

MTAS Closed User Group Management Guide

MTAS

USER GUIDE

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1 Introduction

This document describes how to configure the Closed User Group (CUG) 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

To enable the CUG 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

This document describes the basic CUG service that the MTAS offers to its subscribers.

The CUG service enables users to form groups of members, whose communication profile is restricted for incoming and outgoing communications.

Members of a specific CUG can communicate among themselves but not with users outside the group, unless they have more capabilities that allow them to initiate outgoing communications.

A CUG consists of a number of members from one or more public or private networks, or both. One user can only be a member of one CUG. Subscription to a CUG must be defined for all communication services, or in relation to one, or to a list of communication services.

For more information about CUG, refer to [3GPP 24.654](#).

The CUG service in MTAS has the following limitations:

- No support for end-user configuration of the CUG.
- No support for configurable incoming access: All IMS CUG users have no incoming access.
- No support for originating CUG communication. All calls originated by IMS CUG users are non-CUG, for example, conference and three party calls.

2.1 Subfunctions

The subfunction included in the CUG service is described in this section.

2.1.1 CUG Policies

The originating MTAS with enabled CUG service rejects the establishment of communication if the SIP INVITE request contains CUG indication.

The terminating MTAS with enabled CUG service allows establishment of communication if any of the following conditions apply:

- The caller is in a global white list.
- The INVITE request does not contain CUG indication and the served subscriber is not provisioned with CUG.



- The INVITE request contains CUG indication with outgoing access and the served subscriber is not provisioned with CUG.
- The INVITE request contains CUG indication and the served subscriber is provisioned with the same CUG.

If no condition is applied, the CUG service rejects the SIP INVITE request in the terminating MTAS.

2.2 Interaction with Other Services

This section describes the CUG interaction with other services.

2.2.1 Communication Barring

The incoming Operating Telephony Provider (OTP) global white list and the Virtual Telephony Provider (VTP) global white list take precedence over the CUG service.

The CUG service takes precedence over the operator and user allowed rules, and can reject communications which matched entries in the operator and user allowed rules.

Incoming Communication Barring (ICB) can reject communications allowed by the CUG service.

For more information about the Communication Barring service, refer to *MTAS Barring and Dial Plan Services Management Guide*.

2.2.2 Communication Diversion

The SIP INVITE transmitted as a result of a diversion contains all the CUG information present in the original INVITE message.

The Outgoing Communication Barring (OCB) service is suppressed when an initial INVITE request with CUG indication is diverted.

For more information about the Communication Diversion service, refer to *MTAS Communication Diversion Management Guide*.

2.2.3 Flexible Communication Distribution

When an INVITE request with CUG indication is distributed by the Flexible Communication Distribution (FCD) service in the terminating MTAS, the primary user and the related users are handled differently from a CUG perspective.



The CUG checks the primary user. When the primary user passes the check, the CUG indication is removed from the INVITE request. Otherwise, the INVITE request is not forwarded towards the primary user.

The CUG does not check the related users. The INVITE request is forwarded with CUG indication towards the related users.

For more information about the FCD service, refer to *MTAS Flexible Communication Distribution Management Guide*.





3 CUG Service Configuration

The CUG service is controlled by the *MtasCug* Managed Object (MO). An overview of the CUG MO structure is shown in Figure 1.

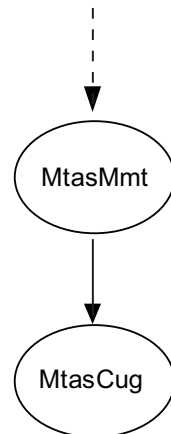


Figure 1 CUG MO Structure

Configurable MOs and attributes related to the CUG services are defined in the *Managed Object Model (MOM)*.

3.1 CUG Administrative State Configuration

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

3.2 CUG Reject Announcement Configuration

The generic announcement that is played when the CUG service rejects the establishment of a communication is configured by setting the `mtasCugRejectAnnouncementName` attribute in the *MtasCug* MO.

For more information about the Generic Announcements, refer to *MTAS Generic Announcement Management Guide*.

3.3 Wholesale for CUG Configuration

The CUG service supports Wholesale. CUG is configurable on VTP level.



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

- The `vtasCugAdministrativeState` attribute in the *VtasCug* MO.
- The `mtasCugAdministrativeState` attribute in the *MtasCug* 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

In the CUG configuration data for a subscriber set in the CAI3G protocol, the operator indicates whether the subscriber has a CUG membership or not.

For more information about the CAI3G protocol, refer to *MTAS CAI3G Interface*.

3.4.2 Subscriber Subscription Level Service Configuration

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



4 Performance Management

For measurements, related to the CUG service, refer to *MTAS Performance Measurements*.





5 Fault Management

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