vMTAS Parameter Value Selection Guideline

MTAS

USER GUIDE

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Contents

1 Introduction

This document describes how to select the value of parameters categorized as “Solution Integration” in a multi-vendor deployment scenario.

1.1 Prerequisites

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

2 Overview

The criteria for a parameter to be classified as Solution Integration dependent are explained in Table 1.

Table 1 Criteria for Solution Integration Parameter

Criteria	Description
Internode dependencies	The parameter value selection depends on other parameters in other Network Elements. That is a parameter setting coordination is required.
Intranode dependencies	The parameter value selection depends on other parameters within the node. That is a parameter setting coordination is required.
Characteristics impact	The parameter value selection has a visible impact on the characteristics of the Network Element (capacity, latency, and so on) in a way that is not reasonable to foresee.
Other considerations	The parameter value selection has a large importance for achieving a requested system behavior, for example, redundancy.

Parameters that are read-only but affect System Integration activities are also categorized as Solution Integration.

3 Parameters

This section describes the parameters categorized as Solution Integration and explains more in detail how the System Integration criteria are affected.

For more information about the parameters, refer to Managed Object Model (MOM).

3.1 Mtas3pty

This section describes the Three Party (3PTY) parameters.

3.1.1 mtas3ptyAdministrativeState

This attribute defines the administrative state of the `Mtas3pty` Managed Object (MO), and can be used to activate and deactivate the 3PTY function.

Internode dependencies	Not applicable
Intranode dependencies	Going from `Locked` to `Unlocked` requires that the `mtas3ptyFactoryUri` attribute is set.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.1.2 mtas3ptyFactoryUri

This attribute defines the 3PTY factory URI (subdomain-based Public Service Identity (PSI)), consisting of a username and a subdomain.

Internode dependencies	A change of this attribute can require additional network routing configuration (Domain Name System Server (DNS), Call Session Control Function (CSCF)).
Intranode dependencies	Not applicable
Characteristics Impact	Not applicable
Other considerations	Not applicable

3.2 MtasSpecializedMediaResource

This section describes the Specialized Media Resource parameters.

3.2.1 mtasSpecializedMediaResourceName

This attribute specifies the hostname or the IP address and optional port for routing SIP messages toward the specialized external media resource.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.3 MtasAoc

This section describes the Advice of Charge (AoC) parameters.

3.3.1 mtasAocDuringTimer

This attribute defines the time interval between AoC-During updates during a session.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Overall system performance is likely affected if this attribute is set to a low value and there is a high take-up of AOC-D service by the users. Be cautious about configuring the attribute to a value that is less than 30 seconds.
Other considerations	Not applicable

3.4 MtasCat

This section describes the Customized Alerting Tones (CAT) parameters.

3.4.1 mtasCatTimer

This attribute specifies the number of seconds that the MTAS waits for SIP response messages from the served user before initiating the CAT service.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.5 MtasCc

This section describes the Communication Completion attributes.

3.5.1 mtasCcT2RequestOperationTimer

This attribute is used to set the value of the Communication Completion request operation timer T2, as defined by the following specification:3GPP 24.642.

Internode dependencies	The timer is run in the originating MTAS after a Communication Completion request invocation. The value specifies the maximum time allowed to receive a notification from the terminating Communication Completion monitor, that the request has been accepted or rejected.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.5.2 mtasCcT4RecallTimer

This attribute is used to set or change the value of the Communication Completion recall timer T4, as defined by the following specification:3GPP 24.642.

Internode dependencies	The timer is run in the originating MTAS at the beginning of the 3PCC sequence for Communication Completion recall. The value specifies the maximum time to wait before receiving an answer from the caller.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.5.3 mtasCcT8DestIdleGuardTimer

This attribute is used to set or change the value of the Communication Completion Destination Idle Guard timer T8, as defined by the following specification:3GPP 24.642.

Internode dependencies	The timer is run in the terminating MTAS when there is at least one queued Call Completion request and after the called party becomes available to receive another incoming call. The value specifies the minimum time allowed for the called party to make another outgoing call before receiving another incoming call.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.5.4 mtasCcT9RecallTimerOffset

This attribute is used to set or change the value of the Communication Completion recall timer T9, except that it defines the offset value from timer `mtasCcT4RecallTimer`, as defined by the following specification:3GPP 24.642

This attribute defines the service context to be used for charging.

Internode dependencies	The `mtasCcT4RecallTimer` + `mtasCcT9RecallTimer Offset` value is run in the terminating MTAS when a request in the Monitor queue is ready for recall. The value specifies the maximum time to wait before receiving either the Communication Completion call from the caller, or an Unsubscribe request related to the request from the originating side agent.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.5.5 mtasCcbsT3ServiceDurationTimer

This attribute defines the value of the Call Completion Busy Subscriber service duration timer T3.

Note: This is the timer that is run in the originating MTAS after a successful Call Completion invocation request and specifies the maximum time allowed for a request to remain incompleted in the agent queue.

The `mtasCcbsT3ServiceDurationTimer` + `mtasCcbsT7ServiceDurTi merOffset` value is run in the terminating MTAS after a successful Call Completion invocation request and specifies the maximum time allowed for a request to remain incompleted in the monitor queue.

Internode dependencies	The `mtasCcbsT3ServiceDurationTimer` must be smaller value than the MGC default Call Completion T7 Timer.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.5.6 mtasCcbsT7ServiceDurTimerOffset

This attribute defines the value of the Call Completion Busy Subscriber service duration timer T7, except that it defines the offset value from timer `mtasCcT3ServiceDurationTimer`.

Note: The `mtasCcbsT3ServiceDurationTimer` + `mtasCcbsT7ServiceDurTimerOffset` value is run in the terminating MTAS after a successful Call Completion invocation request and specifies the maximum time allowed for a request to remain incompleted in the monitor queue.

Internode dependencies	The `mtasCcbsT3ServiceDurationTimer` + `mtasCcbsT7ServiceDurTimerOffset` must be larger value than the MGC default Call Completion T3 Timer.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.5.7 mtasCcnrT3ServiceDurationTimer

This attribute defines the value of the Call Completion No Reply service duration timer T3.

Note: This is the timer that is run in the originating MTAS after a successful Call Completion invocation request and specifies the maximum time allowed for a request to remain incompleted in the agent queue.

Internode dependencies	Timers T3 and T7 for Ccnr must be set to the same value as Timers T3 and T7 for Ccbs.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.5.8 mtasCcnrT7ServiceDurTimerOffset

This attribute defines the value of the Call Completion No Reply service duration timer T7, except that it defines the offset value from timer `mtasCcT3ServiceDurationTimer`.

Internode dependencies	Timers T3 and T7 for Ccnr must be set to the same value as Timers T3 and T7 for Ccbs.
Intranode dependencies	Not applicable

Characteristics impact	Not applicable
Other considerations	Not applicable

3.6 MtasCharging

This section describes the Charging attributes.

3.6.1 mtasChargingProfileCreditLimitReachedAnnouncementName

This attribute defines the announcement package for credit limit reached during a session. The attribute is to be used as key in `MtasGaAnn`.

Internode dependencies	Not applicable
Intranode dependencies	An instance of `MtasGaAnn` with this string must exist.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.6.2 mtasChargingProfileLowCreditMidSessionAnnouncementName

This attribute defines the announcement package for a low credit mid-session announcement. The attribute is to be used as key in `MtasGaAnn`.

Internode dependencies	Not applicable
Intranode dependencies	An instance of `MtasGaAnn` with this string must exist.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.6.3 mtasChargingProfileLowCreditPreSessionAnnouncementName

This attribute defines the announcement package for a low credit presession announcement. The attribute must be used as key in `MtasGaAnn`.

Internode dependencies	Not applicable
Intranode dependencies	An instance of `MtasGaAnn` with this string must exist.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.6.4 mtasChargingProfileNoCreditAnnouncementName

This attribute defines the announcement package for no credit during setup. The attribute is to be used as key in `MtasGaAnn`.

Internode dependencies	Not applicable
Intranode dependencies	An instance of `MtasGaAnn` with this string must exist.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.6.5 mtasChargingProfileVeryLowCreditMidSessionAnnouncementName

This attribute defines the announcement package for low credit mid-session announcement. The attribute is to be used as key in `MtasGaAnn`.

Internode dependencies	Not applicable
Intranode dependencies	An instance of `MtasGaAnn` with this string must exist.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.6.6 mtasChargingProfileVeryLowCreditPreSessionAnnouncementName

This attribute defines the announcement package for low credit presession announcement. The attribute is to be used as key in `MtasGaAnn`.

Internode dependencies	Not applicable
Intranode dependencies	An instance of `MtasGaAnn` with this string must exist.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.6.7 mtasChargingProfileServContext

This attribute defines the service context to be used for charging. The attribute does not include the interface version information.

Internode dependencies	The value used in the Service-Context-Id Attribute-Value Pair (AVP) must be recognized by the Charging Server at the other end of the Rf and Ro interfaces. The string used in the Service-Context-Id AVP is composed of an interface version number (6 or 7), a ‘.’, and the string specified in the `mtasChargingProfileServContext` attribute.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.6.8 mtasChargingProfileServContextOperatorId

This attribute defines the Mobile Network Code (MNC). The Mobile Country Code (MCC) value which identifies the operator, is to be used in the Service-Context-Id AVP.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.6.9 mtasChargingTxTimer

This attribute defines the length of the Tx Timer, as defined in the following specification:RFC 4006.

Internode dependencies	Not applicable
Intranode dependencies	The Serving CSCF (S-CSCF) uses a 2 s configurable `INVITE` response timer, so if a final or provisional response is not received within 2 s the S-CSCF cancels the session.
Characteristics impact	The Tx Timer is run while waiting for a response to a Credit Control Request (CCR) Initial Request or a CCR Update Request. Value `0` indicates that the Tx Timer is not applicable, that is when there is no limit to the waiting time.
Other considerations	Not applicable

3.6.10 mtasChargingAcrBackUpFiles

This attribute defines the number of files used for backing up Accounting-Request (ACR) messages for each buffer.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	The number of files influences the rate at which MTAS can resend buffered ACR messages when communication is resumed.
Other considerations	Not applicable

3.7 MtasCommonData

This section describes the common configuration data in an MTAS node.

3.7.1 mtasCommonDataAccNetwTypeAccInfoMediaSite

This attribute stores the key of an existing `mtasMrfDistributionSite` MO representing an MRF site connected to the associated Access Info.

Internode dependencies	Not applicable
Intranode dependencies	Can only be changed when the CSI subsystem is locked.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.8 MtasCsi

This section describes the CAMEL Subscription Information (CSI) attributes.

3.8.1 mtasCsiGlobalTitle

This attribute defines the subsystem number that the MTAS uses in the SS7 network when the MTAS has the role of a Service Switching Function (SSF).

Internode dependencies	Not applicable
Intranode dependencies	Can only be changed when the CSI subsystem is locked.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.8.2 mtasCsiScfSubsystemNumber

This attribute is the Global Title that the MTAS is assigned in the SS7 network.

Internode dependencies	Not applicable
Intranode dependencies	Can only be changed when the CSI subsystem is locked.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.8.3 mtasCsiSsfSubsystemNumber

This attribute defines the subsystem number that the MTAS uses in the SS7 network when the MTAS has the role of a Service Control Function (SCF).

Internode dependencies	Not applicable
Intranode dependencies	Can only be changed when the CSI subsystem is locked.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.9 MtasConf

This section describes the Conference attribute.

3.9.1 mtasConfScscfIscPortNum

This attribute defines the IMS Service Control (ISC) port on the originating S-CSCF, where all the requests from the MTAS conference server are routed to, when the focus is acting as originating UA.

Internode dependencies	All S-CSCF that use the MTAS conference server node must have the same value for the ISC port number.
Intranode dependencies	Change effective at new dial-out, which is sending a `SIP INVITE` message to invite a user to a conference.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.10 MtasCw

This section describes the Communication Waiting (CW) attribute. The attribute controls several specific features which do not form part of the generic service.

3.10.1 mtasCwOperateMode

This specifies the mode to be used when CW is used.

Internode dependencies	Not applicable
Intranode dependencies	This attribute is only to be modified when the MTAS is initially deployed. Modification to the following system deployment results in modified message sequences which can affect traffic.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.11 MtasDialPlan

This section describes the Dial Plan attribute.

3.11.1 mtasDialPlanAdministrativeState

The attribute is used to set or change the administrative state of the Dial Plan service.

When unlocked, the Dial Plan service restricts served users to be able to only establish sessions to addresses allowed by the Dial Plan. When locked, the Dial Plan service does not restrict the addresses with which users can establish sessions.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.12 MtasDnm

This section describes the Dialed Number Mapping (DNM) service parameters.

3.12.1 mtasLocationFunctionRsInterface

This attribute defines if the Dialed Number Mapping function in MTAS accesses location data over the RS (SIP-based) interface or the service accesses the location data directly.

Internode dependencies	Not applicable
Intranode dependencies	It can only be set to **0** (SIP Interface used) if `mtasLocationFunctionAddress` is set.
Characteristics impact	Setting the attribute to **0** (SIP Interface used) can slightly raise the processor load and the call latency because the location data is fetched using signaling toward another node (or same node in case of collocation).
Other considerations	Not applicable

3.12.2 mtasLocationFunctionAddress

This attribute defines the fully qualified domain name of the Geo-Location Server.

Internode dependencies	Not applicable
Intranode dependencies	The value of this parameter can only be removed if the `mtasLocationFunctionRsInterface` is set to **1** (Direct database access).
Characteristics impact	Not applicable
Other considerations	Not applicable

3.12.3 mtasSipRsPort

This attribute defines the port number on which the Geo-Location Server listens to incoming requests.

Internode dependencies	The port number must be equal to the port defined in the `mtasLocationFunctionAddress` parameter if the Geo-Location Server is an external node.
Intranode dependencies	The `MtasFunction` administrative state must be locked to allow change. Change effective at activation (Unlock) of `MtasFunction`. The port number must be equal to the port defined in the `mtasLocationFunctionAddress` parameter if the Geo-Location Server is collocated with the MTAS node.

Characteristics impact	Not applicable
Other considerations	To open traffic for a new port number, remove VIP Mappings for the old UDP and TCP port number and then insert VIP Mappings with the same data for the new UDP and TCP port number.

3.13 MtasMrController

This section describes the Media Resource Function Controller (MRFC) attributes.

3.13.1 mtasMrControllerBaseUrl

This attribute defines the base URL for the contents to be retrieved and played.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.13.2 mtasMrControllerRoute

This attribute is used to set whether the External MRFC is directly routed to the MTAS, or through the CSCF.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.14 MtasFunction

This section describes the Function attributes.

3.14.1 mtasFunctionBlackListTime

This attribute specifies the time period in seconds while an IP address of a non-SIP server is in the blacklist.

Internode dependencies	While a server is on the blacklist, it is unreachable for initial requests.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.14.2 mtasFunctionInvalidAddress

This attribute defines the string used for indicating an invalid or unspecified address in case of IPv6. Typical examples are ‘‘this.is.invalid’’ or ‘‘0:0:0:0:0:0’’ (‘‘::’’ in compressed form).

Internode dependencies	Not applicable
Intranode dependencies	The `mtasFunctionAdministrativeState` must be locked to allow a change.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.15 MtasFsf

This section describes the Flexible Service Format Selection (FSFS) attribute.

3.15.1 mtasFsfAdministrativeState

This attribute defines the administrative state of the FSFS service.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable

Characteristics impact	Not applicable
Other considerations	Not applicable

3.16 MtasFsfPattern

This section describes the FSFS pattern attributes.

3.16.1 mtasFsfPatternSessionCase

This attribute defines the session case the pattern needs to match for an incoming `INVITE` message to trigger the FSFS service.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.16.2 mtasFsfPatternHeaderNames

This attribute defines the headers in the incoming `INVITE` message where the pattern is applied.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.16.3 mtasFsfPatternRegularExpression

This attribute defines the regular expression used for matching one attribute in the incoming `INVITE` message. The session case and header names are specified by other attributes in the same object.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.16.4 mtasFsfPatternRemoveFlag

This attribute defines if the matched attribute is removed from the header in the `INVITE` message after the match or not.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.16.5 mtasFsfPatternServiceFormatName

This attribute defines the FSFS service format to be used when there is a match.

Internode dependencies	Not applicable
Intranode dependencies	The corresponding `MtasFsfServiceFormat` MO specified by this attribute must exist.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.16.6 mtasFsfPatternMultipleHeadersHandling

This attribute specifies the algorithm being used by the FSFS service to evaluate the headers.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.17 MtasFsfServiceFormat

This section describes the FSFS service format attribute.

3.17.1 mtasFsfServiceFormatSuppressedServices

This attribute defines the suppressed services.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.18 MtasGm

This section describes the Gateway Model (GM) attribute.

3.18.1 mtasGmAdministrativeState

This attribute defines the administrative state of the GM service. When unlocked, GM is provided to all subscribers. When locked, it is not provided.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable

Characteristics impact	Not applicable
Other considerations	Not applicable

3.19 MtasHold

This section describes the Hold attribute.

3.19.1 mtasHoldBandwidthOptimizationMode

This attribute defines whether bandwidth optimization is to be used for Hold.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	The bandwidth reserved for held sessions can either be reused for new calls or be reserved for the held sessions.
Other considerations	Not applicable

3.20 MtasImrnRange

This section describes the IP Multimedia Routing Number (IMRN) Range attributes.

3.20.1 mtasImrnRangeFirst

This attribute specifies the first number in an IMRN range.

Internode dependencies	Not applicable
Intranode dependencies	The number must be lower than `mtasImrnRangeLast`.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.20.2 mtasImrnRangeLast

This attribute specifies the last number in an IMRN range.

Internode dependencies	Not applicable
Intranode dependencies	The number must be greater than `mtasImrnRangeFirst`.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.21 MtasMmt

This section describes the Multimedia Telephony attributes.

3.21.1 mtasMmtPresenceResponseTimer

This attribute defines the time that the MTAS waits for a response to a `SIP SUBSCRIBE` message sent to the Presence Agent. This is performed to obtain a served users presence status.

Internode dependencies	Not applicable
Intranode dependencies	The attribute is also used as the duration of the time that the MTAS waits for a `SIP NOTIFY` message if it receives a 2xx response to the `SIP SUBSCRIBE` message.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.21.2 mtasMmtQosPreconditionTimer

This attribute defines the time limit imposed to achieve the Quality of Service (QoS) precondition when attempting to play an announcement in early media, see the following specification:RFC 3312.

Internode dependencies	Not applicable
Intranode dependencies	The value `0` has the special meaning that no timer is used to supervise the achievement of preconditions.

Characteristics impact	Not applicable
Other considerations	Not applicable

3.21.3 mtasMmtMaxNumberOfSessions

This attribute defines the maximum number of MMTel sessions that a Public User Identity (PUI) can have.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Limits the maximum number of MMTel sessions that a PUI can have.
Other considerations	Not applicable

3.21.4 mtasMmtNoReplyTimer

This attribute defines the `INVITE` transaction time-out timer.

Internode dependencies	Recommended to be aligned with the CSCF and Session Border Gateway (SBG) settings.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.21.5 mtasMmtNpliOriginating

This attribute defines the policy for originating NPLI retrieval in MMTel AS on incoming `INVITE` without valid CGI/ECGI in network PANI. The access domain and node used in the NPLI retrieval from HSS is given by the following data and in that order:

— The call case

— Registration data

— Default setting, if no other data available about the served user than the default setting as defined by this CM attribute is used.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.21.6 mtasMmtNpliTerminating

This attribute defines the policy for terminating NPLI retrieval in MMTel AS on incoming 18x/200 response on (re-)INVITE without valid CGI/ECGI in network PANI. The access domain and node used in the NPLI retrieval from HSS is given by the following data and in that order:

— The call case

— Registration data

— Default setting, if no other data available about the served user than the default setting as defined by this CM attribute is used.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.22 MtasMpController

This section describes the MRFC attributes.

3.22.1 mtasMpControllerMGCOriginatedPendingLimit

This attribute defines the H.248.1 E 2.1 Base Root package attribute MGCOriginatedPendingLimit, possible to be set by the MRFC.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Once this limit is exceeded, the MRFC must issue a `TransactionReply` with Error 506 (Number of `TransactionPendings` exceeded).

3.22.2 mtasMpControllerNormalMGCExecutionTime

This attribute defines the H.248.1 E 2.1 Base Root package attribute `normalMGCExecutionTime` for the MRFC.

Internode dependencies	Defines the interval within which the Media Resource Function Processor (MRFP) is to expect a response to any transaction from the MRFC (exclusive of network delay). The H.248.1 E 2.1 attribute `MGCProvisionalResponseTimerValue` is implicitly set to `normalMGCExecutionTime` + 500 ms. The attribute is possible to set by the MRFC to indicate the interval within which the MRFP is to expect a response to any transaction from the MRFC including network delay.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.22.3 mtasMrfPlaycolAnnouncementsURI

This attribute specifies the URI path for the Playcol announcement files on the MRFP. The attribute specifies both the format and content of the `ip` attribute of the Playcol package, as described in the following specification:H.248.9.

Internode dependencies	This attribute applies globally to all MRFP interfaces controlled by the MRFC. When this attribute is set to the default value, the `ip` attribute contains only the announcement number using the "simple name" format. For example, `ip="sid=<;xxx>;"`, where xxx is the announcement number. When this attribute is set to a non-default value, the `ip` attribute contains the value of this configuration attribute. Also, all instances of the "$" reserved marker character are replaced with the string representation of the associated announcement number. For example, `mtasMrfPlaycolAnnouncementsURI = "file://opt/playcol/announcements/$.wav"` and the associated announcement number is 123, then `ip = "sid=<;file://opt/playcol/announcements/123.wav>"`.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.22.4 mtasMrfAsrGrammarFileUri

This attribute specifies the full path name for the ASR grammar files. The attribute specifies the content of the `rgid` attribute of the ASR package as described in the following specification:H.248.9 Amendment 1

Internode dependencies	This attribute applies globally to all MRFP interfaces controlled by the MRFC. When this attribute is empty or an empty string, then the `rgid` attribute contains only the grammar file number using the "simple name" format. For example, `ip="sid=<xxx>"`, where xxx is the grammar file number. When this attribute is set to a non-empty value, then the `rgid` attribute contains the value of this configuration attribute. Also, the first instance of the "$" reserved marker character is replaced with the string representation of the associated grammar number. For example, if `mtasMrfAsrGrammarFileUri =http://opt/asr/grammar/$.grxml` and the associated grammar file number is 123, then `rgid="sid=<http://opt/asr/grammar/123.grxml>"`.
Intranode dependencies	Not applicable

Characteristics impact	Not applicable
Other considerations	Not applicable

3.22.5 mtasMrfServiceLocation

This attribute defines if the internal or External MRFC is used.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.22.6 mtasMpControllerIpVersion

This attribute defines how to select the IP version to use for the interface Mp.

Internode dependencies	Not applicable
Intranode dependencies	The `mtasFunctionAdministrativeState` must be locked and the `mtasMrfpNodeAdministrativeState` for all the MRFPs must be locked to allow change.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.22.7 mtasMrfSegmAnnProvSegmUri

This attribute defines the URI path in HTTP scheme for the provisioned segments of the segmented announcements. For a provisioned segment, using language selector is allowed only in those cases it is specified in HTTP URL format. The selector can be provided in the query part only. By the MTAS, provisioned segments are always defined by using the HTTP: URI scheme, no matter if the language selector is used or not.

This attribute applies globally to all MRFP interfaces controlled by the MRFC.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.23 MtasMrfpNode

This section describes the MRFP attributes.

3.23.1 mtasMrfpNodeMGOriginatedPendingLimit

This attribute defines the H.248.1 E 2.1 Base Root package attribute `MGOriginatedPendingLimit`.

Internode dependencies	Indicates the number of `TransactionPendings` that can be received from the MRFP, before the MRFC can assume that the transaction has failed.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Once this limit is exceeded, the MRFP must issue a `TransactionReply` with Error 506 (Number of `TransactionPendings` exceeded). The Transaction Pending restarts the timer with `MGProvisionalResponseTimerValue`.

3.23.2 mtasMpControllerNormalMGCExecutionTime

This attribute defines the H.248.1 E 2.1 Base Root Package `NormalMGExecutionTime` timer.

Internode dependencies	Indicates the interval within which the MRFC expects a response to any transaction from the MRFP (exclusive of network delay). Upon expiry of the `NormalMGExecutionTime`, the MRFP sends a provisional response to the MRFC. The H.248.1 E 2.1, `MGProvisionalResponseTimerValue` is implicitly set to `NormalMGExecutionTime` + 500 ms. This is set by the MRFC to indicate the interval within which the MRFC must expect a response to any transaction from the MRFP including network delay.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.24 MtasNaAnn

The `MtasNaAnn` MO provides configuration objects for Network Announcement service in an MTAS node.

For a description of the attribute, refer to Managed Object Model (MOM).

3.24.1 mtasNccCapPcAnnHelpUri

This attribute defines the URI path for the Playcol announcement files on the MRFP. It is read when CAMEL Application Support (CAP) operation Prompt and Collect parameter Error Treatment is set to `help`.

Internode dependencies	Not applicable
Intranode dependencies	`mtasNaAdministrativeState` need to be unlocked to activate functionality
Characteristics impact	MRF dimensioning consideration must be taken before activating NA on SIP responses that can cause mass signaling to the MRF resources. For instance SIP 500 and 503 responses that are received in network overload conditions.
Other considerations	Not applicable

3.25 MtasNcc

This section describes the Northbound Call Control (NCC) attribute.

3.25.1 mtasNccCapPcAnnHelpUri

This attribute defines the URI path for the Playcol announcement files on the MRFP. It is read when CAMEL Application Support (CAP) operation Prompt and Collect parameter Error Treatment is set to `help`.

Internode dependencies	Not applicable
Intranode dependencies	Need to before `the mtasNccAdministrativeState` attribute can be set to `Unlocked`.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.26 MtasParlayX

This section describes the Parlay X attribute.

3.26.1 mtasParlayXIpVersion

The attribute defines how to select the IP version to use for interface Px.

Internode dependencies	Not applicable
Intranode dependencies	The `mtasFunctionAdministrativeState` must be locked to allow a change.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.27 MtasSds

This section describes the Service Domain Selection attributes.

3.27.1 mtasSdsCapErrorHandling

This attribute defines which error handling policy to use on CAP InitialDP requests that cannot be fulfilled by SCC AS.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.27.2 mtasSdsImrnLifetime

This attribute specifies the period that the SCC AS accepts an `INVITE` addressed to an IMRN it has allocated for Originating Service Domain Selection (O-SDS). The period starts when the IMRN is allocated. The SCC AS must not reuse an IMRN for which it has not received an `INVITE` or for which the timer has not expired.

Internode dependencies	Not applicable
Intranode dependencies	The timer must be set to a value greater than the ‘‘latest expected retransmitted Invite from Interrogating CSCF (I-CSCF)’’.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.27.3 mtasSdsImrnPrefix

This attribute specifies the IMRN prefix that is used when returning the IMRN as response to a CAP InitialDP request from gsmSSF for Terminating Service Domain Selection (T-SDS). The IMRN is in this case defined as `calledPartyNumber` prefixed with this IMRN prefix.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable

Characteristics impact	Not applicable
Other considerations	Not applicable

3.27.4 mtasSdsCalledPartyNumberPreference

This attribute defines the policy for selecting called party number in CAP InitialDP for originating service domain selection.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.27.5 mtasSdsTAsName

This attribute specifies the name of the T-SDS AS that is matched toward the top route header in the incoming `INVITE` message for triggering the T-SDS service.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.27.6 mtasSdsTCsrnPrefix

This attribute specifies the CS Routing Number prefix to be inserted to the req-URI of the incoming `INVITE` message when perform T-SDS service.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable

Characteristics impact	Not applicable
Other considerations	Not applicable

3.28 MtasSh

This section describes the attributes used by the Sh interface.

3.28.1 mtasShIfMmTelServiceInd

This attribute defines the service indication string, used to identify the transparent data containing the service data over the Sh interface.

Internode dependencies	New registration or new session, requiring Home Subscriber Server (HSS) involvement, for registered and unregistered subscriber.
Intranode dependencies	The value of this attribute must not be the same value of `mtasShIfMmtelGroupServiceInd`.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.28.2 mtasShIfMmTelGroupServiceInd

This attribute defines the service indication string used to identify the transparent data containing the MMTel group service data over the Sh Interface.

Internode dependencies	New registration or new session, requiring HSS involvement, for registered and unregistered subscriber.
Intranode dependencies	The value of this attribute must not be the same value of `mtasShIfMmtelServiceInd`.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.28.3 mtasShIfMmtelServiceNumberInd

This attribute specifies the service indication string used to identify the transparent data containing the MMTel Service Number data over the Sh Interface.

Internode dependencies	Not applicable
Intranode dependencies	The value of this attribute must not be the same value of `mtasShIfMmtelServiceInd`, `mtasShIfMmtelGroupServiceInd`, `mtasShIfMmtelServiceProfileInd`, or `mtasShIfMmtelSchedConfInd`.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.28.4 mtasShIfMmtelServiceProfileInd

This attribute defines the service indication string used to identify the transparent data containing the MMTel Service Profile data over the Sh Interface.

Internode dependencies	Not applicable
Intranode dependencies	The value of this attribute must not be the same value of `mtasShIfMmtelServiceInd`, `mtasShIfMmtelGroupServiceInd`, `mtasShIfMmtelServiceNumberInd`, or `mtasShIfMmtelSchedConfInd`.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.28.5 mtasShIfStServiceInd

This attribute defines the service indication string used to identify the transparent data containing the ST service data over the Sh-Interface.

Internode dependencies	HSS must be aware of this string.
Intranode dependencies	The value of this attribute must be unique within all service indication strings.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.28.6 mtasShIfStReferralInd

This attribute defines the service indication string used to identify the transparent data containing the ST referral data over the Sh-Interface.

Internode dependencies	HSS must be aware of this string.
Intranode dependencies	The value of this attribute must be unique within all service indication strings.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29 MtasSip

This section describes the attributes used by the SIP interface.

More detailed description of the SIP attributes can also be found in the following document:MTAS SIP Management Guide.

3.29.1 mtasSipCnamePort

This attribute defines the port on which MTAS listens for SIP messages from the Calling Name Server.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.2 mtasSipFailoverTimeInvite

This attribute specifies the number of seconds that the MTAS is waiting for SIP response messages from the I-CSCF or External MRFC before trying next server address received from DNS.

Internode dependencies	Not applicable
Intranode dependencies	The value of this attribute cannot be larger than 64×T1 where T1 is the value of `mtasSipTimerT1`.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.3 mtasSipFailoverTimeNonInvite

This attribute specifies the number of seconds that the MTAS is waiting for SIP response messages from the I-CSCF or External MRFC before trying next server address received from DNS.

Internode dependencies	Not applicable
Intranode dependencies	The value of this attribute cannot be larger than 64×T1 where T1 is the value of `mtasSipTimerT1`.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.4 mtasSipTrafficOriginatingIpPort

This attribute defines the port number on which MTAS listens for originating traffic.

Internode dependencies	The port number must be equal to the trigger information stored in the HSS.
Intranode dependencies	MtasFunction administrative state must be locked to allow change. Change effective at activation (Unlock) of MtasFunction.
Characteristics impact	Not applicable
Other considerations	To open traffic for a new port number, remove VIP Mappings for the old UDP and TCP port number and then insert VIP Mappings with the same data for the new UDP and TCP port number.

3.29.5 mtasSipTrafficTerminatingIpPort

This attribute defines the port number on which MTAS listens for terminating traffic.

Internode dependencies	The port number must be equal to the trigger information stored in the HSS.
Intranode dependencies	MtasFunction administrative state must be locked to allow change.
Characteristics impact	Not applicable
Other considerations	To open traffic for a new port number, remove VIP Mappings for the old UDP and TCP port number and then insert VIP Mappings with the same data for the new UDP and TCP port number.

3.29.6 mtasSipTrafficTermUnregIpPort

This attribute defines the port number on which the MTAS listens for terminating unregistered traffic.

Internode dependencies	The port number must be equal to the trigger information stored in the HSS.
Intranode dependencies	MtasFunction administrative state must be locked to allow change. Change effective at activation (Unlock) of MtasFunction.
Characteristics impact	Not applicable
Other considerations	To open traffic for a new port number, remove VIP Mappings for the old UDP and TCP port number and then insert VIP Mappings with the same data for the new UDP and TCP port number.

3.29.7 mtasSipPresencePort

This attribute defines the port on which the MTAS listens for SIP messages from the Presence Server.

Internode dependencies	Not applicable
Intranode dependencies	MtasFunction administrative state must be locked to allow change.

Characteristics impact	Not applicable
Other considerations	To open traffic for a new port number, remove the VIP Mappings for the old UDP and TCP port number and then insert VIP Mappings with the same data for the new UDP and TCP port number.

3.29.8 mtasSipPsiPort

The port number on which the MTAS listens for PSI traffic.

More detailed description of this attribute can also be found in the following document: Managed Object Model (MOM).

Internode dependencies	The port number must be equal to the port number configured in the DNS. The SIP messages with a PSI identifying a service on the own node are routed to this port. The packets are routed as specified in http://www.ietf.org/rfc/rfc3263.txt, not as a result of triggers.
Intranode dependencies	MtasFunction administrative state must be locked to allow change. Change effective at activation (Unlock) of MtasFunction.
Characteristics impact	Not applicable
Other considerations	To open traffic for a new port number, remove VIP Mappings for the old UDP and TCP port number and then insert VIP Mappings with the same data for the new UDP and TCP port number.

3.29.9 mtasSipSccOrigPort

This attribute defines the port number on which the SCC AS listens for originating traffic.

Internode dependencies	The port number must be equal to the trigger information stored in HSS.
Intranode dependencies	The `mtasFunctionAdministrativeState` must be locked to be able to change the originating port. This attribute must not have the same value as any other attribute that defines a port number.

Characteristics impact	Not applicable
Other considerations	To open traffic for a new port number, remove VIP Mappings for the old UDP and TCP port number and then insert VIP Mappings with the same data for the new UDP and TCP port number.

3.29.10 mtasSipSccOrigUnregPort

This attribute defines the port number on which the SCC AS listens for originating unregistered traffic.

Internode dependencies	The port number must be equal to the trigger information stored in the HSS.
Intranode dependencies	The `mtasFunctionAdministrativeState` must be locked, to be able to change the originating port. This attribute must not have the same value as any other attribute that defines a port number.
Characteristics impact	Not applicable
Other considerations	To open traffic for a new port number, remove VIP Mappings for the old UDP and TCP port number and then insert VIP Mappings with the same data for the new UDP and TCP port number.

3.29.11 mtasSipSccTermPort

This attribute defines the port number on which the SCC AS listens for terminating traffic.

Internode dependencies	The port number must be equal to the trigger information stored in the HSS.
Intranode dependencies	The `mtasFunctionAdministrativeState` must be locked, to be able to change the originating port. This attribute must not have the same value as any other attribute that defines a port number.
Characteristics impact	Not applicable
Other considerations	To open traffic for a new port number, remove VIP Mappings for the old UDP and TCP port number and then insert VIP Mappings with the same data for the new UDP and TCP port number.

3.29.12 mtasSipSccTermUnregPort

This attribute defines the port number on which the SCC AS listens for terminating unregistered traffic.

Internode dependencies	The port number must be equal to the trigger information stored in the HSS.
Intranode dependencies	The `mtasFunctionAdministrativeState` must be locked, to be able to change the originating port. This attribute must not have the same value as any other attribute that defines a port number.
Characteristics impact	Not applicable
Other considerations	To open traffic for a new port number, remove VIP Mappings for the old UDP and TCP port number and then insert VIP Mappings with the same data for the new UDP and TCP port number.

3.29.13 mtasSipTimerT1

This attribute defines a timer where T1 is an estimate of the SIP signaling Round-Trip Time, refer to Section 17.1.1.2 in RFC3261.

Internode dependencies	Nearly all the SIP transaction timers scale with T1, and changing T1 adjusts their values. The T1 timer value must coordinate between the Network Elements. Recommended to be aligned with the CSCF setting to avoid signaling overhead.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.14 mtasSipTcpConnectionTimeout

Outgoing TCP connections are closed if they have been idle since the last time-out. Incoming TCP connections are closed if they have been idle during two time-outs.

Internode dependencies	Not applicable
Intranode dependencies	The values must not be lower than 32 times the value of the T1 timer, described in the `mtasSipTimerT1` attribute. In effect after a time-out.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.15 mtasSipDefaultMinSE

This attribute defines the minimum time accepted by the MTAS between refresh of a session.

Internode dependencies	The value must be aligned with the CSCF, MRFC, and SBG.
Intranode dependencies	The value of the `mtasSipDefaultMinSE` attribute must be less or equal to the value of the `mtasSipDefaultSessExpiry` attribute (`mtasSipDefaultMinSE <= mtasSipDefaultSessExpiry`).
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.16 mtasSipDefaultSessionExpiry

This attribute defines the duration between refresh of a session suggested by MTAS.

Internode dependencies	The value must be aligned with the CSCF, MRFC, and SBG.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.17 mtasSipSdpAns200

This attribute defines handling of repetition of SDP answer in the 200 OK response to the initial INVITE, where the SDP answer has previously been provided in a reliable provisional response.

Internode dependencies	This attribute must not be modified except when the MTAS is initially deployed. Modification of the following system deployment results in modified message sequences which can affect traffic.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.18 mtasSipDisableLargeMsgCheck

This attribute defines if MTAS is to apply a large message check for outgoing SIP messages.

Internode dependencies	Not applicable
Intranode dependencies	The transport protocol must not be changed to TCP if the message is larger than 1300 bytes and the large message check is disabled.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.19 mtasSipTransportInContact

This attribute defines which transport protocol that must be included in the Contact header.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable

Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.20 mtasSipProtocolMtasOrigCall

This attribute defines which transport protocol the MTAS uses for originating sessions.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.21 mtasSipSuperviseAllSessions

This attribute controls if all sessions have at least one dialog supervised by Session-Timers even if not negotiated in the signaling.

Internode dependencies	Not applicable
Intranode dependencies	The attribute has no effect if `mtasSipDefaultSessionExpiry` is set to **0**.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.22 mtasSipStPort

This attribute is the port for receiving all SIP traffic related to ST AS.

Internode dependencies	The port number must be equal to the trigger information stored in the HSS.
Intranode dependencies	The `mtasFunctionAdministrativeState` must be locked to allow change.

Characteristics impact	Not applicable
Other considerations	To open traffic for a new port number, remove VIP Mappings for the old UDP and TCP port number and then insert VIP Mappings with the same data for the new UDP and TCP port number. To change SIP Ports, refer to MTAS SIP Management Guide.

3.29.23 mtasSipCallOutOfBlueRouting

This attribute controls the MTAS behavior for terminating callout of the Blue requests toward a CSCF. If the S-CSCF supports User Unrelated ISC Routing, then the terminating callout of the Blue can be sent to an S-CSCF where the user is not registered. If User Unrelated ISC Routing is not supported, such request is sent to I-CSCF.

Internode dependencies	Not applicable
Intranode dependencies	This attribute must not be set to **1** if `mtasSipIcscfName` is <Empty>.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.24 mtasSipOptionsUri

This attribute defines the list of request URIs that is allowed to be used for the invocation of a function. If the list is empty, then no invocation is done.

Internode dependencies	Not applicable
Intranode dependencies	Must not match any of the other addresses configured in MTAS.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.25 mtasSipIpVersion

The attribute defines how to select the IP version to use for interfaces ISC, Ma, and Mr.

Internode dependencies	Not applicable
Intranode dependencies	The `mtasFunctionAdministrativeState` must be locked to allow change.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.26 mtasSipCancel2FinalResponseTimer

This attribute defines the maximum time allowed after MTAS receives a `200 OK` to a `CANCEL` message and does not receive a final response to the invite transaction.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

This depends on the network T1 settings.

Normally T1 is 0.5 s for a fixed network, but in a mobile network it is recommended that T1 is set to 4 s. Thus, the MTAS timer must also be increased to allow for resending, that is, set to 10 s.

3.29.27 mtasSipIcscfName

This attribute defines the hostname or IP address and optional port for the I-CSCF to be used by the MTAS for routing SIP messages.

Internode dependencies	Not applicable
Intranode dependencies	Dependency between this attribute and `mtasSipCallOutOfBlueRouting`. This attribute must not be allowed to be empty if `mtasSipCallOutOfBlueRouting` is set to **1** (I-CSCF).

Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.28 mtasSipInvite2FinalResponseTimer

This attribute defines the maximum time allowed after MTAS sends an `INVITE` message and does not receive or generate a final response.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.29 mtasSipOriginatingAsChaining

This attribute specifies the behavior for originating services after retargeting of a session, for example, CDIV and FCD, and when initiating callout of blue sessions to a target.

When disabled; after retargeting originating services are started internally in MTAS, AS chaining for originating is not possible. When enabled; after retargeting originating services are started for the served user in a new originating session in MTAS, AS chaining for originating services is then possible.

Internode dependencies	Not applicable
Intranode dependencies	The `mtasSipSupportPServedUserHeader` must be enabled before this attribute is enabled. This attribute must be disabled before the `mtasSipSupportPServedUserHeader` is disabled.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.30 mtasSipSupportPServedUserHeader

This attribute specifies if the P-Served-User headers are to be supported. When supported the served user, must be determined from the P-Served-User header when available. Otherwise the served user is determined from the P-Asserted-Id for originating session and from the Request-URI for terminating session.

Internode dependencies	Not applicable
Intranode dependencies	This attribute must be enabled before the mtasSipOriginatingAsChaining attribute is enabled. The mtasSipOriginatingAsChaining attribute must be disabled before this attribute is disabled.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.29.31 mtasSipAsGenericPort

This attribute defines the generic SIP port, which can be used by MMTel AS, SCC AS, and Network AS on the ISC and Ma interfaces. Using the generic SIP port on the ISC interface requires that the name of the Application Server is specified in the route parameter as= included in the Route header. Also, the P-Served-User header is mandatory to be able to determine which session case to be used for the session. If the generic SIP port is used on the Ma interface (I-CSCF), the AS name and P-Served-User header are not required. The AS and session case to be used for the session is identified by a PSI service.

Internode dependencies	The port number must be equal to the trigger information stored in the HSS.
Intranode dependencies	The mtasFunctionAdministrativeState must be locked, to be able to change the generic SIP port. This attribute must not have the same value as any other attribute that defines a port number.
Characteristics impact	Not applicable
Other considerations	To open traffic for a new port number, remove VIP Mappings for the old UDP and TCP port number and then insert VIP Mappings with the same data for the new UDP and TCP port number.

3.30 MtasSnd

This section describes the Short Number Dialing attribute.

3.30.1 mtasSndAdministrativeState

This attribute defines the administrative state of the SND service. When unlocked, the SND service needs to provide to all subscribers. When locked, the SND service is not provided.

Internode dependencies	Not applicable
Intranode dependencies	The SND service is not to be unlocked if `mtasIdPresFromHeaderScreening` is set to **1** (enabled). The SND service is not to be unlocked if `mtasIdPresFromHeaderDenorm` is set to **1** (enabled).
Characteristics impact	Not applicable
Other considerations	Not applicable

3.31 MtasSt

This section describes the STAS (SIP Trunking AS) attribute.

3.31.1 mtasStTransitFunctionName

This attribute contains the FQDN or IP address of the Transit Function node in the home IMS network.

Internode dependencies	A Transit Function node with this name or address must exist.
Intranode dependencies	This attribute must not be empty if the `StAdministrativeState` is set to **1**.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.32 MtasSrvcc

This section describes the Single Radio Voice Call Continuity (SRVCC) attributes.

3.32.1 mtasSrvccByeDelayTime

This attribute is used to set or change the value of the timer that is used to delay the BYE request containing Reason header with protocol ‘‘SIP’’ and reason parameter ‘‘cause’’ with value ‘‘503’’.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.32.2 mtasSrvccFallbackTime

This attribute is used to set or change the value of the timer that is used to delay the termination of the source access leg for successful access transfer using Single Radio Voice Call Continuity procedures.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.32.3 mtasSrvccStnSr

This attribute is used to set or change the STN-SR value assigned to the SCC AS node that is used for initiating access transfer using Single Radio Voice Call Continuity.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable

Characteristics impact	Not applicable
Other considerations	Not applicable

3.32.4 mtasSrvccAtuSti

This attribute is used to set or change the ATU-STI value assigned to the SCC AS node that is used for initiating access transfer using Single Radio Voice Call Continuity.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.33 MtasSubsData

This section describes the Subscriber Data attributes.

3.33.1 mtasSubsDataDefaultRegTimer

This attribute defines what value is used for registration timer. This timer defines the maximum time subscriber data remains in the cache.

Internode dependencies	The value must be larger than or equal to the typical registration lifetime in the S-CSCF to allow receiving a re-registration before the expiry of the timer.
Intranode dependencies	Change effective when a new session is initiated for the subscriber by a `REGISTER` or an initial `INVITE` message.
Characteristics impact	Not applicable
Other considerations	The range is 1–32000 minutes. The default value is 21600 minutes. The value of this timer must be greater than or equal to `mtasCcbsT3ServiceDurationTimer`.

3.33.2 mtasSubsDataInitRegHSSFetchDelay

Specifies whether subscriber data from HSS is fetched at initial registration or if the fetch is delayed until the first call attempt of the subscriber.

Internode dependencies	This parameter can affect MESSAGE request sent to ATCF at initial registration when SRVCC 3GPP Release 10 is used.
Intranode dependencies	`mtasSubsDataCacheContactData` set to **`1`** and `mtasChargingProfileMultiDevice` set to **`0`** when this parameter is set to anything other than **`0`** (Disabled).
Characteristics impact	Setting the parameter to anything other than `0` can have impact on processor load and latency.
Other considerations	Not applicable

3.33.3 mtasSubsDataHSSOverloadTimer

Specifies whether subscriber data from HSS is fetched at initial registration or the fetch is delayed until the first call attempt of the subscriber.

Internode dependencies	This parameter can affect MESSAGE request sent to ATCF at initial registration when SRVCC 3GPP Release 10 is used.
Intranode dependencies	`mtasSubsDataCacheContactData` set to **`1`** and `mtasChargingProfileMultiDevice` set to **`0`** when this parameter is set to anything other than `0` (Disabled).
Characteristics impact	Setting the parameter to anything other than `0` can have impact on processor load and latency.
Other considerations	Not applicable

3.33.4 mtasSubsDataDeregTimer

This attribute specifies the duration of the deregistration timer. This timer defines how long time the subscriber data remains in the cache following termination of the last session for an unregistered subscriber.

Internode dependencies	Not applicable
Intranode dependencies	This timer defines how long time the subscriber data remains in the cache following termination of the last session for an unregistered subscriber. It is started when the last call for the unregistered subscriber is completed. It is stopped when a new session is initiated for the subscriber.

Characteristics impact	Not applicable
Other considerations	The range is 0–1000 minutes. The default value is 15 minutes. The value 0 stands for immediate deregistration.

3.34 MtasTads

This section describes the Terminating Access Domain Selection (T-ADS) attributes.

3.34.1 mtasTadsLastSessionValidTime

This attribute specifies for how long time the access type, Packet Switched (PS) or Circuit Switched (CS), for the last terminated session is valid for the T-ADS procedure.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.34.2 mtasTadsHssTimer

This attribute specifies the timer to be used when querying the HSS for T-ADS information.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.34.3 mtasTadsCallingPartyPrefix

This attribute specifies the prefix to be added to the calling party number when the SCC AS terminates a call with break out to the CS domain.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.34.4 mtasTadsCsrnPrefix

This attribute specifies the prefix that is added to the called party number when the SCC AS terminates a call with break out to the CS domain.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.34.5 mtasTadsNoResponseTimer

This attribute defines the timer to be used when PS is selected by T-ADS but IMS Voice over PS support is unknown, and MSC is not enhanced for ICS.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.34.6 mtasTadsRoutingNumber

This attribute specifies the routing number to be added to the Request-URI rn parameter when breaking out to CS from T-ADS.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.35 MtasVtp

This section describes the Virtual Telephony Provider (VTP) attribute.

3.35.1 mtasVtpAdministrativeState

This attribute indicates the administrative state of the `MtasVtp` MO, and can be used to activate and deactivate the VTP functions.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.36 MtasIdPres

This section describes the Identity Presentation (IdPres) attribute.

3.36.1 mtasIdPresDbIpVersion

This attribute defines how to select the IP version to use for interface NameDb.

Internode dependencies	Not applicable
Intranode dependencies	The `mtasFunctionAdministrativeState` must be locked to allow change.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.37 MtasXdms

This section describes the XML Document Management Server (XDMS) attributes.

More detailed description of the XDMS attributes can also be found in the following document:MTAS XDMS Management Guide.

3.37.1 mtasXdmsCai3gInactivityTimeout

This attribute defines the timer that allows the duration of the inactivity time-out of a CAI3G session to be configured.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	The duration of the inactivity time-out of a CAI3G session.
Other considerations	Not applicable

3.37.2 mtasXdmsCai3gMaximumSessions

This attribute defines the maximum number of CAI3G sessions that one MTAS node is to support.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable

Characteristics impact	The maximum number of sessions that can be connected to an individual MTAS node simultaneously is set to a default of 32.
Other considerations	Not applicable

3.37.3 mtasXdmsRetryAfterMinimum

This attribute defines a minimum value of a hold-off time sent in the HTTP 503 retry-after header, after a request is rejected because of overload.

Internode dependencies	Not applicable
Intranode dependencies	Random value in the range of `mtasXdmsRetryAfterMinimum` to `mtasXdmsRetryAfterMaximum`. Must be less than or equal to `mtasXdmsRetryAfterMaximum`.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.37.4 mtasXdmsRetryAfterMaximum

This attribute defines a maximum value of a hold-off time sent in the HTTP 503 retry-after header, after a request is rejected because of overload.

Internode dependencies	Not applicable
Intranode dependencies	Random value in the range of `mtasXdmsRetryAfterMinimum` to `mtasXdmsRetryAfterMaximum`. Must be less than or equal to `mtasXdmsRetryAfterMaximum`.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38 Diameter

This section describes the Diameter attributes.

More detailed description of the attributes can also be found in the following documents:

— Managed Object Model (MOM)

— MTAS Charging Management Guide

— MTAS Subscriber Data Management Guide

— MTAS XDMS Management Guide

3.38.1 stackId

This attribute defines the stack Id of the Diameter stack instance.

Internode dependencies	Not applicable
Intranode dependencies	Different MTAS applications must define and coordinate this value.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.2 supportedVendorsIds

This attribute defines a list of all vendor IDs whose AVPs are supported by Diameter in the Network Element.

Internode dependencies	Not applicable
Intranode dependencies	Different MTAS applications must define and coordinate this value.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.3 transportLayerType

This attribute defines the transport layer to be used when setting up a connection to this node.

Internode dependencies	This attribute must be set about cooperating Diameter nodes.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.4 supportedVendorSpecificApps

This attribute defines a list of application codes that the server supports for Authentication and Accounting-Requests. Used for proprietary Diameter applications.

Internode dependencies	Not applicable
Intranode dependencies	Different MTAS applications must define and coordinate this value.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.5 portNr

This attribute defines the port number that the Diameter stacks use.

Internode dependencies	Not applicable
Intranode dependencies	Different MTAS applications must define and coordinate this value.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.6 watchdogTimeIdle

This attribute defines the maximum time without activity before a Device-Watchdog-Request (DWR) is sent.

Internode dependencies	It is recommended to use the same value at both ends of the link. The value must be the same as in the CSCF and HSS or Subscriber Location Function (SLF).
Intranode dependencies	Different MTAS applications must define and coordinate this value.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.7 maxRequestPendingTime

This attribute defines the maximum time (in seconds) without receiving a response for a request.

Internode dependencies	Not applicable
Intranode dependencies	Different MTAS applications must define and coordinate this value. The value must be the same as in the CSCF, HSS or SLF, and Presence, Group and Data Management (PGM).
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.8 maxNumberOfRetries

Defines the maximum number of times the MTAS node retries to send a request.

Internode dependencies	Not applicable
Intranode dependencies	Different MTAS applications must define and coordinate this value. The value must be the same as in the CSCF and HSS or SLF.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.9 requestedApp

This attribute defines the vendors Diameter application which messages are recognized by the Realm Routing Table.

Internode dependencies	Not applicable
Intranode dependencies	The `appId` field is checked against the `supportedAuthAppIds` and the `supportedAcctAppIds` in the Own Network Element if `vendorId` is `0`, and against the `supportedVendorSpecificApp` in the Own Network Element if `vendorId` is not `0`. If it is not found, an LDAP error is issued, and the operation does not take place.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.10 Action

This attribute defines the routing action for requests from a certain realm and a given request type.

Internode dependencies	Not applicable
Intranode dependencies	The routing action belongs to the Diameter application specified in the `requestedApp` attribute.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.11 diaVendorId

This attribute defines the IANA assigned SMI Network Management Private Enterprise Code for the vendor of the application.

Internode dependencies	Not applicable
Intranode dependencies	Different MTAS applications must use the defined Ericsson value.

Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.12 firmwareRevision

This attribute defines the revision of the Diameter product running on the MTAS node.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.13 supportedAuthAppIds

This attribute defines the list of applications that support Authentication or Authorization requests.

Internode dependencies	Not applicable
Intranode dependencies	One of applications `supportedAcctAppIds`, `supportedAuthAppIds`, or `supportedVendorSpecifcApps` must be set.
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.14 tcTimer

This attribute defines the time elapsed between connect attempts when the connection to a peer node has failed.

Internode dependencies	The value must be aligned with the CSCF and HSS or SLF.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.38.15 sendErrorAtOverload

This attribute defines if an error is sent to the other node when an incoming request is rejected owing to a processor overload situation.

Internode dependencies	The value must be agreed with the HSS or SLF, CSCF, and Aggregation Proxy.
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.39 MtasScc

This section describes Service Centralization and Continuity attributes.

3.39.1 mtasSccNpliOriginating

This attribute defines the policy for originating NPLI retrieval in SCC AS on incoming `INVITE` without valid CGI/ECGI in network PANI. The access domain and node used in the NPLI retrieval from HSS is given by the following data and in that order:

— The call case, for example, the call is routed from CS to IMS through the SCC AS SDS service. Access domain is then forced to CS.

— Registration data

— Default setting, if no other data available about the served user than the default setting as defined by the CM attribute is used.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable

3.39.2 mtasSccNpliTerminating

This attribute defines the policy for terminating NPLI retrieval in SCC AS on incoming 18x/200 response on (re-)INVITE without valid CGI/ECGI in network PANI. The access domain and node used in the NPLI retrieval from HSS is given by the following data and in that order:

— The call case, for example, the response is on a breakout to CS. Access domain is then forced to CS.

— Registration data

— Default setting, if no other data available about the served user than the default setting as defined by the CM attribute is used.

Internode dependencies	Not applicable
Intranode dependencies	Not applicable
Characteristics impact	Not applicable
Other considerations	Not applicable