

Configuring EXEC Callback

Document ID: 5732

Introduction

Prerequisites

- Requirements

- Components Used

- Conventions

Background Information

Configure

- Network Diagram

- Configurations

Verify

Troubleshoot

- Troubleshooting Commands

[NetPro Discussion Forums – Featured Conversations](#)

[Related Information](#)

Introduction

This document provides a sample configuration for the EXEC Callback feature, and describes the commands that you can use to call back clients that dial in, and connect to the EXEC prompt.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on the Cisco IOS® Software Release 11.1, 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.

Background Information

When you start a session on the router, you begin in user mode, which is often called EXEC mode. You can either issue the **telnet** command to the router, or use a console connection in order to initiate most EXEC mode connections. However, you can also use a dialup connection to start an EXEC session. In such a scenario, the dialup connection does not run a framed protocol, for example Point-to-Point Protocol (PPP), over the link.

The EXEC Callback feature enables the Cisco IOS Software to return a call to a device that dials in, connects to the EXEC, and requests callback. Therefore, the client can still maintain an EXEC session with the router, but can avoid the phone surcharges. In order to enable this feature, use the **service exec-callback** global configuration command. You can use this feature for these reasons:

- Consolidation and centralization of phone billing
- Cost savings on toll calls
- Access control

This document illustrates these two callback scenarios:

- **Callback with no-verify (typical home user)**

- ◆ A client at a remote site dials in and authenticates.
- ◆ The client is disconnected.
- ◆ The access server calls the remote client, and starts an EXEC session. (The access server has the callback number configured.)

- **Callback to any number with verification (typical mobile user)**

- ◆ A client at a remote site dials in and authenticates.
- ◆ The client enters a telephone number to receive the call back.
- ◆ The client is disconnected.
- ◆ The access server calls the remote client, authenticates and then starts an EXEC session.

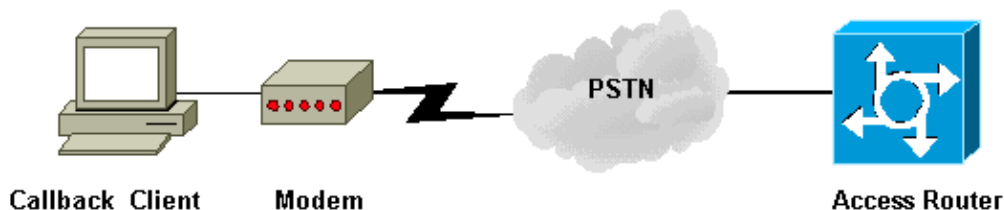
Configure

In this section, you are presented with the information to configure the features described in this document.

Note: To find additional information on the commands used in this document, use the Command Lookup Tool (registered customers only) .

Network Diagram

This document uses this network setup:



Configurations

This document uses these configurations:

- Callback Access Server.
- PC Client: EXEC Callback With No-verify (HyperTerminal View).
- PC Client: EXEC Callback to Any Number With Verify (HyperTerminal View).

Callback Access Server

version 12.0

```

service exec-callback

!--- This command enables the Cisco IOS software to return a call to a
!--- device that dials in, connects to the EXEC, and requests callback.

service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname maui-nas-04
!
enable secret 5 <deleted>
!
username austin-01 nocalcallback-verify callback-dialstring 84001 password 0 xxxxx

!--- Does not require authentication after callback.
!--- This string applies to the "no-verify callback" scenario.

username austin-02 callback-dialstring "" password 0 xxxxx

!--- This is for mobile users. The client specifies the callback number.
!--- This string applies to the "callback to any number with verification" scenario.

!
ip subnet-zero
chat-script offhook "" "ATH1" OK
chat-script rtp ABORT ERROR ABORT BUSY "" "AT" OK "ATDT \T" TIMEOUT 45 CONNECT \c

!--- Use this chat script to dial the callback number.

interface Ethernet0/0
 ip address 10.0.0.1 255.0.0.0
 no ip directed-broadcast
!
ip classless
!
line con 0
 transport input none
line 65 70
line aux 0
 script modem-off-hook offhook
 script callback rtp

!--- Use this chat script rtp for the callback.

login local
modem InOut
transport input all
callback forced-wait 5

!--- Wait 5 seconds before you initiate the callback. This prevents
!--- problems with the router passing the callback string back to the modem
!--- before it is ready to dial the callback connection.

flowcontrol hardware
line vty 0 4
 login local
!
end

```

When you configure the PC modem (callback client), initiate a reverse Telnet session to the modem of the PC. One way to do so in Windows 9x is to use HyperTerminal, and select "Connect using: Direct to COMx" (where COMx is the modem port of the PC) to establish a connection.

Here are sample outputs from the PC HyperTerminal session making the connection to the router:

```
PC Client: EXEC Callback With No-verify (HyperTerminal View)

ats0=1

!--- AT command to set modem to autoanswer mode.

OK
atdt 55555

!--- AT command to dial the modem of the router.

CONNECT

username: austin-01
password:

Callback initiated - line is disconnected

NO CARRIER

RING

CONNECT

maui-nas-04>
```

```
PC Client: EXEC Callback to Any Number With Verify (HyperTerminal View)

ats0=1

!--- AT command used to set the PC modem to autoanswer mode.

OK
atdt 55555

!--- AT command to dial the modem of the router.

CONNECT

Username: austin-02
password:

Callback Dialstring: 84001
Callback initiated - line is disconnected

NO CARRIER

RING

CONNECT

Username: austin-02
password:
maui-nas-04>
```

Verify

There is currently no verification procedure available for this configuration.

Troubleshoot

This section provides information you can use to troubleshoot your configuration.

Troubleshooting Commands

Certain **show** commands are supported by the Output Interpreter Tool (registered customers only) , which allows you to view an analysis of **show** command output.

Note: Before issuing **debug** commands, refer to Important Information on Debug Commands.

- **debug chat** displays chat script activity.
- **debug modem** displays modem control and process activation messages.
- **debug callback** displays callback events when the router uses a modem, and a chat script to call back on a terminal line.

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 Access
Network Infrastructure: Remote Access

Related Information

- **Async–PPP Callback Between an Access Server and a PC**
- **Configuring Callback with TACACS+**
- **Configuring PPP Callback for DDR**
- **PPP Callback over ISDN**
- **Configuring ISDN Caller ID Callback**
- **Technical Support & Documentation – Cisco Systems**

[Contacts & Feedback](#) | [Help](#) | [Site Map](#)

© 2008 – 2009 Cisco Systems, Inc. All rights reserved. [Terms & Conditions](#) | [Privacy Statement](#) | [Cookie Policy](#) | [Trademarks of Cisco Systems, Inc.](#)

Updated: Nov 14, 2005

Document ID: 5732