

Local Policy Ruledef Configuration Mode Commands

Command Modes

The Local Policy Ruledef Configuration Mode is used to configure the rule definitions to be used for local QoS policies.

Exec > Global Configuration > Local Policy Service Configuration > Local Policy Ruledef Configuration

configure > local-policy-service *service_name* **> ruledef** *ruledef_name*

Entering the above command sequence results in the following prompt:

`[context_name]host_name(config-local-policy-ruledef)#`

Important The commands or keywords/variables that are available are dependent on platform type, product version, and installed license(s).

Important For information on common commands available in this configuration mode, refer to the Common Commands chapter.

- condition, on page 1

condition

This command is used to configure the conditions which trigger the ruledef event.

Product

P-GW

SAEGW

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > Local Policy Service Configuration > Local Policy Ruledef Configuration

configure > local-policy-service *service_name* **> ruledef** *ruledef_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-local-policy-ruledef)#
```

Syntax Description

condition priority *priority* **{** *variable* **{ eq | ge | gt | le | lt | match | ne | nomatch }** *regex* **|** *string_value* **|** *int_value* **|** *set* **}**
no condition priority *priority*

priority *priority*

Specifies a priority for the specified condition.

priority must be unique and an integer from 1 to 2048.

variable

The following variables are supported:

- **3g-uli mcc** *mcc_num* **mnc** *mnc_num* **tac**

  Configures 3G-ULI parameter with values for MCC, MNC and LAC. Operator takes specific action or applies local-policy rule based on the 3G-ULI value in Change event notification from MME.

  - **mcc** *mcc_num* : MCC is a three digit number from 001 to 999. It is a string of size 3 to 3.
  - **mnc** *mnc_num* : MNC is a two or three digit number from 01 to 999. It is a string of size 2 to 3.
  - **lac**: LAC is a 4 byte field. It is a string of 4 hexadecimal values from 0x1 to 0xffff.

- **apn**

  The APN associated with the current session expressed as an alphanumeric string of 1 through 63 characters.

- **arp**

  The ARP value associated with the current session expressed as an integer from 1 through 15.

- **bandwidth**

  Total bandwidth associated with the QCI and ARP value associated with the request, expressed as an integer from 0 through 1000000000.

- **bsid**

  Base Station Identifier associated with the subscriber expressed as an alphanumeric string of 1 through 63 characters.

- **cause-code**

  Failure Cause Code associated with the subscriber expressed as an alphanumeric string of 1 through 63 characters.

- **date**

  Date value to match. <Clock in format YYYY:MM:DD>

- **day-of-month**

  The day of the month to match the rule to, expressed as an integer from 1 through 31.

- **day-of-week**

Sunday...Saturday, expressed as an integer from 1 to 7.

- **ecgi mcc** *mcc_num* **mnc** *mnc_num* **eci**

  Configures E-UTRAN Cell Global Identifier with values for MCC, MNC and ECI. Operator takes specific action or applies local-policy rule based on the ECGI value in ECGI-Change event notification from MME.

  - **mcc** *mcc_num* : MCC is a three digit number from 001 to 999. It is a string of size 3 to 3.
  - **mnc** *mnc_num* : MNC is a two or three digit number from 01 to 999. It is a string of size 2 to 3.
  - **eci**: ECI is a hexadecimal number from 0x1 to 0xffffffff. It is a string of size 1 to 7.

- **final-unit-action { redirect | restrict-access | terminate } [filter-id] [eq | ge | gt | le | lt | match | ne | nomatch]** *filter-id*

  This variable allows configuring different filter IDs and different Final-Unit-Action (FUA) actions for the events like out-of-credit, etc. Based on the FUA and filter ID values, local policy engine will either install pre-configured redirection rules/pre-configured rule that might drop all packets, or push a different rule/policy.

  When the FUA received from the session manager during out-of-credit scenario matches with the configured FUA, then one of the following actions will be taken. If multiple filter-ids are configured, then at least one filter-id should be matched.

  - **redirect**: Redirects the service
  - **restrict-access** : Restricts the service
  - **terminate**: Terminates the service

  filter-id: This variable denotes the name of the filter list for the user. *filter-id* is a string of 1 through 128 characters. Note that **match**, **nomatch**, **ne**, and **eq** are more appropriate operators though other values can also be used. Wild card values can be specified for string match.



Important This feature of supporting FUA in local policy will be active only when Gx Assume Positive is active.

- **imeisv**

  IMEISV of the user equipment expressed as an alphanumeric string of 1 through 63 characters.

- **imsi**

  IMSI associated with the subscriber expressed as an alphanumeric string of 1 through 63 characters.

- **local-policy-mode [fallback | dual-mode | lp-only]**

  This variable allows selecting different actions for different modes like local-policy only, dual-mode, and fallback mode for the same event.

  - **fallback**: This mode indicates that the action has to be taken only when the call is with local-policy because of failure-handling.
  - **dual-mode**: This mode indicates that action has to be taken if the call is in dual-mode wherein both PCRF and local-policy co-exist.
  - **lp-only**: This mode indicates that action has to be taken when only local-policy exists and PCRF does not.

- **meid**

  MEID associated with the subscriber expressed as an alphanumeric string of 1 through 63 characters.

- **month-of-year**

  Jan, Feb....Dec, expressed as an integer from 1 through 12.

- **msisdn**

  MSISDN associated with the session expressed as an alphanumeric string of 1 through 63 characters.

- **nai**

  NAI associated with the session expressed as an alphanumeric string of 1 through 63 characters.

- **pdn-type**

  Type of PDNs associated with the same APN.

  - **IPV4**: IPv4 PDN Type
  - **IPV4V6**: IPv4v6 PDN Type
  - **IPV6**: IPv6 PDN Type

- **qci**

  QCI associated with the current event expressed as an integer from 1 through 254.

- **radio-access-technology**

  Radio access technology associated with the subscriber:

  - **cdma-1xrtt**: CDMA 1X RTT radio access technology
  - **cdma-evdo**: CDMA-EVDO radio access technology
  - **cdma-evdo-reva**: CDMA EVDO REVA radio access technology
  - **cdma-other**: Other CDMA radio access technologies
  - **ehrpd**: EHRPD radio access technology
  - **eutran**: EUTRAN radio access technology
  - **gan**: GAN radio access technology
  - **gprs-geran**: GPRS GERAN radio access technology
  - **gprs-other**: Other GPRS radio access technology
  - **hspa**: HSPA radio access technology
  - **unknown**: Unknown radio access technology
  - **wcdma-utran**: WCDMA UTRAN radio access technology
  - **wimax**: WiMax radio access technology
  - **wireless-lan**: Wireless LAN radio access technology

- **serving-node-address**

IP address associated with the current node serving the subscriber entered using IPv4 dotted-decimal or IPv6 colon-separated-hexadecimal notation.

- **serving-plmn**

  PLMN associated with the current node serving the subscriber expressed as an alphanumeric string of 1 through 63 characters.

- **tai mcc** *mcc_num* **mnc** *mnc_num* **tac**

  Configures Tracking Area Identification associated with the subscriber. Operator takes specific action or applies local-policy rule based on the TAI value in TAI-Change event notification from MME.

  - **mcc** *mcc_num* : MCC is a three digit number from 001 to 999. It is a string of size 3 to 3.
  - **mnc** *mnc_num* : MNC is a two or three digit number from 01 to 999. It is a string of size 2 to 3.
  - **tac**: TAC is a 4 byte field. It is a string of 4 hexadecimal values from 0x1 to 0xffff.

- **time-of-day**

  Time associated with the change. <Clock in format HH:mm:ss or HH:mm >

eq | ge | gt | le | lt | match | ne | nomatch

eq: Operation equal to

ge: Operation greater than or equal to

gt: Operation greater than

le: Operation less than or equal to

lt: Operation less than

match: Operation match

ne: Operation not equal to

nomatch: Operation nomatch

no condition priority *priority*

Deletes the specified condition.

Usage Guidelines

Use this command to configure the conditions which trigger the ruledef event. A ruledef represents a set of matching conditions.

This command can be entered multiple times to configure multiple conditions for a ruledef. The conditions are examined in priority order until a match is found and the corresponding condition is applied.



Note It is recommended to use a maximum number of 20 condition priorities in a ruledef for performance reasons.

Example

The following command creates a condition with priority set to *5* and configured match apn *myapn**:

```
condition priority 5 apn match myapn*
```