Agilent
Troubleshooting Medalist Intelligent Test Framework (ITF)
Port Problems (Network Communication Issues)

Technical Overview

Intelligent
Test
Framework

Agilent Technologies
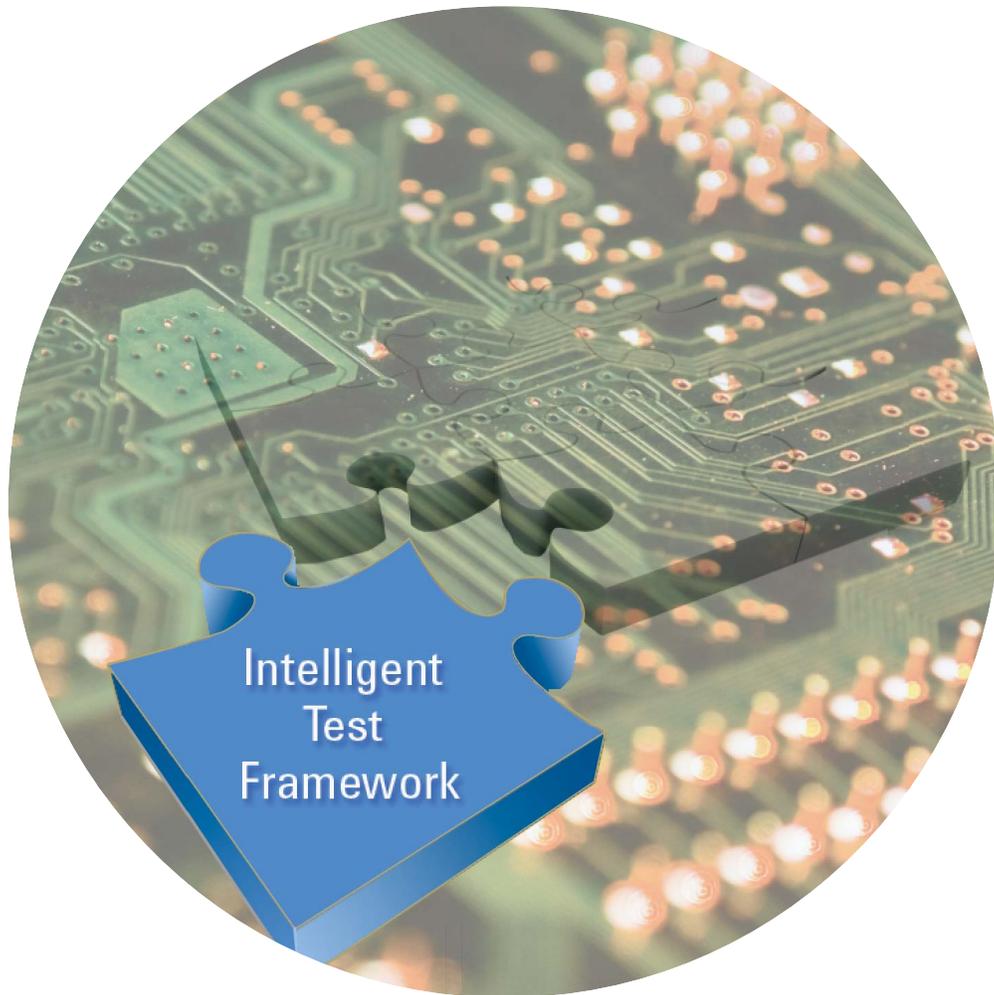
Introduction

Network communication problems happening at the ITF server or the tester agent can be quite frequent and is normally a complicated issue to work on. This document serves as a guide / reference to do preliminary analysis and troubleshooting when network / communication problems do occur.

Signs that tell you a communication problem might be present

• Transfer of board test result files fail and all result files are stuck at Input folder

• Failing to enter the ITF admin client page

• Log files show traces of "connection refused", "error occurred while attempting to connect a socket"

Although these points above may show potential communication problems, they do not guarantee that network or port communication errors are definite root causes. These are just suggested paths for troubleshooting.

Troubleshooting paths

There are 3 paths a user could take. All are possible paths and are not listed in a priority order since this is situation dependent.

1 Check firewall settings

2 Check TCP/IP setting for SQL 2000 / 2005

3 Use tcpview application to monitor the ITF critical ports (downloadable from http://technet.microsoft.com/en-us/sysinternals/bb897437.aspx)

---

1 Check firewall settings
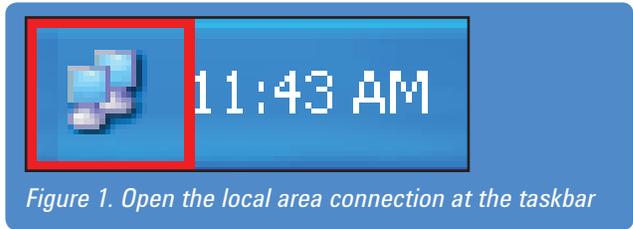
Figure 1. Open the local area connection at the taskbar

Firewall off   Firewall on
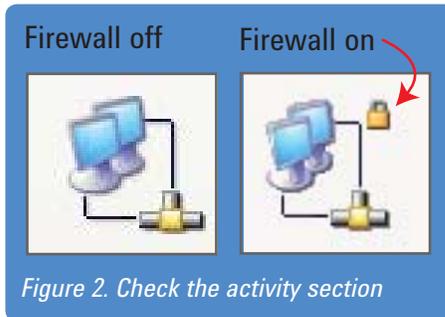
Figure 2. Check the activity section

If firewall is on, it might cause problems to certain port communications, to turn it off, at the local area connection screen, click Properties > click on Advanced Tab > click on Settings at Windows Firewall section > click and check the Off radial button, as shown in Figure 3.
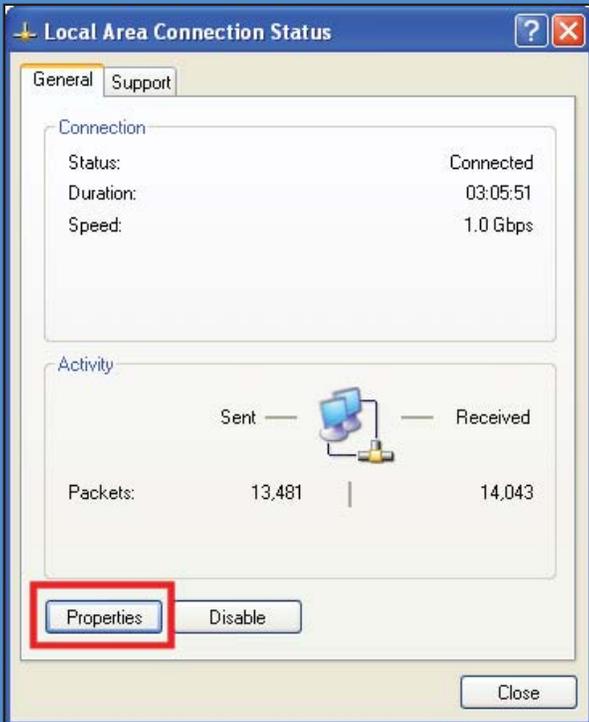
Figure 3. Check firewall settings.

2 Check TCP/IP setting for SQL 2000 / 2005 For SQL 2005

1. Click on Start > All Programs > Microsoft SQL Server 2005 > Configuration Tools > SQL Server Configuration Manager, as shown in Figure 4.
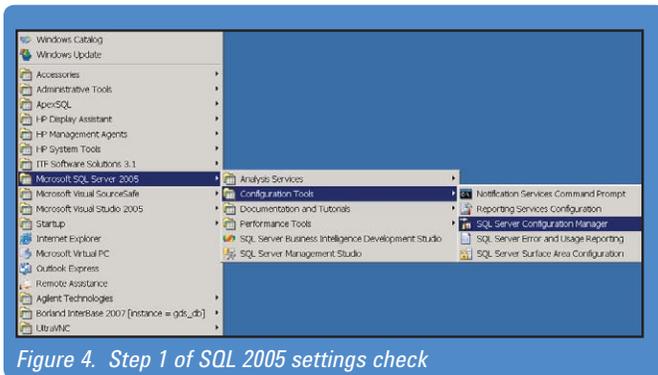
*Figure 4. Step 1 of SQL 2005 settings check*

2. At the SQL Server Configuration Manager window, expand the SQL Server 2005 Network Configuration, click on Protocols for MSSQLSERVER and make sure TCP/IP is set to Enabled, as shown in Figure 5.
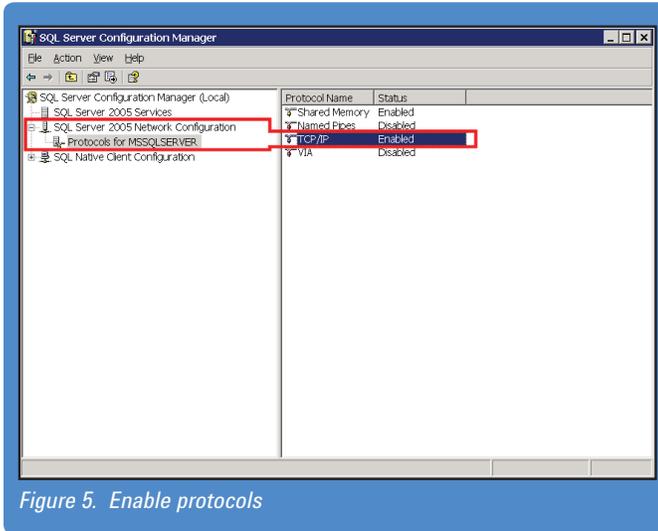
Figure 5. Enable protocols

For SQL 2000

1. Click on Start > All Programs > Microsoft SQL Server > Client Network Utility, show in Figure 6.
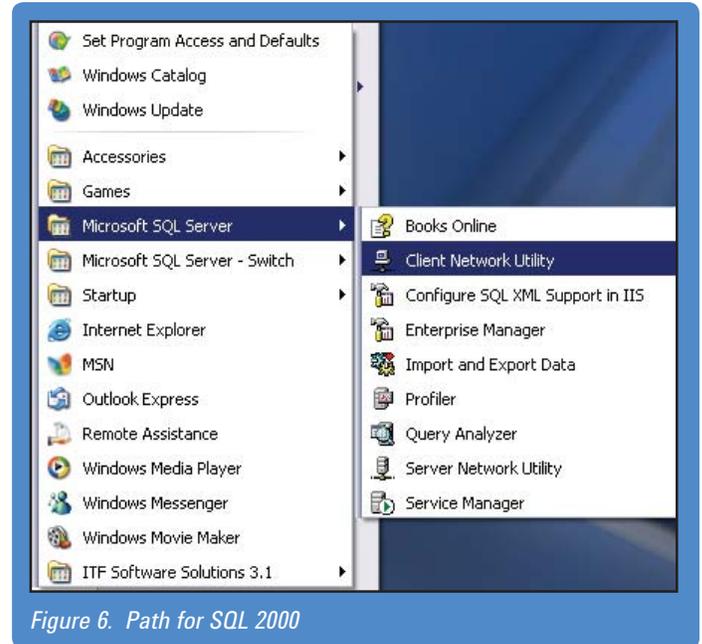
Figure 6. Path for SQL 2000

2. At the SQL Server Client Network Utility window, look under "Enabled protocols by order" section and make sure TCP/IP falls under that section. If it is at the other section, click to select the TCP/IP and click on the Enable >> button, click on OK when done, as shown in Figure 7.
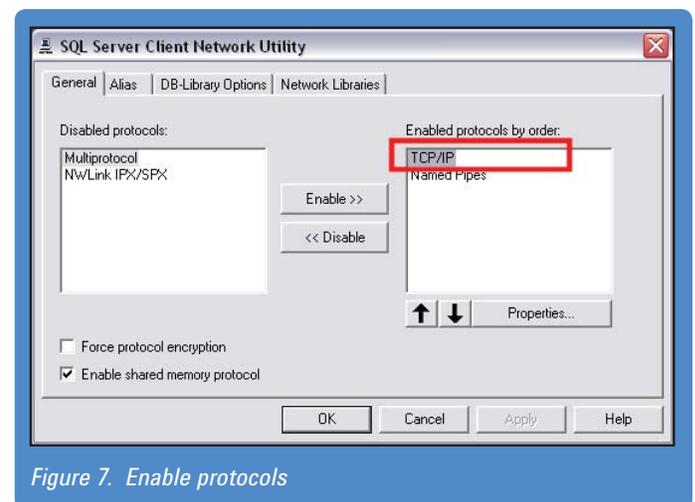
Figure 7. Enable protocols

3 Use tcpview application to monitor the ITF critical ports

1. Run the tcpview.exe application. (The user can download this over the Internet as it is a freeware or it can be obtained from Agilent MTSS Support Web Site. Download and unzip it to any location within the ITF server.)

2. At the tcpview window, a list of all processes running and the ports they are using will be shown. Figure 8 is an example of a typically normal port activity screen at an ITF server. The highlighted section are ITF related processes, there may be other processes that are also ITF related other then tomcat processes, as shown in Figure 6. Some ports that should be paid attention to are port number 8080 and 7331.
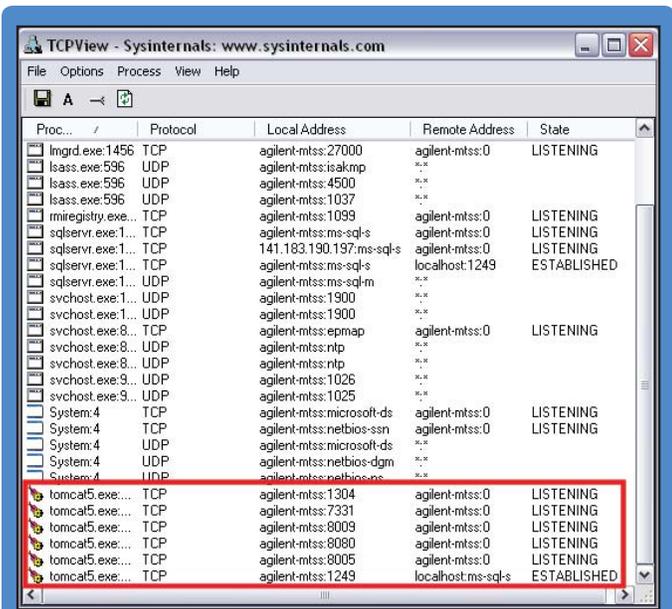
Figure 8. TCPView

3. If the user is unsure if a certain process is related to ITF operations and needs to find out the source of the process these steps may help. Right click on a process, and select "Process Properties...", as shown in Figure 9.
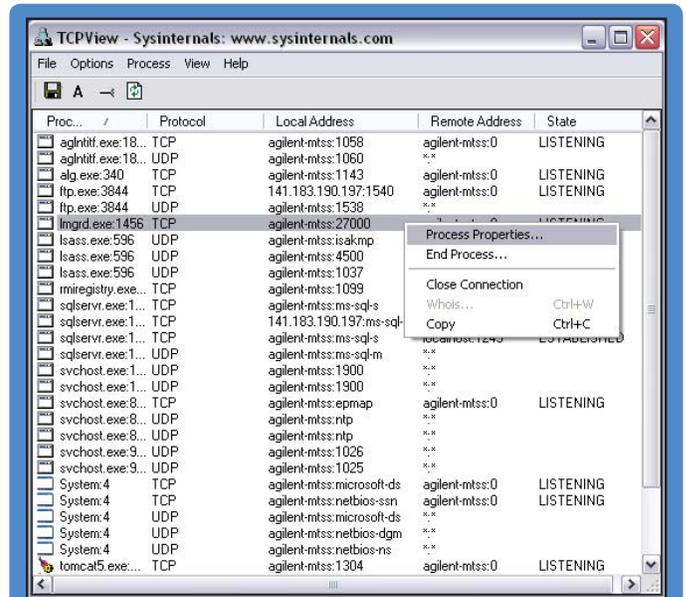
Figure 9. Check Process Properties

4. At the Process Properties window, it shows the path and the command line of the process that was selected which gives the user an idea of what the process actually is. In the example in Figure 10, it is the lmgrd.exe process that uses port number 27000 which actually is an ITF process (judging on the path it came from).
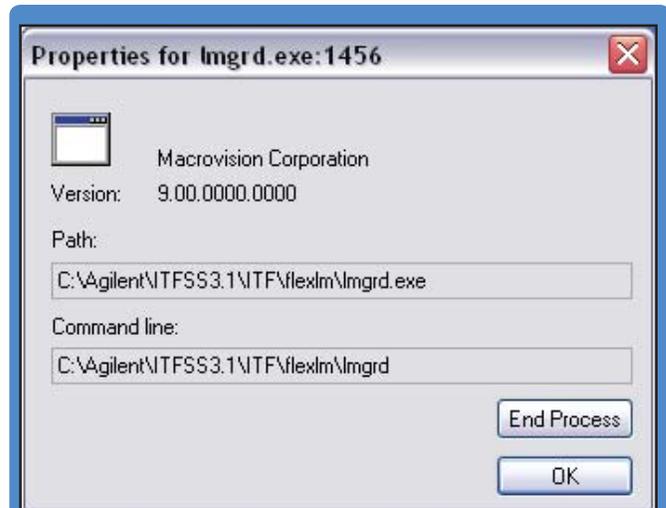
Figure 10. Properties of lmgrd.exe

5

5. An example of an ITF server having a critical port occupied is shown in Figure 11. Here the process "svchost.exe" is occupying the port 8080, which is also used by the process "tomcat5.exe" (Port 8080 is used by the ITF Admin Client) therefore this resulted in the ITF Admin Client page not able to be loaded.

Figure 11. Example of an ITF server having a critical port occupied

6. A user can end a selected process by Right Clicking on a selected process and select "End Process..." If the process cannot be manually ended, please consult your IT Department to terminate the process.

7. If in any case, there are some processes that customer insist to have running and cannot be terminated, the user should consult with their IT expert on which port they are not using and change it to that port number. Please contact Agilent support if details on how to do this are needed:

www.agilent.com/find/contactus.

Some critical ITF ports to monitor

Process	Port
tomcat5.exe (ITF Admin Client)	8080
tomcat5.exe (tester file transfer / repair tool to ITF)	7331
rmiregistry.exe (AQT to ITF)	1099

If the user needs other parties to perform more investigations on the port listing, please capture one or two screenshots (print screen) to cover all port listings and send the images to appropriate parties.

www.agilent.com

For more information on Agilent Technologies' products, applications or services, please contact your local Agilent office. The complete list is available at:

www.agilent.com/find/contactus

Americas
Canada	(877) 894-4414
Latin America	305 269 7500
United States	(800) 829-4444

Asia Pacific
Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Thailand	1 800 226 008

Europe & Middle East
Austria	0820 87 44 11
Belgium	32 (0) 2 404 93 40
Denmark	45 70 13 15 15
Finland	358 (0) 10 855 2100
France	0825 010 700*
	*0.125 €/minute
Germany	01805 24 6333**
	**0.14 €/minute
Ireland	1890 924 204
Israel	972-3-9288-504/544
Italy	39 02 92 60 8484
Netherlands	31 (0) 20 547 2111
Spain	34 (91) 631 3300
Sweden	0200-88 22 55
Switzerland	0800 80 53 53
United Kingdom	44 (0) 118 9276201

Other European Countries:
www.agilent.com/find/contactus

Revised: March 27, 2008

Agilent Technologies