

Chapter 15

Enabling the CLI Agent



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15.1.1 Enabling the CLI Agent

The CLI agent must be enabled on the device under test machine in order to provide testing functionality. The CLI agent on Windows operating systems is a Telnet agent, and an SSH agent on the Linux operating system.

15.1.2 Enabling Telnet on Windows XP/2003

1. Go to the Services applet in the "**Administrative Tools**" (or click on Start, then select the "**Run**" menu item command prompt, and type "**services.msc**" (without quotes) in the input field and click "**OK**").
2. Find the "**Telnet**" service, right-click and select Properties, select "**Automatic**" instead of "**Disabled**" in the startup type box.

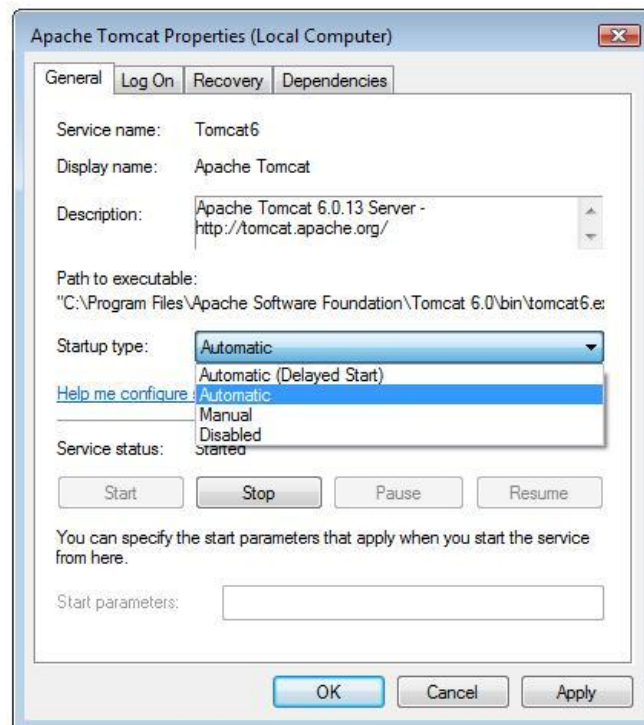


Table 1: Telnet Properties Window

3. Click "**Apply**".

4. Right-click the on the "Telnet" service and select the "Start" menu item.

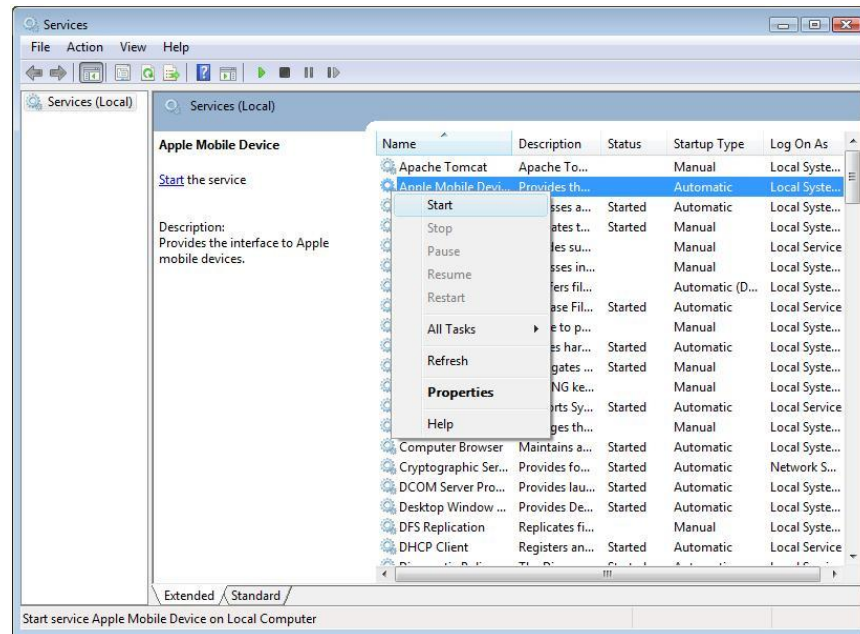


Table 2: Telnet Service Window

5. Now click "OK".
6. The Telnet server requires NTLM authentication by default. In order to deactivate it and only use password authentication, use the "tlntadm" command: **"tlntadm config sec=-NTLM"**
7. Switching to the streams mode will improve screen responsiveness for Unix/Linux clients. Do this with the following command: **"tlntadm config mode=stream"**
8. Once the telnet service is enabled continue to the section: testing CLI agent. Full article: http://www.petri.co.il/enable_telnet_on_windows_2003.htm

15.1.3 Enabling Telnet on the Vista Operating System

Note: Due to limitations in defining groups this quick start tutorial doesn't work on the Vista Home Basic edition.

By default, Telnet is not installed with Windows Vista; it can be installed by performing following the steps.

In order to install the Telnet Client and Server:

1. Click the Microsoft **"Start"** icon button, then select the Control Panel from the settings menu, now select the Programs item and then click Turn Windows features on or off.
Administrator permission is required a prompt appears and asks for an administrator password or confirmation, type the password or provide confirmation.
2. In the Windows Features dialog box, select the Telnet Client and Telnet Server check boxes.
3. Click **"OK"**. (The installation might take several minutes).
4. After installing the service follow the Windows XP/2003 instructions.
5. Full article: <http://windowshelp.microsoft.com/Windows/en-US/Help/81b6d4b7-905e-4d70-8379-7934913fedb01033.mspx>

15.1.4 SSH Server on Linux

If the installed version of Linux was released after 2002, the machine already has OpenSSH installed and activated. The following links explain the SSH and how to solve common problems that may arise:

[SSh tutorial](#)

[Secure Copy and Login](#)

[SSh on fedora](#)

15.1.5 Verifying CLI Agent

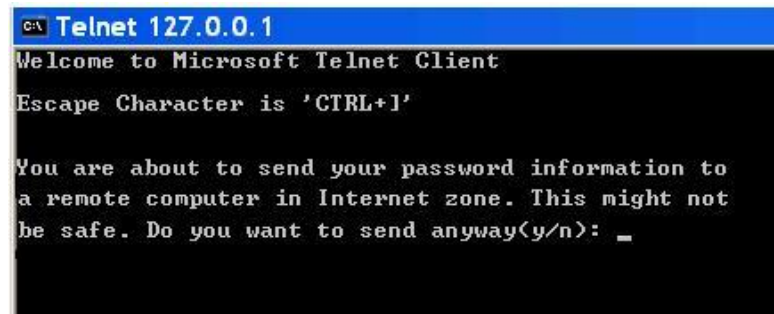
One of the most important rules in developing automation is, before writing automation code the developer must make sure to perform the operations that the automation should perform manually. In our case the user should make sure that the CLI connection is open and connected to the DUT manually.

15.1.5.1 Verifying Telnet Server

To verify that the telnet server is configured correctly perform the following tasks:

1. Go to the JRunner machine (assumption - windows machine) open a command shell (Start→run→cmd.exe)
2. type "**telnet ip_of_DUT_machine**" in the shell. For example "**telnet 10.0.0.201**"

If the following output appears in the command window



```
C:\ Telnet 127.0.0.1
Welcome to Microsoft Telnet Client
Escape Character is 'CTRL+I'

You are about to send your password information to
a remote computer in Internet zone. This might not
be safe. Do you want to send anyway(y/n): _
```

Table 3: Verifying Telnet Server

1. Type "**n**" (no) and press "**enter**".
2. Enter a domain/user and a password. If the following message appears:
3. "**Access Denied**" Specified user is not a member of "**TelnetClients**" group.
4. Server administrator must add this user to the above group."

Perform the following tasks. Go to My Computer/Manage/Users and Group, then add the group "**TelnetClients**" and add the user that the user attempted to log-in with to the "**TelnetClients**" group.

Note: Due to limitations in defining groups sections 3 above will not work on Vista Home Basic edition.

Now try to log-in again. Make sure that the ping command can be run from the Telnet session.

15.1.5.2 Verifying the SSH Agent

To verify that the telnet server is instrumented correctly do the following:

1. Open SSH client:
If JRunner is running on windows, open it using PuTTY
(<http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html>)
If JRunner is running on Linux open a command shell and type "**ssh ip_of_DUT**" for example (ssh 10.0.0.201)
2. Enter user name and password of one of an existing user
3. Make sure you are able to run the ping command from the telnet session.