



CPS User Data Convergence MoP for Session Migration, Release 14.0.0 (1)

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UDC Session Migration

This guide describes UDC Session Migration procedures and includes the following topics:

- Migrate UDC VMs
- Configure Session Migration
- Verify Session Migration

Migrate UDC VMs

Perform the following steps to migrate UDC VMs:

Step 1 Migrate existing CPS setup to CPS 13.x ISO.

Step 2 Initialize new UDC VMs.

For more information about initializing new UDC VMs, see *CPS User Data Convergence Migration MoP for VMWare* or *CPS User Data Convergence Migration MoP for OpenStack*.

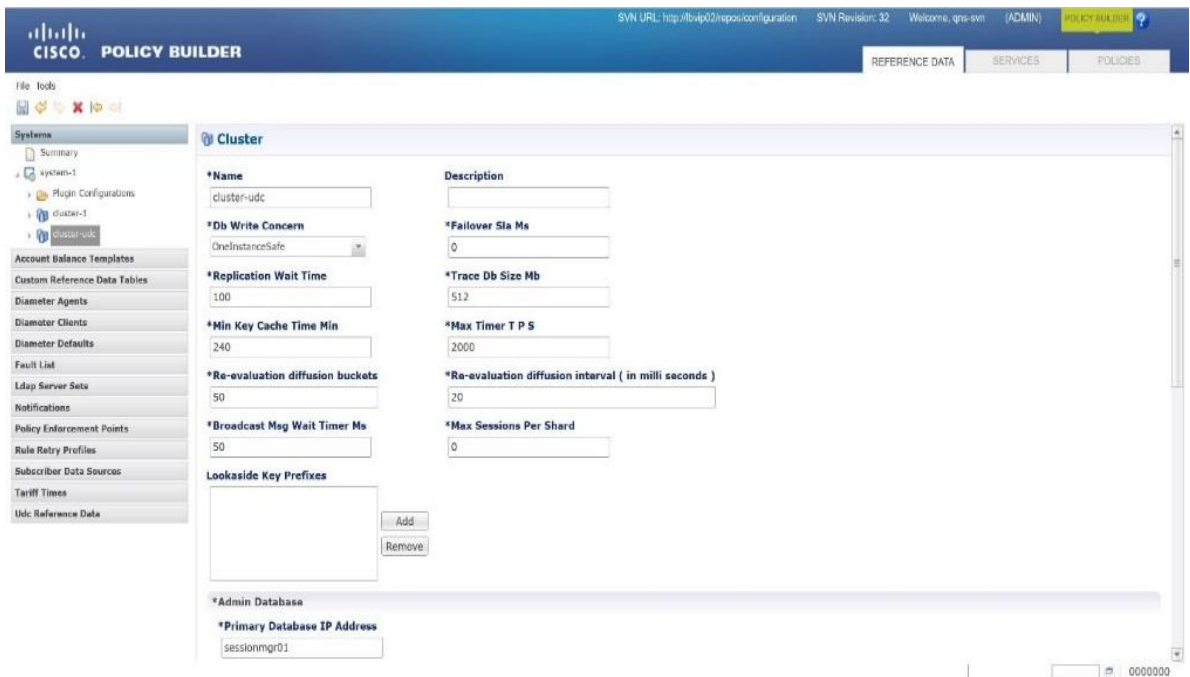
Step 3 Restart the qns processes on `pcrfclient01` and `pcrfclient02`.

Step 4 Add the following UDC Systems Configuration in Policy Builder and publish the configuration:

If you are using `systems.json` configuration, update the file with the following configurations:

1. Log in to Policy Builder.
2. Add a new cluster under **system-1**.
3. Navigate to **Systems**.
4. Click **Create Child: Cluster**.

A new screen is displayed as follows:



5. Add the name **cluster-udc**.
6. Add the database IP and port address that are configured in `mongoConfig.cfg` for the Admin Database.

The screenshot shows the Cisco Policy Builder web interface. The top navigation bar includes the Cisco logo, 'POLICY BUILDER', and user information: 'SVN URL: http://bwp02/repos/configuration', 'SVN Revision: 32', 'Welcome, qrs-vm', '(ADMIN)', and 'POLICY BUILDER'. Below the navigation bar are tabs for 'REFERENCE DATA', 'SERVICES', and 'POLICIES'. The main content area is divided into a left sidebar and a main configuration pane. The sidebar contains a 'Systems' section with a tree view showing 'system-1', 'cluster-1', and 'cluster-udc'. Below this are various configuration categories like 'Account Balance Templates', 'Diameter Agents', etc. The main configuration pane shows the configuration for the 'Admin Database'. It includes fields for '*Primary Database IP Address' (sessionmgr01), '*Secondary Database IP Address' (sessionmgr02), and '*Database Port' (27731). There are also sections for 'End Point Database', 'Trace Database', 'Data Centre Parameter', and 'Common Time Changes' with a table for '*Time' and '*Distribution Period Seconds'.

7. Add the remaining Policy Builder Systems Configuration for UDC.

For information about systems configuration, see *CPS User Data Convergence Guide*.

1. UD Interface Configuration
2. cluster-udc Configurations
 - i. UDC FE Configuration
 - ii. Diameter Configuration
 - iii. Ldap Server Configuration

NOTE: In order to configure Ldap Server Configuration, Ldap Server Sets have to be configured. To configure Ldap Server Sets, see *CPS Mobile Configuration Guide*.

Step 5 Publish Policy Builder configurations.

Step 6 Run `restartall.sh`.

Step 7 From Installer, log in to UDC Admin DB using `mongo sessionmgr01:xxxxx`.

Where `xxxxx` is the port number of the new UDC Admin DB.

Verify if the values for `seed_1`, `seed_2`, and `port` corresponds to the values that is in the `session.db.init` parameters in `/etc/broadhop/udc/qns.conf` by running the following command from the MongoDB shell:

```
set06:PRIMARY> db.shards.findOne()

{
  "_id" : 1,
  "seed_1" : "sessionmgr01",
  "seed_2" : "sessionmgr02",
  "port" : 27727,
  "db" : "session_cache",
  "online" : true,
  "count" : NumberLong(5),
  "lockTime" : ISODate("2017-06-29T20:47:43.690Z"),
  "isLocked" : false,
  "lockedBy" : null
}
```

Step 8 Verify that processes on each UDC VM are up and running by running the following command:

```
ssh udc<xx> service qns status
```

Step 9 Verify that QNS UDC Client is up and running by running the following command:

```
diagnostics.sh
```

The following clean `diagnostics.sh` output indicates that the QNS UDC Client is up and running:

```
(all [PASS])
```


Configure Session Migration

Configuring session migration includes the following tasks:

- Domain Configuration
- Policy Configuration

Domain Configuration

- Step 1** In Policy Builder, navigate to Services.
- Step 2** Select Domain.
- Step 3** Configure existing domains to work with the UDC deployment.

For example, the domain “PHONE” has **Generic Ldap Search** under the **Additional Profile Data** tab. Another corresponding domain called “PHONEUDC” with UDC Profile in it has to be created to be used by the UDC Client on the QNS VM.

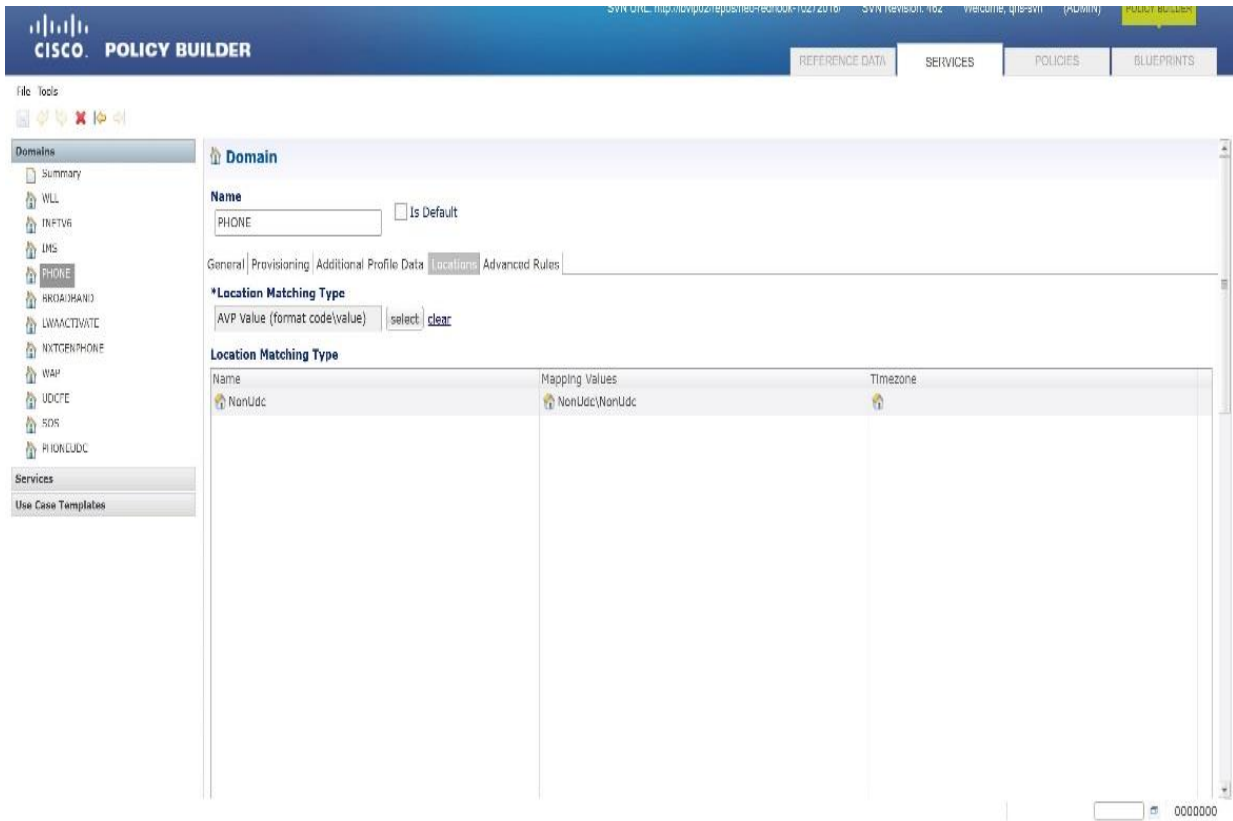
The screenshot shows the Cisco Policy Builder interface. The left sidebar lists various domains, with 'PHONE' selected. The main area displays the configuration for the 'PHONE' domain. The 'Additional Profile Data' tab is active, showing a table of Profile Mappings and configuration fields.

*External Code	*Mapping Type	Regex Expression	*Regex Group	Missing Avp Value	Empty Avp Value	Apply To
acwpaymenttype	SubscriberAttribute		1			<input type="checkbox"/>
acwaccountstatus	SubscriberAttribute		1			<input type="checkbox"/>
acwbdpolicy	SubscriberAttribute		1			<input type="checkbox"/>
acwhttpolicy	SubscriberAttribute		1			<input type="checkbox"/>
acwspnsorurl	SubscriberAttribute		1			<input type="checkbox"/>

Below the table, the following configuration fields are visible:

- *Ldap Server Set:** MIND (select, clear)
- Base Dn:** ou=Wireless Accounts,o=cingular
- Filter:** acwmobilenumber=\$msisdn
- *Dereference Policy:** NEVER

- Step 4** Ensure that in the **Locations** tab of the “PHONE” domain, in the **Location Matching Type** table, the entry has the **Mapping Values** as “NonUdc\NonUdc.”



Step 5 Add a corresponding UDC-specific domain, for each existing domain that has **Generic Ldap Search** under **Additional Profile Data**.

Step 6 Create a new domain named **PHONEUDC**.

Step 7 In the “PHONEUDC” domain, under the **General** tab, in the **Authorization** section, select **Allow All Users**.

Step 8 In the “PHONEUDC” domain, under the **Additional Profile Data** tab, select **UDC Profile**.

For more information about configuring UDC Profile, refer to *CPS User Data Convergence Guide*.

Step 9 Under **Locations** tab in “PHONEUDC” domain, select “AVP Value (format code\value)” for **Location Matching Type**.

Step 10 Add a new entry in the **Location Matching Type** table with the **Name** as “PHONE” and the **Mapping Values** as “LOGICAL_APN\PHONE”

- Step 11** Under **Advanced Rules** tab, select **Default Service** as the service that is used by the **PHONE** domain.
- Step 12** Create a new domain named “UDCFE.”
- Step 13** Navigate to the **Authorization** section under **General tab** in the “UDCFE” domain.
- Step 14** Select **Allow All Users**.
- Step 15** Under the **Additional Profile Data** tab, select **Generic Ldap Search** and enter all possible attributes from all domains.
- Step 16** Under **Locations** tab in “UDCFE” domain, select “AVP Value (format code\value)” for **Location Matching Type**.
- Step 17** Add a new entry in the **Location Matching Type** table with the **Name** as “UDCFE” and the Mapping Values as “UDCFE\UDCFE”.
- Step 18** Under the **Advanced Rules** tab, select the **Default Service** as the service that is used by the “PHONE” domain.

Policy Configuration

- Step 1** Navigate to **Policy** tab.
- Step 2** Under **Policies** navigate to **Initial Blueprint**.
- Step 3** Add the section if there is no existing **Pre session policies** section.

■ Configure Session Migration

Step 4 Select **Configured Extension Point**.

The dialog box is displayed.

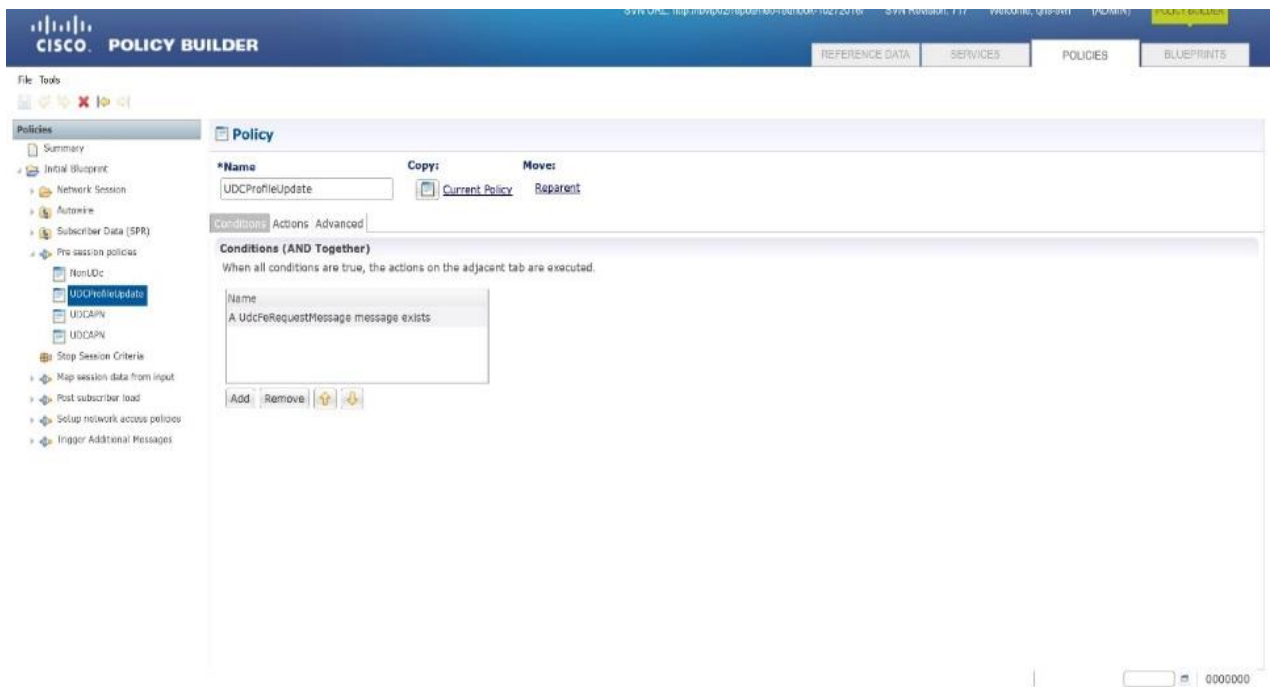
Step 5 Expand **Initial Blueprint**.

Step 6 Select **Pre session policies**.

Step 7 Click **ok**.

Step 8 Under **Pre session policies**, add another policy named “UDCProfileUpdate”.

Step 9 Under **Conditions** tab, add a new condition **A UdcFeRequestMessage message exists**.



Step 10 Under **Actions** tab, add a new action **Add a policy derived AVP**.

Step 11 Under **Input Variables**, add **code** with the following details:

Type: Literal

Operator: =

Value: UDCFE

Step 12 Add **string** with the following details:

Type: Literal

Operator: =

Value: UDCFE

The screenshot shows the Cisco Policy Builder interface. The main window displays the configuration for a policy named 'UDCProfileUpdate'. The policy is currently set to 'Current Policy' and 'Repairment'. The 'Actions' section is active, showing a list of actions: 'Add a policy derived AVP', 'Add an Avp', and 'Add a policy derived AVP'. The 'Input Variables (AND Together)' section is also visible, with two rows of variables: 'code (String)' and 'value (String)', both set to 'UDCFE' with a 'Literal' type and '=' operator. The left sidebar shows a tree view of policies, with 'UDCProfileUpdate' selected under 'Pre session policies'. The top navigation bar includes 'REFERENCE DATA', 'SERVICES', 'POLICIES', and 'BLUEPRINTS'.

Step 13 Publish Policy Builder configuration.

Verify Session Migration

After migration, you need to monitor the increase in the number of sessions on UDC session cache to verify if all subscribers are migrated to the UDC cache.