

Troubleshooting Direct PC Connections to the Cisco ONS 15454 TCC, TCC+ or TCC2 Card

Document ID: 13569

Introduction

Prerequisites

- Requirements
- Components Used
- Conventions

Resolve Common Connectivity Problems

- Establish Link Level Connectivity from a PC Directly Attached to the Active TCC
- Establish IP Connectivity From a PC Directly Attached to the Active TCC
- Install and Configure the Java Software
- Download and Launch the CTC Application
- Common Problems When You Install and Configure the JRE Software

Related Information

Introduction

This document addresses common problems that you encounter when you try to:

- Establish link level connectivity from a PC that is directly attached to the active TCC.
- Establish IP connectivity from a PC that is directly attached to the active TCC.
- Install and configure the Java™ software on the PC.
- Use the TCC to download and launch the CTC software.

Note: This document is not an installation guide. For detailed installation and setup information, refer to the Using the Cisco Transport Controller chapter of the Cisco ONS 15454 user documentation. Use this document in conjunction with the user documentation as a troubleshooting and reference guide, or as a standalone troubleshooting guide.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on the Cisco ONS 15454.

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 the Cisco Technical Tips Conventions for more information on document conventions.

Resolve Common Connectivity Problems

This section explains how you can resolve the common connectivity problems in each scenario listed in the Introduction section.

Establish Link Level Connectivity from a PC Directly Attached to the Active TCC

For the initial setup of the Cisco ONS 15454, connect a straight-through RJ-45 Ethernet cable from the RJ-45 port of the network interface card (NIC) in the PC to the RJ-45 port on the TCC in the ONS 15454. Most 15454s have an active and a standby TCC. With software versions 2.0 and later, you can connect the cable to either the active or standby TCC.

Note: Slot 7 and slot 11 are reserved for the active and standby TCCs. These two slots are hubbed together with the backplane LAN, and the speed is fixed at 10 MB, half-duplex.

Use the information in Table 1 and Figure 1 to verify whether you use the correct cable.

	Pin
	Color
	Pair
	Name
1	
white/orange	
2	
TxData +	
2	
orange	
2	
TxData -	
3	
white/green	
3	
RecvData +	
4	

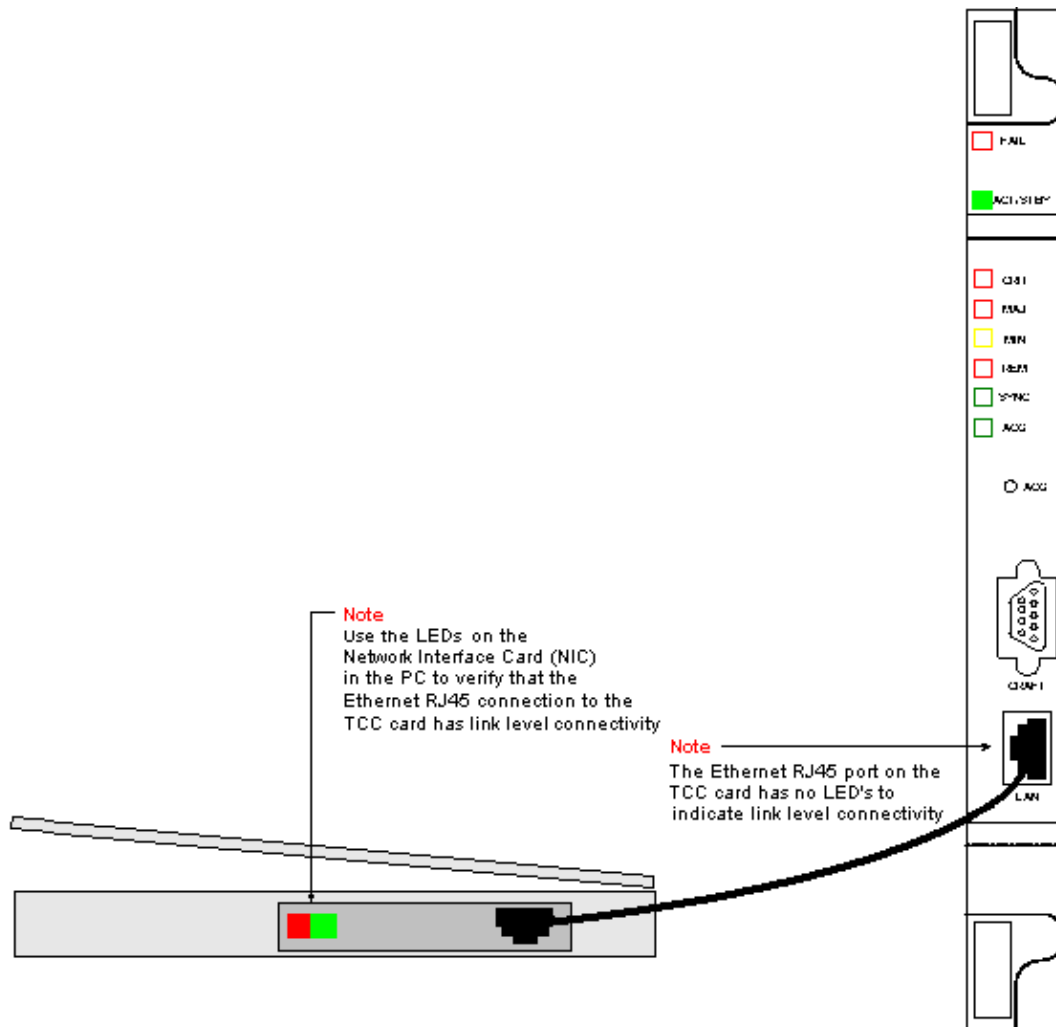
blue
 1
 –
 5
 white/blue
 1
 –
 6
 green
 3
 RecvData –
 7
 white/brown
 4
 –
 8
 brown
 4
 –

Figure 1 Straight-Through Ethernet RJ-45 Cable Diagram



Note: The RJ-45 port on the TCC has no LED to indicate link level connectivity. You need to use the LEDs on the NIC in the PC to verify the link level connectivity for the Ethernet connection. When you successfully establish link level connectivity to the TCC, the red LED lights up. When traffic begins to pass, the green LED flashes.

Figure 2 LEDs on the NIC



Establish IP Connectivity From a PC Directly Attached to the Active TCC

New 15454 shelves only

The ONS 15454 is shipped with a default node name of TCCP. By default, all ONS 15454s are assigned a class C IP address of 192.1.0.2. For successful connection, you must configure the PC with a unique IP address within the class C subnet 192.1.0.x. You must also use a default gateway that points to the class C IP address 192.1.0.2 (or the existing IP address of the 15454 to which you want to directly connect).

Note: Shelves that are already in use most likely have an IP address that is different from the default IP address. Look directly at the shelf to find this address on the shelf LCD display. If your LCD display is defective, obtain the IP address from your network administrator. Configure a unique IP address on your PC. Ensure that the IP address is in the same IP class as the shelf IP address and network mask. The shelf IP is the same as your gateway IP address.

Open the TCP/IP Properties dialog box of the operating system on your PC. Change the last three digits of the IP address of the PC to a unique value between 1 and 254 (see Figure 3). Ensure that you exclude the default IP address of the 15454 (192.1.0.2).

Although the IP addresses of the PC and the ONS 15454 need to be unique, you must ensure that they are within the same class C subnet with the first three digits of 192.1.0.x. Ensure that the default gateway on the PC points to the default IP address on the ONS 15454. Figure 3 is an example of TCP properties in a Windows environment:

Figure 3 Microsoft TCP Properties

Microsoft TCP/IP Properties

IP Address | DNS | WINS Address | Routing

An IP address can be automatically assigned to this network card by a DHCP server. If your network does not have a DHCP server, ask your network administrator for an address, and then type it in the space below.

Adapter:

Obtain an IP address from a DHCP server

Specify an IP address

IP Address:

Subnet Mask:

Default Gateway:

Advanced... | OK | Cancel | Apply

Note
 Specify the PC's class C subnet mask value of 255.255.255.0. This 24 bit mask leaves you the last three digits to specify values between 1 and 254 for unique IP addresses within this subnet

Note
 Specify the PC's IP address using the PC's TCP configuration panel. You need to specify a unique IP address within the class C subnet of 192.1.0.x. ie for the last three digits you need to specify a value between 1 and 254. **Do not** use the 192.1.0.2 address on the 15454

Note
 192.1.0.2 is the default IP address that the 15454 is shipped with. When first connecting a PC to the 15454 you need to configure 192.1.0.2 as the default gateway in the PC's TCP configuration panel

Note
 'tccp' is the default node name that the 15454 is shipped with. If you see this node name used the 15454 could be a new box or its database could have been deleted

tccp
192.1.0.2

WMMYAAYGAA

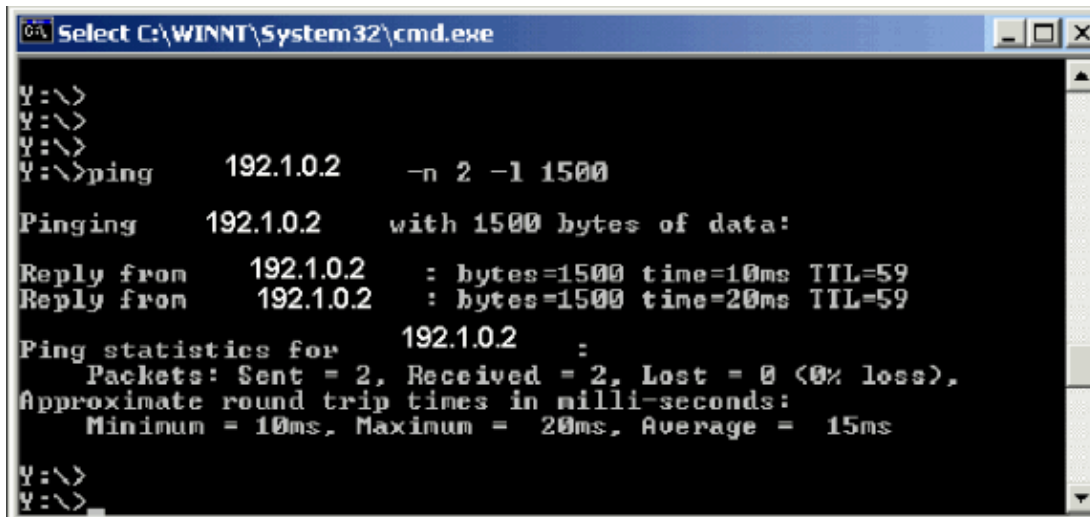
SLOT STATUS PORT
 FAN FAIL CRIT MAJ MIN

Ensure that you have IP connectivity from a DOS prompt. For this, you can use the **ping** command to send ICMP echo requests to the ONS 15454 default IP address, 192.1.0.2. A simple **ping** command, in which you specify the destination IP address is usually sufficient.

In the example shown in Figure 4, note that the **-n** operand specifies that you must send two ICMP echo requests. The **-l** operand specifies a packet size of 1500 bytes.

In this example, both echo requests are successful, and indicate IP connectivity to the Ethernet address 192.1.0.2 assigned to the Ethernet interface of the TCC.

Figure 4 Use the ping Command



```
GA Select C:\WINNT\System32\cmd.exe
Y:\>
Y:\>
Y:\>
Y:\>ping 192.1.0.2 -n 2 -l 1500

Pinging 192.1.0.2 with 1500 bytes of data:

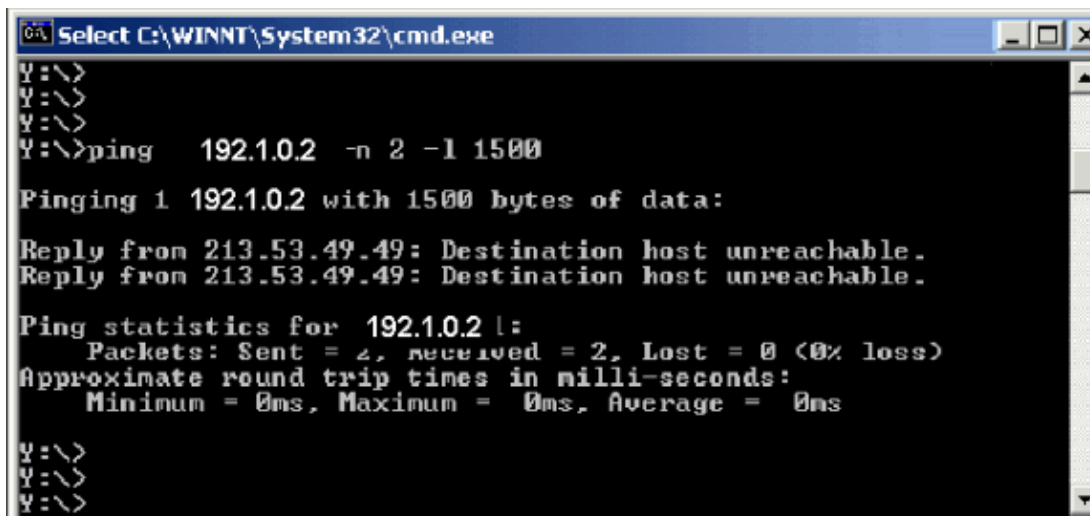
Reply from 192.1.0.2 : bytes=1500 time=10ms TTL=59
Reply from 192.1.0.2 : bytes=1500 time=20ms TTL=59

Ping statistics for 192.1.0.2 :
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 10ms, Maximum = 20ms, Average = 15ms

Y:\>
Y:\>
```

If the **ping** command is unsuccessful, the ICMP echo requests time out, and indicate that the destination host is unreachable. The example in Figure 5 depicts the results of a **ping** command that failed.

Figure 5 When the ping Command Fails



```
GA Select C:\WINNT\System32\cmd.exe
Y:\>
Y:\>
Y:\>
Y:\>ping 192.1.0.2 -n 2 -l 1500

Pinging 1 192.1.0.2 with 1500 bytes of data:

Reply from 213.53.49.49: Destination host unreachable.
Reply from 213.53.49.49: Destination host unreachable.

Ping statistics for 192.1.0.2 :
    Packets: Sent = 2, received = 2, Lost = 0 (0% loss)
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

Y:\>
Y:\>
Y:\>
```

Here, the PC is connected directly to the TCC, and there are only a few reasons for the ping to fail. Consider some of these suggestions to correct the problem:

- Check whether the IP addresses are duplicates. The IP address 192.1.0.2 is not like a telephone number that matches at both ends. Instead, the IP address of the TCC and that of the PC must be unique and different.

- Check whether the two IP addresses are in different subnets. The IP addresses of the TCC and PC must both be within the 192.168.x subnet. Otherwise, **ping** fails.
- Check whether you use dual NICs or an enabled NIC and dial-up adapter at the same time, because this can cause problems like multiple IP addresses, which in turn can cause the **ping** to fail.

Install and Configure the Java Software

Before you download and launch the CTC software for the ONS 15454, you need to install and configure the JRE files or the JAR file.

Note: You need to download either the JRE files or the JAR file, and not both.

Install and Configure the JRE Software

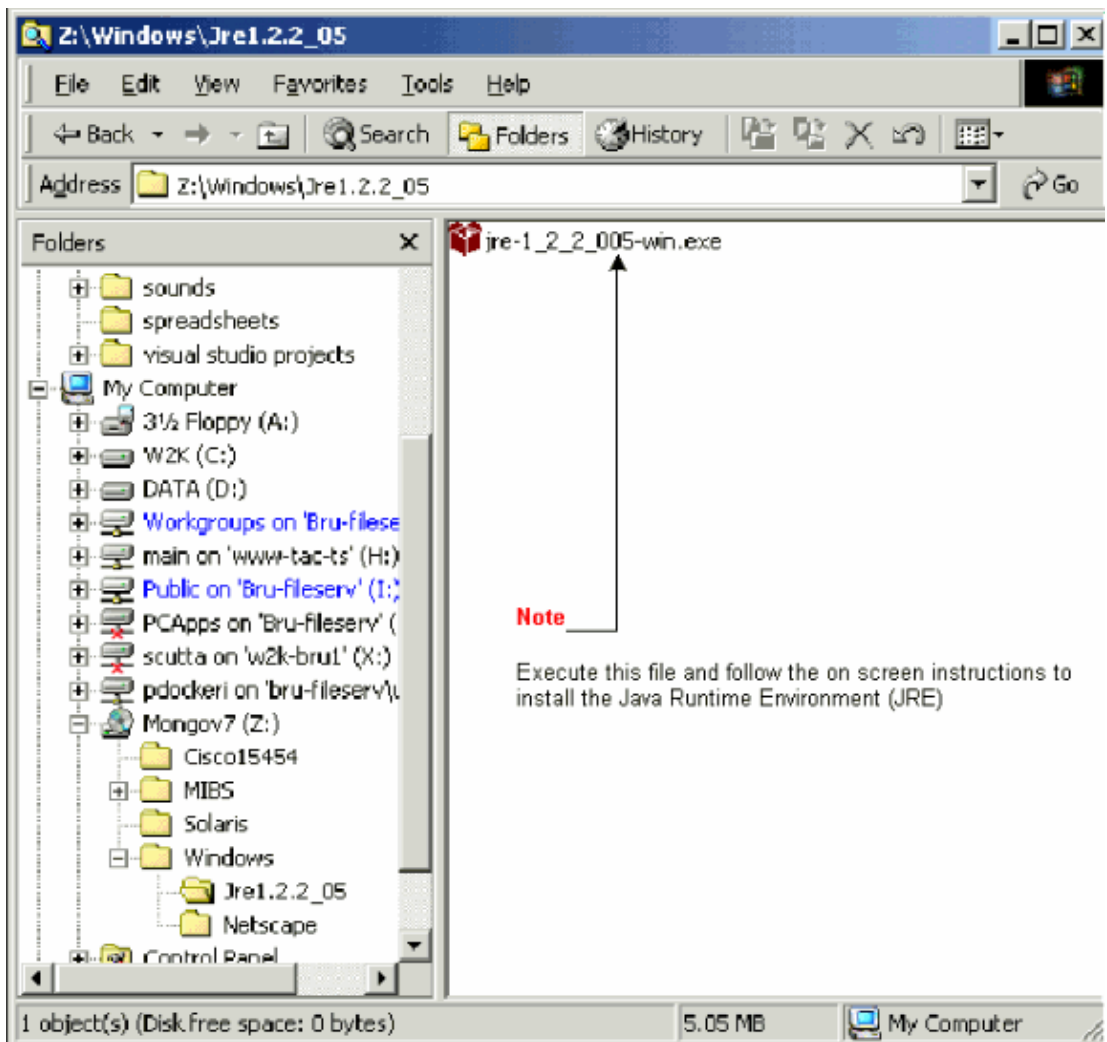
You can install the JRE files from the ONS 15454 software CD. You can also download the JRE files directly from the Java™ web site. Complete these steps:

1. Insert the ONS 15454 software CD into the PC, and double-click the **jre-1_2_2_005-win.exe** file (see Figure 6).

Then, follow the on-screen instructions to complete the installation.

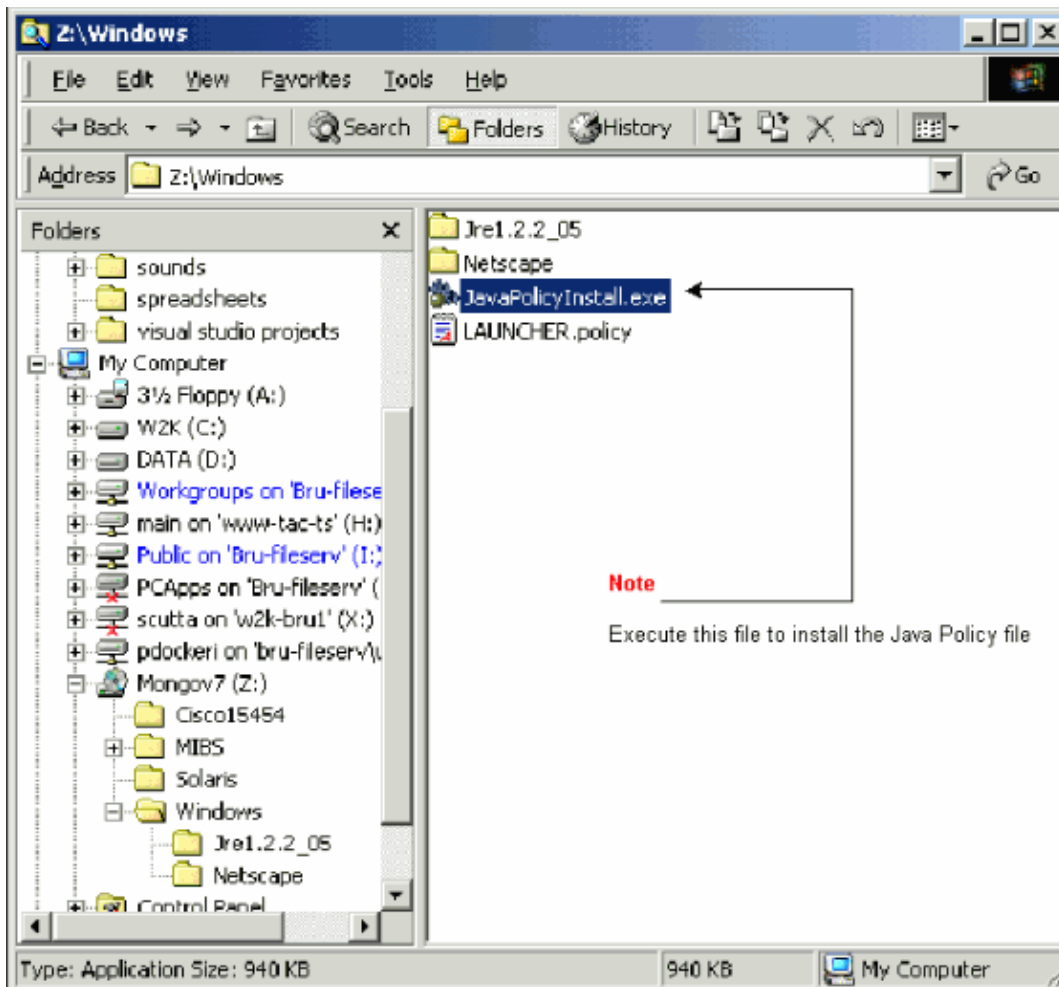
If you do not have the CD, you can download the JRE software from the Java™ web site.

Figure 6 Run the JRE Executable File



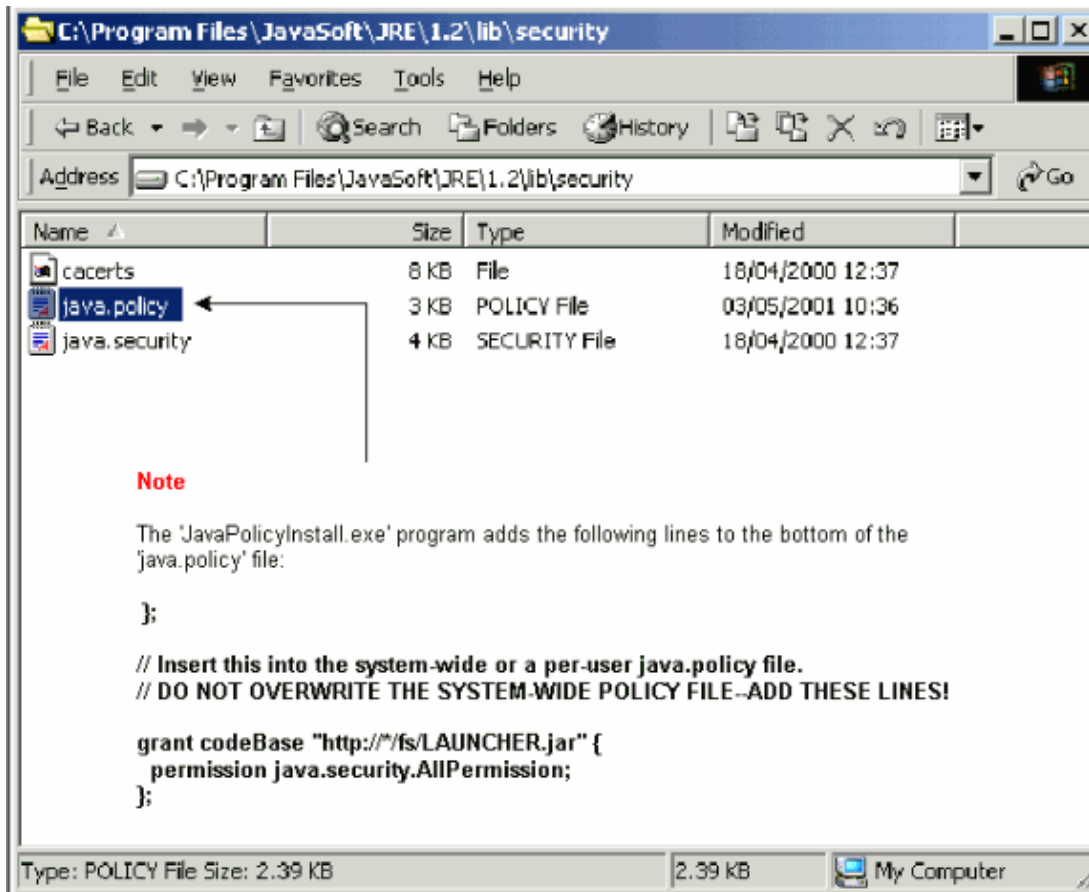
2. Next, you must install the Java policy file. Double-click the **JavaPolicyInstall.exe** file (see Figure 7).

Figure 7 Install the Java Policy File



The **JavaPolicyInstall.exe** file adds several lines of code to the bottom of the **java.policy** file. See Figure 8 for the specific lines of code.

Figure 8 Lines of Code in the **java.policy** File



Download and Install the Java Archive (JAR) File

You can use FTP to download the JAR file to your PC.

1. Open a DOS window.
2. Use the DOS command line to go to the directory on your PC where you want the JAR file to reside.
3. Use the **ping** command to ensure that the PC is directly connected to the Ethernet management interface on the TCC.
4. Type **ftp ip address** , and press **Enter**.

```
ftp 192.1.1.0.2
```

5. When you are prompted for a user name and password, press **Enter** twice to bypass these requests.
6. At the **ftp :>** prompt, type **bin**, and press **Enter**.
7. Type **get CMS.JAR**, and press **Enter**.

The JAR file is transferred to your hard drive, and a completion message is displayed.

8. At the next **ftp :>** prompt, type **quit**, and press **Enter**.

After you download the file, go to the directory where you saved the **CMS.JAR** file. Type **java -jar CMS.JAR ip address** to manually launch the CTC application.

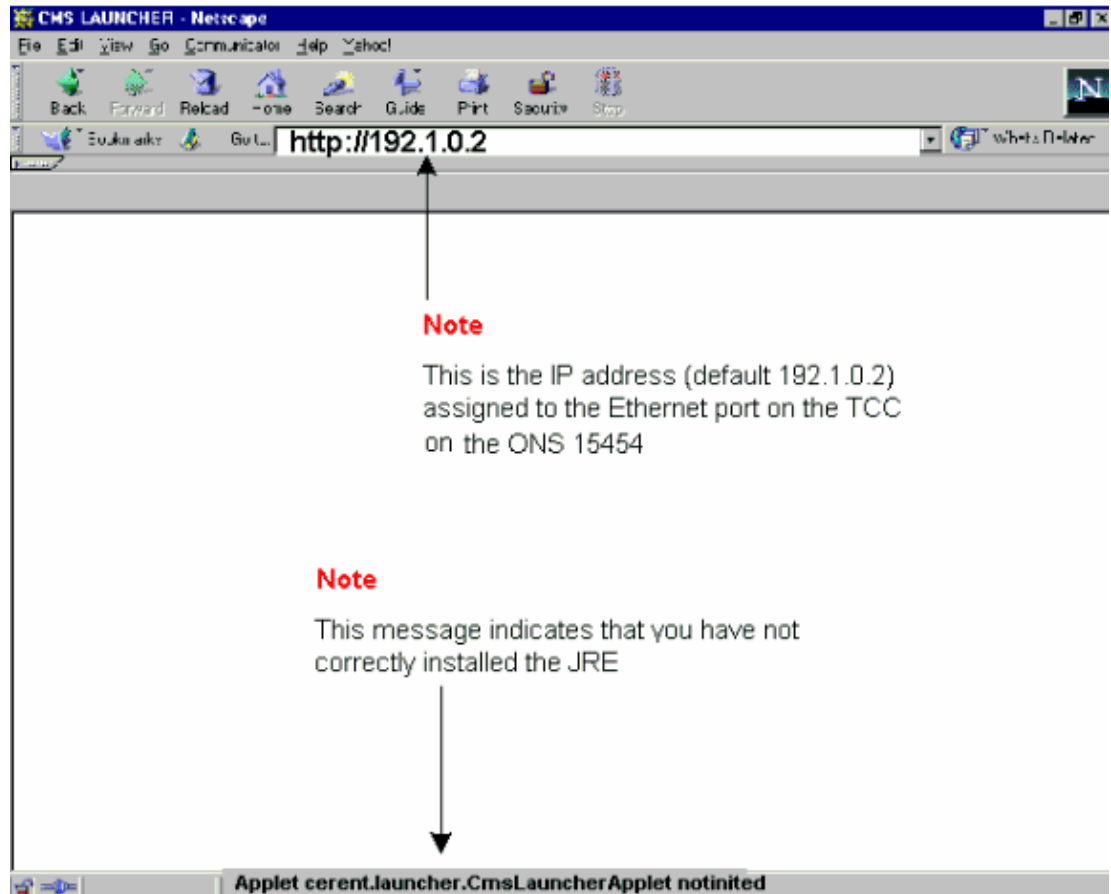
```
java -jar CMS.JAR 192.1.1.0.2
```

Download and Launch the CTC Application

After you install and configure the JRE software, you can download and launch the Cisco Transport Controller application. Complete these steps:

1. In the Address bar of the browser window, type the IP address of the Ethernet interface of the TCC (see Figure 9).
2. Press **Enter** to connect to the TCC.

Figure 9 Connect to the Ethernet Port on the TCC



Note: The "Applet cerent.launcher.CmsLauncherApplet notinited" error message indicates problems with the JRE software (see the bottom of the screen in Figure 9). See the Common Problems When You Install and Configure the JRE Software section for more information.

If the CTC application is successfully downloaded, the CTC login screen is displayed (see Figure 10). You are now ready to log in and use the CTC application.

Figure 10 The CTC Login Window



Common Problems When You Install and Configure the JRE Software

The "Applet cerent.launcher.CmsLauncherApplet notinited" error message indicates a problem with either the installation or configuration of the JRE software.

Complete these steps to troubleshoot this issue:

1. Select **Start > Programs > Java Plug-in Control Panel**.

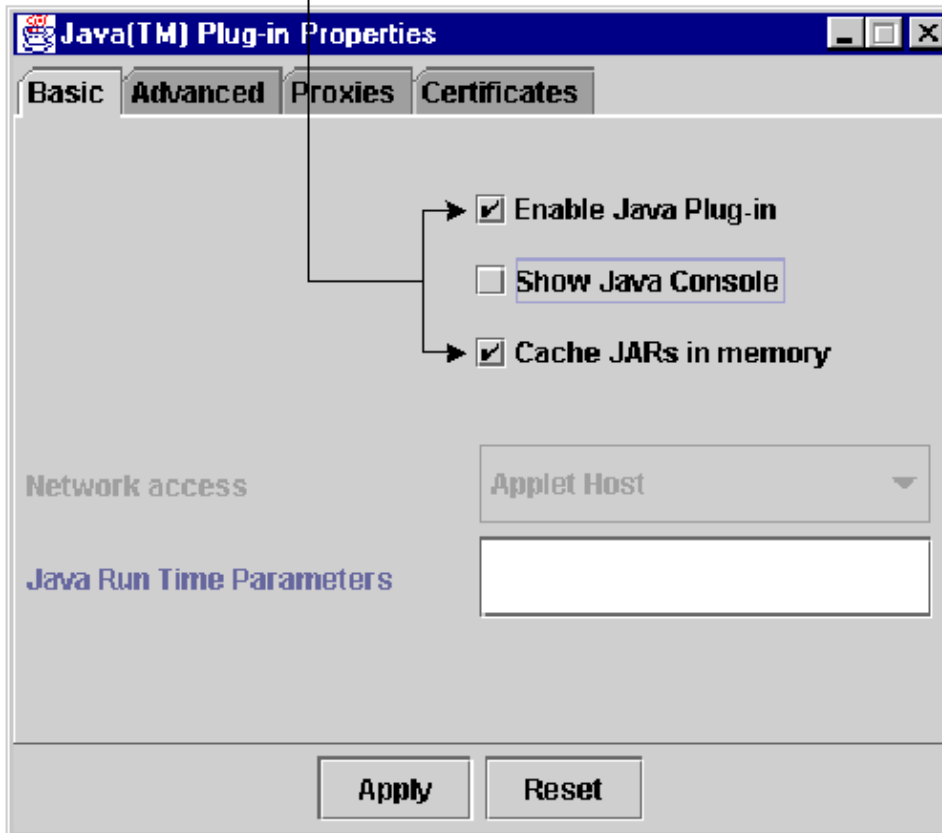
The Java Plug-in Properties window displays (see Figure 11).

2. In the Basic tab, ensure that **Enable Java Plug-in** and **Cache JARs in memory** are checked.

Figure 11 The Java Plug-in Properties Dialog Box

Note

From the Basic properties panel ensure the 'Enable Java Plug-in' and 'Cache JARs in memory' boxes are ticked

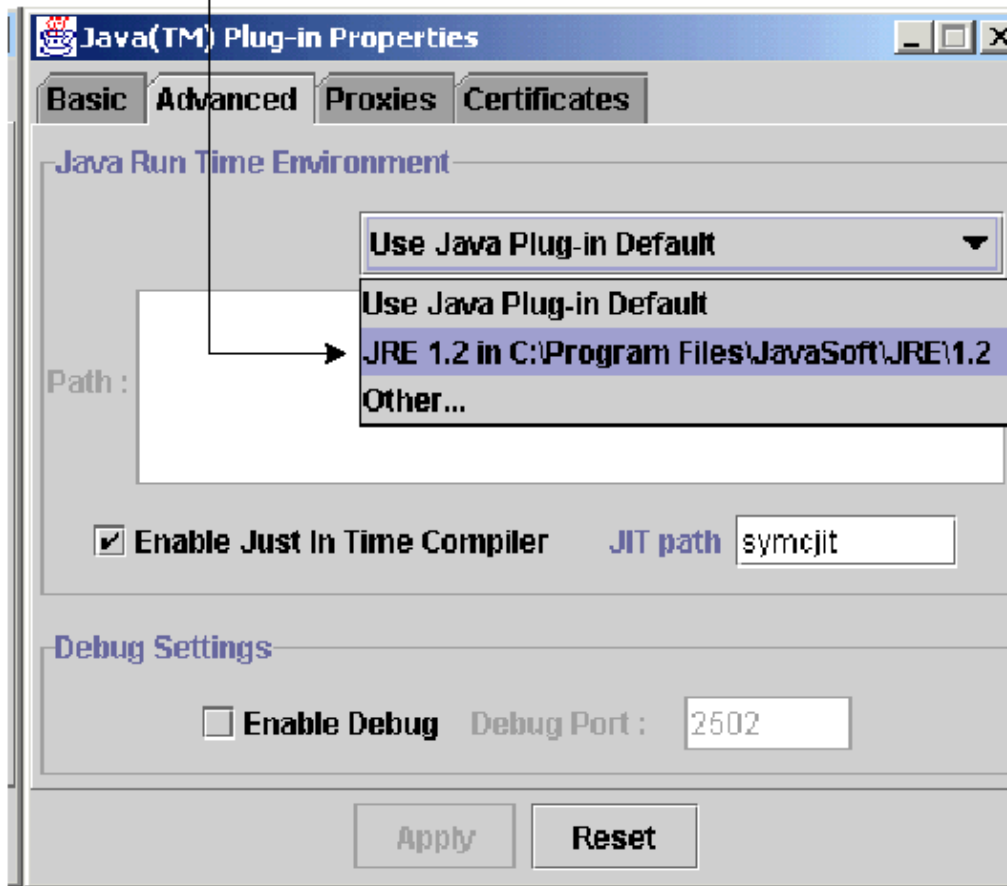


3. Click the Advanced tab.
4. If the Path option is set to Use Java Plug-in Default, change it to point to the location where you have saved the JRE file, as shown here:

Figure 12 Type the Correct Path to the JRE File

Note

In the advanced properties panel you can manually select the latest version of the JRE rather than the default



5. Click **Apply**.
6. Ensure that your browser is not configured to use a proxy server to access the Internet.

Complete these steps if you use Netscape:

- a. Select **Edit > Preferences > Advanced > Proxies**.
- b. Ensure that the Proxies configuration is set to **Direct connection to the Internet**.
Complete these steps if you use Internet Explorer:

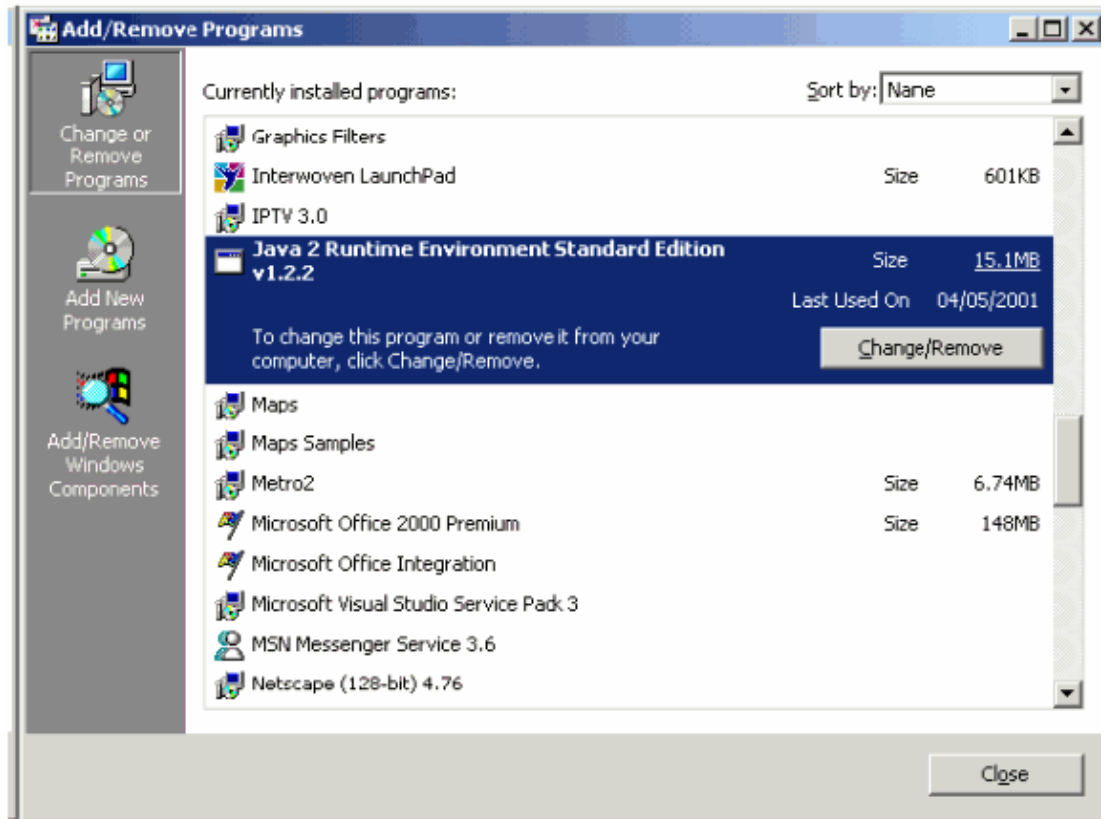
- a. Select **Tools > Internet Options > Advanced > HTTP 1.1 Settings**.
- b. Ensure that the **Use HTTP 1.1 through proxy connections** check box is NOT checked.

7. Remove and reinstall the JRE software. Complete these steps:

- a. Select **Start > Settings > Control Panel > Add/Remove Programs**.

The Add/Remove Programs window displays:

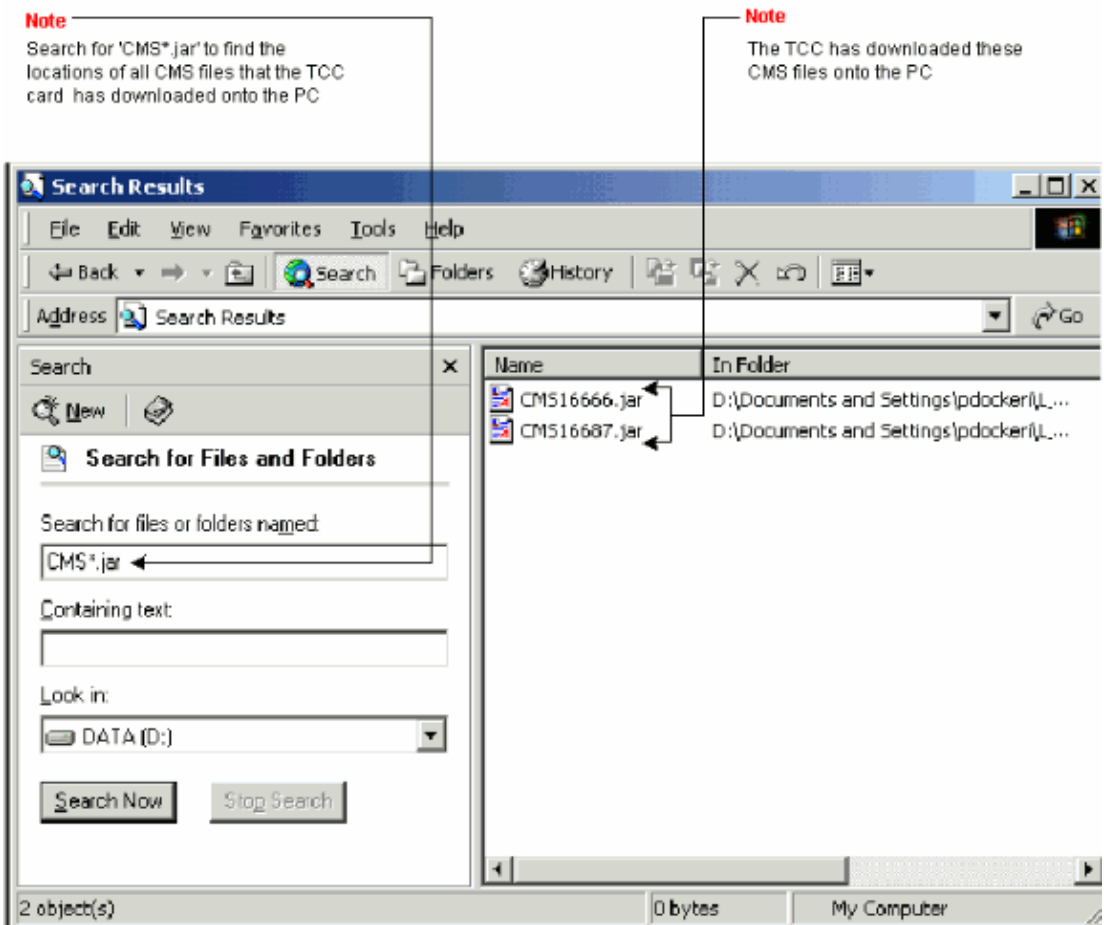
Figure 13 Remove the JRE Software



- b. Click **Change/Remove**.
 - c. Click **Yes** when you are prompted to confirm the removal of the software.
 - d. Reinstall the JRE software.
8. Remove and reinstall the CTC software.

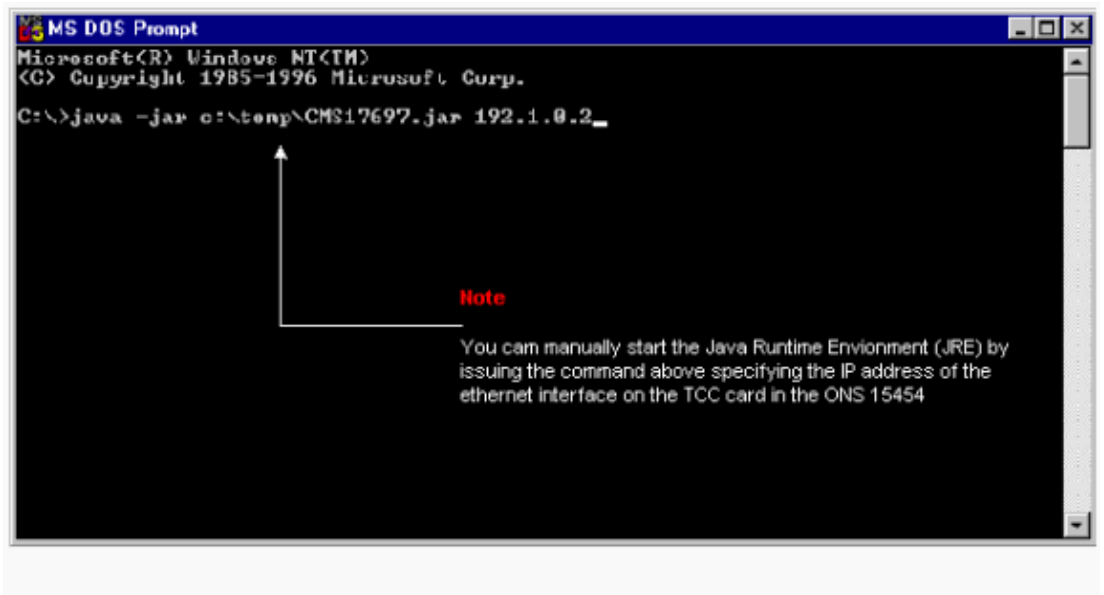
Note: The location of the program files differs across platforms and operating systems. Therefore, use the Search function on your computer to find all files that match **CMS*.jar** (see Figure 14). Manually delete each file that you find. The next time the PC connects to the TCC, a new CMS file is downloaded from the TCC.

Figure 14 Delete All CMS*.jar Files Manually



9. Instead of a web browser, use the DOS command line to launch the CTC application manually (see Figure 15). You need to specify the correct file path and the IP address of the Ethernet interface on the TCC.

Figure 15 Launch CTC Manually from the DOS Command Line



Related Information

- [Cisco ONS 15454 Frequently Asked Questions](#)
 - [Cisco Transport Manager Version 2.0.x Frequently Asked Questions](#)
 - [Technical Support & Documentation – Cisco Systems](#)
-

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Updated: May 23, 2006

Document ID: 13569
