

# Troubleshoot Route Plans with 911

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## Introduction

The Cisco CallManager uses the route plan to route both internal calls, external, and public switched telephone network (PSTN) calls. Route patterns, route filters, route lists, and route groups provide flexibility in network design. Route patterns work in conjunction with route filters to direct calls to specific devices and to include or exclude specific digit patterns. You can use route patterns to include and exclude digit patterns. Route filters are used primarily to include digit patterns. Route lists control the selection order of the route groups. Route groups set the selection order of the gateway devices.

This document discusses how to troubleshoot the issues with route plans using 911.

## Prerequisites

### Requirements

Cisco recommends that you have knowledge of these topics:

- Route Plans
- Configuring Route Patterns

### Components Used

The information in this document is based on Cisco CallManager version 3.x and later.

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.

## Troubleshoot 911 Route Patterns

## No Secondary Dial Tone After You Dial the Access Number

After you press the access number for the outside line (for example, 9) you do not receive the secondary dial tone until the third or fourth number is dialed.

The problem can be that there is a 9.@ route pattern with the **Provide Outside Dial Tone** option checked and a 911 route pattern without the **Provide Outside Dial Tone** option checked. Therefore, when you dial a 9, there are two route patterns that match while Cisco CallManager does the digit analysis. The patterns that match are 9.@ and 911. Since there are two potential matches, and Cisco CallManager does not know which pattern to match exactly, no dial tone is generated. Once you hit another digit that is not a 1, then you get the dial tone because you have matched 9.@. If you hit 9 and then a 1, you still do not get dial tone because it could still potentially match either pattern.

The only time the Cisco CallManager provides outside dial tone is when all the route patterns that can possibly match after you dial 9 have the **Provide Outside Dial Tone** option checked. If some of the patterns do not have this option checked, that is when you do not get the outside dial tone.

### Solution

In order to resolve the issue, check the **Provide Outside Dial Tone** option on the 911 route pattern.

Refer to these documents for route pattern configuration and troubleshooting assistance:

- A Typical U.S. Dial Plan for Cisco CallManager 3.x and 4.x
- Understanding and Troubleshooting Call Routing and Dial Pattern Problems with Cisco CallManager
- Supporting Variable Length Dial Plans for Cisco CallManager Route Patterns – an Exercise in Designing a Route Pattern that Covers a National Dial Plan
- PSTN Line Access With and Without Prefix Dialing

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### Related Information

- **Configuring 0 to Dial the Operator on Cisco CallManager**
- **Cisco CallManager Administration Guide, Release 4.1(3)**
- **Voice Technology Support**

- **Voice and Unified Communications Product Support**
  - **Recommended Reading: Troubleshooting Cisco IP Telephony**
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