

MTAS Test Announcement Management Guide

MTAS

USER GUIDE

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1 Introduction

This document describes how to configure the Test Announcement service in the MTAS.

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

Test Announcement does not require an extra license.

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 Test Announcement service is terminating PSI service provided by the MMTel AS.

The service is available to subscribers by calling a specific telephonic number representing a specific announcement. The test call number used by the subscribers is typically a short-code or OSN, hereby hiding the actual public identity used for the PSI. The originating MMTel AS will in this cases translate or normalized dialed number of the subscriber of the test announcement.

A test call is treated as normal call by the MMTel AS serving the subscriber. Session re-negotiations and mid-call invocation of services are supported.

The Test Announcement PSI can be deployed as either distinct or sub-domain routed.

- Distinct PSI deployment requires provisioning of each test call number (or number series, that is, wild-carded PSI) in HSS including what MTAS instances providing the PSI.
- Sub-domain routed PSI deployment, requires allocation of a specific SIP domain representing the MTAS instances providing the PSI. The routable public telephone number representing the PSI will in this deployment be mapped to the user part of the public SIP identity by the originating MMTel AS. Identical test announcement service configuration is here required in both originating and terminating MMTel AS instances.

The service support QoS precondition negotiation.

The service provides offline charging information at each invocation. The service provides specific performance counters indicating successful and unsuccessful invocations.

2.1 Subfunctions

2.1.1 **Accept Incoming Test Call**

The served user dials the test call number, including a specific Test Announcement PSI in the initial INVITE message. The announcement associated with the dialed PSI is played based on the MtasGaAnn configuration.

The test call request is accepted if the Test Announcement service is unlocked and the dialed number matches the configured PSI.

The Test Announcement service supports QoS precondition negotiation.



The Test Announcement service allocates media resources and request play-out of the announcement associated with the dialed number.

Played announcement is repeated continuously until the user terminates the call with SIP BYE request. If a finite announcement is used, it is played until it ends. The Test Announcement service does not support segmented announcements.

On successful Test Announcement invocation, the CDF node is informed with an ACR-Event message. The Test Announcement service updates the charging output with specific SSID to the SSC Test Announcement service.

2.1.2 Reject Incoming Test Call

An operator rejects the test call requests from a served user if an internal or external fault occurs. The test call is rejected in the following cases:

- Test Announcement number is configured, but Test Announcement service is locked (503 "Service Unavailable").
- QoS preconditions negotiation time-out (408 "Request Timeout").
- Internal MRFP or External MRFC error during the resource reservation (500 "Server Internal Error").
- Configuration faults, configured GA is not found (488 "Not Acceptable Here").

2.1.3 Hold-resume Test Call

The Test Announcement service allows the user to hold and resume the ongoing announcement. A user can hold the announcement by setting the SDP attribute to sendonly or inactive.

2.1.4 Media Renegotiation

The Test Announcement service allows the user to change media characteristics of the ongoing announcement. A user can send the new SDP offer, which is routed to MRFC for acceptance.

2.1.5 End Test Call

The played announcement is repeated continuously until the user terminates the call with SIP BYE request or if there is a finite announcement used, until the announcement ends.

Note: Because of current limitations, if the MRFC rejects new media the announcement is terminated by MMTel AS.



2.1.6 Play Announcement

The played announcement is repeated continuously until the user terminates the call with SIP BYE request. If a finite announcement is used, it is played until it ends. The Test Announcement service does not support segmented announcements.

2.1.7 Update PM Counter

Specific Performance Measurement (PM) counters reflect successful and unsuccessful invocations.

2.2 Interaction with Other Services

2.2.1 Scheduled Conference

Tel URI or embedded SIP URI is used for the Test Announcement service invocation. The same type of URI is used for the Scheduled Conference service. These two services are also deployed on the same AS. Thus, to avoid conflict, Test Announcement can only be enabled when Scheduled Conference is disabled.

2.3 Sub-domain Routing Mapping

The Test Announcement service can be configured to use sub-domain PSI routing to reach the terminating endpoint service. The telephone number representing the test announcement, will in this mode be transformed to a SIP identity using a configured sub-domain representing the test announcement PSI. The Test Announcement service of the originating MMTel AS transforms the telephone number to a SIP identity if the following conditions are met:

- The telephone number following normalization with initial “+” character and URI parameters filtered out, matches the attribute `mtasTestAnnNumbersNum` of a configured `MtasTestAnnNumbers`:instance. If the conditions is fulfilled, a SIP identity is created by:
 - Populating the user part of the SIP URI with the normalized telephone number having removed all URI parameters (for example, phone-context, user=phone etc.)
 - domain of the SIP URI set to the value configured in `mtasTaSipDomain`. attribute





3 Test Announcement Service Configuration

An O&M operator can configure the set of PSI numbers for the Test Announcement service invocation and define the set of announcements corresponding to the numbers of this PSI.

The service is active when the administrative state is enabled (`mtasTaAdministrativeState=1`).

The service configuration is presented a set of the PSI numbers (`MtasTestAnnNumbers`).

Each PSI number entry contains the number attribute (`mtasTestAnnNumbersNum`) and the announcement reference (`mtasTestAnnNumbersGa`), which is played for this range of numbers.

CM attributes for the Test Announcement service are as follows:

- `mtasTestAnnNumbersGa`: a string referring to the `MtasGaAnn` entry.
- `mtasTestAnnNumbersNum`: a string presenting the normalized SIP or tel URI, which starts the Test Announcement.

Example of CM attributes for the TA service:

```
MtasMmt=0
  MtasTa=0
    mtasTaAdministrativeState: 0
    MtasTestAnnNumbers=0
      mtasTestAnnNumbersNum: +15555550001
      mtasTestAnnNumbersGa:
"TestAnn0"
  MtasTestAnnNumbers=1
    mtasTestAnnNumbersNum: 15555550002
    mtasTestAnnNumbersGa:
"TestAnn1"
[...]
```

The TA service uses the attributes from the instance of the `MtasGaAnn` parameter with the specified name to play the announcement.

If there is no instance of `MtasGaAnn` with the specified name, no announcement is played.

The GA presents a set of named announcement packages referring to the preconfigured announcement. The MTAS O&M operator can arbitrarily configure the repeat and duration parameters of a referred announcement (including `forever` for infinite announcements).





4 Performance Management

An operator can receive statistics on Test Announcement service invocations. Statistics are provided in the following three dimensions:

- Successful service.
- Unsuccessful because of external reasons.
- Unsuccessful because of internal reasons.

Measurements are keyed by the TA invocation number.

The Test Announcement service statistics is collected in the set of the following counters:

- MtasTaInvOk

Test Announcement counted as successful after the success response from MRFP/MRFC that announcement is started.

- MtasTaInvN0kE

Test Announcement counted as unsuccessful because of external reasons: if the MRFP/MRFC responds with error on resource reservation or an announcement invocation.

- MtasTaInvN0kI

Test Announcement counted as unsuccessful because of internal reasons: if the service rejects the call because of internal error.





5 Fault Management

The Test Announcement service has no alarms.