

MTAS Application Server Interworking Management Guide

MTAS

USER GUIDE

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1 Introduction

This document describes how to configure the Application Server (AS) Interworking service in the MTAS.

1.1 Prerequisites

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

1.1.1 Licenses

Not applicable.

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

This document describes the AS Interworking services that the MTAS offers to its subscribers.

The AS interworking function is used to allow the MTAS, which uses History-Info headers to carry diversion information to interwork with an AS, which uses Diversion headers for the same purpose. The AS Interworking also allows the network operator to specify that the network asserted identity is placed in the From header of an INVITE Request.

Also, the AS Interworking performs mapping of 183 Session In Progress to 180 Ringing and filtering of 181 Call is being forwarded based on configuration.

2.1 List of Actors

The actors involved in the AS Interworking service are described in this section.

2.1.1 Actor: Other AS

The Other AS is the application server deployed in the network which originates or receives INVITE Requests. INVITE Requests originating from the Other AS can contain Diversion or History-Info headers, or both.

The Other AS supports Diversion headers but not History-Info headers for call diversion.

In certain cases, The Other AS can be an MGC acting on behalf of UE in CS Network to establish SIP Session with Caller.

2.1.2 Actor: OAM User

The OAM User is the network operator representative who can configure the Configuration Management parameters for AS Interworking.

2.2 Subfunctions

The subfunctions included in the AS Interworking service are described in this section.



2.2.1 Create History-Info Headers and Update Request URI

History-Info headers are created when an INVITE request is received. The request contains Diversion headers but no History-Info headers, containing a diversion cause value in the hi-targeted-to-uri cause-param SIP URI parameter.

2.2.2 Create Diversion Headers

Diversion headers are created when an INVITE request is sent from the MTAS. The request contains History-Info headers with a diversion cause value in the hi-targeted-to-uri cause-param SIP URI parameter.

2.2.3 Handle From Header

The P-Asserted-Identity is copied to the From header in the outgoing INVITE request if the Privacy header does not contain the value “id” or the value “header”. As P-Asserted-Identity can have more than one value, sip: and tel:, the network operator must specify which P-Asserted-Identity is the preferred value to copy in the CM parameter mtasAsIwAssertedId. If the preferred value is sip or tel and this value is not available in the P-Asserted-Identity header, the available value is copied.

2.2.4 Identity Correction

The AS Interworking service can alter the identity of the caller in case of diversion of a BCD call by removing the X-GENERIC-NUM header, removing the display-name from the SIP/Tel-URI in the P-Asserted-Identity header (except when privacy is requested), copying the calling party number from the tel URI of the PAI to the From header and copying the calling party number from the tel URI of the PAI to the SIP URI address part of the PAI header.

2.2.5 Mapping 183 Session in Progress to 180 Ringing

The AS Interworking service can perform mapping of 183 Session In Progress message to 180 Ringing and reserve mapping (180 back to 183) on specific Access-types configured in mtasAsIwSessionProgressPaniList. The mapping function is enabled by configuring the mtasAsIwSessionProgressMapping. When configured, AS Interworking service maps the received 183 Session In Progress to 180 Ringing by matching the Access-Info from received P-Access-Network-Info header against the configured values in mtasAsIwSessionProgressPaniList.

Additionally, CM attribute mtasAsIwSessionProgressMappingOnPreconditionEnabled extends mapping to trigger 180 Ringing to indicate that an alerting state is reached when end-to-end preconditions are fulfilled after receiving 183 Session Progress.



2.2.6 Filtering of 181 Call Is Being Forwarded

The AS Interworking service can perform filtering of 181 Call is being forwarded responses. When configured, this function performs filtering of the received by Originating MTAS 181 Call is being forwarded responses or mapping to 183 Session In Progress is the received response contains an SDP.

2.2.7 Manage OAM Parameters

The configuration of the AS Interworking CM parameters uses the standard MOM interface and are not described further in this document.

2.2.8 Filtering of SIP Headers

The MMTel AS can be configured to filter SIP headers from outgoing INVITE messages in one of the following scenarios:

- Only on Terminating AS (including transit)
- Only on Originating AS
- Both on Terminating AS (including transit) and Originating AS

If flexible AVP reporting for SIP headers is enabled, SIP headers that are configured to be filtered are reported to Charging subsystem before they are removed. For more information on flexible AVP reporting, see Section Flexible AVP in [MTAS Charging Management Guide](#).

For information on configuring filtering of SIP headers, see Section 3.6 Filtering of SIP Headers Configuration on page 9.

2.3 Interaction with Other Services

There is no interaction with other services.





3 AS Interworking Service Configuration

The AS Interworking service is controlled by the `MtasAsIw` MO. An overview of the AS Interworking MO structure is shown in Figure 1.

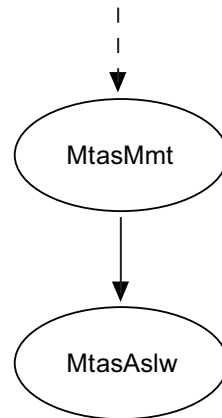


Figure 1 AS Interworking MO Structure

Configurable MOs and attributes related to the AS Interworking service are defined in Managed Object Model (MOM).

3.1 AS Interworking Administrative State Configuration

The AS Interworking service is enabled by setting the `mtasAsIwAdministrativeState` attribute in the `MtasAsIw` MO to 1 (Unlocked). If the `mtasAsIwAdministrativeState` is set to 0 (Locked), no AS Interworking service is provided by the MTAS.

3.2 History-Info and Diversion Header Handling Configuration

The handling of History-Info and Diversion Header is enabled by setting the `mtasAsIwDiversion` attribute in the `MtasAsIw` MO to 1 (Unlocked). If `mtasAsIwDiversion` is set to 0 (Locked), no History-Info/Diversion handling is performed by the MTAS.

3.3 Session Progress Mapping Handling Configuration

The handling of 183 Session In Progress mapping to 180 Ringing is enabled by setting the `mtasAsIwSessionInProgress` attribute in the `MtasAsIw` MO to the following values:



- 1 Mapping in Originating AS
- 2 Mapping in Terminating AS including Transit AS
- 3 Mapping in both Originating and Terminating AS including Transit AS
- 4 Mapping and reverse mapping in Originating AS
- 5 Mapping and reverse mapping in Terminating AS including Transit AS
- 6 Mapping and reverse mapping in Originating and Terminating AS including Transit AS
- 7 Mapping in Originating and Terminating AS excluding Transit AS
- 8 Mapping and reverse mapping in Originating and Terminating AS excluding Transit AS

If the `mtasAsIwSessionProgressMappingOnPreconditionEnabled` attribute is set to 1 (true), mapping is extended to trigger 180 Ringing to indicate that an alerting state is reached when end-to-end preconditions are fulfilled after receiving 183 Session In Progress.

If the `mtasAsIwSessionProgressMapping` is set to 0 (Locked), no mapping is performed.

3.3.1 Session Progress PANI List Configuration

The mapping of 183 Session In Progress to 180 Ringing and reserve mapping of 180–183 is performed based on configured access-types in `mtasAsIwSessionProgressPaniList`.

When `mtasAsIwSessionProgressPaniList` is configured with 3GPP2-1X, the mapping is performed only for the cases where the P-Access-Network-Info Header received in 183 Session In progress contain the access-type matching with 3GPP2-1X.

Configuring `mtasAsIwSessionProgressPaniList` with NONE allows AS Interworking to perform mapping for the cases where no P-Access-Network-Infoheader is received in 183 Session In Progress.

If `mtasAsIwSessionProgressMapping` is enabled and `mtasAsIwSessionProgressPaniList` is empty, the mapping of 183 Session In Progress to 180 Ringing is performed without checking the P-Access-Network-Info.

3.4 181 Call Is Being Forwarded Filtering Configuration

The filtering of 181 Call is being forwarded responses is enabled by setting the `mtasAsIw181Filtering` attribute in the `MtasAsIw` MO to 1 (Enabled). If `mtasAsIw181Filtering` is set to 0 (Disabled), no filtering is performed by MTAS.



3.5 Service Data Configuration

This section describes how to configure the service data.

3.5.1 Operator Subscription Level Service Configuration

No service data for AS Interworking is configured in the operator part of the subscriber data.

3.5.2 Subscriber Subscription Level Service Configuration

No service data for AS Interworking is configured in the subscriber part of the subscriber data.

3.6 Filtering of SIP Headers Configuration

The filtering of SIP headers is enabled by setting the `mtasAsIwInviteHeaderFilterSessionCase` parameter to one of the following values:

- 1: Only on Terminating AS (including transit)
- 2: Only on Originating AS
- 3: Both on Terminating AS (including transit) and Originating AS

If filtering enabled, SIP headers that are defined in `mtasAsIwInviteHeaderFilter` are to be removed from outgoing INVITE messages. The `mtasAsIwInviteHeaderFilter` parameter must not be configured with SIP headers that are mandatory according to [RFC 3261](#).

For more information on filtering of SIP headers, see Section 2.2.8 Filtering of SIP Headers on page 5.





4 Performance Management

Measurements related to the AS Interworking service are detailed in [MTAS Performance Measurements](#).





5 Fault Management

The AS Interworking service has no alarms.