EL01
Instructor Setup Guide
A V5R2 Look at the HTTP Server (powered by Apache)

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Chapter 1. Lab Setup Instructions - V5R2 Apache

This lab will take the student from knowing nothing about the new V5R2 GUI that is used to configure the HTTP Server (powered by Apache) through some early simple steps. It then introduces them to some simple problem determination steps so that if they have problems later in the lab they have a good chance of discovering the solution by themselves. Then, it covers some of the basic steps for cgi-bin, basic authentication, name based virtual hosts, and SSL security.

It then dives into some advanced topics such as using ASF Tomcat (in-process), FRCA local cache and FRCA proxy cache, and finally a module to show off the APR.

1.1 iSeries and client setup requirements

Ensure that you have the following hardware and software requirements for this lab project:

1.1.1 iSeries server requirements

For these labs you must have the following iSeries software:

- OS/400 V5R2 (5722-SS1)

  OS/400, Version 5 Release 2 Modification 0 (5722-SS1) with the CUM package 13 driver and the following individual PTFs:

  - 5722-999: MF28616 (sockets)
- 5722SS1 option 34:OS/400 - Digital Certificate Manager
- 5722AC3 option(*BASE) Crypto Access Provider 128-bit for iSeries. AC2 or AC1 is OK.
- 5722DG1 option(*BASE) IBM HTTP Server plus PTFs:
  - Group PTF SF99098. WRKPTFGRP SF99098 will display the following when the latest version SF99098 PTF Group is installed on the system: "PTF Group Level: 7". This lab has been tested with this group PTF.
- 5722-TC1 TCP/IP Connectivity Utilities
- 5722XE1 *BASE iSeries Access for Windows
- 5722WDS *BASE WebSphere Development ToolSet and
- 5722WDS option 51 Compiler - ILE C
  - Please consult this webpage for our latest PTF info:

    http://www-1.ibm.com/support/docview.wss?rs=0&org=SW&doc=1044473

    Specifically, V5R2 C PTFs are C FE SI00016 and common CPP SI00019.

For these labs you must have the following iSeries or iSeries hardware:

- iSeries with a LAN interface. You can run the lab project on an Ethernet or a Token Ring LAN. The recommendation is to use a Token Ring, since all drawings refer to a Token Ring network.

1.1.2 Client requirements

Much of the work the students will do is to configure via web browser and to a small extent 5250. The students' PCs must meet the following requirements:

- Windows 95/98/NT/2K

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- Internet Explorer works the best. If you use another web browser you would have to modify the student handout a bit.
- Client Access/400 Express for Windows V5R2 to make use of the 5250 emulation.
- The PC has to be connected through a LAN interface, such as a Token Ring or Ethernet, to the local area network.
- A 300 MHz CPU
- 64 MBytes RAM for Windows 95/98/ME clients
- 128 MBytes RAM for Windows NT/2000 clients

1.1.3 Network requirements

Verify the following:

- Token Ring or Ethernet LAN to which the iSeries server and all the students PCs are connected.
- TCP/IP setup. All PCs can access the iSeries server. It helps if the PCs can access the iSeries server via name.

1.2 iSeries lab setup

You must setup the iSeries server as well as the PCs prior to run the lab project. For the setup tasks you need to have available the information listed in Table 1. Fill out the table, before starting the setup:

Table 1. Lab Setup Information

Information	Value
iSeries host name	must match student guide
iSeries domain	none
IP address for iSeries system	must match student guide
IP address range for PC	does not matter
Lab user profile	TCP52UMAST

1.2.1 Creating the lab environment on the iSeries server

Perform the following steps to setup your iSeries:

__ 1. Transfer the TCP52DMAST files to /tcp52dmast directory on the AS/400. Create the directory if necessary.

__ 2. Transfer the TCP52LMAST *SAVF to the QGPL library on your iSeries server.

__ 3. Signon to the iSeries server using a user profile having all special authorities associated with the user class *SECOFR. Specifically, you must have *IOSYSCFG and *ALLOBJ special user authority.

__ 4. Restore the library TCP52LMAST using the following command:

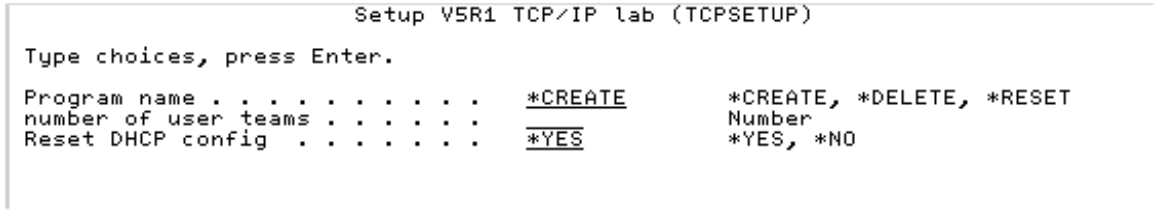
```
RSTLIB SAVLIB(TCP52LMAST) DEV(*SAVF) SAVF(QGPL/TCP52LMAST) MBROPT(*ALL)
ALWOBJDIF(*ALL)
```

__ 5. Add the TCP52LMAST library to the library list:

```
ADDLIBLE LIB(TCP52LMAST)
```

__ 6. Run the setup utility by using the TCP setup Lab (TCPSETUP) command, as shown in the following example:

```
TCPSETUP FUNC(*CREATE) DTANUM(nn) RESETDHCP(*NO) RESETQOS(*NO)
```



Program name (FUNC) gives you choice to select which function run. *CREATE option creates teh lab environment, *DELETE option deletes the lab environment, and *RESET option.

Number of user teams (DTANUM) specifies the number of teams that are supported during this lab session. The value specified on this parameter creates the actual setup for the student teams, starting with TCPUSR01. There is always one team added for the instructor. The instructor's team is TCPUSR00.

Reset DHCP config (RESETDHCP) with the default being *NO.

Reset QoS config (RESETQOS) with the default being *NO.

1.2.2 General iSeries configuration

__ 7. No port restrictions.

__ 8. Host table entries will not hurt, but keep them to a minimum.

__ 9. Make sure the iSeries *ADMIN HTTP server is up and running.

```
STRTCPSVR *HTTP *ADMIN
```

__ 10. Make sure no other HTTP servers are configured or running that will affect the running of the lab.

1.3 Creating the lab environment on the student PC

It is assumed that all requirements mentioned in Chapter 1.1.2, "Client requirements" on page iii are met.

__ 1. Make sure the following shortcut icons are on the desktop:

- Internet Explorer (or Netscape)
- Windows Explorer (with a mapped drive to the iSeries)
- 5250 green screen access to the iSeries.

__ 2. Ensure that the connections are working.

1.4 Verifying the Lab Environment

This section describes how to verify the TCPSETUP command setup the lab environment correctly.

__ 1. Verify that the all user profiles needed for the lab are creates. Enter the command:

```
WRKUSRPRF TCP*
```

You should see TCP52U00, through TCP52Unn.

__ 2. Verify that the lab directories were restored:

```
WRKLNK OBJ('/*')
```

You should see /tcp52d00, through /tcp52dnn.

1.5 Preparing for the next lab session

1.6 Deleting the lab environment

When all lab sessions are finished, delete the objects and definitions used for the lab.

1.6.1 Deleting the lab environment on the iSeries server

The following list gives you an overview of the tasks performed by the Delete PN Lab (TCPSETUP) command:

- Deletes the user profiles (TCP52Unn) created for the lab and all objects owned by the user.
- Removes the TCP52Lnn libraries.

Perform the following steps to restore the original configuration:

__ 1. Run the command as shown in the following example:

```
ADDLIBLE TCP52LMAST
TCPSETUP FUNC(*DELETE) DTANUM(nn) RESETDHCP(*NO) RESETQOS(*NO)
```

__ 2. Delete the TCP52LMAST library.

__ 3. You must manually delete all the /tcp52dnn directories.

1.7 Problems that might occur