

# Cisco Unity Not Recognizing DTMF when Calling PSTN for Message Notification

Document ID: 12504

## Contents

**Introduction**

**Prerequisites**

Requirements

Components Used

Conventions

**Problem**

**Solution**

**Related Information**

## Introduction

This document explains how to solve the problem when Cisco Unity voicemail does not recognize Dual Tone Multifrequency (DTMF) when calling the public switched telephone network (PSTN) for message notification.

## Prerequisites

### Requirements

There are no specific prerequisites for this document.

### Components Used

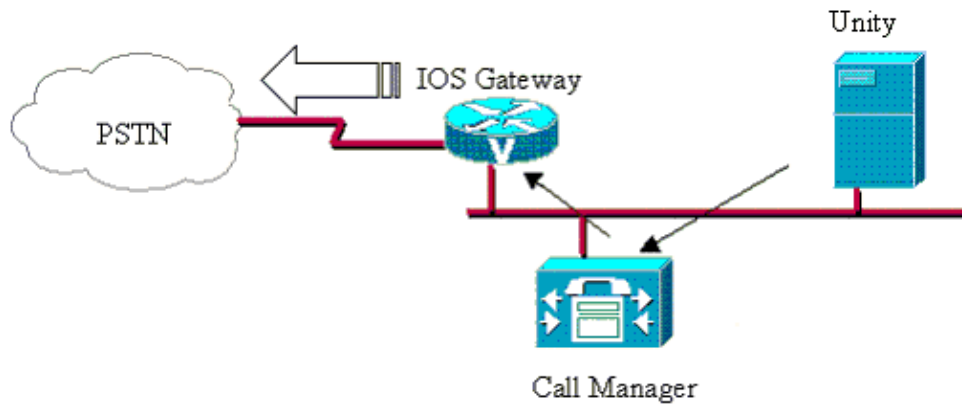
The information in this document applies to all versions of Cisco CallManager and Cisco Unity.

### Conventions

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

## Problem

When Cisco Unity calls a phone on the PSTN for message notification, it prompts the called party to enter information via DTMF. In some cases, Cisco Unity ignores the digits entered and acts as if there was no response. Though this symptom is with Cisco Unity, the problem is actually a faulty gateway configuration. In general, when this problem exists, calls from the PSTN to Cisco Unity correctly detect DTMF.



## Solution

It is necessary that calls from the PSTN to Cisco Unity match on an outbound VoIP dial-peer, which should include the command **dtmf-relay h245-alphanumeric**. When calls from Cisco Unity to the PSTN go through the same gateway, if the extension configured on Cisco Unity's voicemail ports do not match the destination pattern in any VoIP dial-peer, then the gateway matches on dial-peer 0 instead. Dial-peer 0 is a hidden, default dial-peer, which does not have `dtmf-relay` enabled. In order to force the incoming VoIP call to match on an existing dial-peer, and to use `dtmf-relay`, add the command **incoming called-number <#>** to the dial-peer. In general, the dial-string referenced in this command is the same as the destination pattern from the pots dial-peer that makes up the other leg of the call. For example, if the pots dial-peer's destination pattern is 9T, the VoIP dial-peer's incoming called-number should be 9T.

```
dial-peer voice 1 pots
  destination-pattern 9T

!--- The dial-string here is 9T.

  direct-inward-dial
  port 0/0:23
!
dial-peer voice 2 voip
  destination-pattern 4...
  incoming called-number 9T

!--- This dial-string matches the pots dial-peer 9T.

  session target ipv4:10.100.25.2
  dtmf-relay h245-alphanumeric
```

**Note:** If you use Media Gateway Control Protocol (MGCP) in the remote gateway, ensure that you have configured the **mgcp dtmf-relay voip codec all mode out-of-band** command under the **dial-peer voice x voip** command.

---

## Related Information

- [Understanding Inbound and Outbound Dial Peers Matching on IOS Platforms](#)
  - [Voice Technology Support](#)
  - [Voice and Unified Communications Product Support](#)
  - [Troubleshooting Cisco IP Telephony](#)
  - [Technical Support & Documentation – Cisco Systems](#)
-

