

# Understanding the Operational Status of Dial Peers on Cisco IOS Platforms

## Contents

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### [Introduction](#)

### [Prerequisites](#)

[Requirements](#)

[Components Used](#)

[Conventions](#)

### [Invalid Dial-Peer Configurations](#)

### [Valid Dial-Peer Configurations](#)

### [Check the Dial-Peer Configuration](#)

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## Introduction

This document describes how to understand the operational status of dial peers on Cisco IOS® platforms.

## Prerequisites

### Requirements

Readers of this document should have knowledge of these topics:

- [Understanding Dial Peers and Call Legs on Cisco IOS Platforms](#)
- [Understanding Inbound and Outbound Dial Peers on Cisco IOS Platforms](#)

If Voice-Network (VoIP, VoFR, VoATM) and POTS dial-peers are not valid and in the "operational status", they are not considered for the Cisco IOS router/gateway inbound and outbound dial-peer matching process. In order to be considered valid/operational, dial-peers must meet one of these criteria:

1. **Destination-pattern** *and* a **voice-port** or **session target** is configured.
2. **Incoming called-number** is configured.
3. **Answer-address** is configured.

## Components Used

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, ensure that you understand the potential impact of any command. This document is not restricted to specific software and hardware versions.

## Conventions

For more information on document conventions, refer to the [Cisco Technical Tips Conventions](#).

## Invalid Dial-Peer Configurations

Based on the previous three rule criteria, this table displays examples of dial-peer configurations that are in the down operational status.

Dial Peer Examples
<pre>dial-peer voice 1 pots   port 1/0:23  !--- Invalid dial-peer (rule 1): Has voice-port configured only.  ! dial-peer voice 2 pots   destination-pattern 1T  !--- Invalid dial-peer (rule 1): Has destination-pattern configured only.  ! dial-peer voice 6 voip   session target ipv4:172.16.13.111  !--- Invalid dial-peer (rule 1): Has session target configured only.  ! dial-peer voice 7 voip   destination-pattern 83...  !--- Invalid dial-peer (rule 1): Has destination-pattern configured only.  !</pre>

**Note:** A dial-peer configuration statement without any subcommands is considered invalid by violation of 1, 2, and 3.

## Valid Dial-Peer Configurations

Based on the previous three rule criteria, this table displays examples of dial-peer configurations that are in up operational status.

Valid Peer Examples
<pre>dial-peer voice 3 pots</pre>

```
destination-pattern 1T
port 1/0:23
prefix 1
```

*!--- Valid dial-peer (rule 1): Has voice-port and destination-pattern configured.*

```
!
dial-peer voice 4 pots
incoming called-number 83.
```

*!--- Valid dial-peer (rule 2): Has incoming called-number configured.*

```
!
dial-peer voice 5 pots
answer-address 408
```

*!--- Valid dial-peer (rule 2): Has answer-address configured.*

ss configured.

```
!
dial-peer voice 8 voip
destination-pattern 83...
session target ipv4:172.16.13.111
```

*!--- Valid dial-peer (rule 1): Has session target and destination-pattern configured.*

```
!
dial-peer voice 9 voip
incoming called-number .
```

*!--- Valid dial-peer (rule 2): Has incoming called-number configured.*

```
!
dial-peer voice 10 voip
answer-address 6666
```

*!--- Valid dial-peer (rule 2): Has answer-address configured.*

```
!
```

**Note:** Assume a dial-peer intended for inbound matching has an incoming **called-number** or an **answer-address** configured and a **destination-pattern** command is added. After you add the command **destination-pattern string**, the dial-peer goes operationally down. This is because the router maps a **destination-pattern** to an address (**session target**) or a voice-port (**port**) for outbound dial-peer matching purposes. In this scenario there is nothing to map to. For example, if you add a **destination-pattern** on dial-peer 4, 5, 9 and 10, they change their operational status to down.

**Note:** On dial-peer 4 and 5, if you remove the **destination-pattern** and add a **port** command, the dial-peers remain valid. Similarly if we remove the destination-pattern and add the **session-target** command on 9 and 10, they also remain operational.

## Check the Dial-Peer Configuration

In order to check the validity of the dial peer configuration, use the Cisco IOS command **show dial-peer voice summary**.

Check the Dial-Peer Configuration

<#root>

2600#

show dial-peer voice summary

dial-peer hunt 0

TAG	TYPE	ADMIN	OPER	PREFIX	DEST-PATTERN	PREF	THRU	SESS-TARGET	PORT
1	pots	up	down			0			1/0:23
2	pots	up	down		1T	0			
3	pots	up	up	1	1T	0			1/0:23
4	pots	up	up			0			
5	pots	up	up			0			
6	voip	up	down			0	syst	ipv4:172.16.13.111	
7	voip	up	down		83...	0	syst		
8	voip	up	up		83...	0	syst	ipv4:172.16.13.111	
9	voip	up	up			0	syst		
10	voip	up	up			0	syst		