

Co-Location of AS Roles in MTAS

MTAS

USER GUIDE

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1 Introduction

This document describes the possible co-located deployments of different Application Server (AS) roles on the same physical Multimedia Telephony Application Server (MTAS) node. It also describes the data that is shared between the roles for co-location of more than one AS role on an MTAS node.

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 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

An MTAS node contains functions for different ASs in the IP Multimedia Subsystem (IMS) network. Examples are functions to implement an MMTel Telephony AS, and functions to implement a Service Centralization and Continuity (SCC) AS. These functions can be deployed on a separate MTAS node or on the same physical MTAS node.

When an MTAS node is executing functions for a specific AS, it is acting according to a specific AS role. This means, for example, that an MTAS node, executing functions for the MMTel Telephony AS, has the MMTel Telephony AS role.

In single invocation of multiple AS roles in the MTAS, internal interface is used for all ASs, in any order. This implies that just one ISC triggering is used for a SIP call message that traverses all ASs, for the interaction between the Serving Call Session Control Function (S-CSCF) and the MTAS.

The following AS roles are supported by MTAS:

- MMTel Telephony
- SCC
- Parlay X
- Network

2.1 Application Server Roles

The following sections describe the different AS roles.

2.1.1 MMTel Telephony AS

The MMTel Telephony AS provides the Multimedia Telephony service and Supplementary Services according to the 3GPP standards.

The MMTel Telephony AS also includes the ad hoc conference feature. The ad hoc conference service is then linked in to the service chain on the originating Telephony AS together with other telephony services of the subscriber.

The MMTel Telephony AS was previously referred to as the MMTel AS.

For more information about the MMTel Telephony AS, see [MTAS MMTel Management Guide](#).



2.1.2 Service Centralization and Continuity AS

The SCC AS provides the possibility to offer IMS Centralized Services (ICS) and Single Radio Voice Call Continuity (SRVCC) according to 3GPP standards, which are the key components for a Voice over LTE (VoLTE) solution. For the ICS case, the SCC AS implements functions for Service Domains Selection (SDS) and for Terminating Access Domain Selection (T-ADS).

When using the SCC AS in an enterprise solution, the SCC AS is instead called Business Mobility AS.

For more information about the SCC AS, see [MTAS IMS Centralized Services Management Guide](#).

2.1.3 Parlay X AS

The Parlay X AS enables MTAS to interact with the Parlay X enabled applications deployed on ASs. This interaction can be with the Parlay X AS in client or in server role.

There is one service using the Parlay X interface that is not part of the Parlay X AS. This service is the Parlay X in MMTel service, and the Parlay X in MMTel service is part of the Telephony AS.

For more information about the Parlay X AS, see [MTAS Parlay X Management Guide](#).

2.1.4 Network AS

The Network AS (NW AS) provides the interworking SIP signaling interworking between the entities lacking specific capabilities. The current version of the NW AS supports the Precondition Interworking Function (PrIwf) and the Forking Interworking Function (FoIwf).

PrIwf supports the Quality of Service (QoS) precondition SIP signaling interworking for terminating endpoints, which lack precondition support. FoIwf provides interworking between a caller endpoint lacking support of SIP multiple early dialogs and the IMS network.

For more information about the Network AS, see [Network AS Management Guide](#).

2.2 Subfunctions

The subfunctions related to co-location of AS roles are described in this section.



2.2.1 Standalone Deployments of AS Roles

Each of the MTAS AS roles described in Section 2.1 Application Server Roles on page 3 can be deployed as a standalone AS.

2.2.2 Supported Co-Located Deployments of AS Roles

Co-locating several AS roles in one MTAS node means that sessions of each AS role can be active simultaneously in the node. The supported co-locations of the MTAS AS roles are described in Table 1.

Table 1 Supported Co-Locations of AS Roles

| Co-Location Alternative | Co-Located MTAS AS Roles |
|-------------------------|---------------------------------------|
| VoLTE WCDMA | MMTel Telephony AS SCC AS NW AS |

Other combinations of AS roles are not supported by MTAS, and the behavior for such co-located AS roles are not defined.





3 Co-Location of AS Roles Configuration

The following sections describe how to configure co-locations of AS roles.

3.1 Node Level Functions Configuration

When different AS roles are co-located on one physical MTAS node, some parts of the MTAS configuration data are shared between the different co-located AS roles. Configuration data that is shared between all AS roles on the MTAS node are referred to as node level configuration data.

The MTAS node level configuration data is shown in Figure 1.

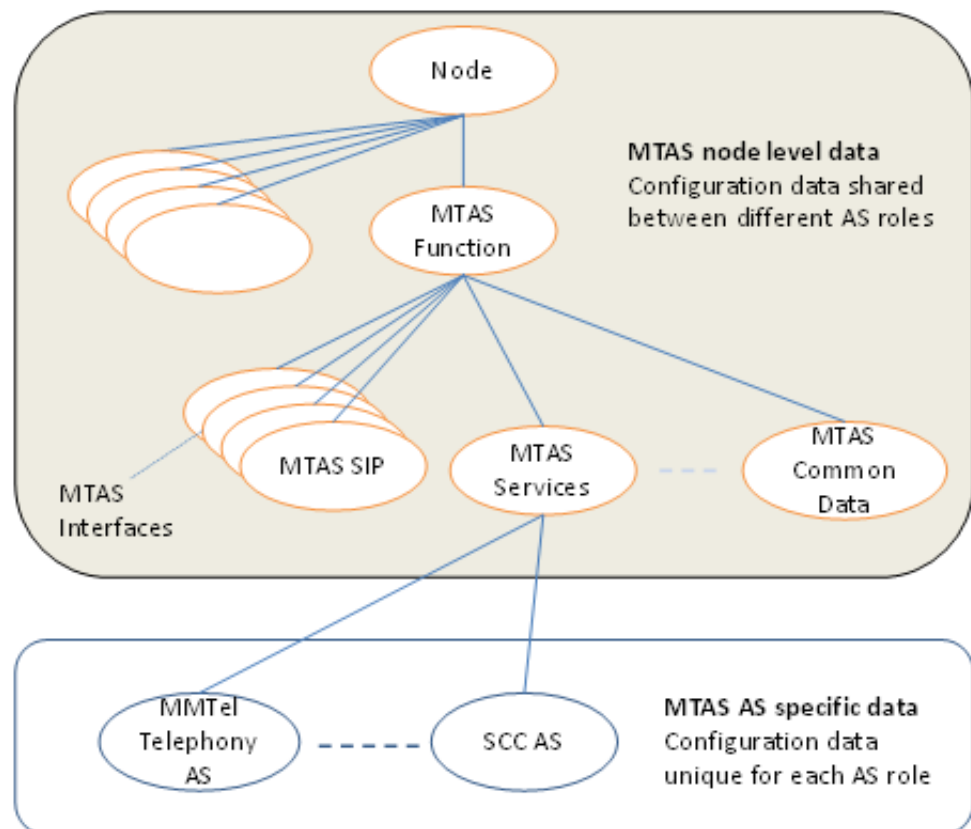


Figure 1 Overview of MTAS Node Level Configuration Data

Unless something else is stated for a specific MTAS configuration parameter, the data that is shared between the AS roles is the data belonging to the non-AS specific parts of the MTAS node configuration.

In general, the MTAS node level configuration data includes configuration data for the following:

- MTAS external interfaces
- MTAS services common data
- MTAS common data

3.2 AS Role-Specific Functions Configuration

The configuration data for a specific AS role is configured in the applicable Managed Object (MO) under MTAS Services, as shown in Figure 2.

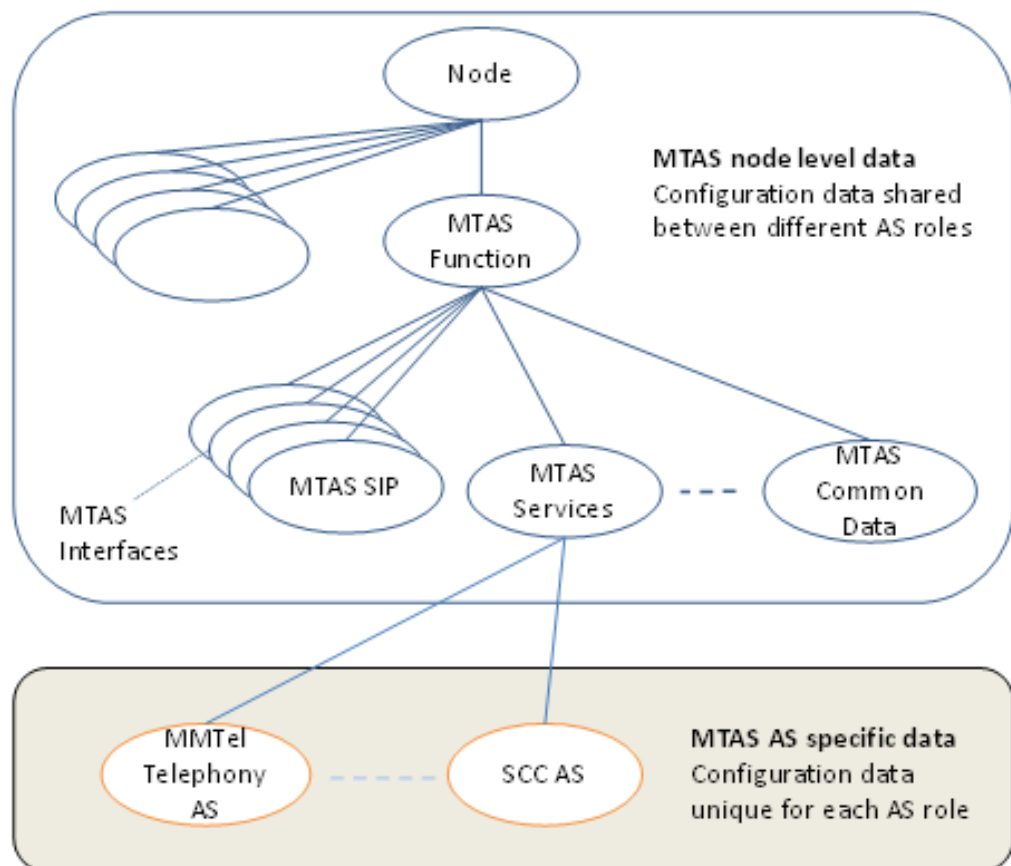


Figure 2 Overview of MTAS-Specific Functions Configuration Data Structure

The data configured for a specific AS role is not used by any other AS role on the MTAS node.



3.3 Service Data Configuration

This section describes how to configure the service data.

AS roles depending on service provisioning per subscriber have independent service data.

The subscriber level service configuration can be done either by the operator or by the user.

3.3.1 Operator Subscription Level Service Configuration

Operator subscription level service configuration pertains to the data set using the Customer Administration Interface Third Generation (CAI3G) protocol. For more information, see [MTAS CAI3G Interface](#).

3.3.2 User Subscription Level Service Configuration

User subscription level service configuration pertains to the Ut reference point. For more information, see [MTAS Ut Interface](#).





4 Performance Management

The MTAS performance measurements are reported on a node level, on a service level, on a functional level, and on an interface level, see [MTAS Performance Measurements](#).

For the SIP interface, there are separate measurements for the MMTel Telephony AS and SCC AS. In other areas, it is not possible to get separate measurements per AS role.





5 Fault Management

For information on the alarms applicable for each MTAS service and MTAS interface function, see [MTAS Alarm List](#).