

# PSTN Line Access With and Without Prefix Dialing

Document ID: 68891

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## **Introduction**

### **Prerequisites**

Requirements

Components Used

Conventions

### **Background Information**

**Change the Prefix Digit for Access to the Outside Line**

**Configure a Group of Users to Directly Dial Only the Outside Line**

**NetPro Discussion Forums – Featured Conversations**

**Related Information**

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## **Introduction**

This document provides the procedure to change the prefix digit (usually the digit 9) for access to the PSTN line. This document also provides the procedure to configure users to directly dial only the PSTN numbers.

## **Prerequisites**

### **Requirements**

Cisco recommends that you have knowledge of these topics:

- Cisco CallManager Administration
- Route Patterns
- Calling Search Spaces
- Partitions

### **Components Used**

The information in this document is based on Cisco CallManager release 4.0.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

### **Conventions**

Refer to Cisco Technical Tips Conventions for more information on document conventions.

## **Background Information**

A typical North American numbering plan needs corporate users to dial digit 9 in order to get an outside line and expect a secondary dial tone.

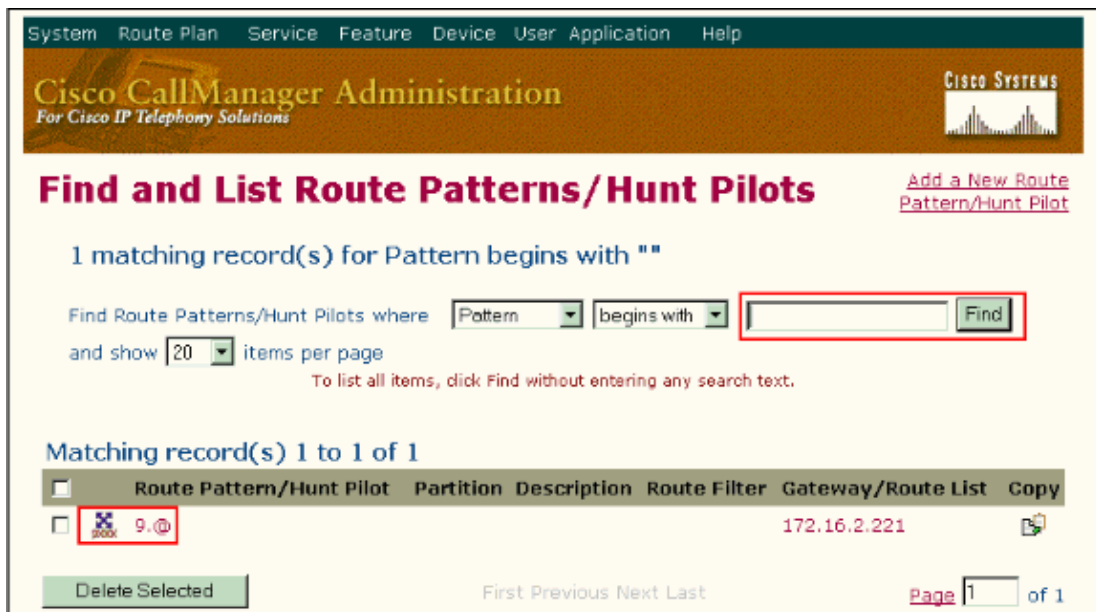
# Change the Prefix Digit for Access to the Outside Line

Complete these steps to change the prefix digit for access to the outside line. In this example, digit 4 is used in order to gain access to the PSTN.

1. Logon to the Cisco CallManager Administration Page.
2. Select **Route Plan > Route Pattern / Hunt Pilot**.



3. Click **Find** and get the list of all Route Patterns configured. Choose the Route Pattern **9.@**.



4. Update the digit 9 with the new digit you want to use to access the PSTN line.

This example uses digit 4.

## Route Pattern/Hunt Pilot Configuration

[Add a New Route Pattern/Hunt Pilot](#)  
[Back to Find/List Route Patterns and Hunt Pilots](#)

Route Pattern/Hunt Pilot: 9.@

Status: Ready

Note: Any update to this Route Pattern or Hunt Pilot automatically resets the associated gateway or Route/Hunt List

[Copy](#) [Update](#) [Delete](#)

### Pattern Definition

Route Pattern/Hunt Pilot*	4.@
Partition	< None >
Description	
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
MLPP Precedence	Default
Gateway or Route/Hunt List*	172.16.2.221 <a href="#">(Edit)</a>

5. Click **Update**.

6. The page refreshes and displays the updated information.

## Route Pattern/Hunt Pilot Configuration

[Add a New Route Pattern/Hunt Pilot](#)  
[Back to Find/List Route Patterns and Hunt Pilots](#)

Route Pattern/Hunt Pilot: 4.@

Status: Update completed

Note: Any update to this Route Pattern or Hunt Pilot automatically resets the associated gateway or Route/Hunt List

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### Pattern Definition

Route Pattern/Hunt Pilot*	4.@
Partition	< None >
Description	
Numbering Plan*	North American Numbering Plan
Route Filter	< None >
MLPP Precedence	Default
Gateway or Route/Hunt List*	172.16.2.221 <a href="#">(Edit)</a>

## Verification

Check the Route Plan Report to verify the changes to the route pattern.

1. Select **Route Plan > Route Plan Report**.
2. Click **Find** and get the full report.

Scroll down the report and make sure the update route pattern appears on the report.

System Route Plan Service Feature Device User Application Help

Cisco CallManager Administration  
For Cisco IP Telephony Solutions

CISCO SYSTEMS

## Route Plan Report [View In File](#)

11 matching record(s) for Pattern/DN begins with "" in All Patterns

Find  where  begins with

and show  items per page

To list all items, click Find without entering any search text, or use "Pattern/Directory Number is not empty" as the search.

Matching record(s) 1 to 11 of 11

Pattern/Directory Number	Partition	Type	Route Detail
1001		Directory Number	SEP0006537B92EA
1005		Directory Number	SEP000A8A93E0F9
101		Call Pickup Group	
1115		Directory Number	
4.@		Route Pattern	172.16.2.221, all ports
7002		Directory Number	SEP000A8A93E0AB
7005		Directory Number	SEP000A8A93E0AB

Users can now use digit 4 in order to access an outside line.

## Configure a Group of Users to Directly Dial Only the Outside Line

In some customer environments, it is sometimes necessary to allow a group of users to only have contact with the outside world and not have contact within the customer network.

As an example scenario, a group of users called Agents can make calls only to the outside world. They are not required to dial any digit in order to access to the PSTN line. The second group of users called Executives can make a call to any other Executive and Agent and can gain access to the PSTN line by dialing the digit 9.

Complete these steps to implement the required restrictions:

### 1. Create three Partitions:

- ◆ Internal\_Numbers
- ◆ External\_Numbers\_for\_Executives
- ◆ External\_Numbers\_for\_Agents

### 2. Create two Calling Search Spaces (CSS):

- ◆ Only\_Outside

Assign the partition External\_Numbers\_for\_Agents to the CSS.

- ◆ All\_Numbers

Assign the partitions Internal\_Numbers and External\_Numbers\_for\_Agents to this CSS.

### 3. Create two Route Patterns:

◆ @

- a. Assign the Route Pattern to the External\_Numbers\_for\_Agents partition.
- b. Assign the appropriate Gateway or Route/Hunt List.
- c. Uncheck the **Provide Outside Dial Tone** checkbox.

◆ 9.@

- a. Assign the Route Pattern to the External\_Numbers\_for\_Executives partition.
  - b. Assign the appropriate Gateway or Route/Hunt List.
  - c. Check the **Provide Outside Dial Tone** checkbox.
4. Configure the Agents user group with the Partition as **Internal\_Numbers** and the Calling Search Space as **Only\_Outside**.
  5. Configure the Executives user group with the Partition as **Internal\_Numbers** and Calling Search Space as **All\_Numbers**.

## NetPro Discussion Forums – Featured Conversations

Networking Professionals Connection is a forum for networking professionals to share questions, suggestions, and information about networking solutions, products, and technologies. The featured links are some of the most recent conversations available in this technology.

NetPro Discussion Forums – Featured Conversations for Voice
Service Providers: Voice over IP
Voice & Video: Voice over IP
Voice & Video: IP Telephony
Voice & Video: IP Phone Services for End Users
Voice & Video: Unified Communications
Voice & Video: IP Phone Services for Developers
Voice & Video: General

## Related Information

- [Voice Technology Support](#)
- [Voice and IP Communications Product Support](#)
- [Recommended Reading: Troubleshooting Cisco IP Telephony](#)
- [Technical Support & Documentation – Cisco Systems](#)

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