



IBM NETCOOL OMNIBUS

Install and test in less than 1 hour!

NetCool Omnibus is a key component in IBM's event management solution and service management infrastructure. Although there are several NetCool products required to build a small test environment, it can be built in less than an hour by following a few simple steps. This article will walk you through the steps required to set up a simple management server and one or two probes for testing. The information required to install Omnibus and the WebTop browser based interface are available with the products but some of the key information is spread across several documents. This paper is a quickstart guide on how to install and test Omnibus and WebTop in a short period of time for testing purposes.

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Within any IT Infrastructure there are multiple devices, from 100's to 1,000's, depending on the size of the enterprise. These devices include everything from the facilities, power and cooling components, to storage, servers, and networking equipment. In addition, there are operating systems, middleware and applications executing thousands of transactions a second. During the execution of these transactions all of these components generate "events", some by writing to logs, others by generating messages to supporting servers. In order to easily manage and monitor all of these events you need a solution that consolidates all of your enterprise events into a fewer manageable repositories, and an easy to use graphical interface. NetCool Omnibus is an example of one of those solutions. The events gathered can be error conditions, alerts, or simply the device is starting or stopping.

The three main components are the repository and server that manages it (NetCool Omnibus ObjectServer), a graphical interface (NetCool WebTop), and the individual probes (NetCool Omnibus Probes) on each of the components being monitored. This is the simplest configuration. In reality, you would design a more hierarchical solution. There can be lower level ObjectServers that collect and handle events for specific types of components, i.e. networking, servers, and applications. These would then surface critical events to a higher level server that would integrate them in a single interface. For more information on NetCool Omnibus please refer to the online product information and guides at

<http://www.ibm.com/software/tivoli/products/netcool-omnibus/>

Setting up a simple test environment is neither difficult nor complicated. As the title implies, you can set up a small test environment in roughly an hour by following some simple steps. The following sections will help lead you through the installation process and configuration.

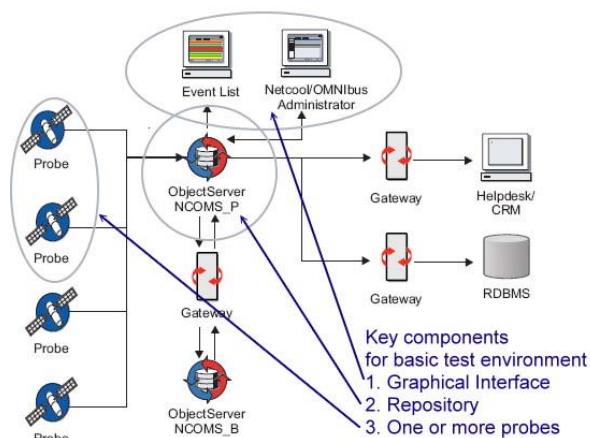
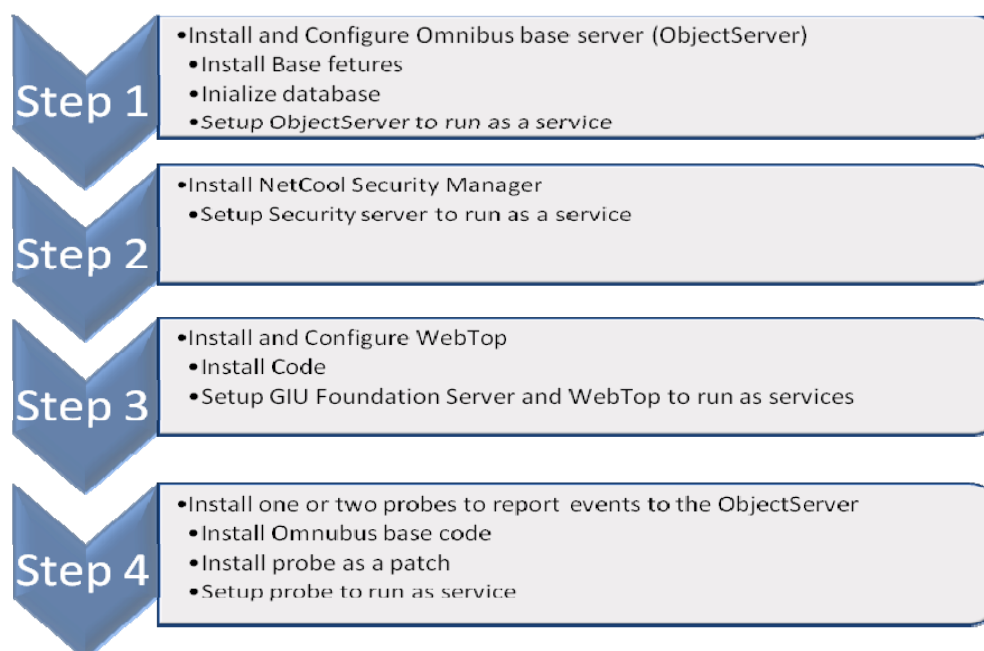


Figure 1



OVERVIEW

There were actually two base server environments that were used for testing. They included both a Windows 2003 Server and a Windows XP environment. Although the base server is supported on multiple hardware and operating systems, Windows was chosen because it could be set up on a desktop configuration for quick testing. The actual production environment would be chosen based on several functional and non-functional requirements. The base management server has three software packages that need to be installed. The NetCool Omnibus ObjectServer and base components, the NetCool Security Manager, and the NetCool WebTop graphical interface. The versions used in this test were as follows:

- NetCool Omnibus Server version 7.2.1
- NetCool Security Manger 1.3
- NetCool WebTop 2.1
- NetCool Omnibus syslogd probe for Windows

It is assumed that you have the install packages for the above four products for Windows 2003/XP. The base configuration you will be setting up is shown in Figure 1. It's also assumed that you will be installing the first three components on the same server for this initial test. There are other probe's that will work and can be easily added to this test environment, but Windows syslogd is an easy one to set up for an initial test.

STEP 1- INSTALL THE BASE SERVER

Insert the NetCool Omnibus for Windows Install CD or you can copy the install packages to the target server. You have a choice to install the base code using a GUI interface or a silent install. Until you have gone thru the install process several times and understand all the options and the features you will need to install on the various platforms, I suggest you use the GUI interface.

To start the install of the base server just execute the Setup.exe file in the install package. You will be prompted to accept the license (select yes) and the target directory for the install. You can use the defaults at this time. You will be prompted for the features you want to install. The popup dialog box should look like the one in Figure 2. The minimum you will need to install for a simple base server is the Desktop, Servers, Confpack, Administrator, and Local Help System. When the dialog box opens up all features will be checked to be installed. You can simply use the mouse and right click on the features you do not want to install and select remove. You can re-run the setup program and add or remove features at a later time. Once you have selected the features listed at the right, just hit next.

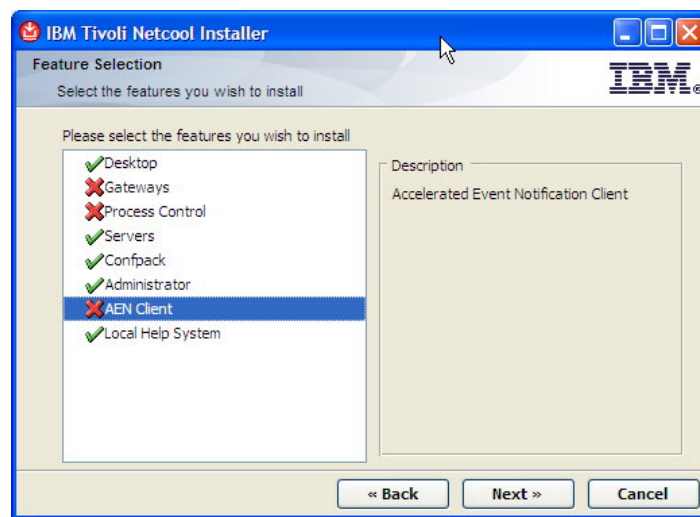


Figure 2

This will install the base code using all the defaults settings.

You will need to manually reboot the server after the base install. The other installs of the security manager and WebTop will not require a reboot. The base install just completed included defining a base ObjectServer and creating an administrator userid. These will be sufficient for your initial testing. The key pieces of information that you will need for the following steps are:

- DNS name of the server
- ObjectServer name and listening port: **NCOMS** at port **4100**
- Default admin userid is **root** with no password

The next thing you need to do is initialize the NCOMS repository. Bring up a Windows command prompt and navigate to the base install directory (i.e. C:\Program Files\IBM\tivoli\Netcool\omnibus\bin"). If you identified a different location, then navigate to the bin directory in the base omnibus install location you have chosen. Then issue the command **nco_dbinit**. This command is driven by a base properties file and any properties you pass to it. All the defaults are defined to work with the NCOMS repository. You should see several messages as the database is initialized. The next step is to set up the ObjectServer as a Windows Service. In the same directory as the command to initialize the repository is a command to register the ObjectServer as a service. Just issue

the command `nco_objserv /install`. You should see a set of messages that the service is being installed and receive a final message:

The Netcool/OMNIBus Object Server service was successfully installed

You're almost done with the base install. You just need to start the service and verify the install. Navigate to the Services interface by selecting the Windows Start bar -> Control Panel -> Administrative Tools -> Services. The services window should

open. Scroll down till you find the NetCool/OMNIBus Object Server and select it using a right mouse click. It should look like the picture in Figure 3. Highlight Start and hit the left mouse button. This will start the service. If you want to set it up to automatically start when windows starts, right mouse click and select properties. Then change the Manual start option to Automatic. Now that the service is started, all you have to do is test it. Select the Windows Start button, then All Programs. There should be a new program entry titled NetCool Suite. Select that entry and the Administrative program.

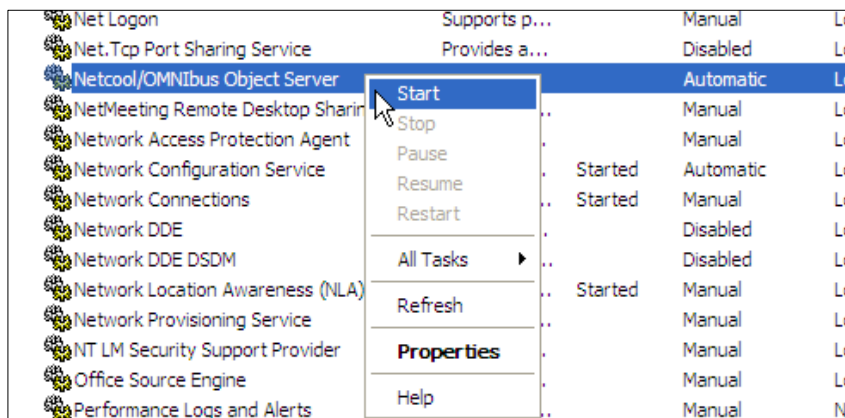


Figure 3

The administrative interface will start and you will see a standard Windows program GUI. You should see two child windows in the work area. Select the ObjectServers window by simply selecting the title bar. There should be one entry for NCOMS. Just double left click on the name and a logon popup should appear. Enter the userid `root` with no password and hit the Ok button. You will be logged in and a new window will appear with the NCOMS server details. If you get an error message that the server is not running go back and verify that the service is actually started, using the Windows service interface you used in the previous step. Assuming that you were able to log on, this verifies that the server is running. If it has failed, please consult the Omnibus Installation guide you received with the install packages, before proceeding to the next step, for assistance with debugging the install. Once verified, you can close the administrator application.

STEP 2 – INSTALL THE SECURITY MANAGER

The security manager is required to authenticate users and define the user entitlement when using the WebTop browser front end. The install process on Windows is started by running the Setup.exe program from the Security Manager install media or directory. You will see the standard welcome screen. You will need to accept the license and the default install directory and then you will see a popup window for the Security Manager Server configuration (see popup in Figure 4). You can accept the defaults but write them down, then hit the Next button. You will need the hostname and the Server port (8077).

Both pieces of information will be needed when you install the WebTop GUI interface.

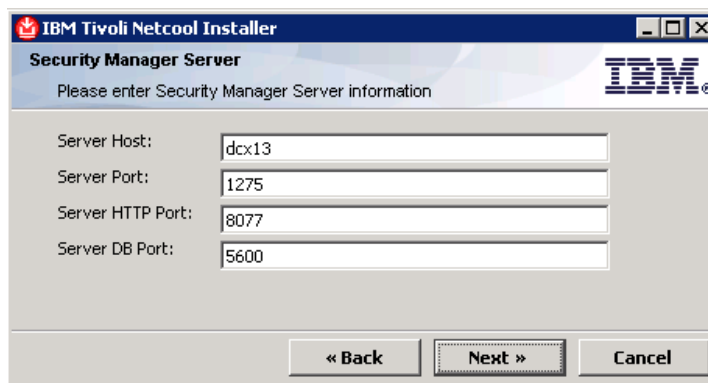


Figure 4

The next popup is the location of the ObjectServer you installed in step 1. The host name should be the same as you wrote down in the step above, if not, change it to the name you wrote down. Assuming you haven't changed the port or useid/password, it's the default of 4100 and **root** with no password. Then just hit the Next button. The next popup will ask you what registry to use for the authentication server. Just select the radio button for the NetCool Omnibus Server if it is not already selected, and hit Next (sample not shown).

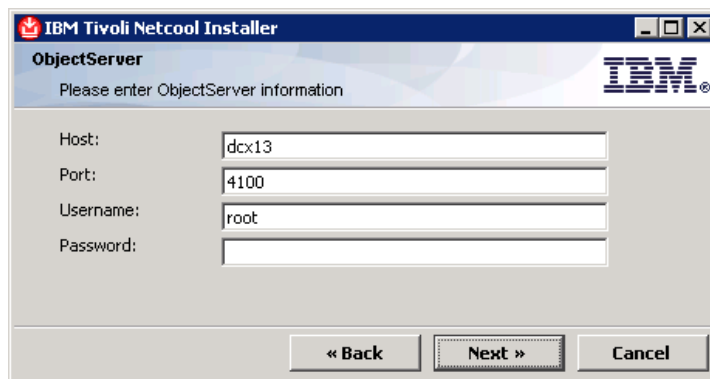


Figure 5

The next popup you will see is the one to the right. Since you are not using an external registry, DO NOT check the Use Application Registry checkbox. If you do it will cause the security server to fail. Just leave it unchecked, or if it is checked, uncheck it and hit Next. Just continue with the install till it is complete. It will install all the components necessary and setup the Security Server as a Windows service. You just need to follow the same instructions as in the previous step to start the service.

Navigate to the Services interface by selecting the Windows Start bar -> Control Panel -> Administrative Tools -> Services. The services window should open. Scroll down till you find the NetCool Security Server and select it using a right mouse click and Start. Highlight Start and hit the left mouse button. Once complete the installed and started, the server will be running with the default settings including the default Security Manager userid/pw of admin/netcool.

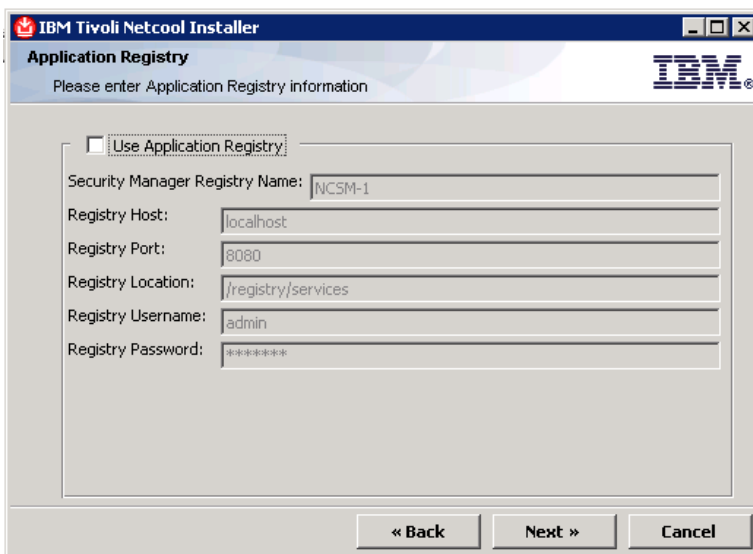


Figure 6

STEP 3 – INSTALLING THE WEBTOP GUI INTERFACE

NetCool WebTop is actually made up of two components, the NetCool GUI Foundation and the actual WebTop application. The WebTop install process will actually install all the components in a single process. Insert the install media or navigate to the WebTop install directory and run **Setup.exe**. You should see a welcome screen (with WebTop in the title). Just select the next button, accepting the license agreement and the default target install directory. You will then get the features selection popup (see the image to the right). The only feature you need to install is NetCool/WebTop. You can right click on the Migrator and WAAPI and select remove, you only need those when migrating from a previous version. Then hit Next.

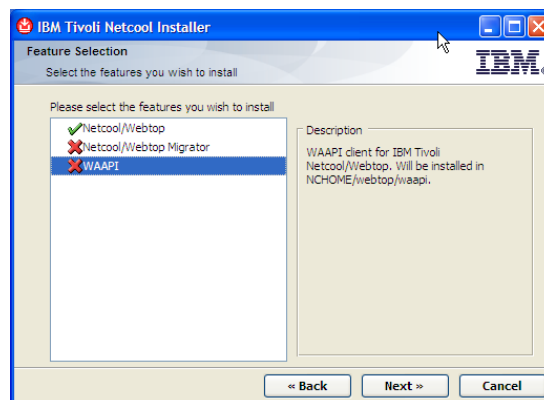


Figure 7

You will then get to a series of popups, where you will input all the defaults settings from the previous installs. First the ObjectServer, the default server name is NCOMS, hostname is the same server dns name, a port of 4100, and a username of **root** with no password. All these defaults should be already entered in the popup, if not just enter the data and hit Next.

IBM Tivoli Netcool Installer
IBM Tivoli Netcool/Webtop
 ObjectServer Configuration

Specify the details of the ObjectServer you want IBM Tivoli Netcool/Webtop to connect to.

Name:
 Hostname:
 Port:

Specify the username and password of an ObjectServer user with administrative permissions.

Username:
 Password:

« Back Next » Cancel

Figure 8

The next popup will ask you for the location and port for the Security Manager and then the userid and password. In the previous step you should have accepted the defaults. That means the host is the same dns name as the other servers and the port is 8077. The userid and password is **admin** and **netcool**. Hit Next in each popup as you enter the information in the popups.

IBM Tivoli Netcool Installer
Netcool GUI Foundation
 Security Manager Client...

Configure Security Manager used by this instance of the Netcool GUI Foundation:

Security Manager Host:
 Security Manager Port:

« Back Next » Cancel

Figure 9

The last pop you will need to enter data into is the actual ports that the GUI Foundation will listen on for HTTP requests. The defaults should be the ones listed in the example on the right. If they are not, just change them to match and hit Next. Then at the summary window just hit the Install button.

All you need to do is start the GUI Foundation service and all the installs on the management server are complete. Just navigate to the Services interface by selecting the Windows Start bar -> Control Panel -> Administrative Tools -> Services. The services window should open. Scroll down till you find the NetCool GUI Foundation Server and select it using a right mouse click and Start.

IBM Tivoli Netcool Installer
Netcool GUI Foundation
 Configuration

Please enter the default web server port number, or click Next to accept the defaults:

NGF HTTP Server Port:
 NGF Server Control Port:
 NGF Database Port:

« Back Next » Cancel

Figure 10

All the servers should now be running. To test them and setup a monitoring id, bring up a browser on the same machine or another machine connected to the same network. Put in the URL of the server and the port i.e. http://dcx13.pok.ibm.com:8080 and hit enter. The DNS name is the complete server name you used during the install complete with the network suffix added. If your server does not register it's name in the DNS server you can use the ip address instead. The port is the port you used above when you did the WebTop install.

You should get the NetCool WebTop logon screen =>

Enter the userid **admin**

And password of **netcool** (depending on how it was typed in, it may be NetCool).

And hit the Login button

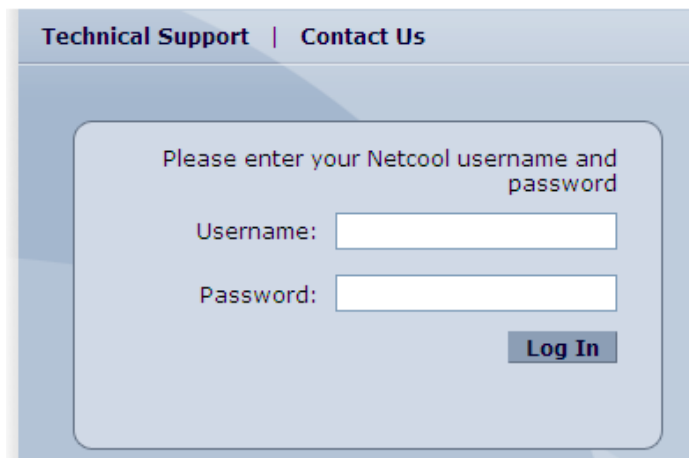


Figure 11

Once logged on you will get the default admin homepage. On the right there will be a pulldown with the default of Desktop. Use the pulldown and select Administration.

What you want to do, is create a userid that you can use to browse the events that are being captured by the server.

Select the Security Tab and then the add user button. There will be three tabs in the input area. User Details, User Roles, and User Groups. In the User Details tab section make up a userid i.e. tester1 and a password for this user. The Last name and password fields may be filled in because of the way the browser saves and caches data. Just clear them out and enter the date you need. Then select the User Roles tab. In this section select the WebTop User in the left list and hit the Add button. Then just hit the save button. You should see the new user in the list of userids. Now just logout (upper right of screen). You should now be able to logon using the new userid and password you just created. Once logged on the pulldown on the right should have WebTop Desktop as an option. Just select it and you should see the default desktop. Select the Events list and you should see something like Figure 13 (The browser will have to be Java enabled).

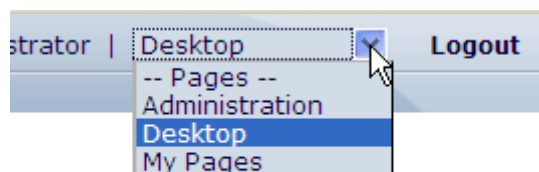


Figure 12

You now have a fully working NetCool Omnibus server ready to have probes start reporting events to.

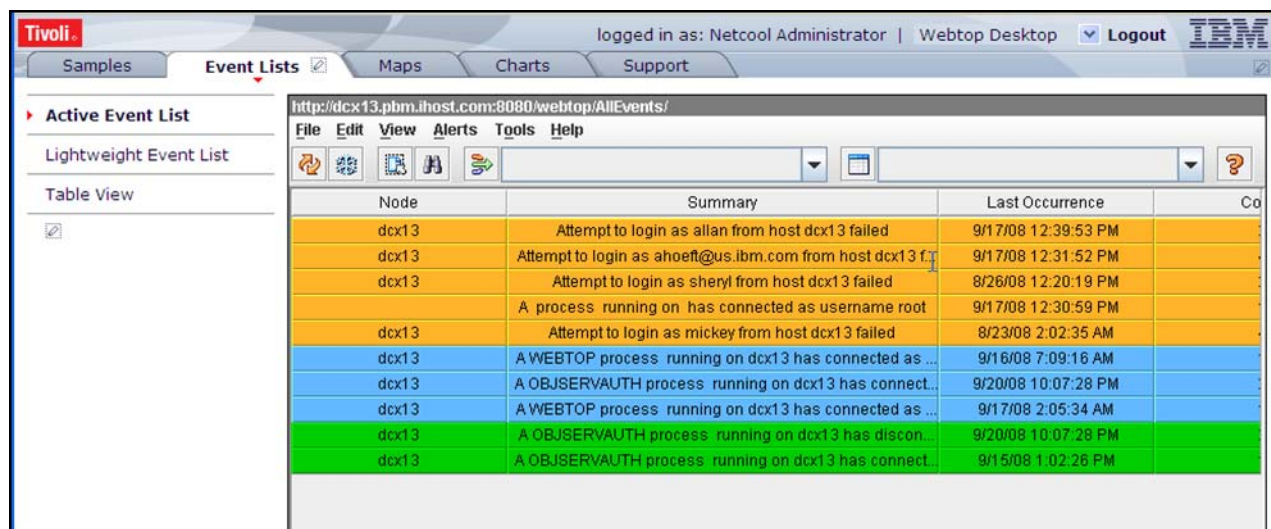


Figure 13

STEP 4 – INSTALLING A PROBE

In this step you will setup a simple syslogd probe on a windows client or server. The process is similar to step 1, in the sense that you will have to install a base server (with fewer features) before installing the probe.

The actual probe is installed like a patch to a base server. You start with the same install package as you did in step 1. Follow the same instructions but when you get to the Feature selection, remove everything but Administrator and Confpack. When you use the GUI install on a Windows server, it installs the probe base code under the covers. If you do a silent install on another server you will have to select installing the base probe support. Keep hitting the Next button till you get the final Install and complete the install. The next step is to install the sysd probe as a patch. There is no install program or interface for the probe. All you do is unpack it and copy the directory structure to the default probe location for a win32 platform

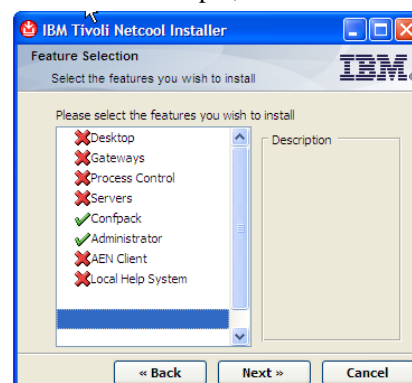


Figure 14

i.e. C:\Program Files\IBM\tivoli\Netcool\omnibus\probes\win32.

All you have to do now is configure the probe and start it as a service. To configure the probe you need to edit the sql.ini file in the install directory for NetCool. Navigate to C:\Program Files\IBM\tivoli\Netcool\ini and select the sql.ini file to edit using Wordpad. Change the NCOMS entry to the dns name of ip address of where you setup the NetCool and Omnibus server and the port number. The one to the right uses the default port of 4100 and the dns name of the server I installed the

ObjectServer on. Then just save and close the file. You now need to import the changes into the configuration. Select the Windows Start button, then All Programs. There should be a new program entry titled NetCool Suite. Select that entry and the Administrative program. The administrative interface will start and you will see a standard Windows program GUI. It may ask you to import the settings, if it does just select the NCOMS entry at the server name you just modified and move it to the right table to be imported and finish the import. You can then close the Admin interface. If it didn't prompt you to import the changes, then select the File->Import function from the action bar and complete the install. Don't forget the default user/pw is **root** with no

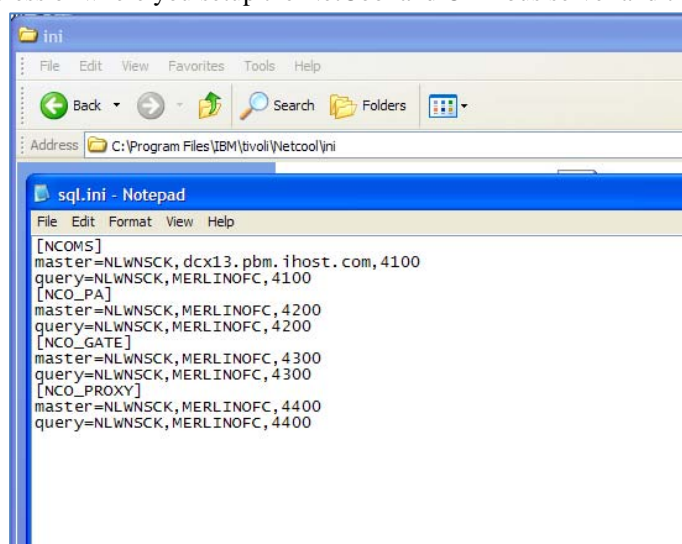


Figure 15

password. Once imported all you have to do is register and start the server. Navigate to the probe directory and issue the command **nco_p_syslogd.exe -install**. This assumes you are installing the syslogd probe on a Windows machine. You will find a Readme file in the probes directory with more complete details on registering the probe. Now just go to the Windows Control panel and services like the steps above and you should find a NetCool syslogd probe that you can right click and start. Once started you should be able to log onto the WebTop server (end of step 3 above) and see an entry in the events list for the probe you just started.

CONCLUSION

This test is simply the tip of the iceberg. You can install probes on many different devices, servers, operating systems and middleware products. Once installed you can configure filters, assign owners to events and create a very optimized and robust event processing solution. This is only a part of a more complete Service Management environment. An Omnibus management server can be enhanced with NetCool Impact to provide autonomic processing of events and The Tivoli Integrated Portal and be configured to include the events processed by Omnibus. There are multiple user and Administration guides online, for additional information on setup and configuration please consult the online documentation at

<http://www.ibm.com/software/tivoli/products/netcool-omnibus/>.