

MTAS Emergency State Management Guide

MTAS

USER GUIDE

Copyright

© Ericsson AB 2016, 2017. All rights reserved. No part of this document may be reproduced in any form without the written permission of the copyright owner.

Disclaimer

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

Trademark List

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



Contents

1	Introduction	1
1.1	Prerequisites	1
2	Overview	3
2.1	Subfunctions	3
2.2	Interaction with Other Services	4
3	Emergency State Service Configuration	5
3.1	Emergency State Administrative State Configuration	5
3.2	Configure Emergency Callback Window Time-Outs	5
3.3	Configure Emergency Callback Tag	6
4	Performance Management	7
5	Fault Management	9





1 Introduction

This document describes how to configure the MTAS Emergency State service in the Multimedia Telephony Application Server (MMTel AS). The service relies on the Emergency Call event notifications provided by the Serving Call Session Control Function (S-CSCF).

1.1 Prerequisites

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

1.1.1 Licenses

Not applicable.

1.1.2 Documents

Before starting any of these procedures, the following documents must be available:

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

1.1.3 Conditions

Before starting any of these procedures, ensure that the following conditions are fulfilled:

- An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.
- The IMS network is configured to deliver Emergency Call event notifications to MMTel AS.





2 Overview

The Emergency State service allows the Application Server to handle and track emergency calls originated by the IMS users. The service maintains the Emergency Callback Window state of the IMS users, which can be used to control behavior of other MTAS services.

Since emergency calls are not routed through the Application Server, this service relies on the Emergency Call event notifications from the S-CSCF and maintains an Emergency Callback Window state for each served user. This state can also be triggered by an incoming `INVITE` request containing a predefined tag in the Route header. The service is also responsible for notifying the Online Charging System (OCS) when an emergency call starts for IMS subscribers.

The service is active when its administrative state is unlocked.

2.1 Subfunctions

The subfunctions included in the Emergency State service are described in this section.

2.1.1 Emergency Call Notifications

At the start of an emergency call of an IMS user, MTAS receives a `SIP NOTIFY` message with event “emergencyCall;start” from the S-CSCF. At the end of an emergency call, MTAS can receive another `SIP NOTIFY` message with event “emergencyCall;stop” from the S-CSCF.

As a response, MTAS sends a respective online charging event with “Emergency Call Start” or “Emergency Call End” indication to the OCS. It also sets the internal state of the Emergency Callback Window for the served user to “active”, and starts an Emergency Callback Window timer. The time-out value of the timer depends on the event that triggered the start of the timer, and is determined by the configuration parameters, see Section 3.2 on page 5.

The Emergency Callback Window state of the IMS user is active until the time-out of the Emergency Callback Window timer.

2.1.2 Incoming Emergency Callback Call

If the Route header of an incoming call includes a predefined tag that identifies an emergency callback call, MTAS checks the state of the Emergency Callback Window. If the Emergency Callback Window is “inactive”, MTAS sets the state to “active” and starts the Emergency Callback Window timer.



2.1.3 Emergency Callback Window Expiry

At the expiry of the Emergency Callback Window, the internal state of Emergency Callback Window for the user is set to “not active”.

2.2 Interaction with Other Services

The service has no explicit interactions with other services, but the Emergency Callback Window state, which this service maintains for the IMS users that are served by the MMTel AS, can be accessed and used by other services. For example, invocation of STOD Call Pull can be disabled by the operator during an Emergency Callback Window.



3 Emergency State Service Configuration

The Emergency State service is configured through the Operations, Administration, and Maintenance (OAM) interface and controlled by the `mtasEs` Managed Object (MO). An overview of the MO structure is shown in Figure 1.

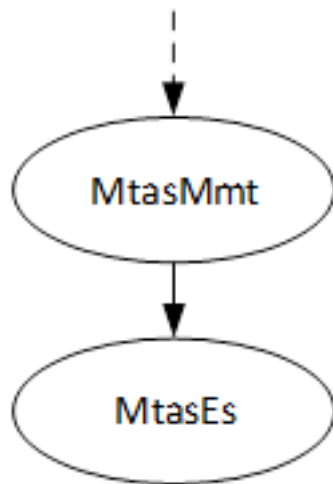


Figure 1 Emergency State MO Structure

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

3.1 Emergency State Administrative State Configuration

The Emergency State service is enabled by setting the `mtasEsAdminState` attribute in the `mtasEs` MO to 1 (Unlocked). If the `mtasEsAdminState` is set to 0 (Locked), the emergency state of the IMS user is not handled in MMTel AS.

3.2 Configure Emergency Callback Window Time-Outs

During ongoing emergency call, or directly after its completion, the Emergency Callback Window state of the IMS user is set to be active. Transition from this state is controlled by timers.

To configure the timers:

1. Set the desired value in the CM attributes of the `mtasEs` MO in seconds, as follows:



- The `mtasEsCbwStartTimer` attribute sets the time-out for the Emergency Callback Window state after “emergencyCall;start” event notification has been received.
- The `mtasEsCbwStopTimer` attribute sets the time-out for Emergency Callback Window state after “emergencyCall;stop” event notification has been received.

3.3 Configure Emergency Callback Tag

If the Route header of an incoming `INVITE` contains a tag that matches the attribute `mtasEsCbTag`, the call is identified as an emergency callback call and the Emergency Callback Window state will be activated if inactive.



4 Performance Management

Not applicable.





5 Fault Management

Not applicable.