

Routing Based on Realm Name S6B

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Summary Data

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Applicable Product(s) or Functional Area	• P-GW • SAEGW
Applicable Platform(s)	• ASR 5500 • VPC-DI • VPC-SI
Feature Default	Disabled - Configuration Required
Related Changes in This Release	Not applicable
Related Documentation	• *Command Line Interface Reference* • *P-GW Administration Guide* • *SAEGW Administration Guide*

Table 1: Revision History

Revision Details	Release
First introduced	21.19

Overview of Routing Based on Realm P-GW

Currently, not all diameter applications have an option to have configurable ‘Destination-Realm’ name on initial diameter messages going out of P-GW. As a result, DRAs whenever P-GW is connected to diameter application servers through DRA must look inside those messages, make a routing decision to route it to the correct application server and then overwrite the destination-realm received from client node before sending out to the application server node. However, this generates some level of increased processing and load on the DRA.

This feature provides the facility to fill the ‘Destination-realm’ value from a configurable value to allow DRAs to act in ‘transparent’ mode thus reducing the load on them. It also allows DRAs to use more sophisticated load balancing mechanisms based on ‘Destination-realm’.

Part of this feature was developed for MME (S6a and S13 interfaces). For P-GW, the facility is already present with ‘host-select’ and ‘peer-select’ commands on Gx and Gy interfaces but S6b interface does not have any such facility. This feature fills that gap.

How it Works

Under this feature, ‘Destination-Realm’ AVP in AAR message towards DRA contains the value configured under ‘realm’ as described in the next section. This allows DRAs to act in transparent mode. 'Destination-Realm' AVP is also set to the configured value in further messages for that session, for example, STR.

Enabling Realm for S6b Interface

Use the following configuration to associate the diameter authentication server with a realm name:

```
configure
   context context_name
     aaa group group_name
     diameter authentication server  diameter_host_name priority priority_value
 realm realm_name
    end
```

Note If the 'realm' attribute is configured, then there must be a 'route-entry' with the same 'realm_name'. This is described in the example given below:

Example

```
aaa group s6b
 diameter authentication endpoint s6b
 diameter authentication server dra1.dra.mnc123.mcc456.3gppnetwork.org priority 10 realm
xyz.org

...

diameter endpoint s6b
      origin realm abc.com
      use-proxy
```

```
      origin host SPRC01.s6b address 10.239.144.69
      watchdog-timeout 6
      device-watchdog-request max-retries 3
      response-timeout 5
      cea-timeout 3
      reconnect-timeout 30
      connection retry-timeout 10
      peer dra1.dra.mnc123.mcc456.3gppnetwork.org realm dra.mnc123.mcc456.3gppnetwork.org
address 10.1.1.1
      peer dra2.dra.mnc123.mcc456.3gppnetwork.org realm dra.mnc123.mcc456.3gppnetwork.org
address 10.1.1.2
      route-entry realm xyz.org peer dra1.dra.mnc123.mcc456.3gppnetwork.org
```