



SPR Support for Gx and N7 with Embedded MongoDB

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Feature Summary and Revision History

Summary Data

Table 1: Summary Data

Applicable Products or Functional Area	PCF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled - Always-on
Related Documentation	Not Applicable

Revision History

Table 2: Revision History

Revision Details	Release
First introduced.	2023.03.0

Feature Description

In the case of Embedded Subscriber Profile Repository (SPR), PCF supports subscriber authorization for Gx and N7. The PCF provides internal access to both SPR and the Unified API Endpoint. The SPR databases get configured in an existing administration database replica set or used as a separate MongoDB replica set.

PCF must review the subscriber session policies if any subscriber profile changes get notified in the SPR DB. If there is any post profile update in the subscriber policy, the PCF sends a Gx-RAR or N7 Notify message. When the PCF receives the notification, it locates the subscriber profile from the SPR DB, reviews the policy, and initiates an N7 Notify message to SMF if there is any policy change.

Feature Configuration

This section describes how to configure the SPR PB.

SPR PB configuration:

In the Policy Builder > Plugin Configuration > Click USuM Configuration.

Figure 1: USuM Configuration

The screenshot shows the Cisco Policy Builder web interface. The top navigation bar includes the Cisco logo, 'POLICY BUILDER', and various status indicators like 'Hostname: policy-builder-pcf-pcf-engine-app-pcf-green-65f67b474b-mhvtx', 'SVN URI: http://svn/repos/configuration', 'SVN Revision: 30', 'Welcome, admin (ADMIN)', and a 'POLICY BUILDER' button. Below the navigation bar, there's a 'File Tools' section with icons for file operations. The main content area is divided into a left-hand 'Systems' pane and a right-hand configuration pane. The 'Systems' pane shows a tree structure with 'system-1' expanded, containing 'Plugin Configurations' (with 'USuM Configuration' selected), 'cluster-1', 'Account Balance Templates', 'Custom Reference Data Tables', 'Diameter Agents', 'Diameter Clients', and 'Diameter Defaults'. The right-hand pane displays the 'USuM Configuration' form with the following fields and options:

- *Failover Sla Ms**: Input field with value 2000.
- *Max Replication Wait Time Ms**: Input field with value 100.
- *Shard Configuration** (Section Header):
 - *Primary Database Host**: Input field with value admin-db-0.admin-db.
 - Secondary Database Host**: Input field with value admin-db-1.admin-db.
 - *Database Port**: Input field with value 27017.
 - Remote Shard Configuration**: Check box (unchecked).
 - Remote Database Configuration**: Check box (unchecked).

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Figure 2: SPR N7 Configuration

You can use N7 GPSI or SUPI as a lookup key for N7.

Figure 3: SPR Gx Configuration

In the **Domain** tab, select the USuM Authorization from the drop down. You can use the Gx IMSI or MSISDN as a lookup key for Gx.

Ops Center Configuration

Following is the configuration for SPR call model to notify the anonymous subscribers:

Login to the CLI and execute the following:

```
config // Enter config mode
```

Set the following CLI configuration for CDL:

```
cdl datastore session
find-by-nuk-prefixes USuMMissingCredKey
exit

cdl datastore session
find-by-nuk-prefixes USuMSubscriberIdKey
exit
```

Set the following CLI configuration for engine:

```
engine <ENGINE_NAME>
properties usum.missingcredential.keyname value USuMMissingCredKey
exit
```



Note Add these configurations with all the pods in the shutdown state.
