



# Local Policy Ruledef Configuration Mode Commands

Command Modes	<p>The Local Policy Ruledef Configuration Mode is used to configure the rule definitions to be used for local QoS policies.</p> <p>Exec &gt; Global Configuration &gt; Local Policy Service Configuration &gt; Local Policy Ruledef Configuration</p> <p><b>configure &gt; local-policy-service</b> <i>service_name</i> &gt; <b>ruledef</b> <i>ruledef_name</i></p> <p>Entering the above command sequence results in the following prompt:</p> <pre>[context_name]host_name(config-local-policy-ruledef)#</pre>
Important	<p>The commands or keywords/variables that are available are dependent on platform type, product version, and installed license(s).</p>
Important	<p>For information on common commands available in this configuration mode, refer to the <a href="#">Common Commands</a> chapter.</p> <ul style="list-style-type: none"><li>• <a href="#">condition, on page 1</a></li></ul>

## condition

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

Product	<p>P-GW</p> <p>SAEGW</p>
Privilege	<p>Security Administrator, Administrator</p>
Command Modes	<p>Exec &gt; Global Configuration &gt; Local Policy Service Configuration &gt; Local Policy Ruledef Configuration</p> <p><b>configure &gt; local-policy-service</b> <i>service_name</i> &gt; <b>ruledef</b> <i>ruledef_name</i></p> <p>Entering the above command sequence results in the following prompt:</p>

```
[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 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 mnc\_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

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