.xml/~/simservs/communication-diversion/cp:ruleset/cp:rule%5b@id=%22rule1%22%5d?xmlns(cp=urn:ietf:params:xml:ns:common-policy) HTTP/1.1
X-3GPP-Asserted-Identity: "sip:abc@ericsson.com"
Host: 130.100.144.4:8090
Content-Length: 0
Connection: Keep-Alive
If-Match: 0
```

An example of a successful 200 OK response to this element granularity DELETE is as follows:

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
ETag: 1
Content-Length: 0
Date: Tue, 13 Mar 2007 10:28:12 GMT
```

### 3.4.2 Attribute Granularity DELETE

An individual attribute can be deleted using a DELETE request with a node selector (following the node selector separator “~~”). For example to use DELETE to remove the active attribute on communication-diversion can be done as follows:

```
DELETE
/imsasxdms/simservs.ngn.etsi.org/users/sip:abc@ericsson.com/simservs.xml/~/simservs/communication-diversion/@active HTTP/1.1
X-3GPP-Asserted-Identity: "sip:abc@ericsson.com"
Host: 130.100.144.4:8090
Content-Length: 0
Connection: Keep-Alive
If-Match: 0
```

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## 4 HTTP responses

### 4.1 HTTP Redirection 304 Not Modified

Indicates that the resource has not been modified since the version specified by the request headers If-Modified-Since or If-Match. This means that there is no need to retransmit the resource, since the client still has a previously-downloaded copy.

### 4.2 HTTP Error 400 Bad Request

The request could not be understood by the server due to malformed syntax. The client SHOULD NOT repeat the request without modifications.

An example of a bad request is a URI that includes a namespace prefix in a node selector which is not defined in the query component (the part following “?” in the URI).

### 4.3 HTTP Error 401 Unauthorized

Requests to access a subscriber’s data require authorization. The user is authorized to GET, PUT, or DELETE own data. The user’s XUI must be present in the X-3GPP-Asserted-Identity or the X-NCAP-Asserted-Identity header or in the fetched IRS, for the user to be identified and hence for the request to be authorized.

### 4.4 HTTP Error 403 Forbidden

There is no valid Ut, Service Profile (MMTel AS Voice Base) or BL Base (BL Voice Base) license.

### 4.5 HTTP Error 404 Not Found

The server has not found anything matching the Request-URI.

### 4.6 HTTP Error 405 Method Not Allowed

The method specified in the Request-Line of the HTTP request is not allowed for the resource identified by the Request-URI.

The methods allowed for accessing subscriber data are GET, PUT and DELETE.

The only method allowed to access namespace bindings is GET.

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## 4.7 HTTP Error 409 Conflict

If the Subscriber's data, after the requested modification, does not meet the data constraints, the server will reject it with a 409 response. The client SHOULD NOT simply retry the request without changing some aspect of it.

XCAP (ref [2]) defines detailed conflict reports that may be returned by an XCAP server in the body of responses to failed PUT and DELETE requests with a status code of 409 Conflict. The MTAS XDMS supports these detailed conflict reports.

An example of a detailed conflict report is as follows:

```
<?xml version="1.0" encoding="UTF-8"?><xcap-error
xmlns="urn:ietf:params:xml:ns:xcap-error"><cannot-delete phrase="Deletion of
the node is not idempotent"/></xcap-error>
```

This shows the general form of the report. There is a specific error element: `<cannot-delete>` in this example. This contains an optional attribute "phrase" with additional details of the conflict. The MTAS XDMS always includes a "phrase" attribute.

Details are given in the following sections for each element defined in the xcap-error schema. This is organized by each of the error elements and then by each condition for those error elements.

### 4.7.1 Error element `<cannot-delete>`

#### 4.7.1.1 Deletion of the node is not idempotent

<b>Phrase</b>	Deletion of the node is not idempotent
<b>Error Element</b>	<code>&lt;cannot-delete&gt;</code>
<b>Description</b>	The request to delete an element would not be idempotent i.e. applying the request twice would not result in the same document contents as applying it only once

### 4.7.2 Error element `<cannot-insert>`

#### 4.7.2.1 Insertion of the node is not idempotent

<b>Phrase</b>	Insertion of the node is not idempotent
<b>Error Element</b>	<code>&lt;cannot-insert&gt;</code>
<b>Description</b>	The request to insert an element or attribute would not be idempotent i.e. applying the request twice would not result in the same document contents as applying it only once

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### 4.7.3 Error element <constraint-failure>

This indicates that the requested operation would result in a document that failed a data constraint defined by the application usage, but not enforced by the schema or a uniqueness constraint. It is supported by MTAS XDMS. This is the element that will be used for most of the application-specific validation checks.

When the error text detailed below appears within XML attribute values, special characters will be shown as entity references according to XML syntax. This means that a double quote will appear as &quot;.

#### 4.7.3.1 Deletion of the Ut document is not allowed

<b>Phrase</b>	Deletion of the Ut document is not allowed
<b>Error Element</b>	<constraint-failure>
<b>Description</b>	The Ut document simservs.xml is requested to be deleted which would result in an invalid subscriber configuration

#### 4.7.3.2 Invalid Simservs document name

<b>Phrase</b>	Invalid Simservs document name
<b>Error Element</b>	<constraint-failure>
<b>Description</b>	A PUT document request is made for a file that is not valid i.e. not simservs.xml for the supplementary services application usage.

#### 4.7.3.3 Application Constraint

There is a set of MTAS application constraints each of which is identified by a phrase. The possible phrase values are given in Table 1 - Table 7 below.

If there are more errors in the document the order of the phrase is not predictable, but all errors must be corrected before the document is stored.

Valid for Table 2.

When parameter `mtasXdmsUtValidation` is set to 1, MMTel AS validates the received request together with the user document stored in HSS, but allows conflicts in the user document.

In that case columns F, S, P and O are valid and indicate the behavior when the application constraint is validated.

- F - Full Ut, the received request is to update the complete user document

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- S – Whole service, the received request is to update a service
- P – Partial service, the received request is to update a part of a service
- O - Other service, the received request is to update other service

The used values in the columns are:

- R – Validate and reject
- \* - The application constraint is validated and rejected, if it is part of the received request
- N –Validate but no reject

Num	Phrase	Description
1.	Failed to meet an application constraint: The service element "<service>" appears more than once.	A service element is repeated within the user configuration <i>For a list of possible values see note a)</i>
2.	Failed to meet an application constraint: The service element "<service>" is present without being activated by the operator	Each service element may only be present if the corresponding service has been activated by the operator.  The absence of the service element signals to the user that the corresponding service is not activated,  <i>For a list of possible values see note a)</i>
3.	Failed to meet an application constraint: The service element, "<service>", is absent when it is activated by the operator	The service element must be present if the corresponding service has been activated by the operator.  The presence of the service element signals to the user that the corresponding service is activated.  <i>For a list of possible values see note a)</i>

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Num	Phrase	Description
4.	Failed to meet an application constraint: The number "<ORIGINAL_NUMBER-1>" is not suitable, please re-enter. The number "<ORIGINAL_NUMBER-N>" is not suitable, please re-enter.	The request contains one or more numbers that cannot be converted to a normal form. The response will contain a separate sentence for each faulty number. <i>The shown text has sentence for each of the two faulty numbers</i>
5.	Failed to meet an application constraint: The number "<ORIGINAL_NUMBER-1>" is not normalized, please re-enter as "<SUGGESTED_NUMBER-1>". The number "<ORIGINAL_NUMBER-N>" is not normalized, please re-enter as "<SUGGESTED_NUMBER-N>".	The request contains one or more numbers that are not in a normal form. The response shows the number in the expected form. The response will contain a separate sentence for each faulty number. <i>The shown text has two sentences for two non-normal numbers and a corresponding normalized number for each.</i>
6.	Invalid targets in Document, failure against dial plan list, failed targets are : <invalid-targets>.	One or more <invalid-targets> are not permitted by the dial plan for the user. These numbers can be from Communication Diversion forward-to targets, Communication Distribution targets, Abbreviated Dialing stored-numbers or Hotline hotline-numbers.
7.	Invalid targets in Document, failure against Outgoing Communication Barring rules containing carrier condition, failed targets are : <invalid-targets> in <service>	One or more <invalid-targets> are not permitted by the Outgoing Call Barring rules containing carrier condition. Possible values for <service> are: <ul style="list-style-type: none"><li>• Communication Distribution</li><li>• Communication Diversion</li><li>• User Common Data</li><li>• Abbreviated Dialing</li><li>• Session Transfer to Own Device</li><li>• Hotline</li></ul>

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Num	Phrase	Description
8.	Failed to meet an application constraint: Number of rules for "<service>" exceeds service limit.	<p>A request to update the service contains more rules than allowed for the service.</p> <p>Possible values for &lt;service&gt; are:</p> <ul style="list-style-type: none"> <li>communication-distribution</li> <li>communication-diversion</li> <li>incoming-communication-barring</li> <li>outgoing-communication-barring</li> </ul>
9.	Failed to meet an application constraint: Number of rules in Document exceeds total limit.	A request to update the Document contains more service rules than allowed by the total limit.

Table 1 Application Constraint Phrase Text

## Notes

## a) Possible values for &lt;service&gt; are

- abbreviated-dialing
- calling-name-identity-presentation
- communication-distribution
- communication-diversion
- communication-diversion-no-answer-timer
- communication-waiting
- distinctive-ring
- flexible-identity-presentation
- hotline
- incoming-communication-barring
- originating-identity-presentation
- originating-identity-presentation-restriction
- outgoing-barring-programs
- outgoing-communication-barring
- session-transfer-to-own-device
- terminating-identity-presentation
- terminating-identity-presentation-restriction
- user-common-data

Note that the user service element originating-identity-presentation-restriction corresponds to the operator service with mode equal to temporary. The mode permanent has no corresponding user service element. The same applies to terminating-identity-presentation-restriction.

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Nu m	Phrase	Description	F	S	P	O
1.	Failed to meet an application constraint: Message: "Element not found on Operator side". Service: "communication-diversion". Condition: "<condition>"	An attempt has been made to use a Communication Diversion <condition> which the user has not subscribed to.  Possible values for <condition> are: <ul style="list-style-type: none"> <li>anonymous</li> <li>busy</li> <li>identity</li> <li>media</li> <li>not-registered</li> <li>no-answer</li> <li>presence-status</li> <li>validity</li> <li>not-reachable</li> <li>valid-periods</li> <li>invalidity</li> <li>served-identity</li> </ul>	R	R	*	N
2.	Failed to meet an application constraint: Message: "Element deactivated on Operator side". Service: "communication-diversion". Condition: "<condition>"	An attempt has been made to use a Communication Diversion <condition> which the user has not subscribed to.  Possible values for <condition> are: <ul style="list-style-type: none"> <li>anonymous</li> <li>busy</li> <li>identity</li> <li>media</li> <li>not-registered</li> <li>no-answer</li> <li>presence-status</li> <li>validity</li> <li>not-reachable</li> <li>valid-periods</li> <li>invalidity</li> </ul>	R	R	*	N



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		<ul style="list-style-type: none"> <li>served-identity</li> <li>unconditional</li> </ul>				
3.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>" multiple "<condition>" elements	<p>Each Communication Diversion rule must have at most one of each of the following &lt;condition&gt; elements:</p> <ul style="list-style-type: none"> <li>anonymous</li> <li>busy</li> <li>identity</li> <li>not-registered</li> <li>no-answer</li> <li>rule-deactivated</li> <li>validity</li> <li>not-reachable</li> <li>valid-periods</li> <li>invalidity</li> <li>served-identity</li> </ul>	R	R	*	N
4.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", duplicate cp:except found. id=<identity>	Within an identity condition of a Communication Diversion rule, each "except" element with an "id" attribute must have a unique value for that id.	R	R	R	R
5.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", duplicate cp:except found. domain=<domain>	Within an identity condition of a Communication Diversion rule, each "except" element with a "domain" attribute must have a unique value for that domain.	R	R	R	R
6.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", Found duplicate "from" tags with value = <from-time>	Within a validity condition of a Communication Diversion rule, each "from" element must have a unique value.	R	R	R	R
7.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", duplicate cp:many found. domain=<domain>	Within an identity condition of a Communication Diversion rule, each "many" element with a "domain" attribute must have a unique value of domain.	R	R	R	R
8.	Failed to meet an application constraint: Communication	Within an identity condition of a Communication Diversion	R	R	R	R

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	Diversion Failure: Rule id="<rule-id>", duplicate cp:many found. No domain	rule there must be at most a single "many" element with no domain attribute.				
9.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", duplicate cp:one found. id=<identity>	Within an identity condition of a Communication Diversion rule, each "one" element must have a unique id value.	R	R	R	R
10.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>" cannot have "identity" and "anonymous" elements	The "identity" and "anonymous" conditions are contradictory so it is illegal to have them in the same rule.	R	R	R	R
11.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>" unknown elements	The rule contains elements that are not recognized.	R	R	R	R
12.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>" not SIP or TEL URI in "except"	Within an identity condition of a Communication Diversion rule, each "except" element of a many condition with no domain must have an id attribute that starts with 'sip:' or 'tel:'.	R	R	R	R
13.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", except id, "<identity>" does not start with sip:	Within an identity condition of a Communication Diversion rule, the id attribute in the element "except" of a "many" condition with a domain must start with 'sip:'.	R	R	R	R
14.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", "except" domain "<except-domain>" does not match "many" domain "<many-domain>"	Within an identity condition of a Communication Diversion rule, the "except" elements within a "many" element with a domain attribute must have an "id" attribute that is a SIP URI within that domain.	R	R	R	R
15.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", "id" missing in "except"	Within an identity condition of a Communication Diversion rule, each "except" element must have either an "id" attribute or a "domain" attribute.	R	R	R	R
16.	Failed to meet an application constraint: Communication	The element "except" within an identity condition must either	R	R	R	R

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	Diversion Failure: Rule id="<rule-id>", "id" must not contain both "id" and "domain" in "except"	have a single identity "id" attribute or a "domain" attribute. It must not have both.				
17.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", not SIP or TEL URI in "one"	Within an identity condition of a Communication Diversion rule, each element "one" must have an id attribute that starts with 'sip:' or 'tel:'.	R	R	R	R
18.	Failed to meet an application constraint: Message: "Element not found on Operator side". Service: "communication-diversion". Action: "<action>"	An attempt has been made to use a Communication Diversion <action> which the user has not subscribed to.  Possible values for <action> are: <ul style="list-style-type: none"> <li>notify-caller</li> <li>notify-served-user</li> <li>notify-served-user-on-outbound-call</li> <li>reveal-identity-to-caller</li> <li>reveal-identity-to-target</li> <li>do-not-disturb</li> <li>play-announcement</li> </ul>	R	R	*	N
19.	Failed to meet an application constraint: Message: "Element deactivated on Operator side". Service: "communication-diversion". Action: "<action>"	An attempt has been made to use a Communication Diversion <action> which the user has not subscribed to.  Possible values for <action> are: <ul style="list-style-type: none"> <li>notify-caller</li> <li>notify-served-user</li> <li>notify-served-user-on-outbound-call</li> <li>reveal-identity-to-caller</li> <li>reveal-identity-to-target</li> <li>do-not-disturb</li> <li>play-announcement</li> </ul>	R	R	*	N
20.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>" multiple	Each Communication Diversion rule must have at most one "forward-to" action.	R	R	R	R

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	"forward-to" elements					
21.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", missing "forward-to"	Each Communication Diversion rule must have one "actions" element containing one "forward-to" action.	R	R	R	R
22.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", missing "actions"	Each Communication Diversion rule must have one "actions" element.	R	R	R	R
23.	Failed to meet an application constraint: Communication Diversion Failure Rule id="<rule-id>" "not-registered" cannot have "notify-served-user" as "true"	If the served-user is not registered, then he cannot be notified so this combination of elements is prohibited.	R	R	R	R
24.	Failed to meet an application constraint: Communication Diversion Failure Rule id="<rule-id>" "not-reachable" cannot have "notify-served-user" as "true"	If the served-user is not reachable, then he cannot be notified so this combination of elements is prohibited.	R	R	R	R
25.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>" illegal "actions" element "<element-name>"	The request contained an element within the "actions" element that is not recognized.	R	R	R	R
26.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", identity is not SIP or TEL URI or "voicemail:internal"	The element "target" within a forwarding action must be a SIP or TEL URI or "voicemail:internal".	R	R	R	R
27.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", Actions="forward-to", identity is same as user	The identity in the request is the same as the user. In other words, acceptance of this request would mean diverting the user to himself/ herself.	R	R	R	R
28.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", Actions="forward-to", identity is an alias of user	The identity in the request is an alias of the user. In other words, acceptance of this request would mean diverting the user to himself/ herself.	R	R	*	N

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29.	Failed to meet an application constraint: Communication Barring conditions identity, "<barred identity>", conflicts with Communication Diversion forwarding identity, "<target>"	The target of a communication-diversion rule, <target> is barred by the end-user's outgoing communication barring of an individual <barred identity>.	R	R	R	R
30.	Failed to meet an application constraint: Communication Barring conditions identity with Number Match, "<barred identity>", conflicts with Communication diversion forwarding identity, "<target>"	The target of a communication-diversion rule, <target> is barred by the end-user's outgoing communication barring of an individual <barred identity> using number-match.	R	R	R	R
31.	Failed to meet an application constraint: Communication Diversion forwarding identity, "<target>", is barred by universal many condition	The target of a communication-diversion rule, <target>, is barred by the end-user's outgoing communication barring of all identities, and <target> does not appear in an exception.	R	R	R	R
32.	Failed to meet an application constraint: Communication Diversion forwarding identity, "<target>", is barred by many domain, <domain>	The target of a communication-diversion rule, <target>, is barred by the end-user's outgoing communication barring of all identities within <domain>, and <target> does not appear in an exception.	R	R	R	R
33.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", "voicemail:internal" present when not activated by the operator	The subscriber has attempted to use diversion to Voice Mail when this has not been activated by the operator.	R	R	*	N
34.	Failed to meet an application constraint: Communication Diversion forwarding identity, "<target>", is barred by the operator	The target of a communication-diversion rule, <target>, is barred by the operator. This could be through the mtasOcbBlackList CM parameter, mtasCDivBlackList CM parameter, vtasCDivBlackList CM parameter, mtasOcbOpBCatNumBarred CM parameter, mtasOcbOpBCatDomain CM parameter, operator barring rules, operator barring programs or operator diversion	R	R	*	N

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		barring programs.					
35.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", identity "<target>" is not permitted	The target of a communication-diversion rule, <target>, is not permitted. This could be because it matches the mtasConfFactoryUri, the mtas3ptyFactoryUri or any instance of MtasNaRa.	R	R	*		N
36.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", duplicate mmt-serv.number-match found. starts-with="<starts-with>"	Within an identity condition of a Communication Diversion rule, each "number-match" element must have a unique value for it's "starts-with" attribute.	R	R		R	R
37.	Failed to meet an application constraint: Communication Diversion Failure: user "NoReplyTimer" is greater or equal to mtasMmtNoReplyTimer	The value entered is greater or equal to the value configured in the mtasMmtNoReplyTimer object. Accepting this input would make the feature inoperable for this user as the ringing would time out first.	R	R	*		N
38.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", "NoReplyTimer" is greater or equal to mtasMmtNoReplyTimer	The value entered is greater or equal to the value configured in the mtasMmtNoReplyTimer object. Accepting this input would make the feature inoperable for this user as the ringing would time out first.	R	R	*		N
39.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", cannot have "NoReplyTimer" without "no-answer" elements	The NoReplyTimer is only valid for rules with the no-answer condition.	R	R		R	R
40.	Failed to meet an application constraint: Message: "Element not found on Operator side". Service: "communication-diversion". Option: "<option>"	An attempt has been made to use a Communication Diversion <option> which the user has not subscribed to.  Possible values for <option> are: <ul style="list-style-type: none"> <li>user-no-reply-timer</li> <li>rule-no-reply-timer</li> </ul> The value user-no-reply-timer applies to the use of NoReplyTimer at service level. The value rule-no-reply-timer	R	R		R	R

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		applies to the use of NoReplyTimer in a rule.				
41.	Failed to meet an application constraint: Message: "Element deactivated on Operator side". Service: "communication-diversion". Option: "<option>"	<p>An attempt has been made to use a Communication Diversion &lt;option&gt; which the user has not subscribed to.</p> <p>Possible values for &lt;option&gt; are:</p> <ul style="list-style-type: none"> <li>user-no-reply-timer</li> <li>rule-no-reply-timer</li> </ul> <p>The value user-no-reply-timer applies to the use of NoReplyTimer at service level. The value rule-no-reply-timer applies to the use of NoReplyTimer in a rule.</p>	R	R	R	R
42.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>" multiple "NoReplyTimer" elements	Each Communication Diversion rule must have at most one "NoReplyTimer" action.	R	R	R	R
43.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", cannot have "busy" conditions element combined with "do-not-disturb" action	The "do-not-disturb" action is not valid for rules containing "busy" condition.	R	R	R	R
44.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", cannot have "not-registered" conditions element combined with "do-not-disturb" action	The "do-not-disturb" action is not valid for rules containing "not-registered" condition.	R	R	R	R
45.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", cannot have "no-answer" conditions element combined with "do-not-disturb" action.	The "do-not-disturb" action is not valid for rules containing "no-answer" condition.	R	R	R	R
46.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", cannot have "not-reachable" conditions	The "do-not-disturb" action is not valid for rules containing "not-reachable" condition.	R	R	R	R

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	element combined with "do-not-disturb" action					
47.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", multiple "do-not-disturb" elements	Each Communication Diversion rule must have at most one "do-not-disturb" action.	R	R	R	R
48.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", multiple "play-announcement" elements	Each Communication Diversion rule must have at most one "play-announcement" action.	R	R	R	R
49.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", Condition="served-identity", URI="<served-id>" does not match any of the served user's IRS PUIs	The subscriber has attempted to set a diversion rule for the alias PUI, which is not listed in the subscriber's IRS.	R	R	*	N
50.	Failed to meet an application constraint: Communication Diversion Failure: Rule id="<rule-id>", Condition="served-identity", duplicate "one" found. URI="<served-id>"	Within a "served-identity" condition of a Communication Diversion rule, each "one" element must have a unique id value.	R	R	R	R

Table 2 Application Constraint Phrase Text - Communication Diversion

Num	Phrase	Description
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Num	Phrase	Description
1.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" multiple "<condition>" elements	<p>Each Communication Distribution rule must have at most one of each of the following &lt;condition&gt; elements:</p> <ul style="list-style-type: none"><li>• rule-deactivated</li><li>• validity</li><li>• valid-periods</li><li>• invalidity</li><li>• anonymous</li><li>• identity</li><li>• busy</li><li>• not-registered</li><li>• no-answer</li><li>• not-reachable</li><li>• served-identity</li><li>• in-sip-request</li></ul>
2.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" the usage of condition "<condition>" is not allowed by the Operator	<p>An attempt has been made to use a Communication Distribution &lt;condition&gt; which the user has not subscribed to.</p> <p>Possible values for condition are:</p> <ul style="list-style-type: none"><li>• validity</li><li>• valid-periods</li><li>• invalidity</li><li>• anonymous</li><li>• busy</li><li>• identity</li><li>• media</li><li>• not-registered</li><li>• no-answer</li><li>• presence-status</li><li>• not-reachable</li><li>• served-identity</li><li>• in-sip-request</li></ul>

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Num	Phrase	Description
3.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" the usage of action "<action>" is not allowed by the Operator	An attempt has been made to use a Communication Distribution <action> which the user has not subscribed to.  Possible values for action are: <ul style="list-style-type: none"> <li>play-announcement</li> <li>rule-no-reply-timer</li> </ul>
4.	Failed to meet an application constraint: Communication Distribution Failure: The usage of NoReplyTimer on user level is not allowed by the Operator	An attempt has been made to use a Communication Distribution NoReplyTimer value on user level which the user has not subscribed to.
5.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", Found duplicate "from" tags with value = <from-time>	Within a validity condition of a Communication Distribution rule, each "from" element must have a unique value.
6.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" unknown elements	The rule contains elements that are not recognized.
7.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" missing action elements	Each Communication Distribution rule must have at least one action element.
8.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" multiple action elements	Each Communication Distribution rule must have one "actions" element with either one "parallel-distribution" action, one "serial-distribution" action or one "flexible-distribution" action.
9.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", missing "actions"	Each Communication Distribution rule must have one "actions" element with either one "parallel-distribution" action, one "serial-distribution" action or one "flexible-distribution" action.
10.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" there must be exactly one action present from the following: "serial-distribution", "parallel-distribution", "flexible-distribution"	Each Communication Distribution rule must have at most one of the following action elements not more: serial-distribution, parallel-distribution, flexible-distribution.

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11.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" the action "play-announcement" must appear at most once	Each Communication Distribution rule must have one play-announcement action at most.
12.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" "NoReplyTimer" must appear at most once"	Each Communication Distribution rule must have at most one but not more NoReplyTimer element for the subscriber.
13.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" too many actions elements	Each Communication Distribution rule must have at most three action elements. One for the distribution: serial-, parallel- or flexible-distribution, one for the play-announcement action and one for the NoReplyTimer on rule level.
14.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" illegal "actions" element "<element-name>"	The request contained an element within the "actions" element that is not recognized.
15.	Failed to meet an application constraint: Communication Distribution Failure: Target id "<id>" is not SIP or TEL URI	Each target within the target-list must have an id which is a SIP or TEL URI.
16.	Failed to meet an application constraint: Communication Distribution Failure: Target id "<id>" is same as user	The id value, <id>, of a target in the target-list is the same as that of the user. For distribution to include the user the special name PRIMARY, PRIMARY_MOBILE or PRIMARY_FIXED should be used in the serial-distribution, parallel-distribution or flexible-distribution action.
17.	Failed to meet an application constraint: Communication Distribution Failure: Target id "<id>" is an alias of user	The id value, <id>, of a target in the target-list is the same as an alias of the user. For distribution to include the user the special name PRIMARY, PRIMARY_MOBILE or PRIMARY_FIXED should be used in the serial-distribution, parallel-distribution or flexible-distribution action.

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Num	Phrase	Description
18.	Failed to meet an application constraint: Communication Barring conditions identity, "<barred identity>", conflicts with Communication Distribution target id, "<id>"	The id value, <id>, of a target in the target-list is barred by the end-user's outgoing communication barring of an individual <barred identity>.
19.	Failed to meet an application constraint: Communication Barring conditions identity using Number Match, "<barred identity>", conflicts with Communication Distribution target id, "<id>"	The id value, <id>, of a target in the target-list is barred by the end-user's outgoing communication barring of an individual <barred identity> using number-match.
20.	Failed to meet an application constraint: Communication Distribution target id, "<id>", is barred by universal many condition	The id value, <id>, of a target in the target-list is barred by the end-user's outgoing communication barring of all identities, and <id> does not appear in an exception.
21.	Failed to meet an application constraint: Communication Distribution target id, "<id>", is barred by many domain, "<domain>"	The id value, <id>, of a target in the target-list is barred by the end-user's outgoing communication barring of all identities within <domain>, and <id> does not appear in an exception.
22.	Failed to meet an application constraint: Communication Distribution target id, "<id>", is barred by the operator	The id value, <id>, of a target in the target-list is barred by the operator through the mtasOcbBlackList, the mtasCDivBlackList or the vtaCDivBlackList CM parameter.
23.	Failed to meet an application constraint: Communication Distribution Failure: The target-list is fixed and cannot be changed by the user	The target-list is fixed by the operator as indicated by fixed-targets="true" and cannot be changed by the user.
24.	Failed to meet an application constraint: Communication Distribution Failure: The fixed-targets value cannot be changed by the user	The fixed-targets value is set by the operator and cannot be changed by the user.
25.	Failed to meet an application constraint: Communication Distribution Failure: Exceeded maximum number of targets	The number of targets in the target-list is greater than the max-targets allowed by the operator.
26.	Failed to meet an application constraint: Communication Distribution Failure: Repeated target name "<name>" in target-list	Each target in the target-list must have a unique name.

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27.	Failed to meet an application constraint: Communication Distribution Failure: Reserved target name "<name>" in target-list	Reserved words PRIMARY, PRIMARY_MOBILE, PRIMARY_FIXED and VOICEMAIL must not be used as target names in the target-list.
28.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", repeated target name "<name>" in distribution list	Each target in each serial-distribution, parallel-distribution or flexible-distribution action must have a unique name.
29.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", target name "<name>" in distribution list is not valid	Each target in each serial-distribution, parallel-distribution or flexible-distribution action must have a matching name either in the FCD target-list or in the common target list or in the common device list, or it has to be a special value PRIMARY, PRIMARY_MOBILE, PRIMARY_FIXED or VOICEMAIL.
30.	Failed to meet an application constraint: Communication Distribution Failure: Target id "<id>" is not permitted	The identity in the request is not permitted. This could be because it matches the mtasConfFactoryUri, the mtas3ptyFactoryUri or any instance of MtasNaRa.
31.	Failed to meet an application constraint: Communication Distribution Failure: Target name "<name>" in target-list is already used	Each target in the target list action must have a unique name within the names of common targets, common devices and flexible communication distribution targets.
32.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", PRIMARY target cannot be used together with a target device from the target device list in the same parallel distribution set	There are conflicting targets within the parallel distribution set. This could be because the PRIMARY target and a target device from the target device list in User Common Data are used in the same parallel distribution set.
33.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", conflict with active Communication Diversion	Communication Distribution is not permitted to be activated with targets from the common device list at the same time when Communication Diversion is activated.

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Num	Phrase	Description
34.	Failed to meet an application constraint: Rule id="<rule-id>", Communication Distribution name "<name>" with target id, "<id>", is barred by the operator	The id value, <id>, of a target from the common target list is barred by the operator through the mtasCDivBlackList or the vmasCDivBlackList CM parameter.
35.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", VOICEMAIL present when not activated by the operator	VOICEMAIL is not permitted to be a target in case of missing activated voicemail service provided by the operator.
36.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" the first target in a flexible-distribution action cannot have parallel ring-mode	Each Communication Distribution rule with the flexible-distribution action must not have a target configured as parallel.
37.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" a target with parallel ring-mode cannot have ring-period attribute.	Each Communication Distribution rule with the flexible-distribution action must not have a parallel target configured with ring-period attribute.
38.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" the target "<target>" is present more than once in a parallel group	Each Communication Distribution rule with the flexible-distribution action must not have a target configured more than one in the same parallel target group. But it is allowed to configure the same target multiple times in the same target list but in different parallel groups.
39.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" PRIMARY target cannot be used with busy, no-answer, not-registered or not-reachable conditions	PRIMARY must not be configured as a target if the same Communication Distribution rule contains busy, no-answer, not-registered or not-reachable condition.
40.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" anonymous and identity conditions cannot be present in the same rule	Each Communication Distribution rule must not have anonymous and identity conditions configured at the same time.
41.	Failed to meet an application constraint: Communication Distribution Failure: "Element: "divert-primary" deactivated on Operator side	An attempt has been made to use Communication Distribution Divert Primary service which the user has not subscribed to.

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Num	Phrase	Description
42.	Failed to meet an application constraint: Communication Distribution Failure: Element: "divert-primary" not found on Operator side	An attempt has been made to use Communication Distribution Divert Primary service which the user has not subscribed to.
43.	Failed to meet an application constraint: Communication Distribution Failure: Service: "divert-primary" usage is not supported	An attempt has been made to use Communication Distribution Divert Primary service while the operator does not provide such service.
44.	Failed to meet an application constraint: Communication Distribution Failure: Target id: "<id>" in "divert-primary" is not SIP or TEL URI	The target of the Communication Distribution Divert Primary service must have an id which is a SIP or TEL URI.
45.	Failed to meet an application constraint: Communication Distribution Target id: "<id>" in "divert-primary" is barred by the operator	The target of the Communication Distribution Divert Primary service has a target with an id which is barred by the mtasOcbBlackList CM parameter.
46.	Failed to meet an application constraint: Communication Distribution Failure: Element: "notify-caller" is not permitted in "divert-primary"	The Communication Distribution Divert Primary service's "forward-to" element, beside containing target element, can only contain the following optional elements: - reveal-identity-to-caller - notify-served-user - notify-served-user-on-outbound-call - reveal-identity-to-target
47.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", Condition="served-identity", URI="<served-id>" does not match any of the served user's IRS PUIs	The subscriber has attempted to set a distribution rule for the alias PUI, which is not listed in the subscriber's IRS.
48.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", Condition="served-identity", duplicate "one" found. URI="<served-id>"	Within a "served-identity" condition of a Communication Distribution rule, each "one" element must have a unique id value.
49.	Failed to meet an application constraint: Communication Distribution Failure: Attribute "auto-answer-avoidance" is not allowed to be in the target. It must be defined in the User Common Data	The element "target" must not include attribute auto-answer-avoidance in service Communication Distribution. It must be defined in the "target" in the User Common Data.

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Num	Phrase	Description
50.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", PRIMARY target cannot be used together with PRIMARY_MOBILE in the same parallel distribution set	There are conflicting targets within the parallel distribution set. This could be because the PRIMARY and the PRIMARY_MOBILE targets are used in the same parallel distribution set.
51.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", condition="in-sip-request", Flexcondition id="<flexcondition-id>" has not been defined in the User Common Data	The subscriber has attempted to set a flexcondition not defined in the User Common Data.
52.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", condition="in-sip-request", duplicate "flexcondition" found with id="<flexcondition-id>"	Within an "in-sip-request" condition of a Communication Distribution rule, each "flexcondition" element must have a unique id value.
53.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", PRIMARY_MOBILE target cannot be used together with a target device from the target device list in the same parallel distribution set	There are conflicting targets within the parallel distribution set. This could be because the PRIMARY_MOBILE target and a target device from the target device list in User Common Data are used in the same parallel distribution set.
54.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" PRIMARY_MOBILE target cannot be used with busy, no-answer, not-registered or not-reachable conditions	PRIMARY_MOBILE must not be configured as a target if the same Communication Distribution rule contains busy, no-answer, not-registered or not-reachable condition.
55.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", PRIMARY target cannot be used together with PRIMARY_FIXED in the same parallel distribution set	There are conflicting targets within the parallel distribution set. This could be because the PRIMARY and the PRIMARY_FIXED targets are used in the same parallel distribution set.
56.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>" , PRIMARY_MOBILE target cannot be used together with PRIMARY_FIXED in the same parallel distribution set	There are conflicting targets within the parallel distribution set. This could be because the PRIMARY_MOBILE and the PRIMARY_FIXED targets are used in the same parallel distribution set.



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Num	Phrase	Description
57.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", PRIMARY_FIXED target cannot be used together with a target device from the target device list in the same parallel distribution set	There are conflicting targets within the parallel distribution set. This could be because the PRIMARY_FIXED target and a target device from the target device list in User Common Data are used in the same parallel distribution set.
58.	Failed to meet an application constraint: Communication Distribution Failure: The usage of "NoReplyTimer" on rule level is not allowed by the Operator	An attempt has been made to use a Communication Distribution NoReplyTimer value on rule level which the user has not subscribed to.
59.	Failed to meet an application constraint: Communication Distribution Failure: user "NoReplyTimer" is greater or equal to mtasMmtNoReplyTimer	The value entered is greater or equal to the value configured in the mtasMmtNoReplyTimer object. Accepting this input would make the feature inoperable for this user as the ringing would time out first.
60.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", "NoReplyTimer" is greater or equal to mtasMmtNoReplyTimer	The value entered is greater or equal to the value configured in the mtasMmtNoReplyTimer object. Accepting this input would make the feature inoperable for this user as the ringing would time out first.
61.	Failed to meet an application constraint: Communication Distribution Failure: Rule id="<rule-id>", identity is not SIP or TEL URI in "one"	Within an identity condition of a Communication Distribution rule, each element "one" must have an id attribute that starts with 'sip:' or 'tel:'.

Table 3 Application Constraint Phrase Text - Communication Distribution

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Num	Phrase	Description
1.	Failed to meet an application constraint: Message: "Element not found on Operator side". Service: "outgoing-communication-barring". Condition: "<condition>"	<p>An attempt has been made to use an Outgoing Communication Barring &lt;condition&gt; which the user has not subscribed to.</p> <p>Possible values for &lt;condition&gt; are:</p> <ul style="list-style-type: none"><li>roaming</li><li>international</li><li>international-exHC</li><li>identity</li><li>media</li><li>other-identity</li><li>presence-status</li><li>validity</li><li>carrier</li><li>valid-periods</li><li>invalidity</li><li>served-identity</li></ul>

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Num	Phrase	Description
2.	Failed to meet an application constraint: Message: "Element deactivated on Operator side". Service: "outgoing-communication-barring". Condition: "<condition>"	<p>An attempt has been made to use an Outgoing Communication Barring &lt;condition&gt; which the user has not subscribed to.</p> <p>Possible values for &lt;condition&gt; are:</p> <ul style="list-style-type: none"><li>• roaming</li><li>• international</li><li>• international-exHC</li><li>• identity</li><li>• media</li><li>• other-identity</li><li>• presence-status</li><li>• validity</li><li>• carrier</li><li>• valid-periods</li><li>• invalidity</li><li>• served-identity</li><li>• unconditional</li></ul>
3.	Failed to meet an application constraint: Message: "Element not found on Operator side". Service: "incoming-communication-barring". Condition: "<condition>"	<p>An attempt has been made to use an Incoming Communication Barring &lt;condition&gt; which the user has not subscribed to.</p> <p>Possible values for &lt;condition&gt; are:</p> <ul style="list-style-type: none"><li>• anonymous</li><li>• roaming</li><li>• communication-diverted</li><li>• identity</li><li>• media</li><li>• other-identity</li><li>• presence-status</li><li>• validity</li><li>• valid-periods</li><li>• invalidity</li><li>• served-identity</li></ul>

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Num	Phrase	Description
4.	Failed to meet an application constraint: Message: "Element deactivated on Operator side". Service: "incoming-communication-barring". Condition: "<condition>"	<p>An attempt has been made to use an Incoming Communication Barring &lt;condition&gt; which the user has not subscribed to.</p> <p>Possible values for &lt;condition&gt; are:</p> <ul style="list-style-type: none"><li>anonymous</li><li>roaming</li><li>communication-diverted</li><li>identity</li><li>media</li><li>other-identity</li><li>presence-status</li><li>validity</li><li>valid-periods</li><li>invalidity</li><li>served-identity</li><li>unconditional</li></ul>

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Num	Phrase	Description
5.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>" multiple "<condition>" elements	<p>Each Incoming Communication Barring rule must have at most one of each of the following &lt;condition&gt; elements:</p> <ul style="list-style-type: none"><li>• anonymous</li><li>• roaming</li><li>• communication-diverted</li><li>• identity</li><li>• other-identity</li><li>• rule-deactivated</li><li>• validity</li><li>• valid-periods</li><li>• invalidity</li><li>• served-identity</li></ul> <p>Each Outgoing Communication Barring rule must have at most one of each of the following &lt;condition&gt; elements:</p> <ul style="list-style-type: none"><li>• roaming</li><li>• international</li><li>• international-exHC</li><li>• identity</li><li>• other-identity</li><li>• rule-deactivated</li><li>• validity</li><li>• carrier</li><li>• valid-periods</li><li>• invalidity</li><li>• served-identity</li></ul>
6.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", duplicate cp:except found. id=<identity>	Within an identity condition of a Communication Barring rule, each "except" element with an "id" attribute must have a unique value for that id.

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Num	Phrase	Description
7.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", duplicate cp:except found. domain=<domain>	Within an identity condition of a Communication Barring rule, each "except" element with a "domain" attribute must have a unique value for that domain.
8.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", Found duplicate "from" tags with value = <from-time>	Within a validity condition of a Communication Barring rule, each "from" element must have a unique value.
9.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", duplicate cp:many found. domain=<domain>	Within an identity condition of a Communication Barring rule, each "many" element with a "domain" attribute must have a unique value of domain.
10.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", duplicate cp:many found. No domain	Within an identity condition of a Communication Barring rule, there must be at most a single "many" element with no domain attribute.
11.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", duplicate cp:one found. id=<identity>	Within an identity condition of a Communication Barring rule, each "one" element must have a unique id value.
12.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>" cannot have "identity" and "anonymous" elements	The elements "identity" and "anonymous" are contradictory so it is prohibited to have them in the same rule.
13.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>" unknown elements	The rule contains elements that are not recognized.
14.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", not SIP or TEL URI in "except"	Within an identity condition of a Communication Barring rule, the id attribute in the element "except" must start with 'sip:' or 'tel:'.
15.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", "except Id" <identity> does not start with sip:	Within an identity condition of a Communication Barring rule, the id attribute in the element "except" of a "many" condition with a domain attribute must start with 'sip:'.

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16.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", "except" domain <except-domain> does not match "many" domain <many-domain>	Within an identity condition of a Communication Barring rule, the "except" elements within a "many" element with a domain attribute must have an "id" attribute that is a SIP URI within that domain.
17.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", "id" missing in "except"	Within an identity condition of a Communication Barring rule, each "except" element must have either an "id" attribute or a "domain" attribute.
18.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", must not contain both "id" and "domain" in "except"	The element "except" within an identity condition must either have a single identity "id" attribute or a "domain" attribute. It must not have both.
19.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>" identity is not SIP or TEL URI in "one"	Within an identity condition of an Outgoing Communication Barring rule, each "one" element must have an id attribute that starts with 'sip:' or 'tel:'.
20.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>" identity is not SIP or TEL URI or hidden: URI in "one"	Within an identity condition of an Incoming Communication Barring rule, each "one" element must have an id attribute that starts with 'sip:' or 'tel:' or 'hidden:'.
21.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>" hidden: URI "<hidden-uri>" is unmatched.	Within an identity condition of an Incoming Communication Barring rule, each hidden: URI must match a corresponding caller-details element in the operator data.
22.	Failed to meet an application constraint: Message: "User element active but Operator element missing". Service: "outgoing-communication-barring". Action: "allow"	An attempt has been made to set the Outgoing Communication Barring "allow" action to 'true' but the user has not subscribed to this.
23.	Failed to meet an application constraint: Message: "User element active but Operator element inactive". Service: "outgoing-communication-barring". Action: "allow"	An attempt has been made to set the Outgoing Communication Barring "allow" action to 'true' but the user has not subscribed to this.

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24.	Failed to meet an application constraint: Message: "User element active but Operator element missing". Service: "incoming-communication-barring". Action: "allow"	An attempt has been made to set the Incoming Communication Barring "allow" action to 'true' but the user has not subscribed to this.
25.	Failed to meet an application constraint: Message: "User element active but Operator element inactive". Service: "incoming-communication-barring". Action: "allow"	An attempt has been made to set the Incoming Communication Barring "allow" action to 'true' but the user has not subscribed to this.
26.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>" multiple "allow" elements	Each Communication Barring rule must have one "allow" action.
27.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>" missing "actions"	Each Communication Barring rule must have one "allow" action.
28.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>" illegal "actions" element "<element-name>"	The request contained an element within the "actions" element that is not recognized.
29.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", duplicate mmt-serv:number-match found. starts-with="<starts-with>"	Within an identity condition of a Communication Barring rule, each "number-match" element must have a unique value for it's "starts-with" attribute.
30.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>" cannot have "do-not-disturb" and "allow" with value = "true"	The elements "do-not-disturb" and "allow" with value = "true" are contradictory so it is prohibited to have them in the same rule.
31.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>" cannot have "play-announcement"/"play-segmented-announcement" and "allow" with value = "true"	The elements "play-announcement"/"play-segmented-announcement" and "allow" with value = "true" are contradictory so it is prohibited to have them in the same rule.



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Num	Phrase	Description
32.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", multiple "<actions>" elements	<p>Each Incoming Communication Barring rule must have at most one of each of the following &lt;actions&gt; elements:</p> <ul style="list-style-type: none"> <li>allow</li> <li>do-not-disturb</li> <li>play-announcement</li> <li>play-segmented-announcement</li> </ul> <p>Each Outgoing Communication Barring rule must have at most one of each of the following &lt;actions&gt; elements:</p> <ul style="list-style-type: none"> <li>allow</li> <li>play-announcement</li> <li>play-segmented-announcement</li> </ul>
33.	Failed to meet an application constraint: Message: "Element deactivated on Operator side". Service: "incoming-communication-barring". Action: "<action>"	<p>An attempt has been made to use an Incoming Communication Barring &lt;action&gt; which the user has not subscribed to.</p> <p>Possible values for &lt;action&gt; are:</p> <ul style="list-style-type: none"> <li>do-not-disturb</li> <li>play-announcement</li> <li>play-segmented-announcement</li> </ul>
34.	Failed to meet an application constraint: Message: "Element deactivated on Operator side". Service: "outgoing-communication-barring". Action: "<action>"	<p>An attempt has been made to use an Outgoing Communication Barring &lt;action&gt; which the user has not subscribed to.</p> <p>Possible value for &lt;action&gt; is:</p> <ul style="list-style-type: none"> <li>play-announcement</li> <li>play-segmented-announcement</li> </ul>
35.	Failed to meet an application constraint: Communication Barring Failure: Rule id=<rule-id>, cannot have "play-segmented-announcement" and "play-announcement" actions at the same time	No communication barring rule is allowed to have both "play-announcement" and "play-segmented-announcement".

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Num	Phrase	Description
36.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>" "carrier-select-code" element is not activated, and it is present in the user configuration	A request to update the OCB user rule set is rejected because the operator did not allow usage of the "carrier-select-code" element within the "carrier" condition.
37.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", Condition="served-identity", URI="<served-id>" does not match any of the served user's IRS PUIs	The subscriber has attempted to set a barring rule for the alias PUI, which is not listed in the subscriber's IRS.
38.	Failed to meet an application constraint: Communication Barring Failure: Rule id="<rule-id>", Condition="served-identity", duplicate "one" found. URI="<served-id>"	Within a "served-identity" condition of a Communication Barring rule, each "one" element must have a unique id value.

Table 4 Application Constraint Phrase Text - Communication Barring

Num	Reason Text	Description
1.	Failed to meet an application constraint: Distinctive Ring Failure: Rule id="<rule-id>" multiple "one" elements	Each Distinctive Ring rule must have at most one "one" element.
2.	Failed to meet an application constraint: Distinctive Ring Failure: Rule id="<rule-id>" unknown elements	The rule contains elements that are not recognized.
3.	Failed to meet an application constraint: Distinctive Ring Failure: Rule id="<rule-id>", missing "alert-info"	Each Distinctive Ring rule must have one "actions" element containing one "alert-info" action.
4.	Failed to meet an application constraint: Distinctive Ring Failure: Rule id="<rule-id>" illegal "actions" element "<element-name>"	The request contained an element within the "actions" element that is not recognized
5.	Failed to meet an application constraint: Distinctive Ring Failure: Rule id="<rule-id>", Condition="served-identity", URI="<served-id>" does not match any of the served user's IRS PUIs.	The subscriber has attempted to set a Distinctive Ring for the alias PUI, which is not listed in the subscriber's IRS.

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Num	Reason Text	Description
6.	Failed to meet an application constraint: Distinctive Ring Failure: Rule id=" <code>&lt;rule-id&gt;</code> ", multiple " <code>&lt;action&gt;</code> " elements	Each Distinctive Ring rule must have at most one "action" element.
7.	Failed to meet an application constraint: Distinctive Ring Failure: Rule id=" <code>&lt;rule-id&gt;</code> ", illegal "conditions" element " <code>&lt;element-name&gt;</code> "	The request contained an element within the "conditions" element that is not recognized
8.	Failed to meet an application constraint: Distinctive Ring Failure: Rule id=" <code>&lt;rule-id&gt;</code> ", not SIP or TEL URI in "one"	Within an identity condition of an Distinctive Ring rule, each "one" element must have an id attribute that starts with 'sip:' or 'tel:'.

Table 5 Application Constraint Phrase Text - Distinctive Ring

Num	Reason Text	Description
1.	Failed to meet an application constraint: User Common Data Failure: Reserved target name " <code>&lt;name&gt;</code> " in target-list	Reserved words PRIMARY, PRIMARY_MOBILE, PRIMARY_FIXED and VOICEMAIL must not be used as target names in the target-list.
2.	Failed to meet an application constraint: User Common Data Failure: Target name " <code>&lt;name&gt;</code> " in target-list is already used	Each target in the target list action must have a unique name within the names of common targets, common devices and flexible communication distribution targets.
3.	Failed to meet an application constraint: User Common Data Failure: Target id " <code>&lt;id&gt;</code> " in target-list is already used	The URI in the common target list is not unique.
4.	Failed to meet an application constraint: User Common Data Failure: The terminal-selector " <code>&lt;terminal-selector&gt;</code> " is not unique	The terminal selector in the common device list is not unique.
5.	Failed to meet an application constraint: User Common Data Failure: Target id " <code>&lt;id&gt;</code> " is not SIP or TEL URI	Each target within the target-list must have an id which is a SIP or TEL URI.
6.	Failed to meet an application constraint: User Common Data Failure: Target id " <code>&lt;id&gt;</code> " is same as user or an alias of it	The id value, <code>&lt;id&gt;</code> , of a target in the target-list is the same as that of the user or an alias of it.

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Num	Reason Text	Description
7.	Failed to meet an application constraint: User Common Data Failure: Target id "<id>" is not permitted	The identity in the request is not permitted. This could be because it matches the mtasConfFactoryUri, the mtas3ptyFactoryUri or the mtasNaRa
8.	Failed to meet an application constraint: User Common Data target id, "<id>", is barred by the mtasOcbBlackList	The id value, <id>, of a target in the target-list is barred by the mtasOcbBlackList CM parameter.
9.	Failed to meet an application constraint: User Common Data Failure: target-device-list not activated, and it is present in the user configuration!	A request to update target-device-list is rejected because the operator did not allow usage of the "target-device-list".
10.	Failed to meet an application constraint: User Common Data Failure: The target-list is fixed and cannot be changed by the user	The target-list is fixed by the operator as indicated by fixed-targets="true" and cannot be changed by the user.
11.	Failed to meet an application constraint: User Common Data Failure: The target-device-list is fixed and cannot be changed by the user	The target-device-list is fixed by the operator as indicated by fixed-targets="true" and cannot be changed by the user.
12.	Failed to meet an application constraint: User Common Data Failure: The fixed-targets value cannot be changed by the user	The fixed-targets value is set by the operator and cannot be changed by the user.
13.	Failed to meet an application constraint: User Common Data Failure: Exceeded maximum number of targets	The number of targets in the target-list is greater than the max-targets allowed by the operator.
14.	Failed to meet an application constraint: User Common Data Failure: Exceeded maximum number of Device targets	The number of targets in the target-device-list is greater than the max-targets allowed by the operator.
15.	Failed to meet an application constraint: User Common Data Failure: holiday-list not activated, and it is present in the user configuration!	A request to update holiday-list is rejected because the operator did not allow usage of the "holiday-list".

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Num	Reason Text	Description
16.	Failed to meet an application constraint: Communication Barring conditions identity, "<barred identity>", conflicts with User Common Data target id, "<id>"	The id value, <id>, of a target in the target-list is barred by the end-user's outgoing communication barring of an individual <barred identity>.
17.	Failed to meet an application constraint: Communication Barring conditions identity using Number Match, "<barred identity>", conflicts with User Common Data target id, "<id>"	The id value, <id>, of a target in the target-list is barred by the end-user's outgoing communication barring of an individual <barred identity> using number-match.
18.	Failed to meet an application constraint: User Common Data target id, "<id>", is barred by universal many condition	The id value, <id>, of a target in the target-list is barred by the end-user's outgoing communication barring of all identities, and <id> does not appear in an exception.
19.	Failed to meet an application constraint: User Common Data target id, "<id>", is barred by many domain, "<domain>"	The id value, <id>, of a target in the target-list is barred by the end-user's outgoing communication barring of all identities within <domain>, and <id> does not appear in an exception.
20.	Failed to meet an application constraint: User Common Data Failure: Reserved target name "VOICEMAIL" in target list	A reserved name has been used for the name of a target in the target list. The name VOICEMAIL is reserved to refer to the operator defined address of the voicemail service.
21.	Failed to meet an application constraint: User Common Data Failure: Attribute "auto-answer-avoidance" set to true when not activated by the operator	The Auto Answer Avoidance feature can only be set to a target when activated by an operator

Table 6 Application Constraint Phrase Text - User Common Data

Num	Phrase	Description
1.	Failed to meet an application constraint: communication-diversion-no-answer-timer no-answer-timeout is greater or equal to mtasMmtNoReplyTimer	A request to set a no-answer-timeout value is equal or greater than the value of mtasMmtNoReplyTimer.

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2.	Failed to meet an application constraint: Barring Programs Failure: Barring Programs Scheme Type Inconsistent	There is a mismatch between the Outgoing Barring Programs scheme and the user's subscription. For the multiple schemes the user must use the "multiple-programs" element. For the single scheme the user must use the "single-program" element.
3.	Failed to meet an application constraint: Abbreviated Dialing Failure: Stored number "<stored-number>" is not permitted	The Abbreviated Dialing stored number <stored-number>, is not permitted. This could be because it matches the mtasConfFactoryUri, the mtas3ptyFactoryUri or any instance of MtasNaRa.
4.	Failed to meet an application constraint: Communication Barring conditions identity, "<barred identity>", conflicts with Abbreviated Dialing stored number, "<stored-number>"	The Abbreviated Dialing stored number <stored-number> is barred by the end-user's outgoing communication barring of an individual <barred identity>.
a)	Failed to meet an application constraint: Communication Barring conditions identity using Number Match, "<barred identity>", conflicts with conflicts with Abbreviated Dialing stored number, "<stored-number>"	The Abbreviated Dialing stored number <stored-number> is barred by the end-user's outgoing communication barring of an individual <barred identity> using number-match.
b)	Failed to meet an application constraint: conflicts with Abbreviated Dialing stored number, "<stored-number>", is barred by universal many condition	The Abbreviated Dialing stored number <stored-number> is barred by the end-user's outgoing communication barring of all identities, and <stored-number> does not appear in an exception.
c)	Failed to meet an application constraint: conflicts with Abbreviated Dialing stored number, "<stored-number>", is barred by many domain, "<domain>"	The Abbreviated Dialing stored number <stored-number> is barred by the end-user's outgoing communication barring of all identities within <domain>, and <stored-number> does not appear in an exception.
5.	Failed to meet an application constraint: Flexible Identity Presentation Failure: FIP served user cannot assign/modify/remove Fip identity	The identity in the request is not permitted. This could be because the FIP identity is not allowed to be assigned, changed or removed over the Ut interface.

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6.	Failed to meet an application constraint: Flexible Identity Presentation Failure: Activation without at least one of fip-identity, msn-fip-identity, fip-use-default-imp-identity or fip-alternative-user-identity is not allowed	It is mandatory to have at least one of: <ul style="list-style-type: none"> <li>fip-identity</li> <li>msn-fip-identity</li> <li>fip-use-default-imp-identity</li> <li>fip-alternative-user-identity</li> </ul> defined, when the user configuration is active.
7.	Failed to meet an application constraint: Hotline Failure: modification in user part not allowed if delayed hotline is not activated by operator.	It is not allowed to make any change in user part of subscriber data if delayed hotline is not enabled in operator part at any level.
8.	Failed to meet an application constraint: Hotline Failure: hotline number "<hotline-number>" scheme is not supported.	The only supported hotline number schemes are: sip and tel.
9.	Failed to meet an application constraint: Hotline Failure: identity is same as user.	The identity in the request is the same as identity of the user. In other words, acceptance of this request would mean diverting the user to himself/herself.
10.	Failed to meet an application constraint: Hotline Failure: hotline number "<hotline-number>" is barred by the operator.	The target of a hotline condition, <hotline-number>, is barred by the mtasOcbBlackList CM parameter.
11.	Failed to meet an application constraint: Hotline Failure: empty hotline number is not allowed for active user configuration.	The value of <hotline-number> in delayed condition of user part must not be empty if the condition is active.
12.	Failed to meet an application constraint: Flexible Identity Presentation Failure: FIP served user cannot assign/modify/remove "<msn-fip-identity>"	The identity in the request is not permitted. This could be because the MSN FIP identity is not allowed to be assigned, changed or removed over the Ut interface.

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13.	Failed to meet an application constraint: Originating Identity Restriction Failure: OIR served user cannot disable the service or modify/remove element default-behaviour	When the operator data in service Originating Identity Restriction has element <mode> set to “ad-hoc-temporary-presentation-restricted” or to “ad-hoc-temporary-presentation-not-restricted”. It is not possible to disable the service or change the value over the Ut interface.
14.	Failed to meet an application constraint: Abbreviated Dialing Failure: Stored number “<stored-number>” is not a SIP or TEL URI	The Abbreviated Dialing stored-number <stored-number>, is not a SIP or TEL URI.
15.	Failed to meet an application constraint: Session Transfer to Own Device Failure: Attribute “auto-answer-avoidance” is not allowed to be in the target. It must be defined in the User Common Data	The element “target” must not include attribute auto-answer-avoidance in service Session Transfer to Own Device. It must be defined in the “target” in the User Common Data.
16.	Failed to meet an application constraint: The service element, “<service>”, cannot have user configuration when restriction mode is “permanent”	When the mode is set to permanent it is not allowed to have user configuration. Possible values for <service> are: <ul style="list-style-type: none"> <li>• originating-identity-presentation-restriction</li> <li>• terminating-identity-presentation-restriction</li> </ul>
17.	Failed to meet an application constraint: Flexible Identity Presentation Failure: FIP served user cannot assign/remove “<fip-use-default-impu-identity>”	The “fip-use-default-impu-identity” element is set by the operator and is not allowed to be assigned or removed over the Ut interface.
18.	Failed to meet an application constraint: Session Transfer to Own Device Failure: The usage of element “NoReplyTimer” is not supported	The usage of element “NoReplyTimer” is not supported by service Session Transfer to Own Device.
19.	Failed to meet an application constraint: Flexible Identity Presentation Failure: FIP served user cannot assign/modify/remove “<fip-alternative-user-identity>”	The identity in the request is not permitted. This could be because the FIP alternative user identity is not allowed to be assigned, changed or removed over the Ut interface.

Table 7 Application Constraint Phrase Text - Other Services



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#### 4.7.4 Error element <no-parent>

This indicates that an attempt to insert a document, element, or attribute failed because the directory, document or element into which the insertion was supposed to occur does not exist.

##### 4.7.4.1 Unable to find parent of node

<b>Phrase</b>	Unable to find parent of node
<b>Error Element</b>	<no-parent>
<b>Description</b>	The node selector for the parent of the element or attribute being inserted or replaced is invalid because it does not match any existing nodes in the document.

##### 4.7.4.2 Multiple nodes selected

<b>Phrase</b>	Multiple nodes selected
<b>Error Element</b>	<no-parent>
<b>Description</b>	The node selector for the parent of the element or attribute being inserted or replaced is invalid because it matches more than one node in the document

##### 4.7.4.3 Parent document not allowed

<b>Phrase</b>	Parent document not allowed
<b>Error Element</b>	<no-parent>
<b>Description</b>	A PUT node operation uses an unsupported filename i.e. not simservs.xml for the supplementary services application usage

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#### 4.7.4.4 Directory not allowed

<b>Phrase</b>	Directory not allowed
<b>Error Element</b>	<no-parent>
<b>Description</b>	A PUT operation refers an unsupported document sub-directory – the supplementary services application usage does not support sub-directories. The user configuration file simservs.xml is at the top level below the user directory

#### 4.7.5 Error element <not-utf-8>

This indicates that a request could not be completed because it would have produced a document not encoded in UTF-8.

##### 4.7.5.1 Document supplied is not encoded in UTF-8

<b>Phrase</b>	Document supplied is not encoded in UTF-8
<b>Error Element</b>	<not-utf-8>
<b>Description</b>	A PUT document operation includes non UTF-8 encoded content.

##### 4.7.5.2 Fragment supplied is not encoded in UTF-8

<b>Phrase</b>	Fragment supplied is not encoded in UTF-8
<b>Error Element</b>	<not-utf-8>
<b>Description</b>	A PUT node (element or attribute) operation includes non UTF-8 encoded content.

#### 4.7.6 Error element <not-well-formed>

This indicates that the body of the request was not a well-formed document.

##### 4.7.6.1 Failed to parse new Ut document

<b>Phrase</b>	Failed to parse new Ut document
<b>Error Element</b>	<not-well-formed>
<b>Description</b>	A PUT document operation includes a body that is not a well-formed XML document

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#### 4.7.7 Error element <not-xml-att-value>

This indicates that the request was supposed to contain a valid XML attribute value, but did not.

##### 4.7.7.1 Attribute does not conform to AttValue syntax

<b>Phrase</b>	Attribute does not conform to AttValue syntax
<b>Error Element</b>	<not-xml-att-value>
<b>Description</b>	A PUT attribute operation includes a body that does not conform to the AttValue syntax for attributes defined in ref [9]

#### 4.7.8 Error element <not-xml-frag>

This indicates that the request was supposed to contain a valid XML fragment body, but did not.

##### 4.7.8.1 Failed to parse new Ut node

<b>Phrase</b>	Failed to parse new Ut node
<b>Error Element</b>	<not-xml-frag>
<b>Description</b>	A PUT element operation includes a body that is not a well-balanced region of an XML document

#### 4.7.9 Error element <schema-validation-error>

This element indicates that the document was not compliant to the schema after the requested operation was performed.

##### 4.7.9.1 New Ut document is not valid

<b>Phrase</b>	New Ut document is not valid
<b>Error Element</b>	<schema-validation-error>
<b>Description</b>	The document that would result from a PUT operation (document, element or attribute) fails schema validation

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#### 4.7.9.2 Deletion of the node would leave the document invalid

<b>Phrase</b>	Deletion of the node would leave the document invalid
<b>Error Element</b>	<schema-validation-error>
<b>Description</b>	The document that would result from a DELETE operation fails schema validation

#### 4.7.10 Error element <service-profile-failure>

This element indicates that a service profile document is faulty.

##### 4.7.10.1 Service Profile failure

<b>Phrase</b>	Service profile failure, contact the operator
<b>Error Element</b>	<service-profile-failure>
<b>Description</b>	A PUT or GET document request is made for a file that has service profile failure.

#### 4.8 HTTP Error 412 Precondition Failed

The precondition specified by the If-Match or If-None-Match header evaluated to false when it was tested on the server.

#### 4.9 HTTP Error 413 Request Entity Too Large

The request is larger than the server is willing or able to process.

#### 4.10 HTTP Error 415 Unsupported Media Type

The server is refusing to service the request because the entity of the request is in a format not supported by the requested resource for the requested method.

For an element-granularity PUT request the Content-Type header must have the value "application/xcap-el+xml"

For an attribute-granularity PUT request the Content-Type header must have the value "application/xcap-att+xml"

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For a document-granularity PUT request to the Simservs subscriber data the Content-Type header must have one of the following values

- application/vnd.etsi.simservs+xml (standard)
- application/simservs+xml (legacy)

#### 4.11 HTTP Error 500 Internal Server Error

The server encountered an unexpected condition which prevented it from fulfilling the request. This includes the cases where the Sh interface to the HSS does not respond successfully

#### 4.12 HTTP Error 503 Service Unavailable

The server is currently unable to handle the request due to a temporary overload or maintenance of the server.

There are two defined circumstances when this message will be sent

- If the node refuses to accept requests because it has been configured with an administrative state of “Locked” or “Shutting Down”
- If the node considers itself to be in overload. In this case the retry-after header will be populated

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## 5 Glossary

3GPP	3 <sup>rd</sup> Generation Partnership Project
AOR	Address-of-Record
AS	Application Server
AUID	Application Usage Identifier
CM	Configuration Management
CR	Change Request
ETSI	European Telecommunications Standards Institute
FIP	Flexible Identity Presentation
HTTP	Hypertext Transfer Protocol
IETF	Internet Engineering Task Force
ISDN	Integrated Services Digital Network
NA	Not Applicable
NGN	Next Generation Network
PSTN	Public Switched Telephony Network
RFC	Request For Comment
SIP	Session Initiation Protocol
STOD	Session Transfer To Own Device
TISPAN	Telecoms & Internet converged Services & Protocols for Advanced Networks
TLS	Transport Layer Security
TS	Technical Specification
UA	User Agent
UCS	Universal Character Set
URI	Uniform Resource Identifier

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URL	Uniform Resource Locator
URN	Uniform Resource Name
UTF	UCS/Unicode Transformation Format
XCAP	XML Configuration Access Protocol
XDMS	XML Document Management Server
XUI	XCAP User Identifier
XML	eXtensible Markup Language

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## 6 References

- [1] 3GPP TS 24.623 V8.1.0 Extensible Markup Language (XML) Configuration Access Protocol (XCAP) over the Ut interface for Manipulating Supplementary Services
- [2] IETF RFC 4825 The Extensible Markup Language (XML) Configuration Access Protocol (XCAP)
- [3] IETF RFC 2617: "HTTP Authentication: Basic and Digest Access Authentication"
- [4] IETF RFC 2616: "Hypertext Transfer Protocol – HTTP/1.1"
- [5] IETF RFC 2818: "HTTP over TLS"
- [6] REC-xpath-19991116 XML Path Language (XPath) Version 1.0 W3C REC
- [7] IETF RFC 2119: "Key words for use in RFCs to Indicate Requirement Levels"
- [8] 22/155 19-AVA 901 18 MTAS CAI3G Interface
- [9] <http://www.w3.org/TR/REC-xml/> Extensible Markup Language (XML) 1.0 (Fourth Edition)
- [10] 1/190 01-AVA 901 18 MTAS Ut Structure
- [11] TSP: MTAS, Parameter Description - 1/190 84-AVA 901 09/n \*\*  
CBA: Managed Object Model MTAS - 155 54-LZN 765 0163/n \*\*
- [12] GSMA standard IMS Profile for Voice and SMS Version 10.0

\*\* See the Customer or Support library for the Application System in question