Main page: Cisco Unified Presence, Release 7.x

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Configuring Federated Domains

You can configure Cisco Unified Presence to integrate with a foreign domain, and allow Cisco Unified Presence users in an enterprise domain to interact with users in a foreign domain. You must configure the

domains that CUP is permitted to integrate with, known as federated domains.

Before You Begin

Make sure that you have configured Cisco Unified Presence to integrate with the federated domain server that you are adding to the database. For more information, see the Cisco Unified Presence *Integration Note* particular to the third-party product that you are integrating with Cisco Unified Presence.

Procedure

1. Perform one of the following actions:

If you want to:	Action
Add a federated domain	1. Select **Presence > Inter-domain Federation**. 2. Select **Add New**.
Update a federated domain	1. Find the record. See the Finding a Network Component topic for instructions. 2. Edit the record as required.

2. Enter the federated domain configuration settings as described in the table below.

Field	Description
Domain Name	Enter the IP address or host name of the domain.
Description	Enter a description that identifies the domain
Integration Type	Select the type of integration that corresponds to this federated domain. Options include: ◊ Inter-Domain CUP to CUP ◊ Inter-Domain CUP to LCS/OCS

3. Select **Save**.

Troubleshooting Tips

- Once you add a federated domain entry to the database, a Presence Gateway and Incoming ACL entry for the federated domain are automatically added. You do not need to manually perform these configuration steps.
- You can also use the System Dashboard to view the federated domains in Cisco Unified Presence. Select **Diagnostics > System Dashboard**.

Related Topics

- How to Find and Delete Components in Cisco Unified Presence Administration
- Getting More Information

Configuring Static Routes

Configure a static route for SIP proxy server traffic bearing in mind the following considerations:

- A dynamic route represents a path through the network that is automatically calculated according to routing protocols and routing update messages.
- A static route represents a fixed path that you explicitly configure through the network.
- Static routes take precedence over dynamic routes.

Procedure

1. Perform one of the following actions:

If you want to:	Action
Add a static route	1. Select **Presence > Routing> Static Routes**. 2. Select **Add New**.
Update a server	1. Find the record. See the Finding a Network Component topic for instructions. 2. Edit the record as required.

2. Enter the static route configuration settings as described in the table below.

Field	Description
Destination Pattern	This field specifies the pattern of the incoming number, up to a maximum of 255 characters. **Note:** The SIP proxy allows only 100 static routes to have an identical route pattern. If you exceed this limit, Cisco Unified Presence will log an error. You can use "." as a wildcard for a single character and "*" as a wildcard for multiple characters. **Wildcard Usage** **Note:** Cisco Unified Presence supports embedded '.' wildcard characters in static routes. However, you must define route embed templates for static routes that contain embedded wildcards. Any static route that contains an embedded wildcard must match *at least one* route embed template. See the route embed template topic (referenced in the Related Topics section below) for information on defining route embed templates.

	For phones: ◊ A dot can exist at the end of the pattern, or embedded in a pattern. If you embed the dot in a pattern, you must create a route embed template to match the pattern. ◊ An asterisk can only exist at the end of the pattern. For IP addresses and host names: ◊ You can use an asterisk as part of the a host name. ◊ The dot acts as a literal value in a host name. An escaped asterisk sequence, *, matches a literal * and can exist anywhere.
Description	Specifies the description of a particular static route, up to a maximum of 255 characters.
Next Hop	Specifies the domain name or IP address of the destination (next hop) and can be either a Fully Qualified Domain Name (FQDN) or dotted IP address. **Note:** Cisco Unified Presence supports DNS SRV-based call routing. To specify DNS SRV as the next hop for a static route, set this parameter to the DNS SRV name.
Next Hop Port	Specifies the port number of the destination (next hop). Default: 5060 **Note:** Cisco Unified Presence supports DNS SRV-based call routing. To specify DNS SRV as the next hop for a static route, set the next hop port parameter to 0.
Route Type	Specifies the route type: User or Domain. For example, in the SIP URI "sip:19194762030@myhost.com" request, the user part is '19194762030', and the host part is 'myhost.com'. If you select User as the route type, Cisco Unified Presence uses the user-part value '19194762030' for routing SIP traffic. If you select the Domain as the route type, Cisco Unified Presence uses 'myhost.com' for routing SIP traffic. Default setting: User
Protocol Type	Specifies the protocol type for this route, TCP, UDP, or TLS. Default setting: TCP
Priority	Specifies the route priority level. Lower values indicate higher priority. Value range: 1-65535

	Default setting: 1
Weight	Specifies the route weight. Use this parameter only if two or more routes have the same priority. Higher values indicate which route has the higher priority. Value range: 1-65535 Example: Consider these three routes with associated priorities and weights: ◊ 1, 20 ◊ 1, 10 ◊ 2, 50 In this example, the static routes are listed in the correct order. The priority route is based on the lowest value priority, that is 1. Given that two routes share the same priority, the weight parameter with the highest value decides the priority route. In this example, Cisco Unified Presence directs SIP traffic to both routes configured with a priority value of 1, and distributes the traffic according to weight; The route with a weight of 20 receives twice as much traffic as the route with a weight of 10. Note that in this example, Cisco Unified Presence will only attempt to use the route with priority 2, if it has tried both priority 1 routes and both failed.
Allow Less-Specific Route	Specifies that the route can be less specific. Default setting: On
In Service	Specifies whether this route has been taken out of service. **Note:** This parameter allows the administrator to effectively take a route out of service (versus removing it completely and re-adding it).
Block Route Check Box	Check to block the route. Default value: Unblocked

3. Select **Save**.

Related Topics

- How to Find and Delete Components in Cisco Unified Presence Administration
- Getting More Information

How to Configure Route Embed Templates for Static Routes that Contain Wildcards

- Route Embed Templates
- Configuring Route Embed Templates

Route Embed Templates

You must define a route embed template for any static route pattern that contains embedded wildcards. The route embed template contains information about the leading digits, the digit length, and location of the embedded wildcards. Before you define a route embed template, consider the sample templates we provide below.

When you define a route embed template, the characters that follow the '.' must match actual telephony digits in the static route. In the sample route embed templates below, we represent these characters with 'x'.

Sample Route Embed Template A

Route embed template: **74..78xxxxx***

With this template, Cisco Unified Presence will enable this set of static routes with embedded wildcards:

Destination Pattern	Next Hop Destination
74..7812345*	1.2.3.4:5060
74..7867890*	5.6.7.8.9:5060
74..7811993*	10.10.11.37:5060

With this template, Cisco Unified Presence will NOT enable these static route entries:

- 73..7812345* (initial string is not ?74? as template defines)
- 74..781* (destination pattern digit length does not match the template)
- 74?7812345* (number of wildcards does not match the template)

Sample Route Embed Template B

Route embed template: **471?.xx***

With this template, Cisco Unified Presence will enable this set of static routes with embedded wildcards:

Destination Pattern	Next Hop Destination
471?.34*	20.20.21.22
471?55*	21.21.55.79

With this template, Cisco Unified Presence will NOT enable these static route entries:

- 47?344* (initial string is not ?471?)
- 471?4* (string length does not match template)
- 471.450* (number of wildcards does not match template)

Configuring Route Embed Templates

You can define up to five route embed templates. However, there is no limit to the number of static routes that you can define for any route embed template.

A static route that contains an embedded wildcard must match *at least one* of the route embed templates.

Procedure

1. Select **Cisco Unified Presence Administration > System > Service Parameters**.

2. Select a Cisco Unified Presence server.

3. Select the **Cisco UP SIP Proxy** service.

4. Define a route embed templates in the RouteEmbedTemplate field in the Routing Parameters (Clusterwide) section. You can define up to five route embed templates.

5. Select **Save**.

What To Do Next

Configuring Static Routes

Configuring Method-based or Event-based Routes

Use method-based or event-based routing to configure the SIP proxy server to route SIP messages on the basis of content.

Procedure

1. Perform one of the following actions:

If you want to:	Action
Add a method-based or event-based route	1. Select **Presence > Routing > Method/Event Routing**. 2. Select **Add New**.
Update a method-based or event-based route	1. Find the record. See the Finding a Network Component topic for instructions. 2. Edit the record as required.

2. Enter the method-based or event-based route configuration settings as described in the table below.

Field	Description

Name	Specifies the name that is associated with this particular method/event route. Maximum characters: 128
Description	Specifies the description of a particular method/event route. Maximum characters: 255
Content Token	Specifies the content search string that will be used to route a SIP message. Examples include PUBLISH and SUBSCRIBE. Maximum characters: 128
Content Category	Specifies the content category, either method-based or event-based.
Destination Address	Specifies the domain name or IP address of the destination (next hop) where the SIP message will be sent.
Destination Port	Specifies the port number of the destination (next hop). Default port: 5060
Protocol Type	Specifies the protocol type that will be used when the SIP message is forwarded, TCP, UDP, or TLS. Default type: UDP

3. Select **Save**.

Related Topics

- How to Find and Delete Components in Cisco Unified Presence Administration
- Getting More Information

Configuring Number Expansion

Number expansion configuration allows you to provision patterns that expand an extension number to its full E.164 telephone number. You can also use number expansion to strip numbers. You may want to manipulate the telephone number to match global dialing patterns and to route SIP requests accordingly.

Number expansion requires no precedence, so you do not need to order your number expansion entries. Instead the SIP Proxy processes the rules from the most specific to the least specific.

Procedure

1. Perform one of the following actions:

If you want to:	Action
Add a number expansion pattern	1. Select **Presence > Routing > Number Expansion**. 2. Select **Add New**.
Update a number expansion pattern	1. Find the record. See the Finding a Network Component topic for instructions. 2. Edit the record as required.

2. Enter the number expansion configuration settings as described in the table below.

Field	Description
Name	Specifies the unique name associated with this route.
Description	Specifies a general description of the route.
Input Pattern	Specifies the pattern of the internal dialling extension, for example, 6.... Note: ◊ Allowed characters are alphanumeric (a-zA-Z0-9), period (.) and plus (+). Do not enter spaces. ◊ The dot "." character is a wildcard that matches a single digit. The pattern and translation must have an equal number of '.' characters, which may only be at the end of the string.
Translation Pattern	Specifies the number expansion rule that matches the input pattern and forwards it to the correct destination, for example, 1919476..... Note: ◊ Allowed characters are alphanumeric (a-zA-Z0-9), period (.) and plus (+). Do not enter space.s. ◊ The dot "." character is a wildcard that matches a single digit. The pattern and translation must have an equal number of '.' characters, which may only be at the end of the string.

3. Select **Save**.

Related Topics

- How to Find and Delete Components in Cisco Unified Presence Administration
- Getting More Information