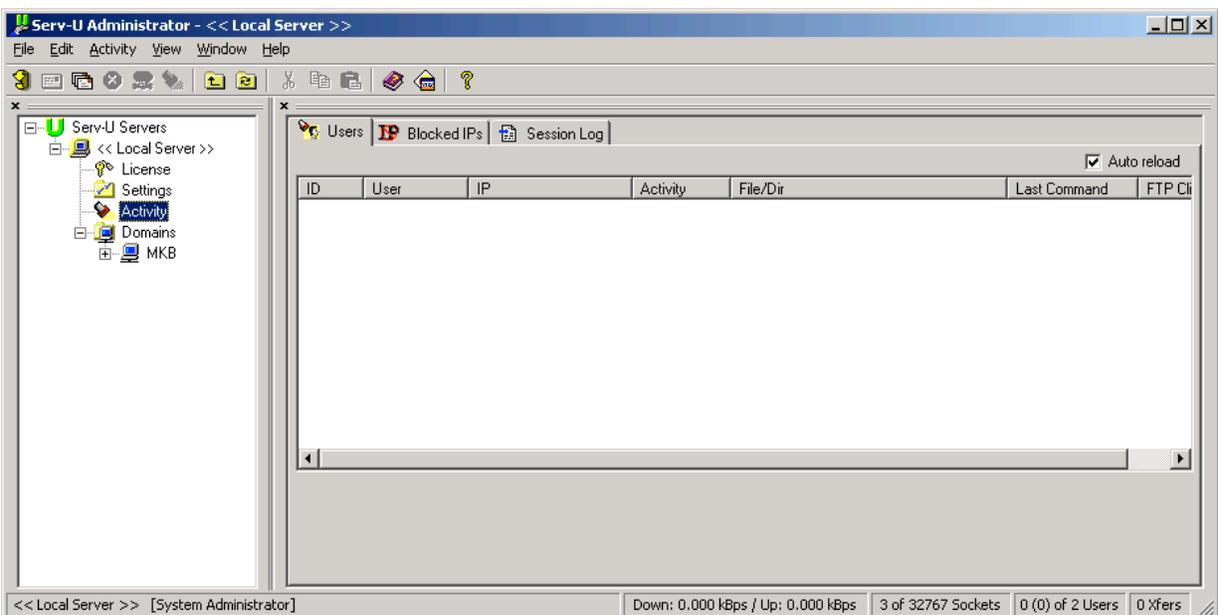


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Application Note: Upgrading Interceptor software with FTP server on local PC

The Interceptor has the capability to accept software upgrades, which are available from NIS Tech Support (support@networkintegritysystems.com) . When the software is upgraded, all of the user configuration settings are retained. The following is the procedure to upgrade an Interceptor using the FTP server software Serv-U: <http://www.serv-u.com/> (please see Appendix A of this document for instructions on configuring an FTP server):

1. Verify the IP address of the computer housing the FTP server (this can be done by running the command ipconfig from a command prompt on your PC). If the computer and Interceptor are not on a network, they can be connected directly using an Ethernet crossover cable. Please see Appendix B of this procedure to configure your PC for direct Ethernet connection to the Interceptor.
2. Verify that the FTP server PC can communicate with the Interceptor to be upgraded by pinging the Interceptor's IP address.
3. Turn off all antivirus software on the PC used for the upgrade, including Windows Firewall.
4. Start the Serv-U FTP server, the Administrator screen similar to the following should be selected to appear:



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5. Log into the Interceptor using a terminal emulator or Secure Shell client. Select Upgrade from the Main Menu:

```
Upgrade Menu
->Upgrade Via FTP/HTTP Server
    Reboot
    Back
```

The URL of the upgrade file is entered into the Upgrade Via FTP/HTTP Server field in the following format:

ftp://<FTP server IP address>/<Server file location>/<Interceptor software version>.upgrade.bin

```
Enter Upgrade URL
ftp://10.2.1.2/ftp/anonymous/2.4.3771TE.
<OK> <CANCEL>
```

NOTE: In this case, the upgrade file (located on the FTP Server PC hard drive as C:\ftp\anonymous\2.4.3771TE.upgrade.bin) is located on the FTP server PC at IP address 10.2.1.2. The upgrade URL entered above is:

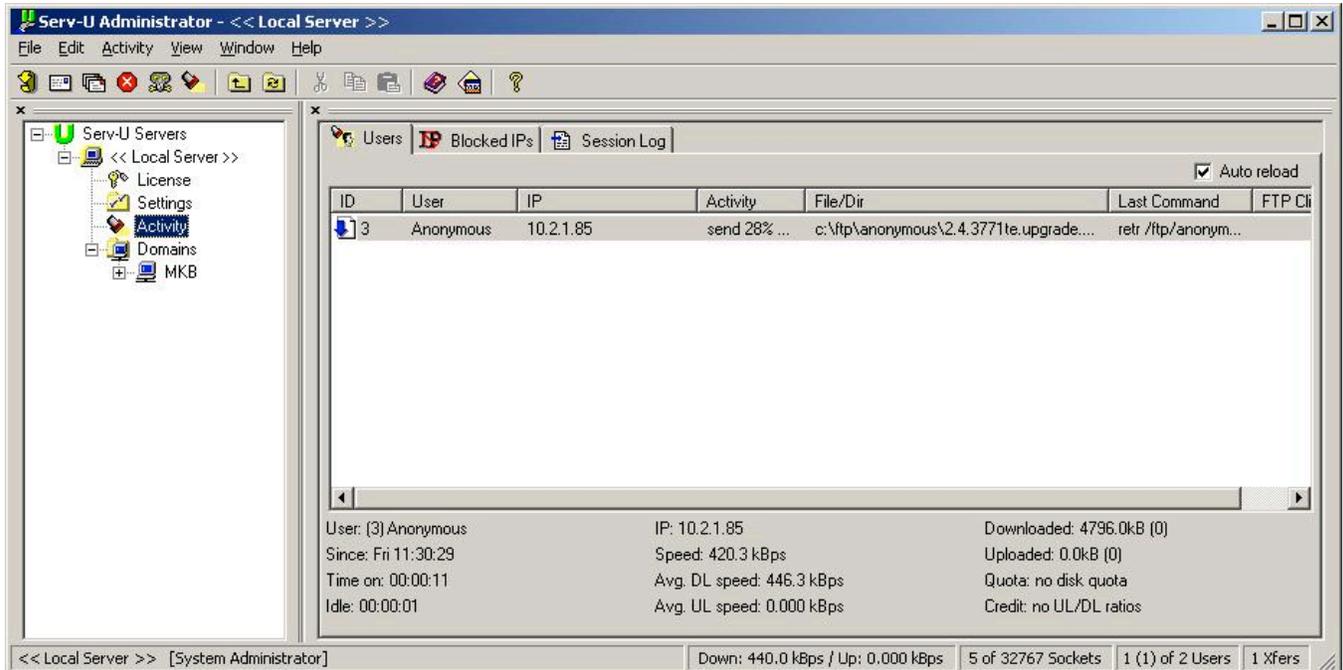
ftp://10.2.1.2/ftp/anonymous/2.4.3771TE.upgrade.bin

The Interceptor will then display the following message:

```
Background upgrade started.
System will automatically reboot if the upgrade was successful.
Inspect the net log for results.
<OK>
```

While the upgrade is progressing, the status can be monitored in the Serv-U Local Server Activity screen on the FTP Server PC as follows:

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In the screen above you can see the IP address of the Interceptor (10.2.1.85), the progress of the upload (28%), and the file being upgraded to the Interceptor (c:\ftp\anonymous\2.4.3771te.upgrade.bin).

IMPORTANT NOTE: Please allow a minimum of 5 minutes for the Interceptor to complete the download and upgrade process. The Interceptor will reboot itself during this time. Do not power down the Interceptor during this time.

- After the upgrade has completed, you will be able to log back in to the Interceptor. The Interceptor will indicate in its Network Log and syslog (if enabled) if the upgrade has been successful:

```

Network Logs
-----
datetime="2006-10-04 14:31:42" event="system_started"
datetime="2006-10-04 14:29:19" event="system_rebooting"
datetime="2006-10-04 14:29:19" event="upgrade_success" user="admin"
datetime="2006-10-04 14:27:08" event="upgrade_start" user="admin"
datetime="2006-10-04 14:25:56" event="session_start" user="admin"
datetime="2006-10-04 14:25:56" event="auth_success" user="admin"
datetime="2006-10-04 14:25:54" event="auth_success" user="admin"
datetime="2006-10-04 14:25:40" event="ssh_connect" src_address="10.2.1
datetime="2006-10-04 11:28:45" event="session_end" user="admin"
datetime="2006-10-04 11:12:04" event="session_start" user="admin"
datetime="2006-10-04 11:12:03" event="auth_success" user="admin"
datetime="2006-10-04 11:12:02" event="auth_success" user="admin"
datetime="2006-10-04 11:11:49" event="ssh connect" src address="10.2.1
datetime="2006-10-04 10:08:33" event="session_end" user="admin"

CTRL-n: Next page      CTRL-b: Beginning  <- ->: Scroll text
CTRL-p: Previous page  CTRL-e: End        RETURN: Exit

```



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Appendix A: Setting up an FTP server on a PC

In order to configure the FTP server on your computer, you can either use Windows Integrated Information Services utility (present in Windows 2000 and XP Professional) or a third party application such as Serv-U: <http://www.serv-u.com/> Here is a link from pcstats.com describing how to set up an FTP server on your PC: <http://www.pcstats.com/articleview.cfm?articleid=1491&page=1>

IMPORTANT NOTE: Be sure to disable the FTP server on your PC when it is not in use, as a security vulnerability will exist if your server is enabled and set for Anonymous users.

After your server is set up, copy the Interceptor upgrade file (named 2.X.XXXX.upgrade.bin) to the proper directory for the FTP server (usually c:\ftp\anonymous), and your server will be ready to provide the file to the Interceptor.

<ftp://XXX.XXX.XXX.XXX/ftp/anonymous/2.X.XXXX.upgrade.bin>

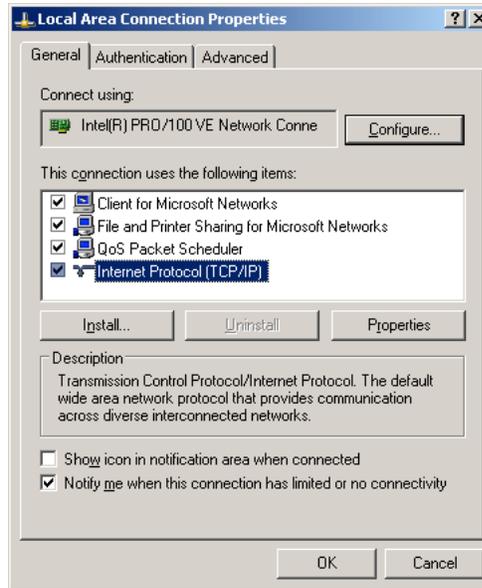
Also verify that all antivirus protection on the FTP server PC is disabled as this will interfere with the FTP transfer.

Appendix B: Configuring your Ethernet connection to communicate with the Interceptor via a crossover cable

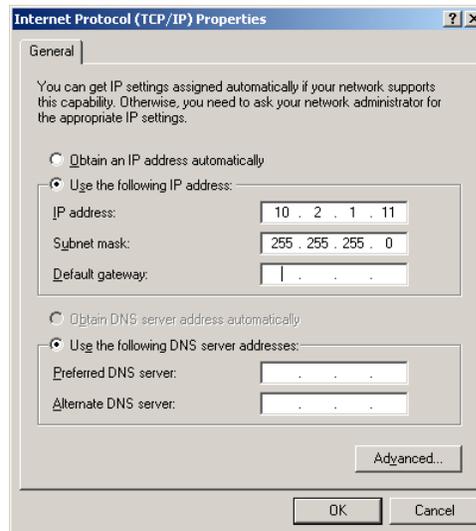
You will need to configure your Ethernet connection to have a static IP address if it will be used with the Interceptor and will not be on a network with a DNS. First, you will need to determine a network address that is in the same range as the one entered into the Interceptor (for example, if the Interceptor is set to network address 10.2.1.10, set your Ethernet settings to 10.2.1.11). This can be done as follows:

1: Under Start/Settings/Network Connections, select your Ethernet connection or card. The Local Area Connection Properties window should appear:

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- 2: Select Internet Protocol (TCP/IP) and press Properties:
- 3: Enter the PC address into the window as shown below:



Select OK to close this window, then select Ok in the Local Area Connection Properties window.

Your PC is now configured to communicate with the Interceptor. If the Interceptor is connected directly to the PC (not through a switch), be sure to use a crossover cable (such as Radio Shack p/n 278-2011) to connect the Interceptor to the PC.