

MTAS Hotline Service Management Guide

MTAS

USER GUIDE

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1 Introduction

This document describes how to configure the Hotline service in the MTAS.

1.1 Prerequisites

It is assumed that the user of this document is familiar with the Operation & Maintenance (O&M) area, in general.

1.1.1 Licenses

To enable the Hotline service, the MMTel AS Voice Base license must be installed.

For more information about the MMTel AS Voice Base license, refer to *MTAS Licenses*.

1.1.2 Documents

Before starting any procedure in this document, ensure that the following documents are available:

- *Ericsson Command-Line Interface User Guide*
- *Managed Object Model (MOM)*

1.1.3 Conditions

The following condition must apply:

An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.





2 Overview

The Hotline service is an automatic signaling service providing a point-to-point communication link in which a call is automatically directed to the preselected destination, the so-called hotline number, without any additional action by the user when the user equipment goes off-hook.

The Hotline service supports both offline and online charging.

The MTAS supports the following three variants of the Hotline service:

- Unconditional Hotline
- Instant Hotline
- Delayed Hotline

2.1 Unconditional Hotline

The Unconditional Hotline service routes all outgoing calls of the served user to a destination predefined by an operator, for example, automatic rerouting to customer care. The service is typically applied in cases where the served user has not paid subscription bills to the operator. The `Request-URI` of the initial `INVITE` is replaced with the predefined hotline number.

2.2 Instant Hotline

The Instant Hotline service allows the served user to reach a hotline destination by providing a service code, predefined by an operator, as dialed number. Once the service recognizes the service code, the `Request-URI` of the initial `INVITE` is replaced with a hotline destination, predefined by an operator.

The service code is typically generated by an Integrated Access Device (IAD) serving the served user, either immediately at off-hook or if no digits are provided, within a predefined time limit following the off-hook event.

2.3 Delayed Hotline

The Delayed Hotline service is almost identical with the Instant Hotline service with the following differences:

- The served user can control activation or deactivation of the service and specify which hotline destination number to use by self-service provisioning.



- The served user can define the own voice mail function as the hotline destination.
- The service code used to trigger the Delayed Hotline service (for example, the called number) can be defined per served user, if wanted. If the service code is defined, it is used instead of the configured node level value.

2.4 Subfunctions

The subfunctions included in the Hotline service are described in this section.

2.4.1 Incoming Communication Attempt Evaluation

This subfunction evaluates the incoming communication attempt and checks whether the incoming `INVITE` matches any of the configured hotline rules. If a match is found, the dialed number is replaced with the predefined hotline destination.

Use of the Hotline service is reported to the charging systems Charging Data Function (CDF) or Online Charging System (OCS).

2.4.2 Delayed Hotline Service Management

This subfunction handles the Delayed Hotline service managed by the served user. The served user configures the service either through the Ut interface or by the Supplementary Service Codes (SSCs).

A service state announcement is played from the Media Resource Function Processor (MRFP) or MRF at service interrogation using SSCs. For more information about SSCs, refer to *MTAS Supplementary Service Codes Management Guide*.

2.4.3 Provisioning Hotline Service

This subfunction handles the operator provisioning of the Hotline service to the served users, see Section 3.4.1 Operator Subscription Level Service Configuration on page 8.

2.4.4 Play Announcement

This subfunction plays an announcement to the caller when the call is automatically directed to a hotline number.



2.4.5 Subscription Data Management

This subfunction provides and updates the user data of the Hotline service. For more information about how subscriber data is handled, refer to *MTAS Subscriber Data Management Guide*.

2.5 Interaction with Other Services

This section describes how the Hotline service interacts with other services.

2.5.1 Communication Barring

Outgoing Communication Barring (OCB) is performed on the hotline destination before the outgoing `INVITE`. For more information about the Barring services, refer to *MTAS Barring and Dial Plan Services Management Guide*.

2.5.2 SSC

The served user controls the activation, deactivation, interrogation, or modification of services using SSCs.

The XML Document Management Server (XDMS) provides the interface to handle subscription data, both for the operator and the end user. The XDMS can update the subscriber data in the Home Subscriber Server (HSS) using the SSC service.

For more information about the SSC service, refer to *MTAS Supplementary Service Codes Management Guide*.

2.5.3 Originating Calling Name Identity Presentation

The Originating Calling Name Identity Presentation (OCNIP) is not started in case of redirection to voice mail is done as part of delayed hotline.





3 Hotline Service Configuration

The Hotline service is controlled by the *MtasHotline* MO. An overview of the Hotline MO structure is shown in Figure 1.

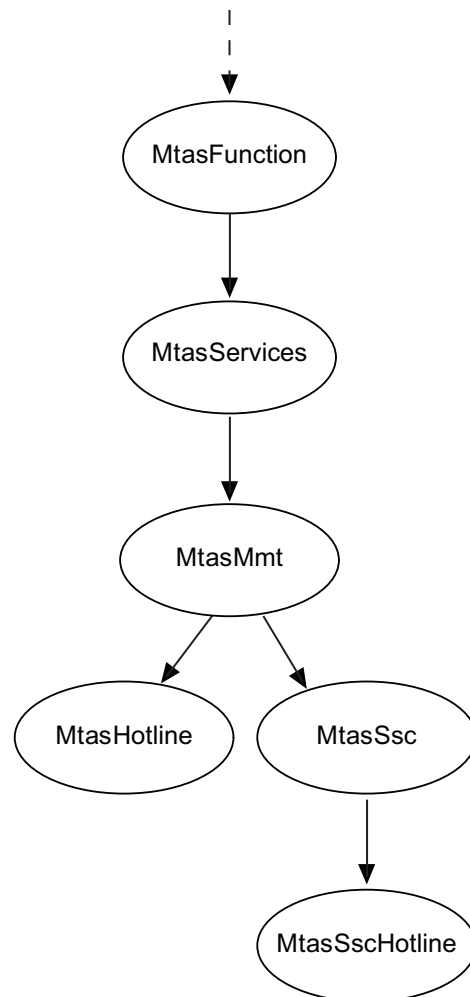


Figure 1 Hotline MO Structure

For configurable MOs and attributes related to the Hotline service, refer to *Managed Object Model (MOM)*.

3.1 Hotline Administrative State Configuration

The Hotline service is enabled by setting the `mtasHotlineAdministrativeState` attribute in the *MtasHotline* MO to 1 (Unlocked). If the `mtasHotlineAdministrativeState` is set to 0 (Locked), no Hotline service is provided by the MTAS.



3.2 Announcements Configuration

Announcement handling and hotline announcement attributes are described in *MTAS Announcement Management Guide*.

3.3 Wholesale for Hotline Configuration

The Hotline service supports the Wholesale service. The Hotline service is configurable on Virtual Telephony Provider (VTP) level.

The Wholesale service for the Hotline service is activated when the following attributes are set to 1 (Unlocked):

- The `vtasHotlineAdministrativeState` attribute in the `VtasHotline` MO
- The `mtasHotlineAdministrativeState` attribute in the `MtasHotline` MO

For more information about the Wholesale service, refer to *MTAS Wholesale Support Management Guide*.

3.4 Service Data Configuration

This section describes how to configure the service data.

3.4.1 Operator Subscription Level Service Configuration

The operator can activate, deactivate, or provision the hotline subscription for the subscriber by setting the user data using the CAI3G protocol.

The following information elements can be provisioned by the operator for every subscriber as part of the Hotline service data:

- Hotline service activation flag. Used to enable or disable the entire service. If the service is disabled, there is no redirection of the Hotline service. This is the primary configuration entity that enables the use and modification of hotline subscriber data, both for the operator and the user.
- Unconditional Hotline activation flag. Used to enable or disable Unconditional Hotline.
- Hotline number for Unconditional Hotline. A request URI used for Unconditional Hotline diversion.
- Instant Hotline activation flag. Used to enable or disable Instant Hotline.
- Hotline number for Instant Hotline. A request URI used for Instant Hotline diversion.



- Delayed Hotline activation flags. Used to enable or disable Delayed Hotline at operator and user level respectively.
- Hotline number for Delayed Hotline. A number for redirection to voicemail. The number must be the special value: `voicemail:internal`.
- Called number used for Delayed Hotline to override the service code CM parameter.

For more information about the CAI3G protocol and XML schema details, refer to *MTAS CAI3G Interface*.

An example of a CAI3G protocol of how to provision Hotline is shown in Example 1.



```

<?xml version="1.0" encoding="UTF-8" ?>

<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" =>
  xmlns:cai3g="http://schemas.ericsson.com/cai3g1.2/" xmlns:mc="http://=>
schemas.ericsson.com/mtas/mmtel/cai3g" xmlns:mgc="http://schemas.ericsson.com/=>
mtas/mmtel-group/cai3g" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" =>
xmlns:msc="http://schemas.ericsson.com/mtas/mmtel-serviceno/cai3g">

  <soapenv:Header>
    <cai3g:SessionId>A10D64D75D128Z1343717423S0P65543</cai3g:SessionId>
    <cai3g:TransactionId>111111</cai3g:TransactionId>
    <cai3g:SequenceId>604883775</cai3g:SequenceId>
  </soapenv:Header>

  <soapenv:Body>
    <cai3g:Create>
      <cai3g:MOType>MMTel<http://schemas.ericsson.com/mtas/mmtel/cai3g</cai3g:MOType>

      <cai3g:MOId>
        <mc:publicId>sip:user@telco.com</mc:publicId>
      </cai3g:MOId>

      <cai3g:MOAttributes>
        <mc:createMMTel publicId="sip:user@telco.com">
          <mc:publicId>sip:user@telco.com</mc:publicId>

          <mc:hotline>
            <mc:hotline-operator-configuration>
              <mc:activated>true</mc:activated>

              <mc:unconditional-condition>
                <mc:activated>true</mc:activated>
                <mc:hotline-number>tel:+44247600000</mc:hotline-number>
              </mc:unconditional-condition>

              <mc:instant-condition>
                <mc:activated>true</mc:activated>
                <mc:hotline-number>tel:+44247600001</mc:hotline-number>
              </mc:instant-condition>

              <mc:delayed-condition>
                <mc:activated>true</mc:activated>
              </mc:delayed-condition>
            </mc:hotline-operator-configuration>

            <mc:hotline-user-configuration>
              <mc:active>true</mc:active>
              <mc:hotline-number>tel:+44247600002</mc:hotline-number>
            </mc:hotline-user-configuration>

          </mc:hotline>
        </mc:createMMTel>
      </cai3g:MOAttributes>

    </cai3g:Create>
  </soapenv:Body>
</soapenv:Envelope>

```

Example 1 CAI3G Protocol of Hotline

3.4.2

Subscriber Subscription Level Service Configuration

The user can manage hotline subscription data related to the Delayed Hotline service only by setting the user data using the Ut interface, as follows:

- Activate or deactivate the hotline subscription



- Set hotline number (redirection URI) used for Delayed Hotline. For redirection to voicemail, the number must be the special value: `voicemail:internal`.
- Set called number used for Delayed Hotline to override the service code CM attribute.

For more information about the Ut interface and XML schema details, refer to *MTAS Ut Interface*.

An example of an Ut protocol of how to provision Hotline is shown in Example 2.

```
<?xml version="1.0" encoding="UTF-8" ?>

<ss:simservs xmlns:ss="http://uri.etsi.org/ngn/params/xml/simservs/xcap" =>
  xmlns:mmt-serv="http://schemas.ericsson.com/mmtel/services">

  <mmt-serv:hotline active="true">
    <mmt-serv:hotline-number>voicemail:internal</mmt-serv:hotline-number>
    <mmt-serv:called-number>tel:+44247600003</mmt-serv:called-number>
  </mmt-serv:hotline>

</ss:simservs>
```

Example 2 Ut Protocol of Hotline

3.4.2.1

Service-specific Checks Performed in XDMS

The XDMS rejects an update of the user part subscription data if the following apply:

- The hotline number for Delayed Hotline is empty
and
- Delayed Hotline is active

The XDMS rejects an update of subscription data over the CAI3G interface if the following applies:

- The hotline number for any of the Hotline service versions (Unconditional, Instant, or Delayed) equals one of the requesting user aliases, that is, the Public User Identity (PUI).

The XDMS rejects an update of the user part subscription data over the Ut interface if the following apply:

- Request results in a user part change if any of the following applies:
 - Hotline service is not present (operator part)
 - Hotline service is not active (operator part)
 - Delayed Hotline is not present (operator part)
 - Delayed Hotline is not active (operator part)



- Hotline number for Delayed Hotline equals the identity of requesting users (PUI)



4 Performance Management

For measurements related to the Hotline service, refer to *Managed Object Model (MOM)*.





5 Fault Management

For alarms related to the Hotline service, refer to *MTAS Alarm List*.