



Static Serving PLMN Configuration

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Feature Description

Overview

The static serving PLMN configuration feature enables subscribers connecting from different operator sub-zones to be grouped and treated as a home user instead of a visited user. These subscribers can then be served by one SaMOG/P-GW for offloading traffic. This feature can be enabled using the **servicing-plmn id** command under the Call Control Profile Configuration Mode.

How Static Serving PLMN Works

Architecture

When the serving PLMN ID (MNC/MCC) is configured under the Call Control Profile Configuration Mode (typically with the same serving PLMN ID of the serving P-GW), SaMOG provides higher priority to this configuration. The configured PLMN will be then be sent to P-GW in the Serving-Network IE of the Create Session Request (CSR) message. These subscribers will be treated as home users even if they belong to different operator sub-zones, and can be served by one SaMOG/P-GW.

In Release 21.1 and later, the PLMN ID for UICC and non-UICC devices is selected based on the following order of priority:

- The **servicing-plmn id** configuration under the Call Control Profile Configuration Mode.
- The **plmn id** configuration under the SaMOG Service Configuration Mode.

- The User-Name from the EAP-Identity, Authentication, or Accounting messages if the realm (serving PLMN's realm) part of User-Name is in 3GPP format.

In Release 21.0 and earlier, the PLMN ID for UICC and non-UICC devices is selected based on the following order of priority:

- The User-Name from the EAP-Identity, Authentication, or Accounting messages if the realm (serving PLMN's realm) part of User-Name is in 3GPP format.
- The **plmn id** configuration under the SaMOG Service Configuration Mode.

Limitations

Architectural Limitations

- As there is no `serving-plmn` field in a PMIPv6 interface, static serving PLMN is not supported on the PMIPv6-based S2a interface.
- Static serving PLMN is not supported with DHCP trigger-based and Accounting-based session creation features as these features require PMIPv6-based S2a interface.

Configuring Static Serving PLMN

Use the following configuration to configure a static serving node PLMN Identifier (MCC and MNC) for a Call Control Profile:

```
configure
  call-control-profile profile_name
    serving-plmn id mcc mcc_value mnc mnc_value
  end
```

Notes:

- Use the **remove serving-plmn id** command to remove the static serving node PLMN ID configuration from the Call Control Profile.
- *mcc_value* must be an integer between 100 and 999.
- *mnc_value* must be an integer between 0 and 999.

Monitoring and Troubleshooting Static Serving PLMN Configuration

Static Serving PLMN Configuration Show Command(s) and/or Outputs

show call-control-profile full name

The following fields are available to the output of the **show call-control-profile full name** *profile_name* command in support of this feature:

```
Serving PLMN
  MCC          : 777
  MNC          : 109
```

Table 1: show call-control-profile full name Command Output Descriptions

| Field | Description |
|--------------|--|
| Serving PLMN | |
| MCC | MCC value of the call control profile. |
| MNC | MNC value of the call control profile. |

show call-control-profile full name