Ultra Cloud Core 5G Access and Mobility Management Function, Release 2024.03 - CLI Command Reference

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About this Guide

Note The documentation set for this product strives to use bias-free language. For purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. While any existing biased terms are being substituted, exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

This preface describes the *Ultra Cloud Core 5G Access and Mobility Management Function - CLI Command Reference*, the document conventions, and the customer support details.

- Conventions Used, on page xxi
- Contacting Customer Support, on page xxii

Conventions Used

The following tables describe the conventions used throughout this documentation.

Notice Type	Description
Information Note	Provides information about important features or instructions.
Caution	Alerts you of potential damage to a program, device, or system.
Warning	Alerts you of potential personal injury or fatality. May also alert you of potential electrical hazards.

Typeface Conventions	Description
Text represented as a `screen display`	This typeface represents displays that appear on your terminal screen, for example: `Login:`

Typeface Conventions	Description
Text represented as **commands**	This typeface represents commands that you enter, for example: **show ip access-list** This document always gives the full form of a command in lowercase letters. Commands are not case sensitive.
Text represented as a **command** *variable*	This typeface represents a variable that is part of a command, for example: **show card** *slot_number* *slot_number* is a variable representing the applicable chassis slot number.
Text represented as menu or sub-menu names	This typeface represents menus and sub-menus that you access within a software application, for example: Click the **File** menu, then click **New**

Contacting Customer Support

Use the information in this section to contact customer support.

Refer to the support area of http://www.cisco.com for up-to-date product documentation or to submit a service request. A valid username and password are required to access this site. Please contact your Cisco sales or service representative for additional information.

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aaa

Configures the AAA-based user management parameters.

Command Modes

Exec

Syntax Description

aaa authentication users user admin change-password { old-password *old_password* **| new-password** *new_password* **| confirm-password** *new_password* **}**

old-password *old_password*

Specify the current password.

Must be a string.

new-password *new_password*

Specify the new password.

Must be a string.

confirm-password *new_password*

Specify the new password once again to change the password.

Must be a string.

Usage Guidelines

Use this command to configure the AAA-based user management parameters.

amf-global

Configures global AMF parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

amf-global amf-name *amf_name*

amf-name *amf_name*

Specify name of the AMF.

Must be a string.

Usage Guidelines

Use this command to configure global AMF parameters. The CLI prompt changes to the AMF Global Configuration mode (config-amf-global).

amf-global call-control-policy

Configures call control policy.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

`call-control-policy` *`cc_policy_name`* **`{ asynch-type-comm { false | true } | eir-check enabled | default-dnn`** *`default_dnn`* **`| disable-init-csr-reg { false | true } | disable-rfsp-pcf { false | true } | enable-auth-periodic-reg { false | true } | enable-auth-svc-req { false | true } | enable-guti-realloc-periodic-reg { false | true } | enable-guti-realloc-service-req { false | true } | report-uli { false | true } | retrieve-imei { false | true } }`**

asynch-type-comm { false | true }

Specify whether to enable or disable asynchronous communication.

Must be one of the following:

- **false**
- **true**

Default Value: false.

call-control-policy *cc_policy_name*

Specify the name of the Call Control Policy.

Must be a string.

eir-check enabled

Enables the EIR check for initial and mobility registration.

default-dnn *default_dnn*

Specify the default DNN.

Must be a string.

disable-init-csr-reg { false | true }

Specify whether to enable or disable initial CSR registration.

Must be one of the following:

- **false**
- **true**

Default Value: true.

disable-rfsp-pcf { false | true }

Specify whether to enable or disable RFSP PCF.

Must be one of the following:

- **false**
- **true**

Default Value: false.

enable-auth-periodic-reg { false | true }

Specify whether to enable or disable periodic authentication registration.

Must be one of the following:

- **false**
- **true**

Default Value: false.

enable-auth-svc-req { false | true }

Specify whether to enable or disable authentication service request.

Must be one of the following:

- **false**
- **true**

Default Value: false.

enable-guti-realloc-periodic-reg { false | true }

Specify whether to enable or disable GUTI reallocation periodic registration.

Must be one of the following:

- **false**
- **true**

Default Value: true.

enable-guti-realloc-service-req { false | true }

Specify whether to enable or disable GUTI reallocation service request.

Must be one of the following:

- **false**
- **true**

Default Value: false.

report-uli { false | true }

Specify whether to enable or disable ULI report.

Must be one of the following:

- **false**
- **true**

Default Value: false.

retrieve-imei { false | true }

Specify whether to enable or disable the parameters to retrieve IMEI.

Must be one of the following:

- **false**
- **true**

Default Value: false.

tai-group *tai_group_name*

Specify name of the TAI group.

Usage Guidelines

Use this command to configure call control policy parameters.

amf-global call-control-policy am-policy

Configures global AM policy parameters.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

```
am-policy skip { false | true }
```

skip { false | true }

Specify whether to skip fetching the AM Policy.

Must be one of the following:

- **false**
- **true**

Default Value: false.

Usage Guidelines

Use this command to configure global AM parameters.

amf-global call-control-policy core-network-type-restriction

Configures enabling policy to apply CoreNetworkType restriction at AMF.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

`core-network-type-restriction` *`restriction`*

core-network-type-restriction *restriction*

Specify the core network type restriction.

Must be one of the following:

- **5gc**
- **override-udm-restrictions**

Usage Guidelines

Use this command to configure enabling policy to apply CoreNetworkType restriction at AMF.

amf-global call-control-policy default-slice

Configures default slice for the subscriber.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

default-slice name *slice_name* **sst** *slice_service_type* **sdt** *slice_differentiator_type*

name *slice_name*

Specify name of the slice.

Must be a string.

sdt *slice_differentiator_type*

Specify the Slice Differentiator Type (SDT).

Must be a string in the octet-string24 pattern. For information on the octet-string24 pattern, see the Input Pattern Types section.

sst *slice_service_type*

Specify the Slice Service Type (SST).

Must be an integer in the range of 0-255.

Usage Guidelines

Use this command to configure default slice for the subscriber.

amf-global call-control-policy eir-check

Configures the EIR check parameters for the UE.

Command Modes

Exec > Global Configuration (config) > Call Control Policy Configuration (config-call-control-policy)

Syntax Description

`eir-check {enabled | emergency-registration | deny-greylisted | initial-registration}`

enabled

Enables the EIR check for initial and mobility registration.

emergency-registration

Enables the EIR check specifically for emergency registered UE's and emergency registration scenarios. By default, EIR check is not done for emergency registration.

deny-greylisted

This option configures the AMF to deny registration requests from devices that are greylisted.

initial-registration

This option selects only initial registrations for EIR checks. Without this configuration, the system selects both initial registrations and mobility registrations involving an MME/AMF change for EIR checks.

Usage Guidelines

Use this command to configure the EIR check for the UE.

amf-global call-control-policy feature-support-ie ims-vops-service-3gpp no-support

Configures ims-vops-service-3gpp support.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*call_control_policy_name*)

Syntax Description

```
feature-support-ie ims-vops-service-3gpp [ not-supported { false | true } ] [ reject-voice-centric-ue { false | true } ]
```

not-supported { false | true }

Specify whether to enable or disable 5G VoPS 3GPP support.

Must be one of the following:

- **false**
- **true**

Default Value: true.

reject-voice-centric-ue { false | true }

Specify if VoPS is not supported whether to reject voice-centric UE registration.

Must be one of the following:

- **false**
- **true**

Default Value: false.

Usage Guidelines

Use this command to configure ims-vops-service-3gpp support.

amf-global call-control-policy feature-support-ie ims-vops-service-3gpp support

Configures ims-vops-service-3gpp support.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*call_control_policy_name*)

Syntax Description

```
feature-support-ie ims-vops-service-3gpp support supported { false | true
 } ue-capability-match-required { false | true }
```

supported { false | true }

Specify whether to enable or disable 5G VoPS 3GPP support.

Must be one of the following:

- **false**
- **true**

Default Value: false.

ue-capability-match-required { false | true }

Specify whether if VoPS is supported UE capability check is required or not required.

Must be one of the following:

- **false**
- **true**

Default Value: false.

Usage Guidelines

Use this command to configure ims-vops-service-3gpp support.

amf-global call-control-policy local-cause-code-map auth-failure

Configures the UE authentication failure condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_service_name*)

Syntax Description

local-cause-code-map auth-failure cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **illegal-ms**
- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: illegal-ms.

Usage Guidelines

Use this command to configure the ue authentication failure condition type parameter.

amf-global call-control-policy local-cause-code-map clear-subscriber

Configures the UE subscriber clear condition type.

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description

local-cause-code-map clear-subscriber cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **5GS-services-not-allowed**
- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: plmn-not-allowed.

Usage Guidelines

Use this command to configure the UE subscriber clear condition type.

amf-global call-control-policy local-cause-code-map ctxt-xfer-fail-amf

Configures the AMF context transfer failure condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

local-cause-code-map ctxt-xfer-fail-amf cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**
- **ue-identity-not-derived**

Default Value: ue-identity-not-derived.

Usage Guidelines

Use this command to configure the AMF context transfer failure condition type parameter.

amf-global call-control-policy local-cause-code-map ctxt-xfer-fail-mme

Configures the MME context transfer failure condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

`local-cause-code-map ctxt-xfer-fail-mme cause-code-5gmm` *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**
- **ue-identity-not-derived**

Default Value: ue-identity-not-derived.

Usage Guidelines

Use this command to configure the MME context transfer failure condition type parameter.

amf-global call-control-policy local-cause-code-map dnn-mismatch

Configures the DNN mismatch condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

`local-cause-code-map dnn-mismatch cause-code-5gmm` *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: plmn-not-allowed.

Usage Guidelines

Use this command to configure the DNN mismatch condition type parameter.

amf-global call-control-policy local-cause-code-map dnn-not-subscribed

Configures the DNN not subscribed condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

local-cause-code-map dnn-not-subscribed cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **dnn-not-subscribed**

Default Value: dnn-not-subscribed.

Usage Guidelines

Use this command to configure the DNN not subscribed condition type parameter.

amf-global call-control-policy local-cause-code-map gw-unreachable

Configures the GW Unreachable Condition Type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

`local-cause-code-map gw-unreachable cause-code-5gmm` *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: no-suitable-cells-in-tracking-area.

Usage Guidelines

Use this command to configure the GW Unreachable Condition Type parameter.

amf-global call-control-policy local-cause-code-map inter-plmn-roaming

Configures the inter-PLMN roaming condition type parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

`local-cause-code-map inter-plmn-roaming cause-code-5gmm` *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **5GS-services-not-allowed**
- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: plmn-not-allowed.

Usage Guidelines

Use this command to configure the inter-PLMN roaming condition type parameter.

amf-global call-control-policy local-cause-code-map peer-node-unknown

Configures the peer node no response condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

`local-cause-code-map peer-node-unknown cause-code-5gmm` *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**
- **ue-identity-not-derived**

Default Value: ue-identity-not-derived.

Usage Guidelines

Use this command to configure the peer node no response condition type parameter.

amf-global call-control-policy local-cause-code-map restricted-zone-code

Configures the restricted zone code condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

`local-cause-code-map restricted-zone-code cause-code-5gmm` *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **5GS-services-not-allowed**
- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: no-suitable-cells-in-tracking-area.

Usage Guidelines

Use this command to configure the restricted zone code condition type parameter.

amf-global call-control-policy local-cause-code-map smf-selection-failure

Configures the SMF selection failure condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

`local-cause-code-map smf-selection-failure cause-code-5gmm` *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: no-suitable-cells-in-tracking-area.

Usage Guidelines

Use this command to configure the SMF selection failure condition type parameter.

amf-global call-control-policy local-cause-code-map udm-unavailable

Configures the UDM not available condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

`local-cause-code-map udm-unavailable cause-code-5gmm` *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: no-suitable-cells-in-tracking-area.

Usage Guidelines

Use this command to configure the UDM not available condition type parameter.

amf-global call-control-policy paging-priority map

Configures mapping ARP from SMF to Ngap paging priority.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

paging-priority map arp *arp_value* **ngap-paging-priority** *ngap_paging_priority*

arp *arp_value*

Specify the Allocation and Retention Priority (ARP) value from SMF.

Must be an integer in the range of 1-15.

ngap-paging-priority *ngap_paging_priority*

Specify the paging priority in the paging message.

Must be an integer in the range of 0-7.

Usage Guidelines

Use this command to configure mapping ARP from SMF to Ngap paging priority.

amf-global call-control-policy policy amf-redirection

Configures AMF redirection parameters.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description `policy amf-redirection { enabled | disabled }`

enabled { false | true }

Specify whether to enable or disable AMF redirection.

Must be one of the following:

- **false**
- **true**

Default Value: false.

Usage Guidelines Use this command to configure AMF redirection parameters.

amf-global call-control-policy policy context-release

Configures UE Context release procedure parameters.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

```
policy context-release force-smf-update { false | true }
```

force-smf-update { false | true }

Specify whether to initiate SMF update without PDU list available in release messages.

Must be one of the following:

- **false**
- **true**

Default Value: false.

Usage Guidelines

Use this command to configure UE Context release procedure parameters.

amf-global call-control-policy policy idle-mode paging

Configures tailist for paging.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

`policy idle-mode paging use-new-tailist`

use-new-tailist

Specify to use new tailist for paging as last stage.

Usage Guidelines

Use this command to configure tailist for paging.

amf-global call-control-policy policy idle-mode ue-cfg-update

Configures enabling paging for UE config.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

`policy idle-mode ue-cfg-update initiate-paging`

initiate-paging

Specify to enable paging for UE config.

Usage Guidelines

Use this command to configure enabling paging for UE config.

amf-global call-control-policy policy nssf-interaction

Configures NSSF interaction parameters.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description `policy nssf-interaction { disabled | enabled }`

enabled { false | true }

Specify whether to enable or disable NSSF interaction.

Must be one of the following:

- **false**
- **true**

Default Value: false.

Usage Guidelines Use this command to configure NSSF interaction parameters.

amf-global call-control-policy policy slicing

Configures slicing policy configuration parameters.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description **`policy slicing inclusion-mode`** *`inclusion_mode`*

inclusion-mode *inclusion_mode*

Specify the NSSAI Inclusion Mode to be send in Registration Accept.

Must be one of the following:

- **A**
- **B**
- **C**
- **D**
- **None**

Default Value: None.

Usage Guidelines Use this command to configure slicing policy configuration parameters.

amf-global call-control-policy policy ue-cfg-update

Configures UE Config update procedure parameters.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

```
policy ue-cfg-update [ on-nssf-slice-change { false | true } ] [
on-tai-change { false | true } ]
```

on-nssf-slice-change { false | true }

Specify whether to initiate UE config update procedure if slice parameter from NSSF changes.

Must be one of the following:

- **false**
- **true**

Default Value: false.

on-tai-change { false | true }

Specify whether to initiate UE config update procedure on TAI list changes.

Must be one of the following:

- **false**
- **true**

Default Value: false.

Usage Guidelines

Use this command to configure UE Config update procedure parameters.

amf-global call-control-policy policy ue-context-transfer

Configures UE context transfer related parameters.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

```
policy ue-context-transfer [ allow-interplmn-supi-transfer { false | true
 } ] [ horizontal-key-derivation { false | true } ] [ use-source-key {
false | true } ] [ use-source-pcf { false | true } ]
```

allow-interplmn-supi-transfer { false | true }

Specify whether source AMF sends UE context with SUPI.

Must be one of the following:

- **false**
- **true**

Default Value: false.

horizontal-key-derivation { false | true }

Specify whether source AMF will generate new key every time.

Must be one of the following:

- **false**
- **true**

Default Value: false.

use-source-key { false | true }

Specify whether target AMF will use key received from source AMF.

Must be one of the following:

- **false**
- **true**

Default Value: true.

use-source-pcf { false | true }

Specify whether target AMF sends pcfReselectedInd as true in transfer-update and source AMF clears PCF association.

Must be one of the following:

- **false**

- **true**

Default Value: true.

Usage Guidelines

Use this command to configure UE context transfer related parameters.

amf-global call-control-policy rat-type-restriction

Configures enabling policy to apply RatType restriction at AMF.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

`rat-type-restriction` *`restriction`*

rat-type-restriction *restriction*

Specify the RAT type restriction.

Must be one of the following:

- **EUTRAN**
- **NR**
- **VIRTUAL**
- **WLAN**
- **override-udm-restrictions**

Usage Guidelines

Use this command to configure enabling policy to apply RatType restriction at AMF.

amf-global call-control-policy registration restrict

Configures enabling policy to restrict subscriber for all locations at AMF.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

registration restrict access-type *access_type*

access-type *access_type*

Specify the access type.

Must be one of the following:

- **all**

Usage Guidelines

Use this command to configure enabling policy to restrict subscriber for all locations at AMF.

amf-global call-control-policy security-algo security-algo

Configures multiple algorithms in priority order.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

`security-algo` *`priority`* **`[ [ ciphering-algo`** *`ciphering_algorithm`* **`] [ integity-prot-algo`** *`integity_protocol_algorithm`* **`] ]`**

ciphering-algo *ciphering_algorithm*

Specify the ciphering algorithm.

Must be one of the following:

- **128-5G-EA1**
- **128-5G-EA2**
- **5G-EA0**

integity-prot-algo *integity_protocol_algorithm*

Specify the integity protocol algorithm.

Must be one of the following:

- **128-5G-IA1**
- **128-5G-IA2**
- **5G-IA0**

security-algo *priority*

Specify the priority.

Must be an integer.

Usage Guidelines

Use this command to configure multiple algorithms in priority order.

amf-global call-control-policy timers context-transfer-guard

Configures the context-transfer-guard timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

`timers context-transfer-guard value` *`timeout_duration`*

value *timeout_duration*

Specify the timeout period in seconds. Configure guard timer values, which must be in the range of 0-10.

The default value is 5. The value 0 is used to disable the timer in the procedure.

Usage Guidelines

Use this command to configure the context-transfer-guard timer in seconds. Started by source AMF on receiving TransferUpdate. On expiry, PDUs will be cleared locally.

amf-global call-control-policy timers ho-supervisory

Configures the ho-supervisory timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

timers ho-supervisory value *timer_value*

value *timer_value*

Specify the timer value in milliseconds.

Must be an integer in the range of 100-10000.

Default Value: 500.

Usage Guidelines

Use this command to configure the ho-supervisory timer parameter.

amf-global call-control-policy timers t3502

Configures the t3502 timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

timers t3502 value *timeout_duration*

value *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-35712000.

Usage Guidelines

Use this command to configure the t3502 timer parameter.

amf-global call-control-policy timers t3512

Configures the t3512 timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

timers t3512 value *timeout_duration*

value *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-35712000.

Usage Guidelines

Use this command to configure the t3512 timer parameter.

amf-global call-control-policy timers t3513

Configures the t3513 timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

timers t3513 value *timeout_duration* **retry** *max_retries*

retry *max_retries*

Specify the maximum number of retries.

Must be an integer in the range of 0-5.

Default Value: 4.

value *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-30.

Default Value: 6.

Usage Guidelines

Use this command to configure the t3513 timer parameter.

amf-global call-control-policy timers t3522

Configures the t3522 timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

timers t3522 value *timeout_duration* **retry** *max_retries*

retry *max_retries*

Specify the maximum number of retries.

Must be an integer in the range of 0-5.

Default Value: 4.

value *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-30.

Default Value: 6.

Usage Guidelines

Use this command to configure the t3522 timer parameter.

amf-global call-control-policy timers t3550

Configures the t3550 timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

timers t3550 value *timeout_duration* **retry** *max_retries*

retry *max_retries*

Specify the maximum number of retries.

Must be an integer in the range of 0-5.

Default Value: 4.

value *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-30.

Default Value: 6.

Usage Guidelines

Use this command to configure the t3550 timer parameter.

amf-global call-control-policy timers t3555

Configures the t3555 timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

timers t3555 value *timeout_duration* **retry** *max_retries*

retry *max_retries*

Specify the maximum number of retries.

Must be an integer in the range of 0-5.

Default Value: 4.

value *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-30.

Default Value: 6.

Usage Guidelines

Use this command to configure the t3555 timer.

amf-global call-control-policy timers t3560

Configures the t3560 timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

timers t3560 value *timeout_duration* **retry** *max_retries*

retry *max_retries*

Specify the maximum number of retries.

Must be an integer in the range of 0-5.

Default Value: 4.

value *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-30.

Default Value: 6.

Usage Guidelines

Use this command to configure t3560 timer parameter.

amf-global call-control-policy timers t3570

Configures the t3570 timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

timers t3570 value *timeout_duration* **retry** *max_retries*

retry *max_retries*

Specify the maximum number of retries.

Must be an integer in the range of 0-5.

Default Value: 4.

value *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-30.

Default Value: 6.

Usage Guidelines

Use this command to configure the t3570 timer parameter.

amf-global call-control-policy timers tguard

Configures the tguard timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

timers tguard value *timeout_duration*

value *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-35712000.

Usage Guidelines

Use this command to configure the tguard timer parameter.

amf-global call-control-policy timers tidle

Configures the UE connected mode inactivity timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

timers tidle value *timeout_duration*

value *timeout_duration*

Specify the timer value in seconds.

Must be an integer in the range of 30-25200.

Usage Guidelines

Use this command to configure the UE connected mode inactivity timer parameter.

amf-global call-control-policy timers tidt

Configures the tidt timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

timers tidt value *timeout_duration*

value *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-35712000.

Usage Guidelines

Use this command to configure the tidt timer parameter.

amf-global call-control-policy timers tn2

Configures the tn2 timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

timers tn2 value *timeout_duration*

value *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-35712000.

Usage Guidelines

Use this command to configure the tn2 timer parameter.

amf-global call-control-policy timers tpurge

Configures the purge timer parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy Configuration (config-call-control-policy-*policy_name*)

Syntax Description

timers tpurge value *timeout_duration*

value *timeout_duration*

Specify the timeout period in seconds.

Must be an integer in the range of 0-35712000.

Usage Guidelines

Use this command to configure the purge timer parameter.

amf-global dnn-policy

Configures the DNN policy parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

dnn-policy *dnn_name* **[[ims-enabled { false | true }] [lbo-roaming-allowed { false | true }] [nf-profile-name** *nf_profile_name* **]]**

dnn-policy *dnn_name*

Specify name of the DNN.

Must be a string.

ims-enabled { false | true }

Specify whether IMS is enabled for DNN.

Must be one of the following:

- **false**
- **true**

Default Value: false.

lbo-roaming-allowed { false | true }

Specify whether Local Breakout Roaming is supported.

Must be one of the following:

- **false**
- **true**

Default Value: false.

nf-profile-name *nf_profile_name*

Specify name of the NF profile.

Must be a string.

Usage Guidelines

Use this command to configure DNN policy parameter.

amf-global dnn-policy network-element-profile-list

Configures the network element profile list.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > DNN Policy Configuration (config-dnn-policy-*policy_name*)

Syntax Description **`network-element-profile-list smf`** *`smf_profile_name`*

smf *smf_profile_name*

Specify name of the SMF network element profile.

Must be a string.

Usage Guidelines Use this command to configure the network element profile list.

amf-global location services

Configures location services.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

```
amf-global { location | positioning | use-lmf }
```

amf-global { location | positioning | use-lmf }

- **location**—Specify the location services or settings within the AMF's global configuration. By default, this feature is disabled.
- **positioning**—Specify the positioning methods or protocols for determining the location of UE.
- **use-lmf**—Specify the LMF for positioning services. The LMF is responsible for providing positioning information of UEs in the network.

Usage Guidelines

Use this command to configure location services.

amf-global nf-profile

Configures NF profile parameters.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description **`nf-profile`** *`nf_profile_name`*

nf_profile_name

Specify name of the NF profile.

Must be a string.

Usage Guidelines Use this command to configure NF profile parameters. The CLI prompt changes to the NF Profile Configuration mode (config-nf-profile-<profile_name>).

amf-global nf-profile nf-type-profile

Configures the NF profile type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > NF Profile Configuration (config-nf-profile-*profile_name*)

Syntax Description

nf-type-profile type *nf_profile_type*

type *nf_profile_type*

Specify the NF profile type.

Must be one of the following:

- **ausf**
- **nrf**
- **nssf**
- **pcf**
- **smf**
- **udm**

Usage Guidelines

Use this command to configure the NF profile type parameter. The CLI prompt changes to the NF Type Profile Configuration mode (config-nf-type-profile-<type>).

amf-global nf-profile nf-type-profile grpc-endpoint

Configures GRPC endpoint parameters.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > NF Profile Name Configuration (config-nf-profile-*nf_profile_name*) > NF Profile Type Configuration (config-nf-type-profile-*profile_name*)

Syntax Description

grpc-endpoint host *host_name* **port** *port_number*

host *host_name*

Specify the host name.

Must be a string.

port *port_number*

Specify the port number.

Must be an integer.

Usage Guidelines

Use this command to configure GRPC endpoint parameters.

amf-global nf-profile nf-type-profile http-endpoint

Configures HTTP endpoint parameters.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > NF Profile Name Configuration (config-nf-profile-*nf_profile_name*) > NF Profile Type Configuration (config-nf-type-profile-*profile_name*)

Syntax Description

`http-endpoint base-url` *`base_url`*

base-url *base_url*

Specify the base URL.

Must be a string.

Usage Guidelines

Use this command to configure HTTP endpoint parameters.

amf-global operator-policy

Configures the operator policy.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

operator-policy *policy_name* **[[ccp-name** *ccp_name* **] [nf-profile-name** *nf_profile_name* **] [paging-policy-name** *paging_policy_name* **]]**

ccp-name *ccp_name*

Specify name of the CCP.

Must be a string.

emergency-profile-name *emergency_profile_name*

Specify name of the emergency profile.

nf-profile-name *nf_profile_name*

Specify name of the NF profile.

Must be a string.

operator-policy *policy_name*

Specify name of the operator policy.

Must be a string.

paging-map-name *paging_map_name*

Specify name of the 5G paging map.

Must be a string of 1-64 characters.

Usage Guidelines

Use this command to configure the operator policy.

amf-global operator-policy network-element-profile-list

Configures network element profiles.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > Operator Policy Configuration (config-operator-policy-*policy_name*)

Syntax Description

network-element-profile-list { amf *amf_ne_profile_name* **| ausf** *ausf_ne_profile_name* **| nssf** *nssf_ne_profile_name* **| pcf** *pcf_ne_profile_name* **| smf** *smf_ne_profile_name* **| udm** *udm_ne_profile_name* **| lmf** *lmf_ne_profile_name* **| eir** *eir_ne_profile_name***}**

amf *amf_ne_profile_name*

Specify name of the AMF network element profile.

Must be a string.

ausf *ausf_ne_profile_name*

Specify name of the AUSF network element profile.

Must be a string.

nssf *nssf_ne_profile_name*

Specify name of the NSSF network element profile.

Must be a string.

pcf *pcf_ne_profile_name*

Specify name of the PCF network element profile.

Must be a string.

smf *smf_ne_profile_name*

Specify name of the SMF network element profile.

Must be a string.

udm *udm_ne_profile_name*

Specify name of the UDM network element profile.

Must be a string.

lmf *lmf_ne_profile_name*

Specify name of the LMF network element profile.

Must be a string.

eir *eir_ne_profile_name*

Specify name of the EIR network element profile.

Must be a string.

Usage Guidelines

Use this command to configure network element profiles.

amf-global paging-algo

Configures the paging algorithm.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

paging-algo *algorithm_name* **[[action** *action* **] [max-n-gnb** *max_gnbs_to_page* **] [t3513-timeout** *paging_timeout* **] [max-paging-attempts** *max_paging_attempts* **]]**

action *action*

Specify the action.

Must be one of the following:

- **all_gnb_all_tai**
- **all_gnb_last_tai**
- **all_gnb_remaining_tai_all**
- **all_gnb_remaining_tai_seq**
- **last_gnb_last_tai**
- **last_n_gnb_last_tai**

max-n-gnb *max_gnbs_to_page*

Specify the max number of gNBs to page.

Must be an integer in the range of 1-5.

max-paging-attempts *max_paging_attempts*

Specify the maximum number of paging attempts.

Must be an integer in the range of 1-5.

paging-algo *paging_algorithm_name*

Specify name of the paging algorigthm.

Must be a string of 1-64 characters.

t3513-timeout *paging_timeout*

Specify the paging timeout value in seconds.

Must be an integer in the range of 1-10.

Usage Guidelines

Use this command to configure the paging algorigthm.

amf-global paging-map

Configures the paging map parameters.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description **paging-map** *paging_map_name*

paging_map_name

Specify name of the 5G paging map.

Must be a string of 1-64 characters.

Usage Guidelines Use this command to configure the paging map parameters.

amf-global paging-map precedence

Configures the paging map precedence parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

paging-map *map_name* **[precedence** *map_precedence_level* **[[paging-profile-name** *paging_profile_name* **] [trigger-type** *trigger_type* **]]]**

arp-value *arp_value*

Specify the Allocation and Retention Priority (ARP) value.

Must be an integer in the range of 1-15.

dereg-value *deregistration_trigger_value*

Specify the deregistration trigger value.

Must be one of the following:

- **amf_init**
- **udm_init**

dnn-value *dnn_value*

Specify the Data Network Name (DNN) value.

Must be a string of 1-64 characters.

fiveqi-value *5qi_value*

Specify the 5G QoS Indicator value.

Must be an integer in the range of 1-85.

paging-profile-name *paging_profile_name*

Specify name of the 5G paging profile.

Must be a string of 1-64 characters.

ppi-value *ppi_value*

Specify the Paging Policy Indicator (PPI) value.

Must be an integer in the range of 1-7.

precedence *map_precedence_level*

Specify the map precedence level.

Must be an integer in the range of 1-255.

trigger-type *trigger_type*

Specify the paging trigger type.

Must be one of the following:

- **5qi**
- **arp**
- **dereg**
- **dnn**
- **ppi**
- **uecfg**

Usage Guidelines

Use this command to configure the paging map precedence parameter.

amf-global paging-profile

Configures paging profile parameters.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description **`paging-profile`** *`paging_profile_name`*

paging_profile_name

Specify name of the 5G paging profile.

Must be a string of 1-64 characters.

Usage Guidelines Use this command to configure paging profile parameters. The CLI prompt changes to the Paging Profile Configuration mode (config-paging-profile-<profile_name>).

amf-global paging-profile paging-stage

Configures paging stage information.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > Paging Profile Configuration (config-paging-profile-*profile_name*)

Syntax Description **`paging-stage`** *`paging_stage_precedence`* **`[ paging-algo`** *`paging_algorigthm_name`* **`]`**

paging-algo *paging_algorigthm_name*

Specify name of the paging algorigthm.

Must be a string of 1-64 characters.

paging_stage_precedence

Specify the stage.

Must be an integer in the range of 1-5.

Usage Guidelines Use this command to configure paging stage.

amf-global plmn-policy

Configures the operator policy.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

plmn-policy *plmn_name* **operator-policy-name** *operator_policy_name*

operator-policy-name *operator_policy_name*

Specify name of the operator policy.

Must be a string.

plmn-policy *plmn_name*

Specify name of the PLMN.

Must be a string of 5-6 characters in the plmn-string pattern. For information on the plmn-string pattern, see the Input Pattern Types section.

Usage Guidelines

Use this command to configure the operator policy.

amf-global supi-policy

Configures SUPI policy information.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description

supi-policy *supi_prefix* **operator-policy-name** *operator_policy_name*

operator-policy-name *operator_policy_name*

Specify name of the operator policy.

Must be a string.

supi-policy *supi_prefix*

Specify the SUPI prefix.

Must be a string of 1-15 characters in the supi-string pattern. For information on the supi-string pattern, see the Input Pattern Types section.

Usage Guidelines

Use this command to configure SUPI policy parameters.

amf-global timers proc-timeout ue-registration

Configures timeout value for registration.

Command Modes Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global)

Syntax Description **`timers proc-timeout ue-registration value`** *`timer_value`*

value *timer_value*

Specify the timer value in seconds.

Must be an integer in the range of 0-120.

Usage Guidelines Use this command to configure timeout value for registration.

amf-services

Configures AMF service configuration parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

amf-services *amf_service_name* **[[amf-name** *amf_name* **] [emergency-profile-name** *emergency_profile_name* **] [locality** *locality_name* **] [operator-policy-name** *operator_policy_name* **] [relative-amf-capacity** *relative_amf_capacity* **] [validate-Tais { false | true }]]**

amf-name *amf_name*

Specify name of the AMF.

Must be a string.

amf-services *amf_service_name*

Specify name of the AMF service.

Must be a string.

emergency-profile-name *emergency_profile_name*

Specify name of the emergency profile.

locality *locality_name*

Specify the locality for Geo support.

Must be a string.

operator-policy-name *operator_policy_name*

Specify name of the operator policy.

relative-amf-capacity *relative_amf_capacity*

Specify the relative AMF capacity.

Must be an integer in the range of 0-255.

Default Value: 127.

validate-Tais { false | true }

Specify whether to enable or disable TAI validation.

Must be one of the following:

- **false**
- **true**

Default Value: false.

Usage Guidelines

Use this command to configure AMF service configuration parameters. The CLI prompt changs to the AMF Services Configuration mode (config-amf-services-<service_name>).

amf-services guamis

Configures the Globally Unique AMF ID (GUAMIS).

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description

guamis mcc *mobile_country_code* **mnc** *mobile_network_code* **region-id** *amf_region_id* **set-id** *amf_set_id* **pointer** *amf_pointer*

mcc *mobile_country_code*

Specify the mobile country code.

Must be a string.

mnc *mobile_network_code*

Specify the mobile network code.

Must be a string.

pointer *amf_pointer*

Specify the pointer value.

Must be an integer.

region-id *amf_region_id*

Specify the AMF region ID.

Must be an integer.

set-id *amf_set_id*

Specify the AMF set ID.

Must be an integer.

Usage Guidelines

Use this command to configure the GUAMIS, which is used to uniquely identify an AMF within a 5G network. It is comprised of the MCC, MNC, AMF Region ID, AMF Set ID and AMF Pointer.

amf-services local-cause-code-map auth-failure

Configures the UE authentication failure condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*policy_name*)

Syntax Description

local-cause-code-map auth-failure cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **illegal-ms**
- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: illegal-ms.

Usage Guidelines

Use this command to configure the UE authentication failure condition type parameter.

amf-services local-cause-code-map clear-subscriber

Configures the UE subscriber clear condition type.

Command Modes

Exec > Global Configuration (config) > AMF Global Configuration (config-amf-global) > AMF Call Control Policy (config-call-control-policy-*call_control_policy_name*)

Syntax Description

`local-cause-code-map clear-subscriber cause-code-5gmm` *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **5GS-services-not-allowed**
- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: plmn-not-allowed.

Usage Guidelines

Use this command to configure the UE subscriber clear condition type.

amf-services local-cause-code-map ctxt-xfer-fail-amf

Configures the AMF context transfer failure condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*service_name*)

Syntax Description

`local-cause-code-map ctxt-xfer-fail-amf cause-code-5gmm` *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**
- **ue-identity-not-derived**

Default Value: ue-identity-not-derived.

Usage Guidelines

Use this command to configure the AMF context transfer failure condition type parameter.

amf-services local-cause-code-map ctxt-xfer-fail-mme

Configures the MME context transfer failure condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description

local-cause-code-map ctxt-xfer-fail-mme cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**
- **ue-identity-not-derived**

Default Value: ue-identity-not-derived.

Usage Guidelines

Use this command to configure the MME context transfer failure condition type parameter.

amf-services local-cause-code-map dnn-mismatch

Configures the DNN mismatch condition type parameter.

Command Modes Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description **`local-cause-code-map dnn-mismatch cause-code-5gmm`** *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: plmn-not-allowed.

Usage Guidelines Use this command to configure the DNN mismatch condition type parameter.

amf-services local-cause-code-map dnn-not-subscribed

Configures the DNN not subscribed condition type parameter.

Command Modes Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description **`local-cause-code-map dnn-not-subscribed cause-code-5gmm`** *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **dnn-not-subscribed**

Default Value: dnn-not-subscribed.

Usage Guidelines Use this command to configure the DNN not subscribed condition type parameter.

amf-services local-cause-code-map gw-unreachable

Configures the gw unreachable condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description

local-cause-code-map gw-unreachable cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: no-suitable-cells-in-tracking-area.

Usage Guidelines

Use this command to configure the gw unreachable condition type parameter.

amf-services local-cause-code-map inter-plmn-roaming

Configures the inter-PLMN roaming condition type parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

`local-cause-code-map inter-plmn-roaming cause-code-5gmm` *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **5GS-services-not-allowed**
- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: plmn-not-allowed.

Usage Guidelines

Use this command to configure the inter-PLMN roaming condition type parameter.

amf-services local-cause-code-map peer-node-unknown

Configures the peer node no response condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description

local-cause-code-map peer-node-unknown cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**
- **ue-identity-not-derived**

Default Value: ue-identity-not-derived.

Usage Guidelines

Use this command to configure the peer node no response condition type parameter.

amf-services local-cause-code-map restricted-zone-code

Configures the restricted zone code condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description

local-cause-code-map restricted-zone-code cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **5GS-services-not-allowed**
- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: no-suitable-cells-in-tracking-area.

Usage Guidelines

Use this command to configure the restricted zone code condition type parameter.

amf-services local-cause-code-map smf-selection-failure

Configures the SMF selection failure condition type parameter.

Command Modes Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description **`local-cause-code-map smf-selection-failure cause-code-5gmm`** *`cause_code_5gmm`*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: no-suitable-cells-in-tracking-area.

Usage Guidelines Use this command to configure the SMF selection failure condition type parameter.

amf-services local-cause-code-map udm-unavailable

Configures the UDM not available condition type parameter.

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description

local-cause-code-map udm-unavailable cause-code-5gmm *cause_code_5gmm*

cause-code-5gmm *cause_code_5gmm*

Specify the condition type.

Must be one of the following:

- **no-suitable-cells-in-tracking-area**
- **plmn-not-allowed**
- **restricted-service-area**
- **roaming-not-allowed-in-this-tracking-area**
- **tracking-area-not-allowed**

Default Value: no-suitable-cells-in-tracking-area.

Usage Guidelines

Use this command to configure the UDM not available condition type parameter.

amf-services locality oauth2-enabled

Configures the AMF ID (**oauth2-enabled**) to enable the client authorization support to NRF.

Command Modes

Exec > Global Configuration (`config`) > AMF Services Configuration (`amf-services` *amf_services_name*) > AMF Name (`amf-name` *amf_name*) > Locality (`locality` *locality_name*) > `oauth2-enabled`

Syntax Description

```
amf-name amf_name
locality locality_name
oauth2-enabled
access-token-jws-algo { HS256 | ES256 | RS256 }
access-token-jws-key { shared_secret_key | public_key }
```

oauth2-enabled

Enable the OAuth2 client authorization to register the AMF with NRF. The default value is false.

access-token-jws-algo { HS256 | ES256 | RS256 }

Specify the type of the access token for the JWS Algorithm authorization.

access-token-jws-key { shared_secret_key | public_key }

Specify the type of the access token for the JWS Key authorization.

Usage Guidelines

Use this command, when the **oauth2-enabled** feature is configured, the options **access-token-jws-algo** and **access-token-jws-key** are mandatory.

amf-services peer-mme gummei

Configures Globally Unique MME Identifier (GUMMEI) parameters.

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description

peer-mme gummei mcc *mobile_country_code* **mnc** *mobile_network_code* **group-id** *mme_group_id* **mme-code** *mme_code* **address** *peer_mme_ip_address*

address *peer_mme_ip_address*

Specify the IP address if the peer MME.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

-Or-

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

group-id *mme_group_id*

Specify the MME group ID.

Must be an integer in the range of 0-65535.

mcc *mobile_country_code*

Specify the three-digit mobile country code. For example, 123.

Must be a string in the three-digit pattern. For information on the three-digit pattern, see the Input Pattern Types section.

mme-code *mme_code*

Specify the MME code.

Must be an integer in the range of 0-255.

mnc *mobile_network_code*

Specify the two- or three-digit mobile network code. For example, 23, 456.

Must be a string in the two-or-three-digit pattern. For information on the two-or-three-digit pattern, see the Input Pattern Types section.

Usage Guidelines

Use this command to configure peer MME parameters.

amf-services peer-mme tai-match

Configures TAI match.

Command Modes

Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description

peer-mme tai-match priority *tai_match_priority* **mcc** *mobile_country_code* **mnc** *mobile_network_code*

mcc *mobile_country_code*

Specify the three-digit mobile country code. For example, 123.

Must be a string in the three-digit pattern. For information on the three-digit pattern, see the Input Pattern Types section.

mnc *mobile_network_code*

Specify the two- or three-digit mobile network code. For example, 23, 456.

Must be a string in the two-or-three-digit pattern. For information on the two-or-three-digit pattern, see the Input Pattern Types section.

priority *tai_match_priority*

Specify the TAI match priority value.

Must be an integer in the range of 0-4096.

Usage Guidelines

Use this command to configure TAI match parameters.

amf-services peer-mme tai-match tac

Configures Tracking Area Code parameters.

Command Modes Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description **tac** *options*

Usage Guidelines Use this command to configure the Tracking Area Code parameters.

amf-services peer-mme tai-match tac any

Configures the Tracking Area Code wildcard for peer MME.

Command Modes

Exec > Global Configuration (config)

Syntax Description

any *options*

address *ip_address*

Specify the IP address of the peer MME.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

-Or-

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

Usage Guidelines

Use this command to configure the the Tracking Area Code wildcard for peer MME.

amf-services peer-mme tai-match tac startval

Configures the Tracking Area Code start value.

Command Modes

Exec > Global Configuration (config)

Syntax Description

tac startval start *tac_start_value*

address *ip_address*

Specify the IP address of the peer MME.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

-Or-

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

start *tac_start_value*

Specify the Tracking Area Code start value.

Must be an integer in the range of 1-65535.

Usage Guidelines

Use this command to configure the the Tracking Area Code start value.

amf-services peer-mme tai-match tac startval to

Configures the Tracking Area Code range for peer MME.

Command Modes

Exec > Global Configuration (config)

Syntax Description

tac to end *tac_start_value*

address *ip_address*

Specify the IP address of the peer MME.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

-Or-

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

end *tac_end_value*

Specify the Tracking Area Code range for Peer MME.

Must be an integer in the range of 1-65535.

Usage Guidelines

Use this command to configure the the Tracking Area Code range for peer MME.

amf-services pgw

Configures peer SMF+PGW-C parameters.

Command Modes Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_service_name*)

Syntax Description **pgw fqdn** *fqdn* **smf-network-element-profile** *smf_ne_profile_name*

fqdn *fqdn*

Specify the PGW fully qualified domain name.

Must be a string.

smf-network-element-profile *smf_profile_name*

Specify name of the SMF network element profile.

Must be a string.

Usage Guidelines Use this command to configure SMF+PGW-C parameters.

amf-services relative-amf-capacity

Configures the AMF Services ID (**relative-amf-capacity**) to enable the Relative Capacity Configuration Update feature in AMF.

Command Modes

Exec > Global Configuration (`config`) > AMF Services Configuration (`amf-services` *amf_services_name*)

Syntax Description

```
config
   amf-services service_name
      relative-amf-capacity capacity_number
```

relative-amf-capacity *capacity_number*

relative-amf-capacity *capacity_number*—Specifies the AMF capacity, within the range of 0–255. The default value is 127.

Usage Guidelines

Use this **relative-amf-capacity** command, when you want the relative capacity configuration update feature in AMF feature to be configured.

amf-services tai-groups

Configures TAI groups.

Command Modes Exec > Global Configuration (config) > AMF Services Configuration (config-amf-services-*amf_services_name*)

Syntax Description **tai-groups** *tai_group_name*

tai_group_name

Specify name of the TAI group.

Usage Guidelines Use this command to configure TAI groups.

You can configure a maximum of one element with this command.

amf-tools

Enable or disable the AMF tools.

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
amf-tools enable { false | true }
```

enable { false | true }

Specify to enable or disable the AMF tools.

Must be one of the following:

- **false**
- **true**

Default Value: false.

Usage Guidelines

Use this command to enable or disable the AMF tools.

amf-tools amf-mock-tool

Configures AMF mock tool.

Command Modes Exec > Global Configuration (config)

Syntax Description **amf-mock-tool external-ip** *external_ip_address*

external-ip *external_ip_address*

Specify the external IP address.

Must be a string.

Usage Guidelines Use this command to configure AMF mock tool external IP address.

amf-tools lattice

Configures lattice.

Command Modes

Exec > Global Configuration (config)

Syntax Description

lattice sctp-k8-node-name *sctp_k8_node_name* **sctp-ip-address** *sctp_ip_address* **lattic-tar-url** *lattic_tar_url* **test-companion-tar-url** *test_companion_tar_url*

lattic-tar-url *lattic_tar_url*

Specify the lattice tar URL.

Must be a string.

sctp-ip-address *sctp_ip_address*

Specify the external IP address for SCTP.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

-Or-

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

sctp-k8-node-name *sctp_k8_node_name*

Specify the kubernetes node name on which lattice is to be deployed.

Must be a string.

test-companion-tar-url *test_companion_tar_url*

Specify the test companion tar URL.

Must be a string.

Usage Guidelines

Use this command to configure lattice.

apn-groups

Configures APN groups.

Command Modes Exec > Global Configuration (config)

Syntax Description **apn-groups name** *apn_group_name*

name *apn_group_name*

Specify name of the APN group.

Must be a string.

Usage Guidelines Use this command to configure APN groups. The CLI prompt changes to the APN Groups Configuration mode (config-apn-groups-<group_name>).

apn-groups apns

Configures APN group parameters.

Command Modes Exec > Global Configuration (config) > APN Groups Configuration (config-apn-groups-*group_name*)

Syntax Description **apns** *apn_name*

apns *apn_name*

Specify name of the APN.

Must be a string.

Usage Guidelines Use this command to configure APN group parameters.

apn-profiles

Configures APN profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **apn-profiles** *apn_profile_name*

apn_profile_name

Specify name of the APN profile.

Must be a string.

Usage Guidelines Use this command to configure APN profile parameters.

cd

Changes the current working directory.

Command Modes

Exec

Syntax Description

cd *directory***.ssh**

directory

Specify the directory name.

Must be a string.

Usage Guidelines

Use this command to change the current working directory.

cdl clear sessions

Clears the data from the Cisco Data Layer (CDL) datastore.

Command Modes

Exec

Syntax Description

cdl clear sessions [db-name *database* **| filter** *filter* **| map-id** *map_id* **| slice-name** *slice_name* **]**

db-name *database*

Specify the database name to be queried for displaying the session details.

Must be a string of 1 to 16 characters.

filter *filter*

Specify the filter.

map-id *map_id*

Specify the map ID to display the data for a map.

Must be an integer in the range of 0-1024.

slice-name *slice_name*

Specify the slice name to be queried.

Must be a string of 1 to 16 characters.

Usage Guidelines

Use this command to clear the data from the Cisco Data Layer (CDL) datastore.

cdl kafka

Displays the Kafka parameters for Geo Replication.

Command Modes

Exec

Syntax Description

cdl kafka [describe [consumer-groups *name* **| topics [name** *kafka_topic_name* **| include-internal-topics] | list [consumer-groups | topics include-internal-topics]**

describe

Describe the kafka topics or consumer groups.

consumer-groups *name*

Displays the kafka consumer groups. By default, all the consumer groups are described

topics name *kafka_topic_name*

Displays the specified kafka topics. By default, all the internal topics are described

include-internal-topics

Indicates to include the internal topics.

list

Lists the kafka topics or the consumer groups.

consumer-groups

Lists the kafka topics or the consumer groups.

topics include-internal-topics

List all the kafka topics that include the internal topics.

Usage Guidelines

Use this command to display Kafka parameters for Geo Replication.

cdl show sessions

Displays the session data from the datastore.

Command Modes

Exec

Syntax Description

cdl show sessions count [detailed [db-name *db_name* **| filter { condition [ends-with | match | starts-with] | key** *key_value* **} | map-id** *map_id* **| slice-name** *slice_name* **] | summary] | summary [db-name** *db_name* **| filter { condition [ends-with | match | starts-with] | key** *key_value* **} | limit limit | map-id** *map_id* **| max-data-size-kb** *maximum_data_size* **| next-eval-end-time | next-eval-start-time | purge-on-eval | slice-name** *slice_name* **] | detailed [db-name** *db_name* **| filter { condition [ends-with | match | starts-with] | key** *key_value* **} | limit** *limit* **| map-id** *map_id* **| max-data-size-kb** *maximum_data_size* **| next-eval-end-time | next-eval-start-time | purge-on-eval | slice-name** *slice_name* **]**

count

Display the session count information.

detailed

Display the session details with data.

db-name *db_name*

Specify the database name to be queried for displaying the session details.

Must be a string of 1 to 16 characters.

key *key_value*

Specify the query value.

Must be a string of 0 to 512 characters.

map-id *map_id*

Specify the map ID to display the data for a map.

Must be an integer in the range of 0-1024.

limit *limit*

Specify the maximum number of records to display.

Must be an integer in the range of 1-500.

filter condition { ends-with | match | starts-with }

Specify the query expression to filter the results of query.

purge-on-eval

Displays the list of sessions that have purge-on-eval flag set to true or false.

next-eval-end-time

Displays the sessions that have the next-eval-time less than this time.

next-eval-start-time

Displays the sessions that have the next-eval-time greater than this time.

Usage Guidelines

Use this command to display the session details.

cdl show status

Displays the status of the database from the datastore.

Command Modes

Exec

Syntax Description

cdl show status db-name *database_name*

db-name *database_name*

Specify the database name to display the status.

Must be a string of 1 to 16 characters.

Usage Guidelines

Use this command to display the status of the queried database from the datastore.

clear ipam

Clears the IP Address Management (IPAM) operational data.

Command Modes Exec

Syntax Description `clear ipam`

Usage Guidelines Use this command to clear IPAM operational data.

clear ipam

Clears the IP Address Management (IPAM) operational data.

Command Modes Exec

Syntax Description `clear ipam`

Usage Guidelines Use this command to clear the IPAM data.

clear subscriber

Clears subscriber data.

Command Modes

Exec

Syntax Description

clear subscriber { all | gr-instance *gr_instance* **| imei** *imei_id* **| namespace** *namespace* **| nf-service** *nf_service* **| supi** *supi_id* **|** *config_specific_options* **}**

all

Specify to remove all subscriber data.

gr-instance *gr_instance*

Specify the subscribers from the GR instance.

imei *imei_id*

Specify the International Mobile Equipment Identity.

Must be a string of 15-16 characters.

namespace *namespace*

NOTE: This keyword is deprecated, use nf-service instead. Specifies the product namespace under which to search.

Default Value: cisco-mobile-infra:none.

nf-service *nf_service*

Specify the network function service under which to search.

Default Value: cisco-mobile-infra:none.

supi *supi_id*

Specify to remove subscriber data associated with the SUPI ID.

Must be a string of 1-63 characters.

Usage Guidelines

Use this command to clear subscriber data.

clear subscriber

Clears the subscriber data.

Command Modes

Exec

Syntax Description

clear subscriber { all | gnodeb-id { mcc *mcc_value* **| mnc** *mnc_value* **} | gr-instance** *gr_instance* **| imei** *imei_id* **| namespace** *namespace* **| nf-service** *nf_service* **| supi** *supi_id* **|** *config_specific_options* **}**

all

Clears all the subscriber data.

gnodeb-id { mcc *mcc_value* | mnc *mnc_value*

Specify the gNodeB ID.

gr-instance *gr_instance*

Specify the subscribers from the GR instance.

imei *imei_id*

Specify the International Mobile Equipment Identity.

Must be a string of 15 to 16 characters.

namespace *namespace*

Specify the product namespace under which to search.

Note This keyword is deprecated, use nf-service instead.

Default Value: cisco-mobile-infra:none

nf-service *nf_service*

Specify the network function service under which to search.

Default Value: cisco-mobile-infra:none.

supi *supi_id*

Specify to remove subscriber data associated with the SUPI ID.

Must be a string of 1 to 63 characters.

Usage Guidelines

Use this command to clear the subscriber data.

clear subscriber clear-opt ran-opt

Displays and clears subscriber data based on specified criteria.

Command Modes

Exec

Syntax Description

{ clear | show } subscriber gnode-id *gnodeb_id* **mnc** *mobile_network_code* **mcc** *mobile_country_code*

gnodeb-id *gnodeb_id*

Specify the gnodeb-id.

Must be an integer in the range of 0-4294967295.

mcc *mobile_country_code*

Specify the mobile country code.

Must be a string in the two-or-three-digit pattern. For information on the two-or-three-digit pattern, see the Input Pattern Types section.

mnc *mobile_network_code*

Specify the mobile network code.

Must be a string in the two-or-three-digit pattern. For information on the two-or-three-digit pattern, see the Input Pattern Types section.

Usage Guidelines

Use this command to view and to clear subscriber data based on specified criteria.

client http header

Configures HTTP header parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

client http header user-agent *user_agent_header*

user-agent *user_agent_header*

Specify the user agent header.

Must be one of the following:

- **app-name**
- **cluster-name**
- **disable**

Default Value: app-name.

Usage Guidelines

Use this command to configure HTTP header parameters.

client http ping

Configures HTTP ping parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`client http ping { [ interval`** *`ping_interval`* **`] [ timeout`** *`ping_timeout`* **`] }`**

interval *ping_interval*

Specify, in milliseconds, the time interval between two HTTP pings.

Must be an integer in the range of 0-30000.

Default Value: 10000.

timeout *ping_timeout*

Specify, in milliseconds, the ping timeout duration to detect if remote host is down.

Must be an integer in the range of 0-15000.

Default Value: 5000.

Usage Guidelines Use this command to configure HTTP ping parameters.

client inbound interface

Configures inbound client interface parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`client inbound interface`** *`interface_name`*

interface *interface_name*

Specify name of the interface.

Usage Guidelines Use this command to configure inbound client interface parameters. The CLI prompt changes to the Interface Configuration mode (config-interface-<interface_name>).

client inbound interface limit overload

Configures Overload configuration parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`client inbound limit overload reject-code`** *`response_code`*

reject-code *response_code*

Specify the response code to be used when pending limit exceeds.

Must be an integer.

Usage Guidelines Use this command to configure Overload configuration parameters.

client inbound interface limit pending

Configures pending limit parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

client inbound limit pending request *max_pending_request_limit*

request *max_pending_request_limit*

Specify the maximum pending request limit to allow.

Must be an integer.

Default Value: 10240.

Usage Guidelines

Use this command to configure the pending request limit parameter.

client inbound limit overload

Configures Overload configuration parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`client inbound limit overload reject-code`** *`response_code`*

reject-code *response_code*

Specify the response code to be used when pending limit exceeds.

Must be an integer.

Usage Guidelines Use this command to configure Overload configuration parameters.

client inbound limit pending

Configures pending limit parameter.

Command Modes Exec > Global Configuration (config)

Syntax Description **`client inbound limit pending request`** *`max_pending_request_limit`*

request *max_pending_request_limit*

Specify the maximum pending request limit to allow.

Must be an integer.

Default Value: 10240.

Usage Guidelines Use this command to configure the pending request limit parameter.

client outbound host ping

Configures outbound host ping parameter.

Command Modes

Exec > Global Configuration (config) > Interface Configuration (config-interface-*interface_name*)

Syntax Description

host ping backoff *backoff_interval* **timeout** *ping_timeout* **interval** *ping_interval*

backoff *backoff_interval*

Specify, in milliseconds, the backoff time interval to wait when remote host is detected down before pinging again.

Must be an integer in the range of 0-3600000.

Default Value: 0.

interval *ping_interval*

Specify, in milliseconds, the time interval between two pings.

Must be an integer in the range of 0-30000.

Default Value: 0.

timeout *ping_timeout*

Specify the ping timeout duration, in milliseconds, to detect remote host down.

Must be an integer in the range of 0-15000.

Default Value: 0.

Usage Guidelines

Use this command to configure outbound host ping parameter.

client outbound interface

Configures outbound client interface parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`client outbound interface`** *`interface_name`*

interface *interface_name*

Specify the interface.

Usage Guidelines Use this command to configure outbound client interface parameters. The CLI prompt changes to the Interface Configuration mode (config-interface-<interface_name>).

client outbound interface host ping

Configures outbound host ping parameter.

Command Modes

Exec > Global Configuration (config) > Interface Configuration (config-interface-*interface_name*)

Syntax Description

host ping backoff *backoff_interval* **timeout** *ping_timeout* **interval** *ping_interval*

backoff *backoff_interval*

Specify, in milliseconds, the backoff time interval to wait when remote host is detected down before pinging again.

Must be an integer in the range of 0-3600000.

Default Value: 0.

interval *ping_interval*

Specify, in milliseconds, the time interval between two pings.

Must be an integer in the range of 0-30000.

Default Value: 0.

timeout *ping_timeout*

Specify the ping timeout duration, in milliseconds, to detect remote host down.

Must be an integer in the range of 0-15000.

Default Value: 0.

Usage Guidelines

Use this command to configure outbound host ping parameter.

client outbound interface limit consecutive failure

Configures consecutive failure configuration parameters.

Command Modes

Exec > Global Configuration (config) > Interface Configuration (config-interface-*interface_name*)

Syntax Description

limit consecutive failure count *consecutive_failure_count* **codes** *failure_codes*

codes *failure_codes*

Specify the list of failure codes to be considered, such as timeout, 503, etc.

Must be a string.

You can configure a maximum of 10 elements with this keyword.

count *consecutive_failure_count*

Specify the consecutive failure limit count to detect remote host as down.

Must be an integer.

Default Value: 0.

Usage Guidelines

Use this command to configure consecutive failure configuration parameters.

client outbound interface limit pending

Configures pending limit configuration.

Command Modes Exec > Global Configuration (config) > Interface Configuration (config-interface-*interface_name*)

Syntax Description **`limit pending response`** *`response_message_limit`*

response *response_message_limit*

Specify the pending response message limit to detect remote host as down.

Must be an integer.

Default Value: 1024.

Usage Guidelines Use this command to configure pending limit configuration.

client outbound limit consecutive failure

Configures consecutive failure configuration parameters.

Command Modes

Exec > Global Configuration (config) > Interface Configuration (config-interface-*interface_name*)

Syntax Description

limit consecutive failure count *consecutive_failure_count* **codes** *failure_codes*

codes *failure_codes*

Specify the list of failure codes to be considered, such as timeout, 503, etc.

Must be a string.

You can configure a maximum of 10 elements with this keyword.

count *consecutive_failure_count*

Specify the consecutive failure limit count to detect remote host as down.

Must be an integer.

Default Value: 0.

Usage Guidelines

Use this command to configure consecutive failure configuration parameters.

client outbound limit pending

Configures pending limit configuration.

Command Modes

Exec > Global Configuration (config) > Interface Configuration (config-interface-*interface_name*)

Syntax Description

limit pending response *response_message_limit*

response *response_message_limit*

Specify the pending response message limit to detect remote host as down.

Must be an integer.

Default Value: 1024.

Usage Guidelines

Use this command to configure pending limit configuration.

commit

Configures the commit parameters.

Command Modes

Exec

Syntax Description

commit [abort { persist-id *persist_id* **} | confirm { persist-id** *persist_id* **} | persist-id** *persist_id* **]**

abort persist-id *persist_id*

Specify to abort commit. Specify the persistence ID for the commit operation.

Must be an integer.

confirm persist-id *persist_id*

Specify to confirm commit. Specify the persistence ID for the commit operation.

Must be an integer.

persist-id *persist_id*

Specify the persistence ID for the commit operation.

Must be an integer.

Usage Guidelines

Use this command to configure the commit parameters.

compare

Compares the running configuration to another configuration or a file.

Command Modes

Exec

Syntax Description

compare file { *filename another_configuration* }

***filename* [.kube | .ssh] |**

Specify the file name ending with .kube/.ssh or the directory path of the file to be compared.

Must be a string.

another_configuration

Specify the configuration to be compared against.

Must be a string.

Usage Guidelines

Use this command to configure the file that must be compared.

config

Manipulates the software configuration information.

Command Modes

Exec

Syntax Description

```
config [ exclusive | no-confirm | shared | terminal ]
```

exclusive

Specify to enter the exclusive configuration mode.

no-confirm

Specify to apply the command without asking for confirmation.

shared

Specify to enter the shared configuration mode.

terminal

Specify to enter the terminal configuration mode.

Usage Guidelines

Use this command to manipulate the software configuration information.

config-error info

Displays configuration error information.

Command Modes Exec

Syntax Description `show config-error [ info ]`

Usage Guidelines Use this command to view configuration error information.

coverage

Configures code coverage utilities.

Command Modes Exec > Global Configuration (config)

Syntax Description **`coverage container-stop`** *`container_stop`*

container-stop *container_stop*

Specify the container stop.

Must be a string.

Default Value: false.

Usage Guidelines Use this command to configure code coverage utilities.

datastore dbs

Configures DBS parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`datastore dbs`** *`dbs_name`*

dbs *dbs_name*

Specify name of the DBS.

Must be a string.

Usage Guidelines Use this command to configure the DBS parameters. The CLI prompt changes to the DBS Configuration mode (config-dbs-<dbs_name>).

datastore dbs endpoints

Configures endpoint parameters.

Command Modes

Exec > Global Configuration (config) > DBS Configuration (config-dbs-*dbs_name*)

Syntax Description

endpoints *endpoint_name* **[port** *port_number* **]**

endpoints *endpoint_name*

Specify the endpoint host name.

Must be a string.

port *port_number*

Specify the port number.

Must be an integer.

Usage Guidelines

Use this command to configure endpoint parameters.

datastore notification-ep

Configures notification endpoint parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

`datastore notification-ep { [ host` *`host_name`* `] [ port` *`port_number`* `] }`

host *host_name*

Specify the host name.

Must be a string.

port *port_number*

Specify the port number.

Must be an integer.

Usage Guidelines

Use this command to configure notification endpoint parameters.

datastore session-db

Configures Session DB parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`datastore session-db endpoints`** *`endpoint_name`* **`[ [ port`** *`port_number`* **`] [ slice-name`** *`slice_name`* **`] ]`**

slice-name *slice_name*

Specify name of the slice.

Must be a string.

Usage Guidelines Use this command to configure Session DB parameters.

datastore session-db endpoints

Configures endpoint parameters.

Command Modes Exec > Global Configuration (config) > DBS Configuration (config-dbs-*dbs_name*)

Syntax Description **endpoints** *endpoint_name* **[port** *port_number* **]**

endpoints *endpoint_name*

Specify the endpoint host name.

Must be a string.

port *port_number*

Specify the port number.

Must be an integer.

Usage Guidelines Use this command to configure endpoint parameters.

debug-settings amf-ngap-ep

Configures debug settings for AMF NGAP endpoint.

Command Modes Exec > Global Configuration (config)

Syntax Description `debug-settings amf-ngap-ep go-debug`

go-debug

Specifiy to debug.

Must be a string.

Usage Guidelines Use this command to configure debug settings for the AMF NGAP endpoint.

debug-settings amf-rest-ep

Configures debug settings for AMF REST endpoint.

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
debug-settings amf-rest-ep go-debug
```

go-debug

Specifiy to debug.

Must be a string.

Usage Guidelines

Use this command to configure debug settings for the AMF REST endpoint.

debug-settings amf-sctp-lb

Configures debug settings for amf-sctp-lb.

Command Modes Exec > Global Configuration (config)

Syntax Description `debug-settings amf-sctp-lb go-debug`

go-debug

Specifiy to debug.

Must be a string.

Usage Guidelines Use this command to configure debug settings for amf-sctp-lb.

debug-settings amf-service

Configures debug settings for AMF service.

Command Modes Exec > Global Configuration (config)

Syntax Description `debug-settings amf-service go-debug`

go-debug

Specifiy to debug.

Must be a string.

Usage Guidelines Use this command to configure debug settings for the AMF service.

deployment

Configures the product deployment parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

deployment { app-name *application_name* **| cluster-name** *cluster_name* **| dc-name** *datacenter_name* **| logical-nf-instance-id** *logical_nf_instance_id* **| model** *deployment_model* **}**

app-name *application_name*

Specify name of the application.

Must be a string.

cluster-name *cluster_name*

Specify name of the cluster.

Must be a string.

dc-name *datacenter_name*

Specify name of the datacenter.

Must be a string.

logical-nf-instance-id *logical_nf_instance_id*

Specify the logical NF instance ID.

Must be an integer.

Default Value: 0.

model *deployment_model*

Specify the deployment model. Default: Large.

Must be one of the following:

- **small**

Usage Guidelines

Use this command to configure product deployment parameters.

deployment resource

Configures the deployment CPU resource parameter.

Command Modes Exec > Global Configuration (config) > Deployment Configuration (config-deployment)

Syntax Description **`resource cpu`** *`cpu_size`*

cpu *cpu_size*

Specify the CPU size in millicores.

Must be an integer in the range of 2000-1000000.

Default Value: 18000.

Usage Guidelines Use this command to configure the deployment CPU resource parameter.

describe

Displays the command information.

Command Modes

Exec

Syntax Description

describe *command*

command

Specify the command name to display the detailed information about the command.

Must be a string.

The command must be one of the following:

- **aaa**
- **cd**
- **cdl**
- **clear**
- **commit**
- **compare**
- **config**
- **describe**
- **dump**
- **exit**
- **geo**
- **help**
- **history**
- **id**
- **idle-timeout**
- **ignore-leading-space**
- **job**
- **leaf-prompting**
- **license**
- **logout**
- **monitor**
- **no**

- **paginate**
- **quit**
- **reconcile**
- **screen-length**
- **screen-width**
- **search**
- **send**
- **show**
- **show-defaults**
- **smiuser**
- **system**
- **terminal**
- **timestamp**
- **transaction**
- **who**

Usage Guidelines Use this command to display the command-specific information.

diagnostics

Displays diagnostics information.

Command Modes Exec

Syntax Description `show diagnostics`

Usage Guidelines Use this command to view diagnostics information.

diagnostics info

Displays diagnostics information.

Command Modes Exec

Syntax Description `show diagnostics [ info ]`

Usage Guidelines Use this command to view diagnostics information.

dump

Removes the transaction history.

Command Modes

Exec

Syntax Description

`dump transactionhistory`

transactionhistory

Dump the transaction history.

Usage Guidelines

Use this command to remove the transaction history.

edr reporting

Disables/Enables the EDR reporting.

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
edr reporting { disable | enable }
```

edr reporting { disable | enable }

- **disable**

  : Disables the EDR reporting.
- **enable**

  : Enables the EDR reporting.

Usage Guidelines

Use this command to configure EDR enable parameters.

edr all subscribers

Configures EDR reporting for all subscribers.

Command Modes Exec > Global Configuration (config)

Syntax Description `edr reporting all subscribers`

edr reporting all subscribers

- **all subscribers**

  : Enables edr reporting for all.

Usage Guidelines Use this command to configure EDR reporting for all subscribers.

edr file transaction reporting

Configures EDR file transaction reporting.

Command Modes Exec > Global Configuration (config)

Syntax Description `edr file transaction reporting { disable | enable }`

edr file transaction reporting { disable | enable }

Use this command to disable/enable transaction level EDR.

Usage Guidelines Use this command to disable or enable the EDR file transaction reporting.

edr file transaction flush interval

Configures EDR file transaction flush interval.

Command Modes Exec > Global Configuration (config)

Syntax Description **`edr file transaction flush`** *`flush_interval`*

edr file transaction flush *flush_interval*

Specify the interval time interval in milliseconds to flush file.

The flush interval value is in integer ranging from 500 to 10000 ms. The default value is 1000 ms.

Usage Guidelines Use this command to configure EDR file flush parameters.

edr file transaction limit

Configures EDR file transaction limit parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

edr file transaction limit { count *file_count* **| size** *file_max_limit* **| storage** *storage_size* **}**

edr file transaction limit { count *file_count* | size *file_max_limit* | storage *storage_size* }

- **count** *file_count*: Specify the maximum number of files to be preserved in service-pod (s), (default: 10).
- **size** *file_max_limit*: Specify the maximum single file size (in MiB) limit in service-pod (s), (default: 100MiB).
- **storage** *storage_size*: Specify the EDR Storage size (in GiB) of persistent volume in edr-monitor pod (s), (disable PV: 0, default: 24GiB).

Usage Guidelines

Use this command to configure EDR file transaction limit parameters.

edr file transaction procedure-id, event-id, field-id

Configures the procedure-id, event-id, and field-id parameters.

Note Once you configure this CLI, the system generates EDR only for the configured parameters, and it disables all other procedures, fields, and events.

Command Modes Exec > Global Configuration (config) > EDR File Transaction (config-edr-file-transaction)

Syntax Description **`procedure`** *`procedure_id`* **`[ event`** *`event_id`* **`| field`** *`field_id`* **`]`**

procedure *procedure_id* [event *event_id* | field *field_id*]

Specify the name of procedure-id, event-id, and field-id to enable the EDR reporting.

Must be a string.

Usage Guidelines Use this command to enable transaction-level procedure-id, event-id, and field-id parameters.

edr file transaction rate

Configures EDR file transaction rate.

Command Modes

Exec > Global Configuration (config)

Syntax Description

edr file transaction rate *edr_generation_rate*

edr file transaction rate *edr_generation_rate*

Specify the allowed rate per second to generate EDR records. The default value is 4096.

Usage Guidelines

Use this command to configure EDR file transaction rate.

edr file transaction threshold

Configures EDR file transaction threshold parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

edr file transaction threshold { cpu *cpu_threshold* **| session** *session_threshold* **}**

edr file transaction threshold { cpu *cpu_threshold* | session *session_threshold* }

Specify the CPU and Session threshold value (s) to limit EDR generation. After reaching any of the CPU or session threshold values, the system stops generating the EDR files.

The default value for CPU threshold is 80%.

The default value for session threshold is 100,000 per gr-instance.

Usage Guidelines

Use this command to configure EDR file transaction threshold parameters.

edr file transaction collision reporting

Configures EDR file transaction-collision reporting.

Note For more details on transaction-collision scenarios, see UCC AMF Configuration and Administration Guide > Chapter: Event Data Records > EDR Transaction Collision

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
edr file transaction-collision reporting { disable | enable }
```

edr file transaction-collision reporting { disable | enable }

Disables or enables the EDR reporting.

Usage Guidelines

Use this command to disable or enable the EDR file transaction-collision reporting.

edr file transaction-collision flush interval

Configures EDR file transaction-collision flush interval.

Note For more details on transaction-collision scenarios, see UCC AMF Configuration and Administration Guide > Chapter: Event Data Records > EDR Transaction Collision

Command Modes

Exec > Global Configuration (config)

Syntax Description

edr file transaction-collision flush *flush_interval*

edr file transaction-collision flush *flush_interval*

Specify the interval time interval in milliseconds to flush file.

The flush interval value is in integer ranging from 500 to 10000 ms. The default value is 1000 ms.

Usage Guidelines

Use this command to configure EDR file flush parameters.

edr file transaction-collision limit

Configures EDR file transaction-collision limit parameters.

Note For more details on transaction-collision scenarios, see UCC AMF Configuration and Administration Guide > Chapter: Event Data Records > EDR Transaction Collision

Command Modes

Exec > Global Configuration (config)

Syntax Description

edr file transaction-collision limit { count *file_count* **| size** *file_max_limit* **| storage** *storage_size* **}**

edr file transaction-collision limit { count *file_count* | size *file_max_limit* | storage *storage_size* }

- **count** *file_count*: Specify the maximum number of files to be preserved in service-pod (s), (default: 10).
- **size** *file_max_limit*: Specify the maximum single file size (in MiB) limit in service-pod (s), (default: 100MiB).
- **storage** *storage_size*: Specify the EDR Storage size (in GiB) of persistent volume in edr-monitor pod (s), (disable PV: 0, default: 24GiB).

Usage Guidelines

Use this command to configure EDR file transaction-collision limit parameters.

endpoint all

Displays endpoint status.

Command Modes Exec

Syntax Description `show endpoint [ all ]`

Usage Guidelines Use this command to view the status of endpoints.

endpoint info

Displays endpoint information.

Command Modes Exec

Syntax Description `show endpoint info`

Usage Guidelines Use this command to view endpoint information.

exit

Exits the current configuration mode and returns to the parent configuration mode.

Command Modes

Exec

Syntax Description

`exit`

Usage Guidelines

Use this command to exit the current configuration mode and return to the parent configuration mode. When used in the Exec mode, exits the management session.

geo maintenance

Configures Geo Admin Controller to enable or disable maintenance mode.

Command Modes

Exec

Syntax Description

```
geo maintenance mode { false | true }
```

mode { false | true }

Specify whether to enable or disable maintenance mode. To enable, set to true.

Must be one of the following:

- **false**
- **true**

Default Value: false.

Usage Guidelines

Use this command to configure Geo Admin Controller to enable or disable maintenance mode.

geo reset-role

Configures Geo Admin Controller for reset role.

Command Modes

Exec

Syntax Description

geo reset-role { [instance-id *instance_id* **] [role** *new_role* **] }**

instance-id *instance_id*

Specify the instance ID for geo command.

role *new_role*

Specify the new role for the specified site.

Usage Guidelines

Use this command to configure Geo Admin Controller for reset role.

geo switch-role

Configures Geo Admin Controller for trigger failover.

Command Modes

Exec

Syntax Description

geo switch-role { [failback-interval *failback_interval* **] [instance-id** *instance_id* **] [role** *new_role* **] }**

failback-interval *failback_interval*

Specify, in seconds, the interval between notify failover and actual failover.

Must be a string.

instance-id *instance_id*

Specify the instance ID for geo command.

role *new_role*

Specify the new role for the specified site.

Usage Guidelines

Performs instance role manipulation. Use this command to configure Geo Admin Controller for trigger failover.

geomonitor podmonitor pods

Configures configuration of pods to be monitored.

Command Modes

Exec > Global Configuration (config)

Syntax Description

geomonitor podmonitor pods *pod_name* **[[failedReplicaPercent** *failed_replica_precentage* **] [retryCount** *retry_count* **] [retryFailOverInterval** *retry_interval* **] [retryInterval** *retry_interval* **]]**

failedReplicaPercent ***failed_replica_precentage***

Specify the percentage of failed replica after which GR failover will get triggered.

Must be an integer in the range of 10-100.

pods ***pod_name***

Specify the name of the pod to be monitored.

Must be a string.

retryCount ***retry_count***

Specify the counter value to retry if pod failed to ping after which pod is marked as down.

Must be an integer in the range of 1-10.

retryFailOverInterval ***retry_interval***

Specify, in milliseconds, the retry interval if pod ping fails.

Must be an integer in the range of 200-10000.

retryInterval ***retry_interval***

Specify, in milliseconds, the retry interval if pod ping is successful.

Must be an integer in the range of 200-10000.

Usage Guidelines

Use this command to configure configuration of pods to be monitored.

geomonitor remoteclustermonitor

Configures remote cluster monitoring parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

geomonitor remoteclustermonitor retryCount *retry_count* **retryInterval** *retry_interval*

retryCount ***retry_count***

Specify the retry count if remote cluster is not reachable. To disable, set to 0.

Must be an integer in the range of 0-10.

Default Value: 3.

retryInterval ***retry_interval***

Specify, in milliseconds, the retry interval after which status of the remote site will be fetched.

Must be an integer in the range of 200-50000.

Default Value: 3000.

Usage Guidelines

Use this command to configure remote cluster monitoring parameters.

geomonitor trafficMonitor

Configures traffic monitoring configuration.

Command Modes

Exec > Global Configuration (config)

Syntax Description

geomonitor trafficMonitor thresholdCount *threshold_count* **thresholdInterval** *threshold_interval*

thresholdCount *threshold_count*

Specify the number of calls received for standby instance. To disable, set to 0.

Must be an integer in the range of 0-10000.

Default Value: 0.

thresholdInterval *threshold_interval*

Specify, in milliseconds, the maximum duration window to hit the threshold count value.

Must be an integer in the range of 100-10000.

Default Value: 3000.

Usage Guidelines

Use this command to configure traffic monitoring configuration.

geomonitor vipmonitor instance

Configures VIP monitoring parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

geomonitor vipmonitor instance *instance_id*

instance *instance_id*

Specify the instance ID.

Must be an integer in the range of 1-8.

Usage Guidelines

Use this command to configure VIP monitoring configuration. The CLI prompt changes to the Instance Configuration mode (config-instance-<instance_id>).

geomonitor vipmonitor instance vips

Configures VIP interface monitoring parameters.

Command Modes

Exec > Global Configuration (config) > Instance Configuration (config-instance-*instance_id*)

Syntax Description

vips *vip_interface_name* **[retryCount** *retry_count* **| retryFailOverInterval** *retry_interval* **| retryInterval** *retry_interval* **| vipIp** *vip_ip* **| vipPort** *vip_port_number* **]**

retryCount *retry_count*

Specify the counter value to retry if VIP failed to ping after which VIP is marked as down.

Must be an integer in the range of 1-10.

retryFailOverInterval *retry_interval*

Specify, in milliseconds, the retry interval if VIP failed to ping.

Must be an integer in the range of 200-10000.

retryInterval *retry_interval*

Specify, in milliseconds, the retry interval if VIP pinged successfully.

Must be an integer in the range of 200-10000.

vipIp *vip_ip*

Specify the IPv4 address.

Must be a string.

vipPort *vip_port_number*

Specify the diagnostic port number.

Must be an integer.

vip_interface_name

Specify name of the interface to monitor.

Must be a string.

Usage Guidelines

Use this command to configure VIP interface monitoring parameters.

group nf-mgmt

Configures NF management group name.

Command Modes

Exec > Global Configuration (config)

Syntax Description

nf-mgmt *mgmt_group_name* **{ nrf-mgmt-group** *nrf_mgmt_group_name* **| failure-handling-profile** *fh_profile_name* **| nrf-auth-group** *nrf_auth_group_name* **| locality** *locality_name* **| re-register { false | true } }**

failure-handling-profile *fh_profile_name*

Specify name of the Failure Handling profile for the NRF Management functionality.

Must be a string.

locality *locality_name*

Specify the locality information.

Must be a string.

nf-mgmt *mgmt_group_name*

Specify name of the NRF management group.

Must be a string.

nrf-mgmt-group *nrf_mgmt_group_name*

Specify name of the NRF management group.

Must be a string.

Usage Guidelines

Use this command to configure NF management group name.

group nf-mgmt heartbeat

Configures the heartbeat interval parameter.

Command Modes

Exec > Global Configuration (config) > NF Management Group Configuration (config-nf-mgmt-*mgmt_group_name*)

Syntax Description

`heartbeat interval` *`heartbeat_interval`*

interval *heartbeat_interval*

Specify the heartbeat interval in seconds.

Must be an integer.

Usage Guidelines

Use this command to configure the heartbeat interval parameter.

group nrf discovery

Configures NRF discovery group parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`group nrf discovery`** *`group_name`* **`[ nrf-type`** *`nrf_type`* **`]`**

discovery *group_name*

Specify name of the NRF discovery group.

Must be a string.

nrf-type *nrf_type*

Specify the NRF type.

Must be one of the following:

- **PLMN**: PLMN.
- **SHARED**: SHARED.
- **SLICE-LOCAL**: SLICE-LOCAL.

Usage Guidelines Use this command to configure the NRF discovery group configuration.

group nrf discovery service type nrf

Configures the NRF discovery service name.

Command Modes

Exec > Global Configuration (config)

Syntax Description

nrf *nrf_service_name* **[responsetimeout** *response_timeout* **]**

nrf *nrf_service_name*

Specify name of the NRF discovery service.

Must be one of the following:

- **nnrf-disc**

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

Usage Guidelines

Use this command to configure the NRF discovery service name.

group nrf discovery service type nrf endpoint-profile

Configures endpoint profile parameters2.

Command Modes

Exec > Global Configuration

Syntax Description

endpoint-profile *endpoint_profile_name* **{ api-uri-prefix** *api_uri_prefix* **| api-root** *api_root* **| uri-scheme** *uri_scheme* **}**

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**
- **https**

Usage Guidelines

Use this command to configure endpoint profile parameters.

group nrf discovery service type nrf endpoint-profile endpoint-name

Configures endpoint parameters.

Command Modes Exec > Global Configuration

Syntax Description **endpoint-name** *endpoint_name* **[priority** *priority* **| capacity** *endpoint_capacity* **]**

capacity *endpoint_capacity*

Specify the endpoint capacity.

Must be an integer in the range of 0-65535.

Default Value: 10.

priority *priority*

Specify the node priority for endpoint.

Must be an integer in the range of 0-65535.

endpoint_name

Specify name of the endpoint.

Must be a string.

Usage Guidelines Use this command to configure endpoint parameters.

group nrf discovery service type nrf endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > NRF Profile Configuration (config-nrf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

group nrf discovery service type nrf endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > NRF Profile Configuration (config-nrf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 ***ipv4_address***

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 ***ipv6_address***

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port ***port_number***

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

group nrf discovery service type nrf endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > NRF Profile Configuration (config-nrf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

group nrf discovery service type nrf endpoint-profile version uri-version

Configures URI version information.

Command Modes

Exec > Global Configuration

Syntax Description

uri-version *uri_version* **[full-version** *full_version* **]**

full-version *full_version*

Specify the full version in the format *major-version*.*minor-version*.*patch-version*.[alpha-*draft-number*]

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines

Use this command to configure URI version information.

group nrf mgmt

Configures the NRF self-management group parameters.

Command Modes

Exec > Global Configuration

Syntax Description

mgmt *group_name* **[nrf-type** *nrf_type* **]**

mgmt *group_name*

Specify name of the NRF self-management group.

Must be a string.

nrf-type *nrf_type*

Specify the NRF type.

Must be one of the following:

- **PLMN**: PLMN.
- **SHARED**: SHARED.
- **SLICE-LOCAL**: SLICE-LOCAL.

Usage Guidelines

Use this command to configure the NRF self-management group parameters.

group nrf mgmt service type nrf

Configures the NRF self-management service information.

Command Modes

Exec > Global Configuration

Syntax Description

nrf nrf-service-name *nrf_service_name* **[responsetimeout** *response_timeout* **]**

nrf-service-name *nrf_service_name*

Specify name of the NRF service.

Must be one of the following:

- **nnrf-nfm**

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

Usage Guidelines

Use this command to configure the NRF self-management service information.

group nrf mgmt service type nrf endpoint-profile

Configures endpoint profile parameters1.

Command Modes

Exec > Global Configuration

Syntax Description

endpoint-profile *endpoint_profile_name* **{ api-uri-prefix** *api_uri_prefix* **| api-root** *api_root* **| uri-scheme** *uri_scheme* **}**

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**
- **https**

Usage Guidelines

Use this command to configure endpoint profile parameters.

group nrf mgmt service type nrf endpoint-profile endpoint-name

Configures endpoint parameters.

Command Modes

Exec > Global Configuration

Syntax Description

endpoint-name *endpoint_name* **[max-retry-count** *max_retry_count* **] [priority** *endpoint_priority* **]**

max-retry-count *max_retry_count*

Specify the maximum retry count.

Must be an integer in the range of 0-10.

Default Value: 3.

priority *endpoint_priority*

Specify the node priority for endpoint.

Must be an integer in the range of 0-65535.

endpoint_name

Specify name of the endpoint.

Must be a string.

Usage Guidelines

Use this command to configure endpoint parameters.

group nrf mgmt service type nrf endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > NRF Profile Configuration (config-nrf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

group nrf mgmt service type nrf endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > NRF Profile Configuration (config-nrf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

group nrf mgmt service type nrf endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > NRF Profile Configuration (config-nrf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

group nrf mgmt service type nrf endpoint-profile version uri-version

Configures version information.

Command Modes Exec > Global Configuration

Syntax Description **`uri-version`** *`uri_version`* **`[ full-version`** *`full_version`* **`]`**

full-version *full_version*

Specify the full version in the format *major-version*.*minor-version*.*patch-version*.[alpha-*draft-number*]

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines Use this command to configure the version information.

help

Displays help information for specified command.

Command Modes

Exec

Syntax Description

help *command*

command

Specify the command name to display the corresponding help information.

Must be a string.

The command must be one of the following:

- **aaa**
- **cd**
- **cdl**
- **clear**
- **commit**
- **compare**
- **config**
- **describe**
- **dump**
- **exit**
- **geo**
- **help**
- **history**
- **id**
- **idle-timeout**
- **ignore-leading-space**
- **job**
- **leaf-prompting**
- **license**
- **logout**
- **monitor**
- **no**

- **paginate**
- **quit**
- **reconcile**
- **screen-length**
- **screen-width**
- **search**
- **send**
- **show**
- **show-defaults**
- **smiuser**
- **system**
- **terminal**
- **timestamp**
- **transaction**
- **who**

Usage Guidelines Use this command to view help information for a specified command.

history

Configures the command history cache size.

Command Modes

Exec

Syntax Description

history *history_size*

history_size

Specify the command history cache size.

Must be an integer in the range of 0-1000.

Usage Guidelines

Use this command to configure the command history cache size.

id

Displays the user ID information.

Command Modes Exec

Syntax Description `id`

Usage Guidelines Use this command to view the user ID information.

idle-timeout

Configures the maximum duration for which a command can remain idle in seconds after which the system automatically terminates the connection.

Command Modes

Exec

Syntax Description

idle-timeout *timeout_in_seconds*

timeout_in_seconds

Specify the idle timeout duration in seconds.

Usage Guidelines

Use this command to configure the maximum duration for which a command can remain idle.

ignore-leading-space

Configures whether to ignore or consider the leading whitespace at the beginning of a command.

Command Modes

Exec

Syntax Description

```
ignore-leading-space { false | true }
```

{ false | true }

Specify false to ignore leading whitespace, and true to consider it.

Must be either "false" or "true".

Usage Guidelines

Use this command to configure whether to ignore or consider leading whitespace at the beginning of a command.

infra metrics experimental

Configures the experimental metrics version to be enabled.

Command Modes

Exec > Global Configuration (config)

Syntax Description

infra metrics experimental version *experimental_metrics_version*

version *experimental_metrics_version*

Specify the experimental metrics version to be enabled.

Must be an integer in the range of 0-4.

Default Value: 0.

Usage Guidelines

Use this command to configure the experimental metrics version to be enabled.

infra metrics verbose verboseLevels

Configures verbose configuration parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

infra metrics verbose *pod_type* **level** *verbose_level*

level *verbose_level*

Specify the verbosity level.

Must be one of the following:

- **debug**
- **production**
- **trace**

Default Value: trace.

pod_type

Specify the pod type.

Must be one of the following:

- **load-balancer**
- **protocol**
- **service**

Usage Guidelines

Use this command to configure verbose configuration parameters.

infra transaction limit

Configures the maximum stage limit per transaction.

Command Modes

Exec > Global Configuration (config)

Syntax Description

infra transaction limit stage *max_stage_limit*

stage *max_stage_limit*

Specify the maximum stage limit per transaction.

Must be an integer.

Default Value: 100.

Usage Guidelines

Use this command to configure the maximum stage limit per transaction.

infra transaction limit consecutive same

Configures the maximum consecutive stage limit per transaction.

Command Modes Exec > Global Configuration (config)

Syntax Description **infra transaction limit consecutive same stage** *max_consecutive_stage_limit*

stage *max_consecutive_stage_limit*

Specify the maximum consecutive stage limit per transaction.

Must be an integer.

Default Value: 10.

Usage Guidelines Use this command to configure the maximum consecutive stage limit per transaction.

infra transaction loop

Configures the transaction loop detection parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **infra transaction loop detection** *detection_status*

detection *detection_status*

Specify to enable or disable loop detection.

Must be one of the following:

- **disable**
- **enable**

Default Value: disable.

Usage Guidelines Use this command to configure the transaction loop detection parameter.

infra transaction loop category

Configures the loop category.

Command Modes Exec > Global Configuration (config)

Syntax Description **infra transaction loop category** *loop_category*

category *loop_category*

Specify the category.

Usage Guidelines Use this command to configure the loop category. The CLI prompt changes to the Loop Category Configuration mode(config-category-<category>).

infra transaction loop category threshold

Configures the loop detection interval parameter.

Command Modes

Exec > Global Configuration (config) > Loop Category Configuration (config-category-*category*)

Syntax Description

`threshold interval` *`loop_detect_interval`*

interval *loop_detect_interval*

Specify, in seconds, the loop detection interval.

Must be an integer.

Default Value: 5.

Usage Guidelines

Use this command to configure the loop detection interval parameter.

infra transaction loop category threshold thresholds

Configures thresholds.

Command Modes

Exec > Global Configuration (config) > Loop Category Configuration (config-category-*category*)

Syntax Description

threshold *threshold_level* **[[action** *threshold_action* **] [count** *max_transactions* **]]**

action *threshold_action*

Specify the action to take on threshold breach.

Must be one of the following:

- **kill-session**
- **log-event**
- **noop**

Default Value: noop.

count *max_transactions*

Specify the maximum number of transactions for the threshold interval.

Must be an integer.

Default Value: 100.

thresholds *threshold_level*

Specify the threshold level.

Must be one of the following:

- **high**
- **low**

Usage Guidelines

Use this command to configure thresholds.

instance instance-id

Configures instance ID of GR instance.

Command Modes Exec > Global Configuration (config)

Syntax Description **instance instance-id** *instance_id*

id *instance_id*

Specify the instance ID.

Usage Guidelines GR instance-specific parameters. Use this command to configure the instance ID of GR instance. The CLI prompt changes to the Instance ID Configuration mode (config-instance-id-<instance_id>).

instance instance-id endpoint ep

Configures endpoint parameters.

Command Modes

Exec > Global Configuration (config) > Instance ID Configuration (config-instance-id-*instance_id*)

Syntax Description

endpoint *endpoint_type* **[[instancetype** *ep_local_interface_type* **] [loopbackEth** *loopbackEth* **] [loopbackPort** *loopbackPort* **] [nodes** *node_replicas_for_resiliency* **] [replicas** *replicas_per_node* **] [uri-scheme** *uri_scheme* **]]**

certificate-name *certificate_alias_name*

Specify the alias name for the certificate.

endpoint *endpoint_type*

Specify the endpoint type.

instancetype *ep_local_interface_type*

Specify the endpoint local interface type.

Must be one of the following:

- **Dual**
- **IPv4**
- **IPv6**

Default Value: IPv4.

internal-vip *internal_vip*

Specify the internal VIP.

Must be a string.

loopbackEth *loopbackEth*

Specify the endpoint local interface name or host IP.

Must be a string.

loopbackPort *loopbackPort*

Specify the endpoint local port.

Must be an integer.

max-fragment-size *max_fragment_size*

Specify the Maximum SCTP fragment size for data packet.

Must be an integer.

Default Value: 0.

nodes *node_replicas_for_resiliency*

Specify the number of node replicas for resiliency.

Must be an integer.

Default Value: 1.

replicas *replicas_per_node*

Specify the number of replicas per node.

Must be an integer.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**
- **https**

Default Value: http.

Usage Guidelines

Use this command to configure endpoint parameters.

instance instance-id endpoint ep interface

Configures the interface type.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_name*)

Syntax Description **interface** *interface_type*

certificate-name ***certificate_alias_name***

Specify the alias name for certificate.

instancetype ***ep_local_interface_type***

Specify the endpoint local interface type.

Must be one of the following:

- **Dual**
- **IPv4**
- **IPv6**

Default Value: IPv4.

loopbackEth ***loopback_eth***

Specify the Loopback Eth pod interface.

Must be a string.

loopbackPort ***loopback_port_number***

Specify the loopback port number.

Must be an integer.

uri-scheme ***uri_scheme***

Specify the URI scheme.

Must be one of the following:

- **http**
- **https**

Default Value: http.

interface_type

Specify the interface type.

Usage Guidelines Use this command to configure the interface type.

instance instance-id endpoint ep interface dispatcher

Displays the dispatcher queue support details for the interface.

Command Modes

Exec > Global Configuration (config) > Instance ID Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*) > Interface Configuration (config-interface-*interface_name*)

Syntax Description

dispatcher { cache { false | true } | capacity *queue_capacity* **| count** *dispatcher_queues_count* **| expiry** *cache_entry_expiry_duration* **| nonresponsive** *cache_entry_expiry_duration* **| outbound { false | true } | rate-limit** *queue_rate_limit* **| threshold** *outstanding_requests_per_queue_cache* **}**

cache { false | true }

Specify to enable or disable disable retransmission cache support. To disable, set to true.

Must be one of the following:

- **false**
- **true**

Default Value: false.

capacity *queue_capacity*

Specify the capacity of each queue.

Must be an integer.

Default Value: 5000.

count *dispatcher_queues_count*

Specify the count of dispatcher queues.

Must be an integer.

Default Value: 0.

expiry *cache_entry_expiry_duration*

Specify, in milliseconds, the responded cache entry expiry duration.

Must be an integer.

Default Value: 60000.

nonresponsive *cache_entry_expiry_duration*

Specify, in milliseconds, the non-responsive cache entry expiry duration.

Must be an integer.

Default Value: 30000.

outbound { false | true }

Specify to enable or disable queue support for outbound messages. To disable, set to true.

Must be one of the following:

- **false**
- **true**

Default Value: true.

rate-limit *queue_rate_limit*

Specify the rate limit for each queue.

Must be an integer.

Default Value: 0.

threshold *outstanding_requests_per_queue_cache*

Specify the outstanding requests per queue cache.

Must be an integer.

Default Value: 30000.

Usage Guidelines

Use this command to view dispatcher queue support details for the interface.

instance instance-id endpoint ep interface internal base-port

Configures the internal base-port to start endpoint parameter.

Command Modes

Exec > Global Configuration (config) > Instance ID Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*) > Interface Configuration (config-interface-*interface_name*)

Syntax Description

`internal base-port start` *`base_port_to_start_ep`*

start *base_port_to_start_ep*

Specify the base port to start endpoint.

Must be an integer in the range of 1024-65535.

Usage Guidelines

Use this command to configure the internal base-port to start endpoint parameter.

instance instance-id endpoint ep interface sla

Configures SLA parameters.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_name*) > Interface Configuration (config-interface-*interface_name*)

Syntax Description **`sla { [ response`** *`response_time`* **`] [ procedure`** *`procedure_time`* **`] }`**

procedure *procedure_time*

Specify, in milliseconds, the procedure time.

Must be an integer in the range of 1000-120000.

response *response_time*

Specify, in milliseconds, the response time.

Must be an integer in the range of 1000-180000.

Usage Guidelines Use this command to configure SLA parameters.

instance instance-id endpoint ep interface vip

Configures Virtual IP parameters.

Command Modes

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_name*) > Interface Configuration (config-interface-*interface_name*)

Syntax Description

vip-ip *vip_ip_address* **[[offline] [vip-interface** *interface_name* **] [vip-port** *vip_port_number* **]]**

offline

Specify to mark the vip-ip as offline.

vip-interface *interface_name*

Specify the interface name to advertise BGP router.

Must be a string.

vip-ip *vip_ip_address*

Specify the host IP address.

Must be a string.

vip-port *vip_port_number*

Specify the port number.

Must be an integer.

Usage Guidelines

Use this command to configure Virtual IP parameters.

instance instance-id endpoint ep interface vip6

Configures VIP IPv6 parameters.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_name*) > Interface Configuration (config-interface-*interface_name*)

Syntax Description **vip-ip6** *vip_ip6* **[[offline] [vip-ipv6-port** *port_number* **]]**

offline

Specify the VIP IP as offline.

vip-ip6 *vip_ip6*

Specify the host detail.

Must be a string.

vip-ipv6-port *port_number*

Specify the port number.

Must be an integer.

Usage Guidelines Use this command to configure VIP IPv6 parameters.

instance instance-id endpoint ep nodes nodes-count internal vip ip interface interface-name vip ip

Configures GTPC-EP merge mode.

Command Modes

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_name*) > Interface Configuration (config-interface-*interface_name*)

Syntax Description

vip-ip *vip_ip_address*

vip-ip *vip_ip_address*

Specifies the virtual IP address associated with the specified interface.

Must be a string.

Note vip-ipv6 is not supported for GTP endpoint.

Usage Guidelines

Use this command to configure Virtual IP parameters.

instance instance-id endpoint ep internal base-port

Configures the internal base-port to start endpoint parameter.

Command Modes

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description

internal base-port start *base_port_to_start_ep*

start *base_port_to_start_ep*

Specify the base port to start endpoint.

Must be an integer in the range of 1024-65535.

Usage Guidelines

Use this command to configure the internal base-port to start endpoint parameter.

instance instance-id endpoint ep internal-port

Configures internal port parameters.

Command Modes

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description

internal-port metrics *metrics_port* **admin** *admin_port* **ipc** *ipc_port* **pprof** *pprof_port* **keepalived** *keepalived_port*

admin *admin_port*

Specify the admin port number for SCTP.

Must be an integer.

Default Value: 7879.

ipc *ipc_port*

Specify the IPC port number for SCTP.

Must be an integer.

Default Value: 9005.

keepalived *keepalived_port*

Specify the keepalived port number for SCTP.

Must be an integer.

Default Value: 29000.

metrics *metrics_port*

Specify the metrics port number for SCTP.

Must be an integer.

Default Value: 7083.

pprof *pprof_port*

Specify the PPROF port number for SCTP.

Must be an integer.

Default Value: 7850.

Usage Guidelines

Use this command to configure internal port parameters.

instance instance-id endpoint ep retransmission

Configures retransmission configuration parameters.

Command Modes

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description

retransmission timeout *retransmission_interval* **max-retry** *max_retry*

max-retry *max_retry*

Specify the maximum number of times to request retry attempts. To disable retransmission, set to 0

Must be an integer in the range of 0-5.

Default Value: 3.

timeout *retransmission_interval*

Specify the retransmission interval in seconds. To disable retransmission, set to 0

Must be an integer in the range of 0-10.

Default Value: 2.

Usage Guidelines

Use this command to configure retransmission configuration parameters.

instance instance-id endpoint ep system-health-level crash

Configures system health crash parameters.

Command Modes

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description

system-health-level crash { [cpu-percent *cpu_percentage* **] [memory-in-mbs** *memory* **] [num-of-goroutine** *goroutine_per_core* **] }**

cpu-percent *cpu_percentage*

Specify the CPU percentage.

Must be an integer.

Default Value: 80.

memory-in-mbs *memory*

Specify the memory in MB.

Must be an integer.

Default Value: 2048.

num-of-goroutine *goroutine_per_core*

Specify the number of goroutine per core.

Must be an integer.

Default Value: 45000.

Usage Guidelines

Use this command to configure system health crash parameters.

instance instance-id endpoint ep system-health-level critical

Configures system health critical parameters.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description **system-health-level critical { [cpu-percent** *cpu_percent* **] [memory-in-mbs** *memory* **] [num-of-goroutine** *number_of_goroutine* **] }**

cpu-percent *cpu_percentage*

Specify the CPU percentage.

Must be an integer.

Default Value: 60.

memory-in-mbs *memory*

Specify the memory in MB.

Must be an integer.

Default Value: 1024.

num-of-goroutine *number_of_goroutine*

Specify the number of goroutine per core.

Must be an integer.

Default Value: 35000.

Usage Guidelines Use this command to configure system health critical parameters.

instance instance-id endpoint ep system-health-level warn

Configures system health warn parameters.

Command Modes

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description

system-health-level warn { [cpu-percent *cpu_percentage* **] [memory-in-mbs** *memory* **] [num-of-goroutine** *number_of_goroutine* **] }**

cpu-percent *cpu_percentage*

Specify the CPU percentage.

Must be an integer.

Default Value: 50.

memory-in-mbs *memory*

Specify the memory in MBs.

Must be an integer.

Default Value: 512.

num-of-goroutine *goroutine_per_core*

Specify the number of goroutine per core.

Must be an integer.

Default Value: 25000.

Usage Guidelines

Use this command to configure system health warn parameters.

instance instance-id endpoint ep vip

Configures VIP parameters.

Command Modes

Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*) > Endpoint Configuration (config-endpoint-*endpoint_type*)

Syntax Description

vip-ip *vip_ipv4_address* **[[offline] [vip-interface** *vip_interface_name* **] [vip-port** *port_number* **]]**

offline

Specify the VIP-IP as offline.

vip-interface *vip_interface_name*

Specify the interface name to advertise BGP router.

Must be a string.

vip-ip *vip_ipv4_address*

Specify the VIP IPv4 address.

Must be a string.

vip-port *port_number*

Specify the port number.

Must be an integer.

Usage Guidelines

Use this command to configure VIP parameters.

instance instance-id endpoint ep vip6

Configures VIP IPv6 parameters.

Command Modes

Exec > Global Configuration (config) > Instance ID Configuration (config-instance-id-*instance_id*) > Endpoint *endpoint_type* Configuration (config-endpoint-*endpoint_type*)

Syntax Description

vip-ipv6 *vip_ipv6_detail* **[[offline] [vip-ipv6-port** *vip_ipv6_port_number* **]]**

offline

Specify the VIP-IP as offline.

vip-ipv6-port *vip_ipv6_port_number*

Specify the port number.

Must be an integer.

vip-ipv6 *vip_ipv6_detail*

Specify the IPv6 detail.

Must be a string.

Usage Guidelines

Use this command to configure VIP IPv6 parameters.

instances instance

Configures instance configuration parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

instances instance *instance_id* **[[cluster-id** *cluster_id* **] [system-id** *system_id* **] [slice-name** *slice_name* **]]**

cluster-id *cluster_id*

Specify the instance cluster ID.

Must be a string.

instance *instance_id*

Specify the instance ID.

Must be an integer in the range of 1-8.

slice-name *slice_name*

Specify the CDL slice name associated with instance ID.

Must be a string.

system-id *system_id*

Specify the instance system ID.

Must be a string.

Usage Guidelines

Use this command to configure instance configuration parameters.

job

Suspends the jobs that are running in the background.

Command Modes

Exec

Syntax Description

job stop *job_id*

job_id

Specify the job ID.

Must be an integer.

Usage Guidelines

Use this command to suspend the jobs that are running in the background.

k8 amf local etcd endpoint

Configures AMF local Etcd endpoint parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

amf local etcd endpoint host *host_name* **port** *port_number*

host *host_name*

Specify the host name.

Must be a string.

Default Value: etcd.

port *port_number*

Specify the port number.

Must be an integer.

Default Value: 2379.

Usage Guidelines

Use this command to configure AMF local Etcd endpoint parameters.

k8 label pod-group-config

Configures K8 node affinity label pod group configuration.

Command Modes

Exec > Global Configuration (config)

Syntax Description

k8 label *pod_group* **key** *label_key* **value** *label_value*

key *label_key*

Specify the key for the label.

Must be a string.

value *label_value*

Specify the value for the label.

Must be a string.

pod_group

Specify the pod group for the VMs.

Must be one of the following:

- **cdl-layer**
- **oam-layer**
- **protocol-layer**
- **service-layer**

Usage Guidelines

Use this command to configure K8 node affinity label pod group configuration.

k8 label sctp-layer

Configures AMF sctp-layer parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

`sctp-layer key` *`label_key`* **`value`** *`label_value`*

key *label_key*

Specify the key for the label.

Must be a string.

value *label_value*

Specify the value for the label.

Must be a string.

Usage Guidelines

Use this command to configure sctp-layer parameters.

k8s single-node

Enables AMF to be deployed in single node.

Command Modes

Exec > Global Configuration (config)

Syntax Description

```
k8s single-node { false | true }
```

single-node { false | true }

Specify whether to enable or disable single-node deployment of AMF.

Must be one of the following:

- **false**
- **true**

Default Value: false.

If **k8s single-node true** is configured, AMF pods can be deployed in a single node.

Single node deployment involves some additional configurations. For more information, contact your Cisco account representative.

Note AMF does not support dynamic changes to this command.

Usage Guidelines

Use this command to enable AMF to be deployed in single node.

leaf-prompting

Enables or disables automatically querying for leaf values.

Command Modes

Exec

Syntax Description

```
leaf-prompting { false | true }
```

{ false | true }

Specify false to disable leaf prompting, true to enable.

Must be either "false" or "true".

Usage Guidelines

Use this command to automatically query for leaf values.

license smart register

Registers the VNF for Smart Licensing.

Command Modes Exec

Syntax Description **`license smart register [ force | idtoken`** *`idtoken`* **`]`**

register

Register the VNF for Smart Licensing.

force

Force registration of the agent.

idtoken

Specify the ID token to register the agent with.

Must be an integer.

Usage Guidelines Use this command to register the VNF for Smart Licensing.

license smart deregister

Deregisters the VNF for Smart Licensing.

Command Modes

Exec

Syntax Description

```
license smart deregister
```

deregister

Deregisters the VNF for Smart Licensing.

Usage Guidelines

Use this command to deregister the VNF for Smart Licensing.

license smart renew

Renews smart agent IDs and authentication.

Command Modes

Exec

Syntax Description

```
license smart renew { ID | auth }
```

renew

Renews the smart agent IDs and authentication.

ID

Specify the ID to renew smart agent license registration information.

auth

Specify to initiate a manual update of the license usage information with Cisco.

Usage Guidelines

Use this command to renew the smart agent IDs and authentication.

license smart status

Displays the smart licensing status information.

Command Modes

Exec

Syntax Description

```
license smart status status-only { true | false }
```

status

Displays the smart licensing information.

status-only

Displays only the status information.

Must be one of the following:

- false
- true

Usage Guidelines

Use this command to view the smart licensing status information.

local-instance

Configures GR instance for current instance.

Command Modes Exec > Global Configuration

Syntax Description **`local-instance instance`** *`gr_instance_id`*

instance *gr_instance_id*

Specify the GR instance ID of current instance.

Usage Guidelines Use this command to configure GR instance for current instance.

logging async application enable

Enables and configures async logging.

Command Modes Exec > Global Configuration (config)

Syntax Description **logging async application { disable | enable buffer-size** *buffer_size* **}**

Syntax Description **logging async monitor-subscriber { disable | enable buffer-size** *buffer_size* **}**

Syntax Description **logging async tracing { disable | enable buffer-size** *buffer_size* **}**

Syntax Description **logging async transaction { disable | enable buffer-size** *buffer_size* **}**

buffer-size *buffer_size*

Specify the buffer size for async logging.

Must be an integer.

Usage Guidelines Use this command to enable and configure async logging.

logging async monitor-subscriber enable

Enables and configures async logging.

Command Modes Exec > Global Configuration (config)

Syntax Description **logging async application { disable | enable buffer-size** *buffer_size* **}**

Syntax Description **logging async monitor-subscriber { disable | enable buffer-size** *buffer_size* **}**

Syntax Description **logging async tracing { disable | enable buffer-size** *buffer_size* **}**

Syntax Description **logging async transaction { disable | enable buffer-size** *buffer_size* **}**

buffer-size *buffer_size*

Specify the buffer size for async logging.

Must be an integer.

Usage Guidelines Use this command to enable and configure async logging.

logging async tracing enable

Enables and configures async logging.

Command Modes Exec > Global Configuration (config)

Syntax Description **logging async application { disable | enable buffer-size** *buffer_size* **}**

Syntax Description **logging async monitor-subscriber { disable | enable buffer-size** *buffer_size* **}**

Syntax Description **logging async tracing { disable | enable buffer-size** *buffer_size* **}**

Syntax Description **logging async transaction { disable | enable buffer-size** *buffer_size* **}**

buffer-size *buffer_size*

Specify the buffer size for async logging.

Must be an integer.

Usage Guidelines Use this command to enable and configure async logging.

logging async transaction enable

Enables and configures async logging.

Command Modes Exec > Global Configuration (config)

Syntax Description **logging async application { disable | enable buffer-size** *buffer_size* **}**

Syntax Description **logging async monitor-subscriber { disable | enable buffer-size** *buffer_size* **}**

Syntax Description **logging async tracing { disable | enable buffer-size** *buffer_size* **}**

Syntax Description **logging async transaction { disable | enable buffer-size** *buffer_size* **}**

buffer-size *buffer_size*

Specify the buffer size for async logging.

Must be an integer.

Usage Guidelines Use this command to enable and configure async logging.

logging error

Configures error logging parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `logging error stack status`

stack *status*

Specify to enable or disable error stack.

Must be one of the following:

- **disable**
- **enable**

Default Value: enable.

Usage Guidelines Use this command to configure error logging parameters.

logging json logging

Configures the JSON logging for different types of logs in the AMF.

Command Modes

Exec

Syntax Description

```
logging json-logging [ application | monitor-subscriber | transaction ]
```

application

Enables or disables JSON logging for application logs.

monitor-subscriber

Enables or disables JSON logging for subscriber monitoring logs.

transaction

Enables or disables JSON logging for transaction logs.

Usage Guidelines

Use this command to configure JSON logging for different types of logs in the AMF.

logging level

Configures the logging level.

Command Modes Exec > Global Configuration (config)

Syntax Description **`logging level`** *`log_level`*

application *application_log_level*

Specify the application logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**
- **trace**
- **warn**

monitor-subscriber *monitor_subscriber_log_level*

Specify the monitor subscriber logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**
- **trace**
- **warn**

tracing *tracing_log_level*

Specify the tracing logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**

- **trace**
- **warn**

transaction *transaction_log_level*

Specify the transaction logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**
- **trace**
- **warn**

Usage Guidelines

Use this command to configure the logging level.

logging logger

Configures the log name.

Command Modes Exec > Global Configuration (config)

Syntax Description **`logging name`** *`log_name`*

name *log_name*

Specify the log name in "module.component.interface" format.

Must be a string.

Usage Guidelines Use this command to configure the log name.

logging logger level

Configures the logging level.

Command Modes Exec > Global Configuration (config)

Syntax Description **`logging level`** *`log_type_options`*

application *application_log_level*

Specify the application logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**
- **trace**
- **warn**

monitor-subscriber *monitor_subscriber_log_level*

Specify the monitor subscriber logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**
- **trace**
- **warn**

tracing *tracing_log_level*

Specify the tracing logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**

- **trace**
- **warn**

transaction *transaction_log_level*

Specify the transaction logging level.

Must be one of the following:

- **debug**
- **error**
- **info**
- **off**
- **trace**
- **warn**

Usage Guidelines Use this command to configure the logging level.

logging transaction

Configures the logging transaction parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

logging transaction { [duplicate { disable | enable }] [message { disable | enable }] [persist { disable | enable [max-file-size *max_file_size* **] [max-rotation** *max_rotations* **] } }**

duplicate { enable | disable }

Specify whether to enable or disable duplicate logs in transaction logging.

Must be one of the following:

- **disable**
- **enable**

Default Value: disable.

max-file-size *max_file_size*

Specify the maximum transaction file size in MB.

Must be an integer in the range of 1-10000.

Default Value: 50.

max-rotation *max_rotations*

Specify the maximum number of file rotations.

Must be an integer in the range of 2-1000.

Default Value: 10.

message { enable | disable }

Specify whether to enable or disable messages in transaction logging.

Must be one of the following:

- **disable**
- **enable**

Default Value: disable.

persist { enable | disable }

Specify whether to enable or disable file-based transaction logging.

Must be one of the following:

- **disable**

- **enable**

Default Value: disable.

Usage Guidelines Use this command to configure the logging transaction parameters.

logout

Logout a specific session or a specific user from all sessions.

Command Modes

Exec

Syntax Description

logout [session *session_id* **| user** *user_name* **]**

session *session_id*

Specify the session ID from the possible completion options.

Must be a string.

user *user_name*

Specify the user name or the user process from the possible completion options.

Must be a string.

Usage Guidelines

Use this command to log out a specific session or a specific user from all sessions.

monitor protocol

Configures the AMF to monitor the protocol.

Command Modes

Exec

Syntax Description

monitor protocol [interface *interface_name* **[capture-duration** *duration* **| gr-instance** *gr_instance* **| pcap]]**

interface *interface_name*

Specify the name of interface on which PCAP is captured.

Must be a string.

Must be one of the following:

- sbi
- pfcp
- gtpu
- gtpc
- gtp

capture-duration *duration*

Specify the duration, in seconds, during which PCAP is captured.

Must be an integer.

Default Value: 300 seconds

gr-instance *gr_instance*

Specify the GR instance ID.

pcap

Enable PCAP file generation.

Must be "yes or "no".

Default Value: no

Usage Guidelines

Use this command to monitor the protocol.

monitor subscriber

Configures the AMF to monitor the subscribers.

Command Modes

Exec

Syntax Description

monitor subscriber [capture-duration *duration* **| dump filename** *file_name* **| supi** *supi* **| gr-instance** *gr_instance* **| imei** *subscriber_imei* **| imsi** *subscriber_imsi* **| internal-messages [yes] | list | namespace [sgw | smf] | [capture-duration** *duration* **| gr-instance** *gr_instance* **| internal-messages [yes] | nf-service [sgw | smf] | transaction-logs [yes]] | nf-service [sgw | smf] | supi** *supi* **| transaction-logs [yes]]**

supi *supi*

Specify the subscriber identifier.

Must be a string.

capture-duration *duration*

Specify the duration, in seconds, during which PCAP is captured.

Must be an integer.

Default Value: 300 seconds

internal-messages

Set to yes to enable internal messages.

Default Value: disabled

transaction-logs

Set to yes to enable transaction logging.

Default Value: disabled

dump filename *file_name*

Specify the path of the file name to be dumped.

Must be a string.

list

List the monitored subscriber files.

Usage Guidelines

Use this command to monitor the subscribers.

no

Restores the command history cache size to its default setting. See the *history* command.

Command Modes

Exec

Syntax Description

```
no history
```

Usage Guidelines

Use this command to configure the command history cache size to its default setting. For more details, see the *history* command.

nrf discovery-info discovery-filter

Displays NF discovery filter information.

Command Modes Exec > Global Configuration

Syntax Description `show discovery-filter`

Usage Guidelines Use this command to view NF discovery filter information.

nrf discovery-info discovery-filter nf-discovery-profile

Displays discovery profile information.

Command Modes Exec > Global Configuration

Syntax Description `show nf-discovery-profile`

Usage Guidelines Use this command to view NF discovery profile information.

nrf discovery-info discovery-filter nf-discovery-profile nf-service

Displays NF service information.

Command Modes Exec > Global Configuration

Syntax Description `show nf-service`

Usage Guidelines Use this command to view NF service information.

nrf registration-info

Displays NRF registration information.

Command Modes

Exec

Syntax Description

show nrf [registration-info [gr-instance *gr_instance* **]]**

gr-instance *gr_instance*

Specify the GR instance ID.

Must be a string.

Usage Guidelines

Use this command to view registration information.

nrf subscription-info

Displays NF subscription information.

Command Modes Exec > Global Configuration

Syntax Description `show nrf subscription-info`

Usage Guidelines Use this command to view NF subscription information.

paginate

Configures whether or not to paginate CLI command output.

Command Modes Exec

Syntax Description `paginate { true | false }`

{ true | false }

Specify false to disable paginating CLI command output, and true to enable.

Must be either "false" or "true".

Usage Guidelines Use this command to paginate the command output.

patch amf-ngap-ep

Configures patch amf-ngap-ep parameter.

Command Modes Exec > Global Configuration (config)

Syntax Description **`patch amf-ngap-ep patch-url`** *`patch_url`*

patch-url *patch_url*

Specify the patch URL.

Must be a string.

Usage Guidelines Use this command to configure patch amf-ngap-ep parameter.

patch amf-rest-ep

Configures patch AMF REST endpoint.

Command Modes Exec > Global Configuration (config)

Syntax Description **`patch amf-rest-ep patch-url`** *`patch_url`*

patch-url *patch_url*

Specify the patch URL.

Must be a string.

Usage Guidelines Use this command to configure patch AMF REST endpoint.

patch amf-sctp-lb

Configures patch amf-sctp-lb parameter.

Command Modes Exec > Global Configuration (config)

Syntax Description **`patch amf-sctp-lb patch-url`** *`patch_url`*

patch-url *patch_url*

Specify the patch URL.

Must be a string.

Usage Guidelines Use this command to configure patch amf-sctp-lb parameter.

patch amf-service

Configures patch AMF service.

Command Modes Exec > Global Configuration (config)

Syntax Description **`patch amf-service patch-url`** *`patch_url`*

patch-url *patch_url*

Specify the patch URL.

Must be a string.

Usage Guidelines Use this command to configure patch AMF service.

peers

Displays peer information.

Command Modes Exec

Syntax Description `show peers`

Usage Guidelines Use this command to view peer information.

peers all

Displays information for all peers.

Command Modes

Exec

Syntax Description

```
show peers [ all ]
```

Usage Guidelines

Use this command to view peer configuration information.

profile emergency-profile emergency

Configures emergency profile parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile emergency-profile *profile_name* **[[dnn** *dnn_name* **] [ue-validation-level** *ue_validation_level* **]]**

dnn *dnn_name*

Specify name of the DNN.

Must be a string.

emergency-profile *profile_name*

Specify name of the profile.

Must be a string.

ue-validation-level *ue_validation_level*

Specify the UE validation level.

Must be one of the following:

- **auth-only**: Specify to allow only authenticated UEs. Subscription is bypassed.
- **full**: Specify to allow only authenticated UEs with subscription and location validated. Allow only UEs with Normal Registration.
- **none**: Specify to allow any UE. UE without SUPI will attach using IMEI/PEI. Authentication is optional..
- **supi-only**: Specify to allow only UEs with SUPI. UE without SUPI will be rejected. Authentication is optional.

Usage Guidelines

Use this command to configure emergency profile parameters. The CLI prompt changes to the Emergency Profile Configuration mode (config-emergency-profile-<profile_name>).

profile emergency-profile emergency extended-emergency-num

Configures the extended emergency number parameters.

Command Modes

Exec > Global Configuration (config) > Emergency Profile Configuration (config-emergency-profile-*profile_name*)

Syntax Description

`extended-emergency-num` *`extended_emergency_number`* **`sub-service`** *`emergency_number_sub_service_type`*

extended-emergency-num *extended_emergency_number*

Specify the extended emergency number.

Must be a string of 1-10 characters.

sub-service *emergency_number_sub_service_type*

Specify the emergency number sub-service type.

Must be a string.

Usage Guidelines

Use this command to configure extended emergency number parameters.

You can configure a maximum of 10 elements with this command.

profile emergency-profile emergency local-emergency-num

Configures local emergency number parameters.

Command Modes

Exec > Global Configuration (config) > Emergency Profile Configuration (config-emergency-profile-*profile_name*)

Syntax Description

`local-emergency-num` *`emergency_number emergency_number_service_type`*

emergency_number

Specify the emergency number.

Must be a string of 1-10 characters.

emergency_number_service_type

Specify the emergency number service type.

Must be one of the following:

- **ambulance**
- **fire**
- **marine-guard**
- **mountain-rescue**
- **police**

Usage Guidelines

Use this command to configure local emergency number parameters.

You can configure a maximum of 10 elements with this command.

profile emergency-profile emergency slice

Configures slice for susbcriber parameters.

Command Modes

Exec > Global Configuration (config) > Emergency Profile Configuration (config-emergency-profile-*profile_name*)

Syntax Description

slice name *slice_name* **[sst** *slice_service_type* **sdt** *slice_differentiator_type* **]**

name *slice_name*

Specify name of the slice.

Must be a string.

sdt *slice_differentiator_type*

Specify the Slice Differentiator Type (SDT).

Must be a string in the octet-string24 pattern. For information on the octet-string24 pattern, see the Input Pattern Types section.

sst *slice_service_type*

Specify the Slice Service Type (SST).

Must be an integer in the range of 0-255.

Usage Guidelines

Use this command to configure slice for susbcriber parameters.

profile network-element amf

Configures the peer AMF network element configuration parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile network-element amf *peer_amf_config_name* **[[nf-client-profile** *nf_client_profile_name* **] [failure-handling-profile** *failure_handling_profile_name* **]]**

failure-handling-profile *failure_handling_profile_name*

Specify name of the failure handling profile.

Must be a string.

nf-client-profile *nf_client_profile_name*

Specify name of the NF client profile.

Must be a string.

peer_amf_config_name

Specify name of the AMF peer configuration.

Must be a string.

Usage Guidelines

Use this command to configure the peer AMF network element configuration parameters. The CLI prompt changes to the AMF NE Configuration mode (config-amf-<amf_name>).

profile network-element amf query-params

Configures query parameters for AMF discovery.

Command Modes

Exec > Global Configuration (config) > AMF NE Configuration mode (config-amf-*amf_name*)

Syntax Description

query-params *amf_query_params*

query-params *amf_query_params*

Specify the AMF query parameters.

Must be one of the following:

- **dnn**
- **guami**
- **requester-plmn**
- **snssais**
- **supi**
- **tai**
- **target-plmn**

Usage Guidelines

Use this command to configure query parameters for AMF discovery.

profile network-element ausf

Configures peer AUSF parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile network-element ausf *peer_ausf_config_name* **nf-client-profile** *nf_client_profile_name* **failure-handling-profile** *fh_profile_name*

failure-handling-profile *fh_profile_name*

Specify name of the failure handling profile.

Must be a string.

nf-client-profile *nf_client_profile_name*

Specify name of the NF client profile.

Must be a string.

peer_ausf_config_name

Specify name of the peer AUSF configuration.

Must be a string.

Usage Guidelines

Use this command to configure peer AUSF parameters.

profile network-element ausf query-params

Configures query parameter for AUSF discovery.

Command Modes Exec > Global Configuration (config) > AUSF Peer Configuration (config-amf-*peer_ausf_config_name*)

Syntax Description **`query-params`** *`amf_ausf_query_params`*

query-params *amf_ausf_query_params*

Specify the AMF AUSF query parameters.

Must be one of the following:

- **requester-plmn**
- **routing-indicator**
- **supi**
- **target-plmn**

Usage Guidelines Use this command to configure query parameter for AUSF discovery.

profile network-element eir

Configures the EIR network element profile list.

Command Modes Exec > Global Configuration (config)

Syntax Description **`profile network-element eir`** *`eir_name`*

profile network-element eir *eir_name*

Specify the name of EIR with the network element profile.

Usage Guidelines Use this command to configure the EIR with the network element profile.

profile network element eir query params

Configures query parameter for EIR discovery.

Command Modes

Exec > Global Configuration (config) > Profile Network Element EIR (config-**profile network-element eir** *eir_profile_network_element_name*)

Syntax Description

`query-params [ target-plmn]`

query-params [target-plmn]

Specifies the target Public Land Mobile Network (PLMN). This defmes the particular mobile network to which the EIR queries are directed, allowing the EIR to check equipment statuses relevant to that specific network.

Usage Guidelines

Use this command to configure query parameter for EIR discovery.

profile network-element lmf

Configures the LMF network element profile list.

Command Modes Exec > Global Configuration (config)

Syntax Description **`profile network-element lmf`** *`lmf_name`*

profile network-element lmf *lmf_name*

Specify the name of LMF with the network element profile.

Usage Guidelines Use this command to configure the LMF with the network element profile.

profile network-element nssf

Configures peer NSSF parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile network-element nssf *peer_nssf_config_name* **nf-client-profile** *nf_client_profile_name* **failure-handling-profile** *fh_profile_name*

failure-handling-profile *fh_profile_name*

Specify name of the failure handling profile.

Must be a string.

nf-client-profile *nf_client_profile_name*

Specify name of the NF client profile.

Must be a string.

peer_nssf_config_name

Specify name of the NSSF peer configuration.

Must be a string.

Usage Guidelines

Use this command to configure peer NSSF parameters.

profile network-element nssf query-params

Configures query parameters for NSSF discovery.

Command Modes Exec > Global Configuration (config) > NSSF Peer Configuration (config-nssf-*peer_nssf_config_name*)

Syntax Description **`query-params`** *`query_parameters`*

query-params *query_parameters*

Specify NRF query parameters.

Must be one of the following:

- **dnn**
- **requester-plmn**
- **snssais**
- **supi**
- **tai**
- **target-plmn**

Usage Guidelines Use this command to configure query parameters for NSSF discovery.

profile network-element pcf

Configures peer PCF parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile network-element pcf *peer_pcf_config_name* **nf-client-profile** *nf_client_profile_name* **failure-handling-profile** *failure_handling_profile_name*

failure-handling-profile *failure_handling_profile_name*

Specify name of the failure handling profile.

Must be a string.

nf-client-profile *nf_client_profile_name*

Specify name of the NF client profile.

Must be a string.

peer_pcf_config_name

Specify name of the PCF peer configuration.

Must be a string.

Usage Guidelines

Use this command to configure the peer PCF parameters.

profile network-element pcf query-params

Configures query parameters for PCF discovery.

Command Modes Exec > Global Configuration (config) > PCF Peer Configuration (config-pcf-*peer_pcf_config_name*)

Syntax Description **`query-params`** *`query_parameters`*

query-params *query_parameters*

Specify NRF query parameters.

Must be one of the following:

- **dnn**
- **requester-plmn**
- **snssais**
- **supi**
- **tai**
- **target-plmn**

Usage Guidelines Use this command to configure query parameters for PCF discovery.

profile network-element smf

Configures SMF peer parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile network-element smf *peer_smf_config_name* **nf-client-profile** *nf_client_profile_name* **failure-handling-profile** *fh_profile_name*

failure-handling-profile *fh_profile_name*

Specify name of the failure handling profile.

Must be a string.

nf-client-profile *nf_client_profile_name*

Specify name of the NF client profile.

Must be a string.

peer_smf_config_name

Specify name of the SMF peer configuration.

Must be a string.

Usage Guidelines

Use this command to configure SMF peer parameters.

profile network-element smf query-params

Configures query parameter for SMF discovery.

Command Modes Exec > Global Configuration (config) > SMF Peer Configuration (config-smf-*peer_smf_config_name*)

Syntax Description **`query-params`** *`query_parameters`*

query-params *smf_query_params*

Specify the SMF query parameters.

Must be one of the following:

- **dnn**
- **pgwfqdn**
- **pgwind**
- **requester-plmn**
- **snssais**
- **supi**
- **tai**
- **target-plmn**

Usage Guidelines Use this command to configure query parameter for SMF discovery.

profile network-element udm

Configures peer UDM parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile network-element udm *peer_udm_config_name* **nf-client-profile** *nf_client_profile_name* **failure-handling-profile** *fh_profile_name*

failure-handling-profile *fh_profile_name*

Specify name of the failure handling profile.

Must be a string.

nf-client-profile *nf_client_profile_name*

Specify name of the NF client profile.

Must be a string.

peer_udm_config_name

Specify name of the UDM peer configuration.

Must be a string.

Usage Guidelines

Use this command to configure peer UDM parameters.

profile network-element udm query-params

Configures query parameters for UDM discovery.

Command Modes Exec > Global Configuration (config) > UDM Peer Configuration (config-udm-*peer_udm_config_name*)

Syntax Description **`query-params`** *`query_parameters`*

query-params *amf_udm_query_params*

Specify the AMF UDM query parameters.

Must be one of the following:

- **requester-plmn**
- **routing-indicator**
- **supi**
- **target-plmn**

Usage Guidelines Use this command to configure query parameters for UDM discovery.

profile nf-client nf-type amf amf-profile

Configures AMF profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`profile nf-client nf-type amf amf-profile`** *`profile_name`*

amf-profile *profile_name*

Specify the AMF profile name

Must be a string.

Usage Guidelines Use this command to configure AMF profile parameters. The CLI prompt changes to the AMF Profile Configuration mode (config-amf-profile-<profile_name>).

profile nf-client nf-type amf amf-profile locality

Configures the AMF profile locality parameter.

Command Modes

Exec > Global Configuration (config) > AMF Profile Configuration (config-amf-profile-*profile_name*)

Syntax Description

`locality` *`locality_name`* **`[ priority`** *`locality_priority`* **`]`**

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *locality_priority*

Specify priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the AMF profile locality parameter.

profile nf-client nf-type amf amf-profile locality service name type

Configures the AMF service name type parameter.

Command Modes

Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description

service name type *amf_service_name_type* **responsetimeout** *response_timeout*

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *amf_service_name_type*

Specify the service name type.

Must be one of the following:

- **namf-comm**
- **namf-evts**
- **namf-loc**
- **namf-mt**

Usage Guidelines

Use this command to configure the AMF service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

endpoint-profile *endpoint_profile_name* **{ capacity** *capacity_value* **| priority** *profile_priority* **| api-uri-prefix** *api_uri_prefix* **| api-root** *api_root* **| uri-scheme** *uri_scheme* **}**

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

capacity *capacity_value*

Specify the profile capacity.

Must be an integer in the range of 0-65535.

Default Value: 10.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.

- **https**: HTTPS.

Usage Guidelines Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

endpoint-name *endpoint_name* **[priority** *node_priority* **| capacity** *node_capacity* **]**

capacity *node_capacity*

Specify the node capacity for the endpoint.

Must be an integer in the range of 0-65535.

endpoint-name *endpoint_name*

Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address.

Must be a string.

priority *node_priority*

Specify the node priority for the endpoint.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

`default-notification-subscriptions` *`name`* **`[ callback-uri`** *`callback_uri`* **`| n1-message-class`** *`n1_message_class`* **`| n2-information-class`** *`n2_information_class`* **`| notification-type`** *`notification_type`* **`]`**

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- **5GMM**

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- **RAN**

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- **DATA_CHANGE_NOTIFICATION**
- **DATA_REMOVAL_NOTIFICATION**
- **LOCATION_NOTIFICATION**
- **N1_MESSAGES**

- **N2_INFORMATION**

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type amf amf-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > AMF Profile Configuration (config-amf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

version uri-version { *uri_version* **| full-version** *full_version* **}**

full-version *full_version*

Specify the full version in the format *major-version*.*minor-version*.*patch-version*.[alpha-*draft-number*]

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines

Use this command to configure the URI version parameter.

profile nf-client nf-type ausf ausf-profile

Configures AUSF profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`profile nf-client nf-type ausf ausf-profile`** *`profile_name`*

ausf-profile *profile_name*

Specify name of the AUSF profile.

Must be a string.

Usage Guidelines Use this command to configure AUSF profile parameters. The CLI prompt changes to the AUSF Profile Configuration mode (config-ausf-profile-<profile_name>).

profile nf-client nf-type ausf ausf-profile locality

Configures the AUSF profile locality parameter.

Command Modes Exec > Global Configuration (config) > AUSF Profile Configuration (config-ausf-profile-*profile_name*)

Syntax Description **`locality`** *`locality_name`* **`[ priority`** *`locality_priority`* **`]`**

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *locality_priority*

Specify priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the AUSF profile locality parameter.

profile nf-client nf-type ausf ausf-profile locality service name type

Configures the AUSF service name type parameter.

Command Modes

Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description

`service name type` *`ausf_service_name_type`* **`[ responsetimeout`** *`response_timeout`* **`]`**

responsetimeout *response_timeout*

Specify the timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *ausf_service_name_type*

Specify the AUSF service name type.

Must be one of the following:

- **nausf-auth**

Usage Guidelines

Use this command to configure the AUSF service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

endpoint-profile *endpoint_profile_name* **{ capacity** *capacity_value* **| priority** *profile_priority* **| api-uri-prefix** *api_uri_prefix* **| api-root** *api_root* **| uri-scheme** *uri_scheme* **}**

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

capacity *capacity_value*

Specify the profile capacity.

Must be an integer in the range of 0-65535.

Default Value: 10.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.

- **https**: HTTPS.

Usage Guidelines Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

endpoint-name *endpoint_name* **[priority** *node_priority* **| capacity** *node_capacity* **]**

capacity *node_capacity*

Specify the node capacity for the endpoint.

Must be an integer in the range of 0-65535.

endpoint-name *endpoint_name*

Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address.

Must be a string.

priority *node_priority*

Specify the node priority for the endpoint.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

`default-notification-subscriptions` *`name`* **`[ callback-uri`** *`callback_uri`* **`| n1-message-class`** *`n1_message_class`* **`| n2-information-class`** *`n2_information_class`* **`| notification-type`** *`notification_type`* **`]`**

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- **5GMM**

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- **RAN**

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- **DATA_CHANGE_NOTIFICATION**
- **DATA_REMOVAL_NOTIFICATION**
- **LOCATION_NOTIFICATION**
- **N1_MESSAGES**

- **N2_INFORMATION**

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type ausf ausf-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AUSF NF-Client Configuration (config-ausf) > AUSF Profile Configuration (config-ausf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

`version uri-version {` *`uri_version`* **`| full-version`** *`full_version`* **`}`**

full-version *full_version*

Specify the full version in the format *major-version*.*minor-version*.*patch-version*.[alpha-*draft-number*]

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines

Use this command to configure the URI version parameter.

profile nf-client nf-type eir eir-profile

Configures EIR profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`profile nf-client nf-type eir eir-profile`** *`eir_profile_name`*

eir-profile *eir_profile_name*

Specify name of the EIR profile.

Must be a string.

Usage Guidelines Use this command to configure the EIR profile parameters. The CLI prompt changes to the EIR Profile Configuration mode (config-eir-profile-<profile_name>).

profile nf-client nf-type eir eir-profile locality

Configures the EIR profile locality parameter.

Command Modes Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile-*profile_name*)

Syntax Description **`locality`** *`locality_name`* **`[ priority`** *`priority`* **`]`**

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *priority*

Specify the priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the EIR profile locality parameter.

profile nf-client nf-type eir eir-profile locality service name type

Configures the EIR service name type parameter.

Command Modes

Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description

service name type *service_name_type* **[responsetimeout** *response_timeout_interval* **]**

responsetimeout *response_timeout_interval*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *service_name_type*

Specify the EIR service name type.

Must be one of the following:

- **n5g-eir-eic**

Usage Guidelines

Use this command to configure the EIR service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

endpoint-profile *endpoint_profile_name* **{ capacity** *capacity_value* **| priority** *profile_priority* **| api-uri-prefix** *api_uri_prefix* **| api-root** *api_root* **| uri-scheme** *uri_scheme* **}**

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

capacity *capacity_value*

Specify the profile capacity.

Must be an integer in the range of 0-65535.

Default Value: 10.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.

- **https**: HTTPS.

Usage Guidelines Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

endpoint-name *endpoint_name* **[priority** *node_priority* **| capacity** *node_capacity* **]**

capacity *node_capacity*

Specify the node capacity for the endpoint.

Must be an integer in the range of 0-65535.

endpoint-name *endpoint_name*

Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address.

Must be a string.

priority *node_priority*

Specify the node priority for the endpoint.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type eir eir-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > EIR Profile Configuration (config-eir-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

`version uri-version {` *`uri_version`* **`| full-version`** *`full_version`* **`}`**

full-version *full_version*

Specify the full version in the format *major-version*.*minor-version*.*patch-version*.[alpha-*draft-number*]

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines

Use this command to configure the URI version parameter.

profile nf-client nf-type group nrf auth service type nrf oauth2

Configures the AMF ID (**service type nrf oauth2** in the **group nrf auth**) to enable an NRF endpoint, to which the AMF will send the `AccessToken` request to the NRF server, when the `nf-client` is configured.

Command Modes

Exec > Global Configuration (`config`) > AMF Configuration (`config-amf` *amf_name*) > NF Profile Name Configuration (`config-nf-profile-nf` *nf_profile_name*) > NF Profile Type Configuration (`config-nf-type-profile` *profile_type_name*) > `group nrf auth` > `service type nrf oauth2`

Syntax Description

```
group nrf auth nrf_group_name
   service type nrf oauth2
      endpoint-profile endpoint_profile_details
      capacity capacity_number
      uri-scheme http
      endpoint-name endpoint_name
      priority priority_number
      primary ip-address ipv4 ipv4_address
      primary ip-address port port_address
```

group nrf auth *nrf_group_name*

Specify the NRF group name to authenticate. Must be a string.

service type nrf oauth2

Specify the service and the type of NRF, which must be authenticated to enable the OAuth2 profile configuration.

endpoint-profile *endpoint_profile_details*

Specify the endpoint profile details.

capacity *capacity_number*

Specify the capacity requirement in number.

uri-scheme http

Specify the URI scheme.

endpoint-name *endpoint_name*

Specify the endpoint name.

priority *priority_number*

Specify the priority request. Must be in numbers.

primary ip-address ipv4 *ipv4_address*

Specify the primary IPv4 address.

primary ip-address port *port_address*

Specify the primary port address.

Usage Guidelines

Use this command, when the **service type nrf oauth2** in the **group nrf auth** feature is configured, when the AMF sends the `AccessToken` request to the NRF server, when the `nf-client` is configured.

profile nf-client nf-type lmf lmf-profile

Configures LMF profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`profile nf-client nf-type lmf lmf-profile`** *`profile_name`*

lmf-profile *profile_name*

Specify the LMF profile name

Must be a string.

Usage Guidelines Use this command to configure LMF profile parameters. The CLI prompt changes to the LMF Profile Configuration mode (config-lmf-profile-<profile_name>).

profile nf-client nf-type lmf lmf-profile locality

Configures the LMF profile locality parameter.

Command Modes Exec > Global Configuration (config) > LMF Profile Configuration (config-amf-profile-*profile_name*)

Syntax Description **`locality`** *`locality_name`* **`[ priority`** *`locality_priority`* **`]`**

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *locality_priority*

Specify priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the LMF profile locality parameter.

profile nf-client nf-type lmf lmf-profile locality service name type

Configures the LMF service name type parameter.

Command Modes

Exec > Global Configuration (config) > LMF NF-Client Configuration (config-lmf) > LMF Profile Configuration (config-lmf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description

`service name type` *`lmf_service_name_type`* **`responsetimeout`** *`response_timeout`*

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *lmf_service_name_type*

Specify the service name type.

Must be one of the following:

- **nlmf-loc**

Usage Guidelines

Use this command to configure the LMF service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile

Configures endpoint profile parameters.

Command Modes

Exec > Global Configuration (config) > LMF NF-Client Configuration (config-lmf) > LMF Profile Configuration (config-lmf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

endpoint-profile *endpoint_profile_name* **{ capacity** *capacity_value* **| priority** *profile_priority* **| api-uri-prefix** *api_uri_prefix* **| api-root** *api_root* **| uri-scheme** *uri_scheme* **}**

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.
- **https**: HTTPS.

Usage Guidelines

Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters.

Command Modes

Exec > Global Configuration (config) > LMF NF-Client Configuration (config-lmf) > LMF Profile Configuration (config-lmf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

endpoint-name *endpoint_name* **[priority** *node_priority* **| capacity** *node_capacity* **]**

capacity *node_capacity*

Specify the node capacity for the endpoint.

Must be an integer in the range of 0-65535.

endpoint-name *endpoint_name*

Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses.

Must be a string.

priority *node_priority*

Specify the node priority for the endpoint.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters.

Command Modes

Exec > Global Configuration (config) > LMF NF-Client Configuration (config-lmf) > LMF Profile Configuration (config-lmf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

default-notification-subscriptions *name* **[callback-uri** *callback_uri* **| n1-message-class** *n1_message_class*| **n2-information-class** *n2_information_class* **| notification-type** *notification_type* **]**

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- **LPP**

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- **NRPPA**

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- **N1_MESSAGES**
- **N2_INFORMATION**

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters.

Command Modes

Exec > Global Configuration (config) > LMF NF-Client Configuration (config-lmf) > LMF Profile Configuration (config-lmf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

`{ primary ip-address { [ ipv4` *`ipv4_address`* **`] [ port`** *`port_number`* **`] }`**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type lmf lmf-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter.

Command Modes

Exec > Global Configuration (config) > LMF NF-Client Configuration (config-lmf) > LMF Profile Configuration (config-lmf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

`version uri-version {` *`uri_version`* **`|`** **`full-version`** *`full_version`* **`}`**

full-version *full_version*

Specify the full version in the format *major-version*.*minor-version*.*patch-version*.[alpha-*draft-number*]

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines

Use this command to configure the URI version parameter.

profile nf-client nf-type nssf nssf-profile

Configures NSSF profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`profile nf-client nf-type nssf nssf-profile`** *`nssf_profile_name`*

nssf-profile *nssf_profile_name*

Specify name of the NSSF profile.

Must be a string.

Usage Guidelines Use this command to configure the NSSF profile parameters. The CLI prompt changes to the NSSF Profile Configuration mode (config-nssf-profile-<profile_name>).

profile nf-client nf-type nssf nssf-profile locality

Configures locality parameter.

Command Modes Exec > Global Configuration (config) > NSSF Profile Configuration (config-nssf-profile-*profile_name*)

Syntax Description **`locality`** *`locality_name`* **`[ priority`** *`locality_config_priority`* **`]`**

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *locality_config_priority*

Specify the priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the NSSF Profile Locality parameter.

profile nf-client nf-type nssf nssf-profile locality service name type

Configures the NSSF service name type parameter.

Command Modes

Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description

`service name type` *`service_name_type`* **`[ responsetimeout`** *`response_timeout_interval`* **`]`**

responsetimeout *response_timeout_interval*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *service_name_type*

Specify the NSSF service name type.

Must be one of the following:

- **nnssf-nsselection**

Usage Guidelines

Use this command to configure the NSSF service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

endpoint-profile *endpoint_profile_name* **{ capacity** *capacity_value* **| priority** *profile_priority* **| api-uri-prefix** *api_uri_prefix* **| api-root** *api_root* **| uri-scheme** *uri_scheme* **}**

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

capacity *capacity_value*

Specify the profile capacity.

Must be an integer in the range of 0-65535.

Default Value: 10.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.

- **https**: HTTPS.

Usage Guidelines Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

endpoint-name *endpoint_name* **[priority** *node_priority* **| capacity** *node_capacity* **]**

capacity *node_capacity*

Specify the node capacity for the endpoint.

Must be an integer in the range of 0-65535.

endpoint-name *endpoint_name*

Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address.

Must be a string.

priority *node_priority*

Specify the node priority for the endpoint.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

default-notification-subscriptions *name* **[callback-uri** *callback_uri* **| n1-message-class** *n1_message_class* **| n2-information-class** *n2_information_class* **| notification-type** *notification_type* **]**

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- **5GMM**

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- **RAN**

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- **DATA_CHANGE_NOTIFICATION**
- **DATA_REMOVAL_NOTIFICATION**
- **LOCATION_NOTIFICATION**
- **N1_MESSAGES**

- **N2_INFORMATION**

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type nssf nssf-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > NSSF Profile Configuration (config-nssf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

`version uri-version {` *`uri_version`* **`|`** **`full-version`** *`full_version`* **`}`**

full-version *full_version*

Specify the full version in the format *major-version.minor-version.patch-version*.[alpha-*draft-number*]

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines

Use this command to configure the URI version parameter.

profile nf-client nf-type oauthenabled

Configures the AMF ID (**oauthenabled**) to enable the `Nnrf_AccessToken` request to the NRF server, when the `nf-client` is configured.

Command Modes

Exec > Global Configuration (`config`) > AMF Configuration (`config-amf` *amf_name*) > NF Profile Name Configuration (`config-nf-profile-nf` *nf_profile_name*) > NF Profile Type Configuration (`config-nf-type-profile` *profile_type_name*) > `oauthenabled enabled`

Syntax Description

```
oauthenabled { true | false }
nf-type-profile nf_type_profile_name
locality locality_name
priority priority_number
service name type service_name type_npcf_am_policy_control
endpoint-profile endpoint_profile_details
capacity capacity_number
uri-scheme http
endpoint-name endpoint_name
priority priority_number
primary ip-address ipv4 ipv4_address
primary ip-address port port_address
```

oauthenabled

Enable the OAuth2 client authorization to register the AMF with NRF. The default value is false.

nf-type-profile *nf_type_profile_name*

Specify the NF profile name.

locality *locality_name*

Specify the locality.

priority *priority_number*

Specify the priority request. Must be in numbers.

service name type *service_name type_npcf_am_policy_control*

Specify the service name and the type.

endpoint-profile *endpoint_profile_details*

Specify the endpoint profile details.

capacity *capacity_number*

Specify the capacity requirement in number.

uri-scheme http

Specify the URI scheme.

endpoint-name *endpoint_name*

Specify the endpoint name.

primary ip-address ipv4 *ipv4_address*

Specify the primary IPv4 address.

primary ip-address port *port_address*

Specify the primary port address.

Usage Guidelines

Use this command, when the **oauthenabled** feature is configured, when the AMF sends the `Nnrf_AccessToken` request to the NRF server, when the `nf-client` is configured.

profile nf-client nf-type pcf pcf-profile

Configures PCF profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`profile nf-client nf-type pcf pcf-profile`** *`profile_name`*

pcf-profile *profile_name*

Specify name of the PCF profile.

Must be a string.

Usage Guidelines Use this command to configure the PCF profile parameters. The CLI prompt changes to the PCF Profile Configuration mode (config-pcf-profile-<profile_name>).

profile nf-client nf-type pcf pcf-profile locality

Configures the PCF profile locality parameter.

Command Modes

Exec > Global Configuration (config) > PCF Profile Configuration (config-psf-profile-*profile_name*)

Syntax Description

`locality` *`locality_name`* **`[ priority`** *`locality_priority`* **`]`**

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *locality_priority*

Specify priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the PCF profile locality parameter.

profile nf-client nf-type pcf pcf-profile locality service name type

Configures the PCF service name type parameter.

Command Modes

Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description

`service name type` *`service_name_type`* **`[ responsetimeout`** *`response_timeout`* **`]`**

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *service_name_type*

Specify the PCF service name parameters.

Must be one of the following:

- **npcf-am-policy-control**
- **npcf-bdtpolicycontrol**
- **npcf-eventexposure**
- **npcf-policyauthorization**
- **npcf-smpolicycontrol**
- **npcf-ue-policy-control**

Usage Guidelines

Use this command to configure the PCF service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

endpoint-profile *endpoint_profile_name* **{ capacity** *capacity_value* **| priority** *profile_priority* **| api-uri-prefix** *api_uri_prefix* **| api-root** *api_root* **| uri-scheme** *uri_scheme* **}**

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

capacity *capacity_value*

Specify the profile capacity.

Must be an integer in the range of 0-65535.

Default Value: 10.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.

- **https**: HTTPS.

Usage Guidelines Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

endpoint-name *endpoint_name* **[priority** *node_priority* **| capacity** *node_capacity* **]**

capacity *node_capacity*

Specify the node capacity for the endpoint.

Must be an integer in the range of 0-65535.

endpoint-name *endpoint_name*

Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address.

Must be a string.

priority *node_priority*

Specify the node priority for the endpoint.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

default-notification-subscriptions *name* **[callback-uri** *callback_uri* **| n1-message-class** *n1_message_class* **| n2-information-class** *n2_information_class* **| notification-type** *notification_type* **]**

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- **5GMM**

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- **RAN**

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- **DATA_CHANGE_NOTIFICATION**
- **DATA_REMOVAL_NOTIFICATION**
- **LOCATION_NOTIFICATION**
- **N1_MESSAGES**

- **N2_INFORMATION**

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type pcf pcf-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > PCF Profile Configuration (config-pcf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

`version uri-version {` *`uri_version`* **`|`** **`full-version`** *`full_version`* **`}`**

full-version *full_version*

Specify the full version in the format *major-version.minor-version.patch-version*.[alpha-*draft-number*]

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines

Use this command to configure the URI version parameter.

profile nf-client nf-type sepp sepp-profile

Configures SEPP profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`profile nf-client nf-type sepp sepp-profile`** *`sepp_profile_name`*

sepp-profile *sepp_profile_name*

Specify name of the SEPP profile.

Must be a string.

Usage Guidelines Use this command to configure the SEPP profile parameters. The CLI prompt changes to the SEPP Profile Configuration mode (config-sepp-profile-<profile_name>).

profile nf-client nf-type sepp sepp-profile locality

Configures the SEPP profile locality parameter.

Command Modes Exec > Global Configuration (config) > SEPP Profile Configuration (config-sepp-profile-*profile_name*)

Syntax Description **`locality`** *`locality_name`* **`[ priority`** *`priority`* **`]`**

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *priority*

Specify the priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the SEPP profile locality parameter.

profile nf-client nf-type sepp sepp-profile locality service name type

Configures the SEPP service name type parameter.

Command Modes

Exec > Global Configuration (config) > SEPP NF-Client Configuration (config-sepp) > SEPP Profile Configuration (config-sepp-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description

`service name type` *`service_name_type`* **`[ responsetimeout`** *`response_timeout_interval`* **`]`**

responsetimeout *response_timeout_interval*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *service_name_type*

Specify the SEPP service name type.

Must be one of the following:

- **nsmf-pdusession**

Usage Guidelines

Use this command to configure the SEPP service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type sepp sepp-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SEPP NF-Client Configuration (config-sepp) > SEPP Profile Configuration (config-sepp-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

endpoint-profile *endpoint_profile_name* **{ capacity** *capacity_value* **| priority** *profile_priority* **| api-uri-prefix** *api_uri_prefix* **| api-root** *api_root* **| uri-scheme** *uri_scheme* **}**

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

capacity *capacity_value*

Specify the profile capacity.

Must be an integer in the range of 0-65535.

Default Value: 10.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.

- **https**: HTTPS.

Usage Guidelines Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type sepp sepp-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SEPP NF-Client Configuration (config-sepp) > SEPP Profile Configuration (config-sepp-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

endpoint-name *endpoint_name* **[priority** *node_priority* **| capacity** *node_capacity* **]**

capacity *node_capacity*

Specify the node capacity for the endpoint.

Must be an integer in the range of 0-65535.

endpoint-name *endpoint_name*

Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address.

Must be a string.

priority *node_priority*

Specify the node priority for the endpoint.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type sepp sepp-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SEPP NF-Client Configuration (config-sepp) > SEPP Profile Configuration (config-sepp-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

`default-notification-subscriptions` *`name`* **`[ callback-uri`** *`callback_uri`* **`| n1-message-class`** *`n1_message_class`* **`| n2-information-class`** *`n2_information_class`* **`| notification-type`** *`notification_type`* **`]`**

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- **5GMM**

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- **RAN**

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- **DATA_CHANGE_NOTIFICATION**
- **DATA_REMOVAL_NOTIFICATION**
- **LOCATION_NOTIFICATION**
- **N1_MESSAGES**

- **N2_INFORMATION**

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type sepp sepp-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SEPP NF-Client Configuration (config-sepp) > SEPP Profile Configuration (config-sepp-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type sepp sepp-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SEPP NF-Client Configuration (config-sepp) > SEPP Profile Configuration (config-sepp-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type sepp sepp-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SEPP NF-Client Configuration (config-sepp) > SEPP Profile Configuration (config-sepp-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type sepp sepp-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SEPP NF-Client Configuration (config-sepp) > SEPP Profile Configuration (config-sepp-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

`version uri-version {` *`uri_version`* **`|`** **`full-version`** *`full_version`* **`}`**

full-version *full_version*

Specify the full version in the format *major-version.minor-version.patch-version*.[alpha-*draft-number*]

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines

Use this command to configure the URI version parameter.

profile nf-client nf-type smf smf-profile

Configures SMF profile parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **`profile nf-client nf-type smf smf-profile`** *`smf_profile_name`*

smf-profile *smf_profile_name*

Specify name of the SMF profile.

Must be a string.

Usage Guidelines Use this command to configure the SMF profile parameters. The CLI prompt changes to the SMF Profile Configuration mode (config-smf-profile-<profile_name>).

profile nf-client nf-type smf smf-profile locality

Configures the SMF profile locality parameter.

Command Modes Exec > Global Configuration (config) > SMF Profile Configuration (config-smf-profile-*profile_name*)

Syntax Description **`locality`** *`locality_name`* **`[ priority`** *`priority`* **`]`**

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *priority*

Specify the priority of the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the SMF profile locality parameter.

profile nf-client nf-type smf smf-profile locality service name type

Configures the SMF service name type parameter.

Command Modes

Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description

service name type *smf_service_name_type* **[responsetimeout** *response_timeout* **]**

responsetimeout *response_timeout*

Specify the timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *smf_service_name_type*

Specify the service name type.

Must be one of the following:

- **nsmf-pdusession**

Usage Guidelines

Use this command to configure the SMF service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

endpoint-profile *endpoint_profile_name* **{ capacity** *capacity_value* **| priority** *profile_priority* **| api-uri-prefix** *api_uri_prefix* **| api-root** *api_root* **| uri-scheme** *uri_scheme* **}**

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

capacity *capacity_value*

Specify the profile capacity.

Must be an integer in the range of 0-65535.

Default Value: 10.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.

- **https**: HTTPS.

Usage Guidelines Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

endpoint-name *endpoint_name* **[priority** *node_priority* **| capacity** *node_capacity* **]**

capacity *node_capacity*

Specify the node capacity for the endpoint.

Must be an integer in the range of 0-65535.

endpoint-name *endpoint_name*

Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address.

Must be a string.

priority *node_priority*

Specify the node priority for the endpoint.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

`default-notification-subscriptions` *`name`* **`[ callback-uri`** *`callback_uri`* **`| n1-message-class`** *`n1_message_class`* **`| n2-information-class`** *`n2_information_class`* **`| notification-type`** *`notification_type`* **`]`**

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- **5GMM**

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- **RAN**

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- **DATA_CHANGE_NOTIFICATION**
- **DATA_REMOVAL_NOTIFICATION**
- **LOCATION_NOTIFICATION**
- **N1_MESSAGES**

- **N2_INFORMATION**

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 ***ipv4_address***

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 ***ipv6_address***

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port ***port_number***

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type smf smf-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > SMF Profile Configuration (config-smf-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

`version uri-version {` *`uri_version`* **`|`** **`full-version`** *`full_version`* **`}`**

full-version *full_version*

Specify the full version in the format *major-version.minor-version.patch-version*.[alpha-*draft-number*]

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines

Use this command to configure the URI version parameter.

profile nf-client nf-type udm udm-profile

Configures UDM profile parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

`profile nf-client nf-type udm udm-profile` *`udm_profile_name`*

udm-profile *udm_profile_name*

Specify name of the UDM profile.

Must be a string.

Usage Guidelines

Use this command to configure the UDM profile parameters. The CLI prompt changes to the UDM Profile Configuration mode (config-udm-profile-<profile_name>).

profile nf-client nf-type udm udm-profile locality

Configures the UDM profile locality parameters.

Command Modes Exec > Global Configuration (config) > UDM Profile Configuration (config-udm-profile-*profile_name*)

Syntax Description **`locality`** *`locality_name`* **`[ priority`** *`priority`* **`]`**

locality *locality_name*

Specify name of the locality.

Must be a string.

priority *priority*

This keyword sets the priority for the locality configuration.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the UDM profile locality parameter.

profile nf-client nf-type udm udm-profile locality service name type

Configures the UDM service name type parameter.

Command Modes

Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*)

Syntax Description

service name type *service_name_type* **[responsetimeout** *response_timeout* **]**

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *service_name_type*

Specify the UDM service name type.

Must be one of the following:

- **nudm-ee**
- **nudm-pp**
- **nudm-sdm**
- **nudm-ueau**
- **nudm-uecm**

Usage Guidelines

Use this command to configure the UDM service name type parameter. The CLI prompt changes to the Service Name Type Configuration mode (config-type-<service_name_type>).

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile

Configures endpoint profile parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

endpoint-profile *endpoint_profile_name* **{ capacity** *capacity_value* **| priority** *profile_priority* **| api-uri-prefix** *api_uri_prefix* **| api-root** *api_root* **| uri-scheme** *uri_scheme* **}**

api-root *api_root*

Specify the API root.

Must be a string.

api-uri-prefix *api_uri_prefix*

Specify the API URI prefix.

Must be a string.

capacity *capacity_value*

Specify the profile capacity.

Must be an integer in the range of 0-65535.

Default Value: 10.

endpoint-profile *endpoint_profile_name*

Specify name of the endpoint profile.

Must be a string.

priority *profile_priority*

Specify the priority of the profile.

Must be an integer in the range of 0-65535.

Default Value: 1.

uri-scheme *uri_scheme*

Specify the URI scheme.

Must be one of the following:

- **http**: HTTP.

- **https**: HTTPS.

Usage Guidelines Use this command to configure endpoint profile parameters. The CLI prompt changes to the Endpoint Profile Configuration mode (config-endpoint-profile-<profile_name>).

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name

Configures the endpoint name parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > UDM NF-Client Configuration (config-smf) > UDM Profile Configuration (config-udm-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

endpoint-name *endpoint_name* **[priority** *node_priority* **| capacity** *node_capacity* **]**

capacity *node_capacity*

Specify the node capacity for the endpoint.

Must be an integer in the range of 0-65535.

endpoint-name *endpoint_name*

Specify name of the endpoint. You can configure the primary, secondary, and tertiary host (IP: Port) within each endpoint for NF server failover handling. The server failover configuration accepts both IPv4 and IPv6 addresses. However, the SMF gives preference to the IPv4 address.

Must be a string.

priority *node_priority*

Specify the node priority for the endpoint.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this configuration to configure the endpoint name parameters. The CLI prompt changes to the Endpoint Name Configuration mode (config-endpoint-name-<endpoint_name>).

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name default-notification-subscriptions

Configures the Default Notification Subscription parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

`default-notification-subscriptions` *`name`* **`[ callback-uri`** *`callback_uri`* **`| n1-message-class`** *`n1_message_class`* **`| n2-information-class`** *`n2_information_class`* **`| notification-type`** *`notification_type`* **`]`**

callback-uri *callback_uri*

Specify the callback URI.

Must be a string.

n1-message-class *n1_message_class*

Specify the N1 Message Class.

Must be one of the following:

- **5GMM**

n2-information-class *n2_information_class*

Specify the N2 Information Class.

Must be one of the following:

- **RAN**

notification-type *notification_type*

Specify the notification type.

Must be one of the following:

- **DATA_CHANGE_NOTIFICATION**
- **DATA_REMOVAL_NOTIFICATION**
- **LOCATION_NOTIFICATION**
- **N1_MESSAGES**

- **N2_INFORMATION**

name

Specify the name of the default notification subscriptions.

Must be a string.

Usage Guidelines

Use this command to configure the Default Notification Subscription parameters. The CLI prompt changes to the Default Notification Subscriptions Configuration mode (config-default-notification-subscriptions-<name>)

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name primary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 ***ipv4_address***

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 ***ipv6_address***

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port ***port_number***

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name secondary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile endpoint-name tertiary ip-address

Configures the endpoint IP address and port number parameters. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Service Name Type Configuration (config-type-*service_name_type*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*) > Endpoint Name Configuration (config-endpoint-name-*endpoint_name*)

Syntax Description

{ primary | secondary | tertiary } ip-address { [ipv4 *ipv4_address* **| ipv6** *ipv6_address* **] [port** *port_number* **] }**

ipv4 *ipv4_address*

Specify the IPv4 address.

Must be a string in the ipv4-address pattern. For information on the ipv4-address pattern, see the Input Pattern Types section.

ipv6 *ipv6_address*

Specify the IPv6 address.

Must be a string in the ipv6-address pattern. For information on the ipv6-address pattern, see the Input Pattern Types section.

port *port_number*

Specify the port number.

Must be an integer in the range of 0-65535.

Usage Guidelines

Use this command to configure the endpoint IP address and port number parameters.

profile nf-client nf-type udm udm-profile locality service name type endpoint-profile version uri-version

Configures the URI version parameter. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > UDM Profile Configuration (config-udm-profile-*profile_name*) > Locality Configuration (config-locality-*locality_name*) > Endpoint Profile Configuration (config-endpoint-profile-*profile_name*)

Syntax Description

`version uri-version {` *`uri_version`* **`|`** **`full-version`** *`full_version`* **`}`**

full-version *full_version*

Specify the full version in the format *major-version.minor-version.patch-version*.[alpha-*draft-number*]

Must be a string.

uri-version *uri_version*

Specify the URI version.

Must be a string in the pattern v\d.

Usage Guidelines

Use this command to configure the URI version parameter.

profile nf-client-failure nf-type amf

Configures the AMF Profile Failure Handling parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client-failure nf-type amf`

Usage Guidelines Use this command to configure the AMF Profile Failure Handling parameters. The CLI prompt changes to the AMF Configuration mode (config-amf).

profile nf-client-failure nf-type amf profile failure-handling

Configures the AMF Failure Handling Template parameters.

Command Modes Exec > Global Configuration (config) > AMF NF Client Failure Configuration (config-amf)

Syntax Description **`profile failure-handling`** *`fh_template_name`*

failure-handling *fh_template_name*

Specify name of the AMF failure handling template.

Must be a string.

Usage Guidelines Use this command to configure the AMF Failure Handling Template parameters. The CLI prompt changes to the Failure Handling <profile_name> Configuration (config-failure-handling-<profile_name>).

profile nf-client-failure nf-type amf profile failure-handling service name type

Configures the AMF Failure Handling parameters.

Command Modes

Exec > Global Configuration (config) > AMF NF-Client Configuration (config-amf) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description

`service name type` *`amf_service_name_type`* **`[ responsetimeout`** *`response_timeout`* **`]`**

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *amf_service_name_type*

Specify the AMF service name type.

Must be one of the following:

- **namf-comm**
- **namf-evts**
- **namf-loc**
- **namf-mt**

Usage Guidelines

Use this command to configure AMF Failure Handling parameters. The CLI prompt changes to the Failure Handling Service Name Type Configuration mode (config-type-<service_name_type>)

profile nf-client-failure nf-type amf profile failure-handling service name type message type

Configures the AMF message type parameters.

Command Modes

Exec > Global Configuration (config) > AMF NF Client Configuration (config-amf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

message type *amf_message_type*

type *amf_message_type*

Specify the AMF message type.

Must be one of the following:

- **AmfCommCreateUeContext**
- **AmfCommEBIAssignment**
- **AmfCommN1N2MessageTransfer**
- **AmfCommSMStatusChangeNotify**
- **AmfCommUeContextTransfer**
- **AmfCommUeContextTransferUpdate**
- **AmfN1MessageNotifyClient**

Usage Guidelines

Use this command to configure the AMF message type parameters.

profile nf-client-failure nf-type amf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AMF NF Client Configuration (config-amf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*) > Failure Handling Message Type Configuration (config-type-*message_type_name*)

Syntax Description

status-code httpv2 { range *range* **|** *range* **} { action** *action* **| retransmit** *retransmit* **| retransmit-interval** *retransmit_interval* **| retry** *retry_value* **}**

action *action*

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore**: Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

code *code_value*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

Must be an integer.

-Or-

Must be a string.

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

Must be an integer in the range of 1-10.

Usage Guidelines

Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type ausf

Configures AUSF Profile Failure Handling parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client-failure nf-type ausf`

Usage Guidelines Use this command to configure AUSF Profile Failure Handling parameters. The CLI prompt changes to the AUSF Configuration mode (config-ausf).

profile nf-client-failure nf-type ausf profile failure-handling

Configures the AUSF Failure Handling Template parameters.

Command Modes

Exec > Global Configuration (config) > AUSF NF Client Failure Configuration (config-ausf)

Syntax Description

profile failure-handling *fh_template_name*

failure-handling *fh_template_name*

Specify name of the AUSF failure handling template.

Must be a string.

Usage Guidelines

Use this command to configure the AUSF Failure Handling Template parameters. The CLI prompt changes to the Failure Handling Profile Configuration mode (config-failure-handling-<profile_name>).

profile nf-client-failure nf-type ausf profile failure-handling service name type

Configures the AUSF Failure Handling parameters.

Command Modes

Exec > Global Configuration (config) > AUSF Configuration (config-ausf) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description

`service name type` *`ausf_service_name_type`* **`[ responsetimeout`** *`response_timeout`* **`]`**

responsetimeout *response_timeout*

Specify the response timeout.

Must be an integer.

Default Value: 2000.

type *ausf_service_name_type*

Specify the AUSF service name type.

Must be one of the following:

- **nausf-auth**

Usage Guidelines

Use this command to configure the AUSF Failure Handling parameters.

profile nf-client-failure nf-type ausf profile failure-handling service name type message type

Configures the AUSF message type parameters.

Command Modes

Exec > Global Configuration (config) > AUSF NF Client Configuration (config-ausf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

message type *ausf_message_type*

type *ausf_message_type*

Specify the AUSF message type.

Must be one of the following:

- **AusfAuthenticationCfm**
- **AusfAuthenticationReq**

Usage Guidelines

Use this command to configure the AUSF message type parameters.

profile nf-client-failure nf-type ausf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > AUSF NF Client Configuration (config-ausf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*) > Failure Handling Message Type Configuration (config-type-*message_type_name*)

Syntax Description

status-code httpv2 { range *range* **|** *range* **} { action** *action* **| retransmit** *retransmit* **| retransmit-interval** *retransmit_interval* **| retry** *retry_value* **}**

action *action*

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore**: Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

code *code_value*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

Must be an integer.

-Or-

Must be a string.

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

Must be an integer in the range of 1-10.

Usage Guidelines

Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type eir

Configures EIR Profile Failure Handling parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client-failure nf-type eir`

Usage Guidelines Use this command to configure EIR Profile Failure Handling parameters. The CLI prompt changes to the EIR Configuration mode (config-eir).

profile nf-client-failure nf-type eir profile failure-handling

Configures the EIR Failure Handling Template parameters.

Command Modes Exec > Global Configuration (config) > EIR NF Client Failure Configuration (config-eir)

Syntax Description **`profile failure-handling`** *`fh_template_name`*

failure-handling *fh_template_name*

Specify name of the EIR failure handling template.

Must be a string.

Usage Guidelines Use this command to configure the EIR Failure Handling Template parameters.

profile nf-client-failure nf-type eir profile failure-handling service name type

Configures the EIR Failure Handling parameters.

Command Modes

Exec > Global Configuration (config) > EIR NF-Client Configuration (config-eir) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description

service name type *amf_service_name_type* **[responsetimeout** *response_timeout* **]**

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *eir_service_name_type*

Specify the EIR service name type.

Must be one of the following:

- **n5g-eir-eic**

Usage Guidelines

Use this command to configure the EIR Failure Handling parameters.

profile nf-client-failure nf-type eir profile failure-handling service name type message type

Specify the EIR message type parameters.

Command Modes

Exec > Global Configuration (config) > EIR Configuration (config-eir) > Failure Handling *profile_name* Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

message type *eir_message_type*

type *eir_message_type*

Specify the EIR message type.

Must be one of the following:

- **EirCheckEquipmentIdentity**

Usage Guidelines

Use this command to configure the EIR message type parameters.

profile nf-client-failure nf-type eir profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > EIR NF Client Configuration (config-eir) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*) > Failure Handling Message Type Configuration (config-type-*message_type_name*)

Syntax Description

status-code httpv2 { range *range* **|** *range* **} { action** *action* **| retransmit** *retransmit* **| retransmit-interval** *retransmit_interval* **| retry** *retry_value* **}**

action *action*

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and reject the registration with appropriate cause.
- **retry-and-ignore**: Specify to retry as per the configured retry count and continue with the registration.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

code *code_value*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

Must be an integer.

-Or-

Must be a string.

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

Must be an integer in the range of 1-10.

Usage Guidelines

Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type lmf

Configures LMF profile failure handling parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client-failure nf-type lmf`

Usage Guidelines Use this command to configure LMF failure handling parameters. The CLI prompt changes to the LMF Configuration mode (config-lmf).

profile nf-client-failure nf-type lmf profile failure-handling

Configures the LMF Failure Handling Template parameters.

Command Modes

Exec > Global Configuration (config) > LMF NF Client Failure Configuration (config-lmf)

Syntax Description

`profile failure-handling` *`fh_template_name`*

failure-handling *fh_template_name*

Specify name of the LMF failure handling template.

Must be a string.

Usage Guidelines

Use this command to configure the LMF Failure Handling Template parameters. The CLI prompt changes to the Failure Handling <profile_name> Configuration (config-failure-handling-<profile_name>).

profile nf-client-failure nf-type lmf profile failure-handling service name type

Configures the LMF service name type.

Command Modes

Exec > Global Configuration (config) > LMF Configuration (config-lmf) > Failure Handling *profile_name* Configuration mode (config-failure-handling-*profile_name*)

Syntax Description

`service name type` *`lmf_service_name_type`*

responsetimeout *response_timeout*

Specify the response timeout.

Must be an integer.

type *lmf_service_name_type*

Specify the LMF service name type.

Must be one of the following:

- **nlmf-loc**

Usage Guidelines

Use this command to configure the LMF service name type.

profile nf-client-failure nf-type lmf profile failure-handling service name type message type

Configures the LMF message type parameters.

Command Modes

Exec > Global Configuration (config) > LMF Configuration (config-lmf) > Failure Handling *profile_name* Configuration mode (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

`message type` *`lmf_message_type`*

type *lmf_message_type*

Specify the LMF message type.

Must be one of the following:

- **LmfDetermineLocation**
- **LmfN1MessageNotify**
- **LmfN2InfoNotify**

Usage Guidelines

Use this command to configure the LMF message type parameters.

profile nf-client-failure nf-type lmf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes.

Command Modes

Exec > Global Configuration

Syntax Description

status-code httpv2 *range* **{ code** *code_value* **| retry** *retry_value* **| action** *action* **}**

action *action*

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore**

code *code_value*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

Must be an integer.

-Or-

Must be a string.

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

Must be an integer in the range of 1-10.

Usage Guidelines

Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type nrf

Configures the NRF Profile Failure Handling parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client-failure nf-type nrf`

Usage Guidelines Use this command to configure NRF Profile Failure Handling parameters. The CLI prompt changes to the NRF Configuration mode (config-nrf).

profile nf-client-failure nf-type nrf profile failure-handling

Configures the NRF Failure Handling Template parameters.

Command Modes

Exec > Global Configuration (config) > NRF NF Client Failure Configuration (config-nrf)

Syntax Description

`profile failure-handling` *`fh_template_name`*

failure-handling *fh_template_name*

Specify name of the NRF failure handling template.

Must be a string.

Usage Guidelines

Use this command to configure the NRF Failure Handling Template parameters.

profile nf-client-failure nf-type nrf profile failure-handling service name type

Configures NRF Failure Handling parameters.

Command Modes

Exec > Global Configuration (config) > NRF NF-Client Configuration (config-nrf) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description

`service name type` *`nrf_service_name_type`* **`[ responsetimeout`** *`response_timeout`* **`]`**

responsetimeout *response_timeout*

Specify the timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

nrf_service_name_type

Specify the NRF service name type.

Must be one of the following:

- **nrf-nfm**

Usage Guidelines

Use this command to configure the NRF Failure Handling parameters.

profile nf-client-failure nf-type nrf profile failure-handling service name type message type

Configures NRF message type parameters.

Command Modes

Exec > Global Configuration (config) > NRF NF Client Configuration (config-nrf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

type *message_type* **failover-enabled { false | true } re-registration-enabled { false | true }**

failover-enabled { false | true }

Specify whether to enable or disable failover to next NRF. This parameter is applicable only for NFUpdate and NRFRegistraion message type.

Must be one of the following:

- **false**
- **true**

Default Value: true.

re-registration-enabled { false | true }

Specify whether to enable or disable re-registration.

Must be one of the following:

- **false**
- **true**

Default Value: true.

type *message_type*

Specify the message type.

Must be one of the following:

- **Heartbeat**
- **NFUpdate**
- **NRFRegistration**

Usage Guidelines

Use this command to configure the NRF message type parameters.

profile nf-client-failure nf-type nrf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status code.

Command Modes

Exec > Global Configuration

Syntax Description

status-code httpv2 { code *code_value* **| action** *action* **}**

action *action*

Specify the action.

Must be one of the following:

- **retry-next**
- **retry**

code *code_value*

Specify the code value. Ranges of status codes must be separated by either hyphen (-) or comma (,).

Must be an integer.

-Or-

Must be a string.

Usage Guidelines

Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type nssf

Configures NSSF Profile Failure Handling parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client-failure nf-type nssf`

Usage Guidelines Use this command to configure NSSF Failure Handling parameters. The CLI prompt changes to the NSSF Configuration mode (config-nssf).

profile nf-client-failure nf-type nssf profile failure-handling

Configures the NSSF Failure Handling Template parameters.

Command Modes Exec > Global Configuration (config) > NSSF NF Client Failure Configuration (config-nssf)

Syntax Description **`profile failure-handling`** *`fh_template_name`*

failure-handling *fh_template_name*

Specify name of the SEPP failure handling template.

Must be a string.

Usage Guidelines Use this command to configure the NSSF Failure Handling Template parameters.

profile nf-client-failure nf-type nssf profile failure-handling service name type

Configures the NSSF Failure Handling parameters.

Command Modes

Exec > Global Configuration (config) > NSSF NF-Client Configuration (config-nssf) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description

`service name type` *`nssf_service_name_type`* **`[ responsetimeout`** *`response_timeout`* **`]`**

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *nssf_service_name_type*

Specify the NSSF service name type.

Must be one of the following:

- **nnssf-nsselection**

Usage Guidelines

Use this command to configure the NSSF Failure Handling parameters.

profile nf-client-failure nf-type nssf profile failure-handling service name type message type

Configures the NSSF message type parameters.

Command Modes

Exec > Global Configuration (config) > NSSF NF Client Configuration (config-nssf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

message type *nssf_message_type*

type *nssf_message_type*

Specify the NSSF message type.

Must be one of the following:

- **NssfNSSelectionReq**

Usage Guidelines

Use this command to configure the NSSF message type parameters.

profile nf-client-failure nf-type nssf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > NSSF NF Client Configuration (config-nssf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*) > Failure Handling Message Type Configuration (config-type-*message_type_name*)

Syntax Description

status-code httpv2 { range *range* **|** *range* **} { action** *action* **| retransmit** *retransmit* **| retransmit-interval** *retransmit_interval* **| retry** *retry_value* **}**

action *action*

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore**: Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

code *code_value*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

Must be an integer.

-Or-

Must be a string.

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

Must be an integer in the range of 1-10.

Usage Guidelines

Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type pcf

Configures PCF Profile Failure Fandling parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client-failure nf-type pcf`

Usage Guidelines Use this command to configure PCF Profile Failure Handling parameters. The CLI prompt changes to the PCF Configuration mode (config-pcf).

profile nf-client-failure nf-type pcf profile failure-handling

Configures the PCF Failure Handling Template parameters.

Command Modes Exec > Global Configuration (config) > PCF NF Client Failure Configuration (config-pcf)

Syntax Description **`profile failure-handling`** *`fh_template_name`*

failure-handling *fh_template_name*

Specify name of the PCF failure handling template.

Must be a string.

Usage Guidelines Use this command to configure the PCF Failure Handling Template parameters.

profile nf-client-failure nf-type pcf profile failure-handling service name type

Configures the PCF Failure Handling parameters.

Command Modes

Exec > Global Configuration (config) > PCF NF-Client Configuration (config-pcf) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description

service name type *pcf_service_name_type* **[responsetimeout** *response_timeout* **]**

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

pcf_service_name_type

Specify the PCF service name type.

Must be one of the following:

- **npcf-am-policy-control**
- **npcf-bdtpolicycontrol**
- **npcf-eventexposure**
- **npcf-policyauthorization**
- **npcf-smpolicycontrol**
- **npcf-ue-policy-control**

Usage Guidelines

Use this command to configure the PCF Failure handling parameters.

profile nf-client-failure nf-type pcf profile failure-handling service name type message type

Configures the PCF message type parameters.

Command Modes

Exec > Global Configuration (config) > PCF NF Client Configuration (config-pcf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

message type *pcf_message_type*

type *pcf_message_type*

Specify the PCF message type.

Must be one of the following:

- **PcfAmfPolicyControlCreate**
- **PcfAmfPolicyControlDelete**
- **PcfSmpolicycontrolCreate**
- **PcfSmpolicycontrolDelete**
- **PcfSmpolicycontrolUpdate**

Usage Guidelines

Use this command to configure the PCF message type parameters.

profile nf-client-failure nf-type pcf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > PCF NF Client Configuration (config-pcf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*) > Failure Handling Message Type Configuration (config-type-*message_type_name*)

Syntax Description

status-code httpv2 { range *range* **|** *range* **} { action** *action* **| retransmit** *retransmit* **| retransmit-interval** *retransmit_interval* **| retry** *retry_value* **}**

action *action*

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore**: Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

code *code_value*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

Must be an integer.

-Or-

Must be a string.

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

Must be an integer in the range of 1-10.

Usage Guidelines

Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type sepp

Configures SEPP Profile Failure Handling parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client-failure nf-type sepp`

Usage Guidelines Use this command to configure SEPP Failure Handling parameters. The CLI prompt changes to the SEPP Configuration mode (config-sepp).

profile nf-client-failure nf-type sepp profile failure-handling

Configures SEPP Failure Handling Template parameters.

Command Modes Exec > Global Configuration (config) > SEPP NF Client Failure Configuration (config-sepp)

Syntax Description **`profile failure-handling`** *`fh_template_name`*

failure-handling *fh_template_name*

Specify name of the SEPP failure handling template.

Must be a string.

Usage Guidelines Use this command to configure SEPP Failure Handling Template parameters.

profile nf-client-failure nf-type sepp profile failure-handling service name type

Configures the SEPP Failure Handling parameters.

Command Modes

Exec > Global Configuration (config) > SEPP NF-Client Configuration (config-sepp) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description

`service name type` *`sepp_service_name_type`* **`[ responsetimeout`** *`response_timeout`* **`]`**

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *sepp_service_name_type*

Specify the SEPP service name type.

Must be one of the following:

- **nsmf-pdusession**

Usage Guidelines

Use this command to configure the SEPP Failure Handling parameters.

profile nf-client-failure nf-type sepp profile failure-handling service name type message type

Configures the SEPP message type parameters.

Command Modes

Exec > Global Configuration (config) > SEPP NF Client Configuration (config-sepp) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-service_*name_type*)

Syntax Description

message type *sepp_message_type*

type *sepp_message_type*

Specify the SEPP message type.

Must be one of the following:

- **HsmfPduSessionNotify**
- **HsmfPduSessionUpdate**
- **VsmfPduSessionCreate**
- **VsmfPduSessionRelease**
- **VsmfPduSessionUpdate**

Usage Guidelines

Use this command to configure the SEPP message type parameters.

profile nf-client-failure nf-type sepp profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SEPP NF Client Configuration (config-sepp) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*) > Failure Handling Message Type Configuration (config-type-*message_type_name*)

Syntax Description

status-code httpv2 { range *range* **|** *range* **} { action** *action* **| retransmit** *retransmit* **| retransmit-interval** *retransmit_interval* **| retry** *retry_value* **}**

action *action*

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore**: Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

code *code_value*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

Must be an integer.

-Or-

Must be a string.

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

Must be an integer in the range of 1-10.

Usage Guidelines

Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type smf

Configures SMF Profile Failure Handling parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client-failure nf-type smf`

Usage Guidelines Use this command to configure SMF Proflie Failure Handling parameters. The CLI prompt changes to the SMF Configuration mode (config-smf).

profile nf-client-failure nf-type smf profile failure-handling

Configures the SMF Failure Handling Template parameters.

Command Modes Exec > Global Configuration (config) > SMF NF Client Failure Configuration (config-smf)

Syntax Description **`profile failure-handling`** *`fh_template_name`*

fh_template_name

Specify name of the SMF failure handling template.

Must be a string.

Usage Guidelines Use this command to configure the SMF Failure Handling Template parameters.

profile nf-client-failure nf-type smf profile failure-handling service name type

Configures the SMF Failure Handling parameters.

Command Modes

Exec > Global Configuration (config) > SMF NF-Client Configuration (config-smf) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description

`service name type` *`smf_service_name_type`* **`[ responsetimeout`** *`response_timeout`* **`]`**

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

type *smf_service_name_type*

Specify the SMF service name type.

Must be one of the following:

- **nsmf-pdusession**

Usage Guidelines

Use this command to configure the SMF Failure Handling parameters.

profile nf-client-failure nf-type smf profile failure-handling service name type message type

Configures the SMF message type parameters.

Command Modes

Exec > Global Configuration (config) > SMF NF Client Configuration (config-smf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

message type *smf_message_type*

type *smf_message_type*

Specify the SMF message type.

Must be one of the following:

- **SmfN1N2MsgTxfrFailureNotification**
- **SmfSmContextCreate**
- **SmfSmContextDelete**
- **SmfSmContextRetrieve**
- **SmfSmContextUpdate**

Usage Guidelines

Use this command to configure the SMF message type parameters.

profile nf-client-failure nf-type smf profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > SMF NF Client Configuration (config-smf) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*) > Failure Handling Message Type Configuration (config-type-*message_type_name*)

Syntax Description

status-code httpv2 { range *range* **|** *range* **} { action** *action* **| retransmit** *retransmit* **| retransmit-interval** *retransmit_interval* **| retry** *retry_value* **}**

action *action*

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore**: Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

code *code_value*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

Must be an integer.

-Or-

Must be a string.

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

Must be an integer in the range of 1-10.

Usage Guidelines

Use this command to configure HTTPv2 status codes.

profile nf-client-failure nf-type udm

Configures UDM Profile Failure Handling parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description `profile nf-client-failure nf-type udm`

Usage Guidelines Use this command to configure UDM Profile Failure Handling parameters. The CLI prompt changes to the UDM Configuration mode (config-udm).

profile nf-client-failure nf-type udm profile failure-handling

Configures the UDM Failure Handling Template parameters.

Command Modes Exec > Global Configuration (config) > UDM NF Client Failure Configuration (config-udm)

Syntax Description **`profile failure-handling`** *`fh_template_name`*

failure-handling *fh_template_name*

Specify name of the UDM failure handling template.

Must be a string.

Usage Guidelines Use this command to configure the UDM Failure Handling Template parameters.

profile nf-client-failure nf-type udm profile failure-handling service name type

Configures UDM Failure Handling parameters.

Command Modes

Exec > Global Configuration (config) > UDM NF-Client Configuration (config-udm) > Failure Handling Profile Configuration (config-failure-handling-*profile_name*)

Syntax Description

`service name type` *`udm_service_name_type`* **`[ responsetimeout`** *`response_timeout`* **`]`**

responsetimeout *response_timeout*

Specify the response timeout interval in milliseconds.

Must be an integer.

Default Value: 2000.

udm_service_name_type

Specify the UDM service name type.

Must be one of the following:

- **nudm-ee**
- **nudm-pp**
- **nudm-sdm**
- **nudm-ueau**
- **nudm-uecm**

Usage Guidelines

Use this command to configure the UDM Failure Handling parameters.

profile nf-client-failure nf-type udm profile failure-handling service name type message type

Configures the UDM message type parameters.

Command Modes

Exec > Global Configuration (config) > UDM NF Client Configuration (config-udm) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*)

Syntax Description

message type *udm_message_type*

type *udm_message_type*

Specify the UDM message type.

Must be one of the following:

- **UdmDeRegistrationReq**
- **UdmRegistrationReq**
- **UdmSdmGetUESMSubscriptionData**
- **UdmSdmSubscribeToNotification**
- **UdmSdmUnsubscribeToNotification**
- **UdmSubscriptionReq**
- **UdmUecmRegisterSMF**
- **UdmUecmUnregisterSMF**
- **UdmUnSubscriptionReq**

Usage Guidelines

Use this command to configure the UDM message type parameters.

profile nf-client-failure nf-type udm profile failure-handling service name type message type status-code httpv2

Configures HTTPv2 status codes. This command is common to multiple NF clients, and is available in the following configuration modes.

Command Modes

Exec > Global Configuration (config) > UDM NF Client Configuration (config-udm) > Failure Handling Configuration (config-failure-handling-*profile_name*) > Failure Handling Service Name Type Configuration (config-type-*service_name_type*) > Failure Handling Message Type Configuration (config-type-*message_type_name*)

Syntax Description

status-code httpv2 { range *range* **|** *range* **} { action** *action* **| retransmit** *retransmit* **| retransmit-interval** *retransmit_interval* **| retry** *retry_value* **}**

action *action*

Specify the action.

Must be one of the following:

- **continue**: Specify to continue the session without any retry. The retry count configuration is invalid with this action.
- **retry-and-continue**: Specify to retry as per the configured retry count and continue the session.
- **retry-and-ignore**: Specify to retry as per the configured retry count and ignore the session in case all retry fails.
- **retry-and-terminate**: Specify to retry as per the configured retry count and terminate the session in case all retry fails.
- **terminate**: Specify to terminate the session without any retry. Retry count configuration is invalid with this action.

code *code_value*

Specify the code, or a range of status codes separated by either - (hyphen) or , (comma).

Must be an integer.

-Or-

Must be a string.

retransmit-interval *retransmit_interval*

Specify the retransmit interval in milliseconds.

Must be an integer.

retransmit *retransmit*

Specify the retransmit value.

Must be an integer in the range of 1-10.

retry *retry_value*

Specify the number of times the NF service must retry before proceeding with the action.

Must be an integer in the range of 1-10.

Usage Guidelines

Use this command to configure HTTPv2 status codes.

profile nf-pair nf-type

Configures the NF client pair type parameter.

Command Modes

Exec > Global Configuration (config)

Syntax Description

profile nf-pair nf-type *nf_type* **[[limit** *max_discovery_profiles* **] [max-payload-size** *max_payload_size* **] [nrf-discovery-group** *group_name* **]]**

limit *max_discovery_profiles*

Specify the maximum number of discovery profiles that NRF can send.

Must be an integer in the range of 1-1000.

Default Value: 10.

max-payload-size *max_payload_size*

Specify the maximum payload size of the discovery response.

Must be an integer in the range of 124-2000.

Default Value: 124.

nf-type *nf_type*

Specify the NF client pair type.

Must be one of the following:

- **5G_EIR**
- **AF**
- **AMF**
- **AUSF**
- **BSF**
- **CHF**
- **GMLC**
- **LMF**
- **N3IWF**
- **NEF**
- **NRF**
- **NSSF**
- **NWDAF**
- **PCF**

- **SEPP**
- **SMF**
- **SMSF**
- **UDM**
- **UDR**
- **UDSF**
- **UPF**

nrf-discovery-group *group_name*

Specify name of the NRF discovery group.

Must be a string.

Usage Guidelines

Configures NF client pair parameters. Use this command to configure the NF client pair type parameter.

profile nf-pair nf-type cache invalidation true

Configures the invalidation cache for "true" case.

Command Modes

Exec > Global Configuration (config) > NF Type Configuration (config-nf-type-*nf_type*)

Syntax Description

`cache invalidation { false | true [ timeout` *`timeout_duration`* **`] }`**

timeout *timeout_duration*

Specify the invalidation cache timeout duration in milliseconds.

Must be an integer.

Default Value: 0.

true

True condition.

Usage Guidelines

Use this command to configure the true case parameters for invaldation cache.

profile nf-pair nf-type locality

Configures client locality parameter.

Command Modes

Exec > Global Configuration (config) > NF Type Configuration (config-nf-type-*nf_type*)

Syntax Description

locality { client *locality_name* **| geo-server** *locality_name* **| preferred-server** *locality_name* **}**

client *locality_name*

Specify the Client Locality information.

Must be a string.

geo-server *locality_name*

Specify the Geo Service Locality information.

Must be a string.

preferred-server *locality_name*

Specify the preferred server locality information.

Must be a string.

Usage Guidelines

Use this command to configure the client locality parameter.

profile nf-pair nf-type nrf-auth-group nrf-discovery-group

Configures the AMF ID (**nrf-auth-group nrf-discovery-group** in the **nf-pair**) to specify `auth-groups` containing the NRF endpoint details for each NF type.

Command Modes

Exec > Global Configuration (`config`) > AMF Configuration (`config-amf` *amf_name*) > NF Profile Name Configuration (`config-nf-profile-nf` *nf_profile_name*) > NF Profile Type Configuration (`config-nf-type-profile` *profile_type_name*) > `nrf-auth-group` > `nrf-discovery-group`

Syntax Description

```
profile nf-pair nf-type nf_type_name
   nrf-auth-group nrf_auth_group_name
   nrf-discovery-group nrf_discovery_group_name
   locality client client_name
   locality preferred-server server_name
   locality geo-server geo_server_name
   cache invalidation { true | false } timeout timeout_number
```

profile nf-pair nf-type *nf_type_name*

Specify the `nf-type` under the `nf-pair` in the profile name to authenticate. Must be a string.

nrf-auth-group *nrf_auth_group_name*

Specify the `nrf-auth-group` name.

nrf-discovery-group *nrf_discovery_group_name*

Specify the `nrf-discovery-group` name.

locality client *client_name*

Specify the client name in the locality details.

locality preferred-server *server_name*

Specify the `preferred-server` or client name in the locality details.

locality geo-server *geo_server_name*

Specify the `geo-server` name in the locality details.

cache invalidation { true | false } timeout *timeout_number*

Enable the cache invalidation configuration. The default value is false.

Usage Guidelines

Use this command, when the **nrf-discovery-group** under the **nrf-auth-group**, as `auth-groups` containing the NRF endpoint details for each NF type is specified, when you want to enable **nf-pair**.

quit

Exits the management session.

Command Modes Exec

Syntax Description `quit`

Usage Guidelines Use this command to exit the management session.

reconcile

Reconciles the IPAM data with the CDL records pod resource parameter.

Command Modes

Exec

Syntax Description

reconcile ipam *ipam*

ipam *ipam*

Specify to initiate the reconcile operation.

Usage Guidelines

Use this command to reconcile the IPAM data with the CDL records pod resource parameter.

resource pod

Configures Pod resource parameter.

Command Modes Exec > Global Configuration (config)

Syntax Description **resource** *pod_type*

resource *pod_type*

Specify the pod type.

Usage Guidelines Use this command to configure Pod resource parameter. The CLI prompt changes to the Pod Resource Configuration mode (config-resource-<pod_type>).

resource pod cpu

Configures CPU resource request parameter.

Command Modes Exec > Global Configuration (config) > Pod Resource Configuration (config-resource-*pod_type*)

Syntax Description **cpu request** *cpu_resource_request*

request *cpu_resource_request*

Specify the CPU resource request in millicores.

Must be an integer in the range of 100-1000000.

Usage Guidelines Use this command to configure CPU resource request parameter.

resource pod labels

Configures K8 Node Affinity label configuration.

Command Modes

Exec > Global Configuration (config) > Pod Resource Configuration (config-resource-*pod_type*)

Syntax Description

labels key *label_key* **value** *label_value*

key *label_key*

Specify the key for the label.

Must be a string.

value *label_value*

Specify the value for the label.

Must be a string.

Usage Guidelines

Use this command to configure K8 Node affinity label configuration.

resource pod memory

Configures memory resource request parameter.

Command Modes Exec > Global Configuration (config) > Pod Resource Configuration (config-resource-*pod_type*)

Syntax Description **`memory request`** *`memory_resource_request`*

request *memory_resource_request*

Specify the memory resource request in megabytes.

Must be an integer in the range of 100-200000.

Usage Guidelines Use this command to configure memory resource request parameter.

resources

Displays resources information.

Command Modes Exec

Syntax Description `show resources`

Usage Guidelines Use this command to view resources information.

resources info

Displays resource information.

Command Modes Exec

Syntax Description `show resources [ info ]`

Usage Guidelines Use this command to view information about the configured resources.

rolling-upgrade all

Enables the supported features for a rolling upgrade.

Command Modes Exec > Global Configuration (config) > amf-services (config-amf-service *service_name*)

Syntax Description

```
supported-features [ app-rx-retx-cache | app-tx-retx | rolling-upgrade-all
 | rolling-upgrade-enhancement-infra ]
```

Specify one of following options to enable the supported features for the rolling upgrade.

- **app-rx-retx-cache**: Enable retransmission cache for inbound messages at application.
- **app-tx-retx**: Enable retransmission for outbound messages at application.
- **rolling-upgrade-all**: Enable the **rolling-upgrade-enhancement-infra**, **app-rx-retx-cache** , and **app-tx-retxrolling** upgrade features.
- **rolling-upgrade-enhancement-infra**: Enable infra level features.

Note By default, the rolling upgrade features are disabled.

Usage Guidelines Use this command to enable the supported features for a rolling upgrade.

router bfd instance instance-id

Configures Multi-Hop BFD configuration.

Command Modes Exec > Global Configuration (config)

Syntax Description **router bfd instance instance-id** *instance_id*

instance-id *instance_id*

Specify the instance ID.

Usage Guidelines Use this command to configure Multi-Hop BFD configuration. The CLI prompt changes to the Instance Configuration mode (config-instance-id-<instance_id>).

router bfd instance instance-id interface-list

Configures monitor interface list configuration.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*)

Syntax Description **interface** *interface_to_monitor* **[gateway-ip** *gateway_ip_address* **]**

gateway-ip *gateway_ip_address*

Specify IP address of the gateway.

Must be a string.

interface *interface_to_monitor*

Specify the interface to monitor.

Must be a string.

Usage Guidelines Use this command to configure monitor interface list configuration.

router bfd instance instance-id interface-list neighbors

Configures monitor interface list neighbor configuration parameters.

Command Modes Exec > Global Configuration (config) > Instance Configuration (config-instance-id-*instance_id*)

Syntax Description **neighbor** *neighbor_ip_address*

neighbor *neighbor_ip_address*

Specify IP address of the neighbor.

Must be a string.

Usage Guidelines Use this command to configure monitor interface list neighbor configuration parameters.

router bgplist

Configures BGP speaker configuration.

Command Modes

Exec > Global Configuration (config)

Syntax Description

router bgp *bgp* **[learnDefaultRoute { false | true } | loopbackBFDPort** *bfd_local_port_number* **| loopbackPort** *bgp_local_port_number* **]**

bgp *bgp*

Specify the BGP.

Must be an integer.

learnDefaultRoute { false | true }

Specify whether to enable or disable learning default route and adding it in kernel space.

Must be one of the following:

- **false**
- **true**

Default Value: false.

loopbackBFDPort *bfd_local_port_number*

Specify the BFD local port number.

Must be an integer.

Default Value: 3784.

loopbackPort *bgp_local_port_number*

Specify the BGP local port number.

Must be an integer.

Default Value: 179.

Usage Guidelines

Use this command to configure the BGP speaker configuration.

router bgplist bfd

Configures BFD configuration.

Command Modes

Exec > Global Configuration (config) > Router Configuration (config-router-*router*)

Syntax Description

bfd { interval *bfd_interval* **| min_rx** *bfd_min_rx* **| multiplier** *bfd_interval_multiplier* **}**

interval *bfd_interval*

Specify, in microseconds, the BFD interval.

Must be an integer.

Default Value: 250000.

min_rx *bfd_min_rx*

Specify, in microseconds, the BFD minimum RX.

Must be an integer.

Default Value: 250000.

multiplier *bfd_interval_multiplier*

Specify the BFD interval multiplier.

Must be an integer.

Default Value: 3.

Usage Guidelines

Use this command to configure the BFD configuration.

router bgplist interfaceList

Configures bonding interface configuration.

Command Modes Exec > Global Configuration (config) > Router Configuration (config-router-*router*)

Syntax Description **`interface`** *`bgp_local_interface`*

interface *bgp_local_interface*

Specify the BGP local interface.

Must be a string.

Usage Guidelines Use this command to configure the bonding interface configuration.

router bgplist interfaceList bondingInterfaces

Configures bonding interface configuration.

Command Modes Exec > Global Configuration (config) > Router Configuration (config-router-*router*) > Router Interface Configuration (config-router-*interface*)

Syntax Description **`bondingInterface`** *`linked_bonding_interface`*

bondingInterface *linked_bonding_interface*

Specify the linked bonding interface.

Must be a string.

Usage Guidelines Use this command to configure the bonding interface configuration.

router bgplist interfaceList neighbors

Configures neighbor parameters.

Command Modes

Exec > Global Configuration (config) > Router Configuration (config-router-*router*) > Router Interface Configuration (config-router-*interface*)

Syntax Description

neighbor *neighbor_ip_address* **[fail-over** *failover_type* **| remote-as** *remote_as_number* **]**

fail-over *failover_type*

Specify the failover type.

Must be one of the following:

- **bfd**

neighbor *neighbor_ip_address*

Specify the IP address of the neighbor.

Must be a string.

remote-as *remote_as_number*

Specify the Autonomous System (AS) number of the BGP neighbor.

Must be an integer.

Default Value: 65000.

Usage Guidelines

Use this command to configure the neighbor parameters.

router bgplist policies

Configures policy parameters.

Command Modes Exec > Global Configuration (config) > Router Configuration (config-router-*router*)

Syntax Description

```
policy-name policy_name [ as-path-set as_path_set | gateWay gateway_address |
interface interface | ip-prefix ip_prefix | isStaticRoute { false | true } |
 mask-range mask_range | modifySourceIp { false | true } ]
```

as-path-set *as_path_set*

Specify the Autonomous System (AS) path set.

Must be a string.

gateWay *gateway_address*

Specify the gateway address.

Must be a string.

interface *interface*

Specify the interface to set as source ip.

Must be a string.

ip-prefix *ip_prefix*

Specify the IP prefix.

Must be a string.

isStaticRoute { false | true }

Specify whether to enable or disable adding static route into kernel space.

Must be one of the following:

- **false**
- **true**

Default Value: false.

mask-range *mask_range*

Specify the mask range.

Must be a string.

modifySourceIp { false | true }

Specify whether to enable or disable modifying source IP of incoming route.

Must be one of the following:

- **false**
- **true**

Default Value: false.

policy-name *policy_name*

Specify name of the policy.

Must be a string.

source-prefix *source_ip_prefix*

Specify the source IP prefix.

Must be a string.

Usage Guidelines

Use this command to configure the policy parameters.

router monitor-interface interface-list

Configures monitor interface list configuration.

Command Modes

Exec > Global Configuration (config)

Syntax Description

router monitor-interface interface *interface_to_monitor* **linked-interface** *linked_interface_to_monitor*

interface *interface_to_monitor*

Specify the interface to monitor.

Must be a string.

linked-interface *linked_interface_to_monitor*

Specify the linked interface to monitor.

Must be a string.

Usage Guidelines

Use this command to configure monitor interface list configuration.

rpc

Displays RPC information.

Command Modes Exec

Syntax Description `show rpc`

Usage Guidelines Use this command to view RPC information.

rpc all

Displays RPC configuration information.

Command Modes Exec

Syntax Description `show rpc [ all ]`

Usage Guidelines Use this command to view RPC configuration information for all RPCs.

running-status

Displays system running status information.

Command Modes Exec

Syntax Description `show running-status`

Usage Guidelines Use this command to view system running status information.

running-status info

Displays the system's current status information.

Command Modes Exec

Syntax Description `show running-status [ info ]`

Usage Guidelines Use this command to view the system's current status information.

screen-length

Configures the number of rows of text that the terminal screen displays.

Command Modes

Exec

Syntax Description

screen-length *number_of_rows*

number_of_rows

Specify the number of rows.

Must be an integer.

Usage Guidelines

Use this command to configure the number of rows that the terminal screen displays.

screen-width

Configures the number of columns that the terminal screen displays.

Command Modes

Exec

Syntax Description

screen-width *number_of_columns*

number_of_columns

Specify the number of columns.

Must be an integer.

Usage Guidelines

Use this command to configure the number of columns that the terminal screen displays.

search

Search subscriber by SUPI.

Command Modes Exec > Global Configuration (config)

Syntax Description **`search subscriber supi`** *`supi_info`* **`detailed { false | true }`**

Usage Guidelines Use this command to search subscriber by SUPI.

search

Search the subscriber by SUPI.

Command Modes Exec

Syntax Description **`search subscriber [ detailed { false | true } | supi`** *`supi`* **`]`**

subscriber detailed { false | true }

Specify whether you want detailed subscriber information.

Must be "false" or "true".

supi*supi*

Specify the SUPI.

Must be a string.

Usage Guidelines Use this command to search subscriber by SUPI.

send

Sends messages to the terminal of a specific user or all users.

Command Modes

Exec

Syntax Description

send *user message*

user

Specify the user from whom the message must be sent.

Must be a string.

Must be one of the following:

- admin
- confd-api-manager
- confd-message-manager

message

Specify the message that must be sent.

Must be a string.

Usage Guidelines

Use this command to send messages to the terminal of a specific user or to all users.

sessions

Displays pending session commits in the database.

Command Modes Exec

Syntax Description `show sessions`

Usage Guidelines Use this command to view pending session commits in the database.

sessions affinity

Displays the affinity count per instance.

Command Modes Exec

Syntax Description `show sessions affinity`

Usage Guidelines Use this command to view the affinity count per instance.

sessions commit-pending

Displays all pending session commits.

Command Modes Exec

Syntax Description `show sessions commit-pending`

Usage Guidelines Use this command to view all pending session commits.

show

Displays the system information.

Command Modes

Exec

Syntax Description

show *system_component*

system_component

Specify the component to view the information.

Must be a string. Select from the possible completion options.

Usage Guidelines

Use this command to view the system information.

show bfd-neigbor

Displays BFD status of neighbors.

Command Modes

Exec

Syntax Description

show bfd-neigbor [ip *ip_address* **]**

ip *ip_address*

Specify the IP address of the neighbor.

Must be a string.

Usage Guidelines

Use this command to view BFD status of neighbors.

show bgp-global

Displays BGP global configuration.

Command Modes Exec

Syntax Description `show bgp-global`

Usage Guidelines Use this command to view BGP global configuration.

show bgp-kernel-route

Displays BGP kernel-configured routes.

Command Modes

Exec

Syntax Description

```
show bgp-kernel-route [ application { false | true } ]
```

application { false | true }

Specify whether to display application added routes.

Must be one of the following:

- **false**
- **true**

Default Value: false.

Usage Guidelines

Use this command to view BGP kernel-configured routes.

show bgp-neighbors

Displays BGP neighbor's status.

Command Modes

Exec

Syntax Description

show bgp-neighbors [ip *ip_address* **]**

ip *ip_address*

Specify the IP address of the neighbor.

Must be a string.

Usage Guidelines

Use this command to view BGP neighbor's status.

show bgp-route-summary

Displays BGP route summary.

Command Modes Exec

Syntax Description `show bgp-route-summary`

Usage Guidelines Use this command to view BGP route summary.

show bgp-routes

Displays BGP routes information.

Command Modes Exec

Syntax Description `show bgp-routes`

Usage Guidelines Use this command to view BGP routes information.

show edr

Displays EDR Transaction Procedure Event fields.

Command Modes

Exec

Syntax Description

show edr { [event *transaction_procedure_event* **] [transaction-procedure** *transaction_procedure* **] }**

event *transaction_procedure_event*

Specify the transaction procedure event name/id/all.

Must be a string.

transaction-procedure *transaction_procedure*

Specify the transaction procedure's name, ID, or all.

Must be a string.

Usage Guidelines

Use this command to view EDR Transaction Procedure Event fields.

show geo-maintenance-mode

Indicates whether maintenance mode is enabled or disabled.

Command Modes

Exec

Syntax Description

```
show geo-maintenance-mode
```

Usage Guidelines

Use this command to view whether maintenance mode is enabled or disabled.

show georeplication

Displays ETCD/Cache checksum.

Command Modes

Exec

Syntax Description

show georeplication checksum instance-id *instance_id*

checksum

Specify checksum.

instance-id *instance_id*

Specify the instance ID for which checksum will be displayed.

Must be a string.

Usage Guidelines

Use this command to view ETCD/Cache checksum.

show local-interface-status

Displays status of local interface.

Command Modes Exec

Syntax Description **`show local-interface-status interface`** *`local_interface_name`*

interface *local_interface_name*

Specify name of the local interface.

Must be a string.

Usage Guidelines Use this command to view status of local interface.

show role

Displays current role for the specified instance.

Command Modes

Exec

Syntax Description

show role instance-id *instance_id*

instance-id *instance_id*

Specify the instance ID for which role must be displayed.

Usage Guidelines

Use this command to view current role for the specified instance.

show subscriber

Displays subscriber information.

Command Modes

Exec

Syntax Description

show subscriber { all | supi *supi_id* **}**

all

Specify all SUPIs or IMEIs.

count *session_count*

Specify the sessions count.

Must be one of the following:

- **count**

gr-instance *gr_instance*

Specify the network function service under which to search.

imei *imei_id*

Specify the International Mobile Equipment Identity.

Must be a string of 15-16 characters.

namespace *namespace*

NOTE: This keyword is deprecated, use nf-service instead. Specify the product namespace under which to search.

Default Value: cisco-mobile-infra:none.

nf-service *nf_service*

Specify the network function service under which to search.

Default Value: cisco-mobile-infra:none.

supi *supi_id*

Specify the subscriber's SUPI ID.

Must be a string.

Usage Guidelines

Use this command to view summary and detailed subscriber information for all subscribers or specific subscribers based on SUPI, IMEI, or all.

show subscriber ran-opt

Displays and clears subscriber data based on specified criteria.

Command Modes

Exec

Syntax Description

{ clear | show } subscriber gnode-id *gnodeb_id* **mnc** *mobile_network_code* **mcc** *mobile_country_code*

gnodeb-id *gnodeb_id*

Specify the gnodeb-id.

Must be an integer in the range of 0-4294967295.

mcc *mobile_country_code*

Specify the mobile country code.

Must be a string in the two-or-three-digit pattern. For information on the two-or-three-digit pattern, see the Input Pattern Types section.

mnc *mobile_network_code*

Specify the mobile network code.

Must be a string in the two-or-three-digit pattern. For information on the two-or-three-digit pattern, see the Input Pattern Types section.

Usage Guidelines

Use this command to view and to clear subscriber data based on specified criteria.

show-defaults

Configures whether to display default values when showing the configuration.

Command Modes

Exec

Syntax Description

```
show-defaults { false | true }
```

show-defaults { false | true }

Specify whether to display or hide the default values. To hide select false, to display select true.

Must be either "false" or "true".

Usage Guidelines

Use this command to view default values when viewing the configuration commands.

slice-group

Configures slice group parameters.

Command Modes Exec > Global Configuration (config)

Syntax Description **slice-group** *slice_group_name*

slice_group_name

Specify name of the slice group.

Must be a string.

Usage Guidelines Use this command to configure slice group parameters. The CLI prompt chnages to the Slice Group Configuration mode (config-slice-group-<group_name>).

slice-group slices

Configures slice parameters.

Command Modes

Exec > Global Configuration (config) > Slice Group Configuration (config-slice-group-*group_name*)

Syntax Description

slices name *slice_name* **[[sst** *slice_service_type* **] [sdt** *slice_differentiator_type* **]]**

name *slice_name*

Specify name of the slice.

Must be a string.

sdt *slice_differentiator_type*

Specify the Slice Differentiator Type (SDT).

Must be a string in the octet-string24 pattern. For information on the octet-string24 pattern, see the Input Pattern Types section.

sst *slice_service_type*

Specify the Slice Service Type (SST).

Must be an integer in the range of 0-255.

Usage Guidelines

Use this command to configure slice parameters.

smiuser

Configures the Subscriber Microservices Infrastructure (SMI) user account parameters.

Command Modes

Exec

Syntax Description

smiuser add-group groupname *group_name*

smiuser add-user { username*username* **| password** *password* **}**

smiuser assign-user-group { groupname *group_name* **| username** *username* **}**

smiuser change-password { username *username* **| current_password** *current_password* **| new_password** *new_password* **| confirm_password** *new_password* **| password_expire_days** *expire_days* **}**

smiuser change-password-age { password_expire_days *expire_days* **| username** *username* **}**

smiuser change-self-password { current_password *current_password* **| new_password** *new_password* **| confirm_password** *new_password* **| password_expire_days** *expire_days* **}**

smiuser delete-group groupname *group_name*

smiuser delete-user username username

smiuser show-user username *username*

smiuser unassign-user-group { username *username* **| groupname** *group_name* **}**

smiuser update-password-length length *password_length*

groupname *group_name*

Specify the group name in PAM.

Must be a string.

username *username*

Specify the username in PAM.

Must be a string.

password *password*

Specify the user password.

Must be a string.

current_password *current_password*

Specify the current password.

Must be a string.

new_password *new_password*

Specify the new password.

Must be a string.

confirm_password *new_password*

Confirm the new password.

Must be a string.

password_expire_days *expire_days*

Specify the number of days before the password expires.

Must be an integer.

length *password_length*

Specify the minimum password length.

Must be an integer.

Usage Guidelines

Use this command to configure the SMI user parameters.

system

Configures the NF's system operations.

Command Modes

Exec

Syntax Description

system { ops-center stop | ops-center-debug { start | stop } | synch { start | stop } | upgrade | uuid-override new-uuid *uuid_value* **}**

ops-center stop

Stops the operations center diagnostics.

ops-center debug { start | stop }

Starts or stops operations center debugging.

synch { start | stop }

Starts or stops the automatic synching of configuration,

upgrade

Initiates the upgrade of a product.

uuid-override new-uuid *uuid_value*

Change the Universally Unique Identifier (UUID) to a new value.

Must be a string.

Usage Guidelines

Use this command to display the NF's system operations.

tai-group

Configures Tracking Area Identity (TAI) group parameters.

Command Modes

Exec > Global Configuration (config)

Syntax Description

tai-group name *tai_group_name* **slice-group** *slice_group_name*

name *tai_group_name*

Specify name of the TAI group.

Must be a string.

slice-group *slice_group_name*

Specify name of the slice group.

Usage Guidelines

Use this command to configure TAI group parameters.

tai-group tais

Configures Tracking Area Identity (TAI).

Command Modes

Exec > Global Configuration (config)

Syntax Description

tai-group name *tai_group_name* **tais name** *tai_name* **[ims-voice-over-ps-supported { false | true } | slice-group** *slice_group_name* **]**

ims-voice-over-ps-supported { false | true }

Specify whether IMS Voice Over PS is supported or not supported.

Must be one of the following:

- **false**
- **true**

Default Value: false.

slice-group *slice_group_name*

Specify name of the slice group.

tais name *tai_name*

Specify name of the TAI.

Must be a string.

Usage Guidelines

Use this command to configure TAIs. A TAI is composed of MCC, MNC, and possible TACs.

tai-group tais tailist

Configures TAI list.

Command Modes

Exec > Global Configuration (config) > TAI Group Configuration (config-tai-group-*tai_group_name*) > TAIS List Configuration (config-tais-*tai_name*)

Syntax Description

mcc *mobile_country_code* **mnc** *mobile_network_code*

mcc *mobile_country_code*

Specify the mobile country code. For example, 123.

Must be a string in the three-digit pattern. For information on the three-digit pattern, see the Input Pattern Types section.

mnc *mobile_network_code*

Specify the two- or three-digit mobile network code. For example, 23, 456.

Must be a string in the two-or-three-digit pattern. For information on the two-or-three-digit pattern, see the Input Pattern Types section.

Usage Guidelines

Use this command to configure the TAI list.

You can configure a maximum of 16 elements with this command.

tai-group tais tailist tac

Configures TAI group TAC values.

Command Modes Exec > Global Configuration (config) > TAI Group Configuration (config-tai-group-*tai_group_name*) > TAIS List Configuration (config-tais-*tai_name*)

Syntax Description **`tac list`** *`list_of_tac_values`*

list *list_of_tac_values*

Specify the list of TAC values.

Must be an integer in the range of 0-65535.

You can configure a maximum of 16 elements with this keyword.

Usage Guidelines Use this command to configure TAI group TAC values.

tai-group tais tailist tac range

Configures the TAC range.

Command Modes Exec > Global Configuration (config) > TAI Group Configuration (config-tai-group-*tai_group_name*) > TAIS List Configuration (config-tais-*tai_name*)

Syntax Description **range start** *tac_range_start* **end** *tac_range_end*

end *tac_range_end*

Specify the end value of the TAC range. Must be greater than the start value.

Must be an integer in the range of 0-65535.

start *tac_range_start*

Specify the start value of the TAC range. Must be lesser than the end value.

Must be an integer in the range of 0-65535.

Usage Guidelines Use this command to configure the TAC range.

You can configure a maximum of 16 elements with this command.

terminal

Configures the terminal parameters.

Command Modes Exec

Syntax Description **terminal** *terminal_type*

terminal_type

Specify the terminal type.

Must be one of the following:

- ansi
- generic
- linux
- vt100
- xterm

Usage Guidelines Use this command to configure the terminal parameters.

timestamp

Configures the timestamp parameters.

Command Modes Exec

Syntax Description `timestamp { enable | disable }`

timestamp { enable | disable }

Specify the configuration to enable or disable the timestamp display.

Usage Guidelines Use this command to configure the timestamp capability.

tracing

Configures debug settings for AMF NGAP endpoint.

Command Modes

Exec > Global Configuration (config)

Syntax Description

`tracing enable-trace-percent` *`tracing_percentage`* **`append-messages { false | true }`**

append-messages { false | true }

Specify to enable or disable appending messages.

Must be one of the following:

- **false**
- **true**

Default Value: true.

enable-trace-percent *tracing_percentage*

Specify the tracing percentage.

Must be an integer in the range of 0-100.

Default Value: 100.

Usage Guidelines

Use this command to configure debug settings for the AMF NGAP endpoint.

tracing endpoint

Configures tracing endpoint.

Command Modes Exec > Global Configuration (config)

Syntax Description **`tracing endpoint host`** *`host_name`* **`port`** *`port_number`*

host *host_name*

Specify the host name.

Must be a string.

Default Value: jaeger-collector.

port *port_number*

Specify the port number.

Must be an integer.

Default Value: 9411.

Usage Guidelines Use this command to configure tracing endpoint.

who

Displays information on currently logged on users.

Command Modes

Exec

Syntax Description

who

Usage Guidelines

Use this command to view information on currently logged on users. The command output displays the Session, User, Context, From, Protocol, Date, and Mode information.

Input Pattern Types

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- crypt-hash, on page 529
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- domain-name, on page 531
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arg-type

Pattern:
'[^*].*|..+'; // must not be single '*'

Pattern:
'*'

This statement can be used to hide a node from some, or all, northbound interfaces. All nodes with the same value are considered a hide group and are treated the same with regards to being visible or not in a northbound interface.

A node with an hidden property is not shown in the northbound user interfaces (CLI and Web UI) unless an 'unhide' operation is performed in the user interface.

The hidden value 'full' indicates that the node must be hidden from all northbound interfaces, including programmatical interfaces such as NETCONF. The value '*' is not valid. A hide group can be unhidden only if this is explicitly allowed in the confd.conf(5) daemon configuration.

Multiple hide groups can be specified by giving this statement multiple times. The node is shown if any of the specified hide groups is given in the 'unhide' operation. If a mandatory node is hidden, a hook callback function (or similar) might be needed in order to set the element

crypt-hash

```
Pattern:
'$0$.*'
  '|$1$[a-zA-Z0-9./]{1,8}$[a-zA-Z0-9./]{22}'
  '|$5$(rounds=\d+$)?[a-zA-Z0-9./]{1,16}$[a-zA-Z0-9./]{43}'
  '|$6$(rounds=\d+$)?[a-zA-Z0-9./]{1,16}$[a-zA-Z0-9./]{86}'
```

The **crypt-hash** type is used to store passwords using a hash function. The algorithms for applying the hash function and encoding the result are implemented in various UNIX systems as the function crypt(3).

A value of this type matches one of the forms:

- 0<clear text password>
- $<id>$<salt>$<password hash>
- $<id>$<parameter>$<salt>$<password hash>

The '0' prefix signals that the value is clear text. When such a value is received by the server, a hash value is calculated, and the string '$<id>$<salt>$' or $<id>$<parameter>$<salt>$ is prepended to the result. This value is stored in the configuration data store.

If a value starting with '$<id>$', where <id> is not '0', is received, the server knows that the value already represents a hashed value, and stores it as is in the data store.

When a server needs to verify a password given by a user, it finds the stored password hash string for that user, extracts the salt, and calculates the hash with the salt and given password as input. If the calculated hash value is the same as the stored value, the password given by the client is accepted.

This type defines the following hash functions:

Id	Hash Function	Feature
1	MD5	crypt-hash-md5
5	SHA-256	crypt-hash-sha-256
6	SHA-512	crypt-hash-sha-512

The server indicates support for the different hash functions by advertising the corresponding feature.

Reference:

- IEEE Std 1003.1-2008 - crypt() function
- RFC 1321: The MD5 Message-Digest Algorithm
- FIPS.180-3.2008: Secure Hash Standard

date-and-time

```
Pattern:
'\d{4}-\d{2}-\d{2}T\d{2}:\d{2}:\d{2}(\.\d+)?'
 '(Z|[\+\-]\d{2}:\d{2})'
```

The date-and-time type is a profile of the ISO 8601 standard for representation of dates and times using the Gregorian calendar. The profile is defined by the date-time production in Section 5.6 of RFC 3339. The date-and-time type is compatible with the dateTime XML schema type with the following notable exceptions:

1. The date-and-time type does not allow negative years.
2. The date-and-time time-offset -00:00 indicates an unknown time zone (see RFC 3339) while -00:00 and +00:00 and Z all represent the same time zone in dateTime.
3. The canonical format (see below) of data-and-time values differs from the canonical format used by the dateTime XML schema type, which requires all times to be in UTC using the time-offset 'Z'.

This type is not equivalent to the DateAndTime textual convention of the SMIv2 since RFC 3339 uses a different separator between full-date and full-time and provides higher resolution of time-secfrac. The canonical format for date-and-time values with a known time zone uses a numeric time zone offset that is calculated using the device's configured known offset to UTC time.

A change of the device's offset to UTC time will cause date-and-time values to change accordingly. Such changes might happen periodically in case a server follows automatically daylight saving time (DST) time zone offset changes. The canonical format for date-and-time values with an unknown time zone (usually referring to the notion of local time) uses the time-offset -00:00.

Reference:

- RFC 3339: Date and Time on the Internet: Timestamps
- RFC 2579: Textual Conventions for SMIv2
- XSD-TYPES: XML Schema Part 2: Datatypes Second Edition

domain-name

```
Pattern:
'((([a-zA-Z0-9_]([a-zA-Z0-9\-_]){0,61})?[a-zA-Z0-9]\.)*'
 '([a-zA-Z0-9_]([a-zA-Z0-9\-_]){0,61})?[a-zA-Z0-9]\.?)'
 '|\.'
```

The domain-name type represents a DNS domain name. The name must fully qualified whenever possible. Internet domain names are only loosely specified. Section 3.5 of RFC 1034 recommends a syntax (modified in Section 2.1 of RFC 1123). The Pattern above is intended to allow for current practice in domain name use, and some possible future expansion. It is designed to hold various types of domain names, including names used for A or AAAA records (host names) and other records, such as SRV records.

The Internet host names have a stricter syntax (described in RFC 952) than the DNS recommendations in RFCs 1034 and 1123, and that systems that want to store host names in schema nodes using the domain-name type are recommended to adhere to this stricter standard to ensure interoperability.

The encoding of DNS names in the DNS protocol is limited to 255 characters. Since the encoding consists of labels prefixed by a length bytes and there is a trailing NULL byte, only 253 characters can appear in the textual dotted notation.

The description clause of schema nodes using the domain-name type must describe when and how these names are resolved to IP addresses. The resolution of a domain-name value may require to query multiple DNS records. For example, A for IPv4 and AAAA for IPv6. The order of the resolution process and which DNS record takes precedence can either be defined explicitly or may depend on the configuration of the resolver.

Domain-name values use the US-ASCII encoding. Their canonical format uses lowercase US-ASCII characters. Internationalized domain names MUST be A-labels as per RFC 5890.

Reference:

- RFC 952: DoD Internet Host Table Specification
- RFC 1034: Domain Names - Concepts and Facilities
- RFC 1123: Requirements for Internet Hosts -- Application and Support
- RFC 2782: A DNS RR for specifying the location of services (DNS SRV)
- RFC 5890: Internationalized Domain Names in Applications (IDNA): Definitions and Document Framework

dotted-quad

Pattern:

```
'(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}'
 '([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])'
```

An unsigned 32-bit number expressed in the dotted-quad notation, that is, four octets written as decimal numbers and separated with the '.' (full stop) character.

hex-list

Pattern:
'(([0-9a-fA-F]){2}(:([0-9a-fA-F]){2})*)?'

DEPRECATED: Use yang:hex-string instead. There are no plans to remove tailf:hex-list. A list of colon-separated hexa-decimal octets, for example '4F:4C:41:71'.

The statement tailf:value-length can be used to restrict the number of octets. Using the 'length' restriction limits the number of characters in the lexical representation

hex-string

Pattern:
'([0-9a-fA-F]{2}(:[0-9a-fA-F]{2})*)?'

A hexadecimal string with octets represented as hex digits separated by colons. The canonical representation uses lowercase characters.

ipv4-address

```
Pattern:
'(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}'
 '([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])'
 '(%[\p{N}\p{L}]+)?'
```

The ipv4-address type represents an IPv4 address in dotted-quad notation. The IPv4 address may include a zone index, separated by a % sign. The zone index is used to disambiguate identical address values. For link-local addresses, the zone index will typically be the interface index number or the name of an interface. If the zone index is not present, the default zone of the device will be used. The canonical format for the zone index is the numerical format.

ipv4-address-and-prefix-length

```
Pattern:
'(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}'
 '([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])'
 '/(([0-9])|([1-2][0-9])|(3[0-2]))'
```

The ipv4-address-and-prefix-length type represents a combination of an IPv4 address and a prefix length. The prefix length is given by the number following the slash character and must be less than or equal to 32.

ipv4-address-no-zone

Pattern:
'[0-9\.]*'

An IPv4 address is without a zone index and derived from ipv4-address that is used in situations where the zone is known from the context and hence no zone index is needed.

ipv4-prefix

Pattern:

```
'(([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])\.){3}'
 '([0-9]|[1-9][0-9]|1[0-9][0-9]|2[0-4][0-9]|25[0-5])'
 '/(([0-9])|([1-2][0-9])|(3[0-2]))'
```

The ipv4-prefix type represents an IPv4 address prefix. The prefix length is given by the number following the slash character and must be less than or equal to 32.

A prefix length value of 'n' corresponds to an IP address mask that has n contiguous 1-bits from the most significant bit (MSB) and all other bits set to 0.

The canonical format of an IPv4 prefix has all bits of the IPv4 address set to zero that are not part of the IPv4 prefix.

ipv6-address

```
Pattern:
'((:|[0-9a-fA-F]{0,4}):)([0-9a-fA-F]{0,4}:){0,5}'
  '((([0-9a-fA-F]{0,4}:)?(:|[0-9a-fA-F]{0,4}))|'
  '(((25[0-5]|2[0-4][0-9]|[01]?[0-9]?[0-9])\.){3}'Pattern:
  '(25[0-5]|2[0-4][0-9]|[01]?[0-9]?[0-9])))'
  '(%[\p{N}\p{L}]+)?'
```

```
Pattern:
'(([^:]+:){6}(([^:]+:[^:]+)|(.*\..*))|'
 '((([^:]+:)*[^:]+)?::(([^:]+:)*[^:]+)?)'
 '(%.+)?'
```

The ipv6-address type represents an IPv6 address in full, mixed, shortened, and shortened-mixed notation. The IPv6 address may include a zone index, separated by a % sign.

The zone index is used to disambiguate identical address values. For link-local addresses, the zone index will typically be the interface index number or the name of an interface. If the zone index is not present, the default zone of the device will be used.

The canonical format of IPv6 addresses uses the textual representation defined in Section 4 of RFC 5952. The canonical format for the zone index is the numerical format as described in Section 11.2 of RFC 4007.

Reference:

- RFC 4291: IP Version 6 Addressing Architecture
- RFC 4007: IPv6 Scoped Address Architecture
- RFC 5952: A Recommendation for IPv6 Address Text Representation

ipv6-address-and-prefix-length

```
Pattern:
'((:|[0-9a-fA-F]{0,4}):)([0-9a-fA-F]{0,4}:){0,5}'
 '(([0-9a-fA-F]{0,4}:)?(:|[0-9a-fA-F]{0,4}))|'
 '(((25[0-5]|2[0-4][0-9]|[01]?[0-9]?[0-9])\.){3}'
 '(25[0-5]|2[0-4][0-9]|[01]?[0-9]?[0-9])))'
 '(/(([0-9])|([0-9]{2})|(1[0-1][0-9])|(12[0-8])))'
```

```
Pattern:
'(([^:]+:){6}(([^:]+:[^:]+)|(.*\..*))|'
 '(([^:]+:)*[^:]+)?::(([^:]+:)*[^:]+)?)'
 '(/.+)'
```

The ipv6-address-and-prefix-length type represents a combination of an IPv6 address and a prefix length. The prefix length is given by the number following the slash character and must be less than or equal to 128.

ipv6-address-no-zone

Pattern:
'[0-9a-fA-F:\.]*'

An IPv6 address without a zone index. This type, derived from ipv6-address, may be used in situations where the zone is known from the context and hence no zone index is needed.

Reference:

- RFC 4291: IP Version 6 Addressing Architecture
- RFC 4007: IPv6 Scoped Address Architecture
- RFC 5952: A Recommendation for IPv6 Address Text Representation

ipv6-prefix

```
Pattern:
'((:|[0-9a-fA-F]{0,4}):)([0-9a-fA-F]{0,4}:){0,5}'
 '(((([0-9a-fA-F]{0,4}:)?(:|[0-9a-fA-F]{0,4}))|'
 '(((25[0-5]|2[0-4][0-9]|[01]?[0-9]?[0-9])\.){3}'Pattern:
 '(25[0-5]|2[0-4][0-9]|[01]?[0-9]?[0-9])))'
 '(/(([0-9])|([0-9]{2})|(1[0-1][0-9])|(12[0-8])))';
```

```
Pattern:
'(([^:]+:){6}(([^:]+:[^:]+)|(.*\..*))|'
 '((([^:]+:)*[^:]+)?::(([^:]+:)*[^:]+)?)'
 '(/.+)'
```

The ipv6-prefix type represents an IPv6 address prefix. The prefix length is given by the number following the slash character and must be less than or equal to 128.

A prefix length value of n corresponds to an IP address mask that has n contiguous 1-bits from the most significant bit (MSB) and all other bits set to 0.

The IPv6 address should have all bits that do not belong to the prefix set to zero. The canonical format of an IPv6 prefix has all bits of the IPv6 address set to zero that are not part of the IPv6 prefix. Furthermore, the IPv6 address is represented as defined in Section 4 of RFC 5952

Reference:

- RFC 5952: A Recommendation for IPv6 Address Text Representation

mac-address

Pattern:
'[0-9a-fA-F]{2}(:[0-9a-fA-F]{2}){5}'

The mac-address type represents an IEEE 802 MAC address. The canonical representation uses lowercase characters. In the value set and its semantics, this type is equivalent to the MacAddress textual convention of the SMIv2.

Reference:

- IEEE 802: IEEE Standard for Local and Metropolitan Area Networks: Overview and Architecture
- RFC 2579: Textual Conventions for SMIv2

object-identifier

Pattern:

```
'(([0-1](\.[1-3]?[0-9]))|(2\.(0|([1-9]\d*))))'
 '(\.(0|([1-9]\d*)))*'
```

The object-identifier type represents administratively assigned names in a registration-hierarchical-name tree. The values of this type are denoted as a sequence of numerical non-negative sub-identifier values. Each sub-identifier value MUST NOT exceed 2^32-1 (4294967295). The Sub-identifiers are separated by single dots and without any intermediate whitespace.

The ASN.1 standard restricts the value space of the first sub-identifier to 0, 1, or 2. Furthermore, the value space of the second sub-identifier is restricted to the range 0 to 39 if the first sub-identifier is 0 or 1. Finally, the ASN.1 standard requires that an object identifier has always at least two sub-identifiers. The pattern captures these restrictions.

Although the number of sub-identifiers is not limited, module designers should realize that there may be implementations that stick with the SMIv2 limit of 128 sub-identifiers.

This type is a superset of the SMIv2 OBJECT IDENTIFIER type since it is not restricted to 128 sub-identifiers. Hence, this type SHOULD NOT be used to represent the SMIv2 OBJECT IDENTIFIER type; the object-identifier-128 type SHOULD be used instead.

Reference:

- ISO9834-1: Information technology - Open Systems
- Interconnection - Procedures for the operation of OSI
- Registration Authorities: General procedures and top arcs of the ASN.1 Object Identifier tree

object-identifier-128

Pattern:
'\d*(\.\d*){1,127}'

This type represents object-identifiers restricted to 128 sub-identifiers. In the value set and its semantics, this type is equivalent to the OBJECT IDENTIFIER type of the SMIv2.

Reference:

- RFC 2578: Structure of Management Information Version 2 (SMIv2)

octet-list

Pattern:
'(\d*(.\d*)*)?'

A list of dot-separated octets, for example '192.168.255.1.0'. The statement tailf:value-length can be used to restrict the number of octets. Using the 'length' restriction limits the number of characters in the lexical representation.

phys-address

Pattern:
'([0-9a-fA-F]{2}(:[0-9a-fA-F]{2})*)?'

Represents media- or physical-level addresses represented as a sequence octets, each octet represented by two hexadecimal numbers. Octets are separated by colons. The canonical representation uses lowercase characters. In the value set and its semantics, this type is equivalent to the PhysAddress textual convention of the SMIv2.

Reference:

- RFC 2579: Textual Conventions for SMIv2

sha-256-digest-string

```
Pattern:
'$0$.*'
 '|$5$(rounds=\d+$)?[a-zA-Z0-9./]{1,16}$[a-zA-Z0-9./]{43}'
```

The sha-256-digest-string type automatically computes a SHA-256 digest for a value adhering to this type. A value of this type matches one of the forms:

- 0<clear text password>
- 5<salt>$<password hash>
- 5rounds=<number>$<salt>$<password hash>

The '0' prefix signals that this is plain text. When a plain text value is received by the server, a SHA-256 digest is calculated, and the string '5<salt>$' is prepended to the

result, where <salt> is a random 16 character salt used to generate the digest. This value is stored in the configuration data store. The algorithm can be tuned through the /confdConfig/cryptHash/rounds parameter, which if set to a number other than the default will cause '5rounds=<number>$<salt>$' to be prepended instead of only '5<salt>$'.

If a value starting with '5' is received, the server knows that the value already represents a SHA-256 digest, and stores it as is in the data store.

If a default value is specified, it must have a '5' prefix.

The digest algorithm used is the same as the SHA-256 crypt function used for encrypting passwords for various UNIX systems.

Reference:

- IEEE Std 1003.1-2008 - crypt() function FIPS.180-3.2008: Secure Hash Standard

sha-512-digest-string

```
Pattern:
'$0$.*'
 '|$6$(rounds=\d+$)?[a-zA-Z0-9./]{1,16}$[a-zA-Z0-9./]{86}'
```

The sha-512-digest-string type automatically computes a SHA-512 digest for a value adhering to this type. A value of this type matches one of the forms

- 0<clear text password>
- 6<salt>$<password hash>
- 6rounds=<number>$<salt>$<password hash>

The '0' prefix signals that this is plain text. When a plain text value is received by the server, a SHA-512 digest is calculated, and the string '6<salt>$' is prepended to the

result, where <salt> is a random 16 character salt used to generate the digest. This value is stored in the configuration data store. The algorithm can be tuned through the

/confdConfig/cryptHash/rounds parameter, which if set to a number other than the default will cause '6rounds=<number>$<salt>$' to be prepended instead of only '6<salt>$'.

If a value starting with '6' is received, the server knows that the value already represents a SHA-512 digest, and stores it as is in the data store.

If a default value is specified, it must have a '6' prefix. The digest algorithm used is the same as the SHA-512 crypt function used for encrypting passwords for various UNIX systems.

Reference:

- IEEE Std 1003.1-2008 - crypt() function FIPS.180-3.2008: Secure Hash Standard

size

Pattern:
'S(\d+G)?(\d+M)?(\d+K)?(\d+B)?'

A value that represents a number of bytes. An example could be S1G8M7K956B; meaning 1GB + 8MB + 7KB + 956B = 1082138556 bytes.

The value must start with an S. Any byte magnifier can be left out, for example, S1K1B equals 1025 bytes. The order is significant though, that is S1B56G is not a valid byte size.

In ConfD, a 'size' value is represented as an uint64.

uuid

Pattern:

```
'[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-[0-9a-fA-F]{4}-'
 '[0-9a-fA-F]{4}-[0-9a-fA-F]{12}'
```

A Universally Unique IDentifier in the string representation defined in RFC 4122. The canonical representation uses lowercase characters. The following is an example of a UUID in string representation: f81d4fae-7dec-11d0-a765-00a0c91e6bf6.

Reference:

- RFC 4122: A Universally Unique IDentifier (UUID) URN Namespace

yang-identifier

Pattern:
'[a-zA-Z_][a-zA-Z0-9\-_.]*'

Pattern:
'.|..|[^xX].*|.[^mM].*|..[^lL].*'

A YANG identifier string as defined by the 'identifier' rule in Section 12 of RFC 6020. An identifier must start with an alphabetic character or an underscore followed by an arbitrary sequence of alphabetic or numeric characters, underscores, hyphens, or dots. A YANG identifier MUST NOT start with any possible combination of the lowercase or uppercase character sequence 'xml'.

Reference:

- RFC 6020: YANG - A Data Modeling Language for the Network Configuration Protocol (NETCONF)