Operator Policy Configuration Mode

The Operator Policy Configuration Mode is used to create and manage operator policies for MME, S-GW, SAEGW, and SGSN configurations.

- A maximum of 1,000 operator policies can be defined, including the "default" operator policy.

- A maximum of 128 APN profiles can be associated with a single operator policy.

- A maximum of 128 IMEI profiles can be associated with a single operator policy (SGSN-only).

- Only one APN remap table can be associated with a single operator policy.

- Only one call control profile can be associated with a single operator policy.

Using the Operator Policy feature allows the operator to fine-tune any desired restrictions or limitations needed to control call handling per subscriber or for a group of callers across IMSI ranges.

Command Modes
Operator Policy configuration mode associates APNs, APN profiles, IMEI ranges, IMEI profiles, an APN remap table and a call control profile to an operator policy. These profiles and tables are created and defined within their own configuration modes to generate sets of rules and instructions that can be reused and assigned to multiple policies.

Exec > Global Configuration > Operator Policy Configuration

configure > operator-policy *policy_name*

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-opr-policy-policy_name)#
```

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

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

- apn, on page 2
- associate, on page 3

apn

This command identifies an APN (access point name) and associates it with an APN profile (created separately in the APN Profile Configuration mode).

Product	MME
	SAEGW
	SaMOG
	S-GW
	SGSN
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Operator Policy Configuration

configure > operator-policy *policy_name*

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-opr-policy-policy_name)#
```

Syntax Description
```
apn { default-apn-profile apn_profile_name | network-identifier apn_net_id [
apn-profile apn_profile_name | congestion-control ] | operator-identifier
apn_op_id apn-profile apn_profile_name | webauth-apn-profile apn_webauth_name }
no apn { default-apn-profile | network-identifier apn_net_id [
congestion-control ] | operator-identifier apn_op_id | webauth-apn-profile
 apn_webauth_name }
```

no

Disables the specified APN to APN Profile correspondence.

default-apn-profile *apn_profile_name*

Enables the use of a default APN profile comprised of default values for all parameters. this profile will be used when none of the configured APNs match the APN in the incoming Request.

apn_profile_name must be an alphanumeric string of 1 through 64 characters.

apn-profile *apn_profile_name*

apn_profile_name must be an alphanumeric string of 1 through 64 characters.

network-identifier *apn_net_id* [congestion-control]

Links the specified APN network ID with the specified APN profile.

apn_net_id must be an alphanumeric string of 1 through 63 characters, including dots (.) and dashes (-).

congestion-control: MME or SGSN only. This optional keyword configures the MME or SGSN to apply congestion control actions for this specific APN. Refer to the **drop** and **reject** commands within the [SGSN] Congestion Action Profile Configuration Mode for more information on configuring APN-based congestion control.

operator-identifier *apn_op_id*

Links the specified APN operator ID with the specified APN profile.

apn_op_id: must be a string of size string of size 1 to 39, in format of [MNCxxx.MCCyyy.GPRS] / [ABCD.DEF.MNCxxx.MCCyyy.ZZZZ].

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Important With release 21.15 Operator Identifier can be configured in [ABCD.DEF.MNCxxx.MCCyyy.ZZZZ] format in addition to existing [MNCxxx.MCCyyy.GPRS] format.

webauth-apn-profile *apn_webauth_name*

Specify the APN profile to be used for SaMOG web authorization.

apn_webauth_name must be an alphanumeric string of 1 through 64 characters.

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Important The SaMOG Web Authorization feature is license dependent. Contact your Cisco account representative for more information on license requirements.

Usage Guidelines Use this command, to associate APNs with APN profiles. This command can be repeated to associate multiple APNs with profiles.

Example

Associate the APN profile named *apnprof1* to APN network ID *starflash.com*:

apn apnprof1 network-identifier starflash.com

Associate congestion control with APN network ID *starflash.com*:

apn network-identifier starflash.com congestion-control

associate

Associate an APN remap table and a call control profile with the operator policy.

Product MME

SAEGW

S-GW

SGSN

Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Operator Policy Configuration

configure > operator-policy *policy_name*

Entering the above command sequence results in the following prompt:

```
[local]host_name(config-opr-policy-policy_name)#
```

Syntax Description	`associate { apn-remap-table ` *table_id* `	call-control-profile ` *profile_id* ` }`
	`no associate { apn-remap-table	call-control-profile }`

no

Removes the association definition from the policy configuration.

apn-remap-table *table_id*

Identifies the APN remap table to be associated with the operator policy.

table_id must be an alphanumeric string of 1 through 65 characters.

call-control-profile *profile_id*

Identifies a call control profile to be associated with the operator policy.

profile_id must be an alphanumeric string of 1 through 64 characters.

Usage Guidelines	Use this command to associate an APN remap table and/or a call control profile with this Operator Policy. The APN remap table and the call control profile contain the definitions that instruct the SGSN or MME how to handle calls. Only one of each of these can be associated with an operator policy.

Example

Associate the *stardust.net_APNremap1* APN remap table with this operator policy:

```
associate apn-remap-table stardust.net_APNremap1
```

description

Associates a description with or names an operator policy.

Product	MME
	SAEGW
	S-GW
	SGSN
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Operator Policy Configuration

configure > operator-policy *policy_name*

Entering the above command sequence results in the following prompt:

`[local]`*host_name*`(config-opr-policy-`*policy_name*`)#`

Syntax Description	**description** *description* `no description`

description

Enter an alphanumeric string of 1 through 100 characters. If the string includes spaces, punctuation, and case-sensitive letters, it must be bracketed with double quotation marks (" ").

no

Removes the existing description from this operator policy.

Usage Guidelines   Identity this particularly operator policy using descriptive text.

Example

description "sgsn1 operator policy carrier1"

imei

Defines a range of IMEI (International Mobile Equipment Identity) numbers and associates an IMEI profile with the range definition.

Product	SGSN
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Operator Policy Configuration

configure > operator-policy *policy_name*

Entering the above command sequence results in the following prompt:

`[local]`*host_name*`(config-opr-policy-`*policy_name*`)#`

Syntax Description   **imei range** *IMEI_number* **to** *IMEI_number* **{ imei-profile** *profile_name* **| sv** *##*
imei-profile *profile_name* **}**
no imei range *IMEI_number* **to** *IMEI_number* **sv** *##*

no

Removes the IMEI definition from the policy configuration.

range *IMEI_number* to *IMEI_number*

Defines the beginning and end of a range of IMEIs.

IMEI_number must be a numerical string of up to 14 digits.

sv *##*

Identifies the software version to fine-tune the IMEI definition. This keyword should only be included if the IMEISV is retrievable.

must be a 2-digit integer.

imei-profile *profile_name*

Identify the IMEI profile that defines the actions appropriate to the devices identified within the specified range.

profile_name must be an alphanumeric string of 1 through 64 characters.

Usage Guidelines This command defines the IMEI ranges that will be used by the operator policy to determine if the device is appropriately selected for actions defined in the specified IMEI profile.

Example

All devices with an IMEI of *123123** requesting Attach shall be subject to actions in the *blacklist_profile1*

```
imei range 1231230 to 1231239 imei-profile name blacklist_profile1
```