

Retrieve MDN from S6b

- Feature Changes, on page 1
- Command Changes, on page 2
- Performance Indicator Changes, on page 2

Feature Changes

As per the current implementation, during an initial attach, P-GW selects Mobile Directory Number (MDN) or Mobile Station International Subscriber Directory Number (MSISDN) from the S6b interface. Later, when the call is handed off from P-GW to other services like eHRPD/trusted WiFi/untrusted WiFi or the handoff is done from these services to the P-GW, then the MDN/MSISDN is picked from the create session (CS) request and the S6b authorized MDN/MSISDN is lost. As a result, different values of MDN/MSISDN are sent in the Rf records. Since, typically, operators use MDN to charge subscribers, this results in revenue loss.

This feature retains the MDN/MSISDN value from the S6b interface or the CS request, during the initial attach and even during handoff between P-GW and eHRPD/ trusted WiFi/untrusted WiFi. The MDN/MSISDN value does not change in the call lifetime. As a result, all Rf records of a session have the same MDN/MSISDN values.

A new keyword **retain-mdn** has been added to the CLI command **authorize-with-hss**. This CLI command keyword, when configured, retains the MDN/MSISDN value. If the CLI command keyword is not configured, the MDN/MSISDN value is not received from the S6b interface. In this case, the MDN/MSISDN value received in the CS request is used.

Important This feature is not applicable to GnGp handoff.

Old Behavior: MSISDN value was overwritten during handoffs between P-GW and services like eHRPD/trusted/untrusted WiFi.

New Behavior: MSISDN value is retained during the lifetime of call, including handoffs between P-GW and services like eHRPD/trusted/untrusted WiFi.

Command Changes

retain-mdn

This CLI command keyword has been added to retain the MDN/MSISDN value from the S6b interface or Create Session Request.

If the CLI command is disabled in between the handoff procedure, MDN/MSISDN value is not retained. For example, if the following CLI command is configured and the MDN/MSISDN value is authorized by S6b, then the same value is used for the call. However, if the CLI command is disabled before the handoff, the MDN/MSISDN value received in Create Session Request is used. This value might be different from the one received from the S6b interface during initial attach.

If the CLI command is not configured, the MDN/MSISDN value is not received from the S6b interface. In this case, the MDN/MSISDN value received in the create session (CS) request is used.

```
configure
     context context_name
       pgw-service service_name
          authorize-with-hss retain-mdn
          { no | default } authorize-with-hss
          end
```

Notes:

- **no:** Disables S6b authorization after the initial attach or handoff.
- **default:** Sets default configuration for **authorize-with-hss** which does not enforce the MDN after handoffs if retrieved from S6b during initial attach.
- **authorize-with-hss:**Enables or disables subscriber session authorization via a Home Subscriber Server (HSS) over an S6b Diameter interface.
- **retain-mdn:** Enables MSISDN/MDN value to be retained as negotiated during the call setup (S6b retrieved MDN or CS Request MDN), for the lifetime of call (including handoffs).

Performance Indicator Changes

show pgw-service all

This command displays the following output:

```
S6b IPv6 Reporting:     Disabled
Retain MDN :     Enabled
```

show pgw-service name *<service_name>*

This command displays the following output:

```
S6b IPv6 Reporting:     Disabled
Retain MDN :        Enabled
```

show pgw-service name <service_name>