Dragon™
Intrusion Defense System

7.0 Tutorial

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Dragon 7.0 Tutorial

Dragon is an intrusion defense solution consisting of an Intrusion Detection System (IDS), active response, and intrusion prevention. This guide provides a basic tutorial that describes how to get Dragon 7.0 up and running in a standalone installation. It is recommended that you read the *Dragon Intrusion Defense System Installation Guide* and the *Dragon Intrusion Defense System Configuration Guide* in addition to this guide.

This tutorial provides instructions to install the Dragon Server, Network Sensor, and Host Sensor on a single Linux machine (not a Dragon appliance) and the Dragon Management Client GUI on a Windows machine. Sample criteria is provided. To use this as a working model, you must provide criteria that matches your network configuration. Follow these instructions in the order that they are presented.

EMS Server Installation

The Dragon Enterprise Management Server (EMS) server portion is installed on a Linux machine. It is assumed that the machine is up and running.

To start the installer:

1. Locate the Dragon Server Installation bundle for your platform either on your CD or in the location to which it was downloaded (for upgrades) and untar the bundle.

Note: If you are using a GUI facility to untar the bundle, make sure the “recreate folder” structure option is enabled.

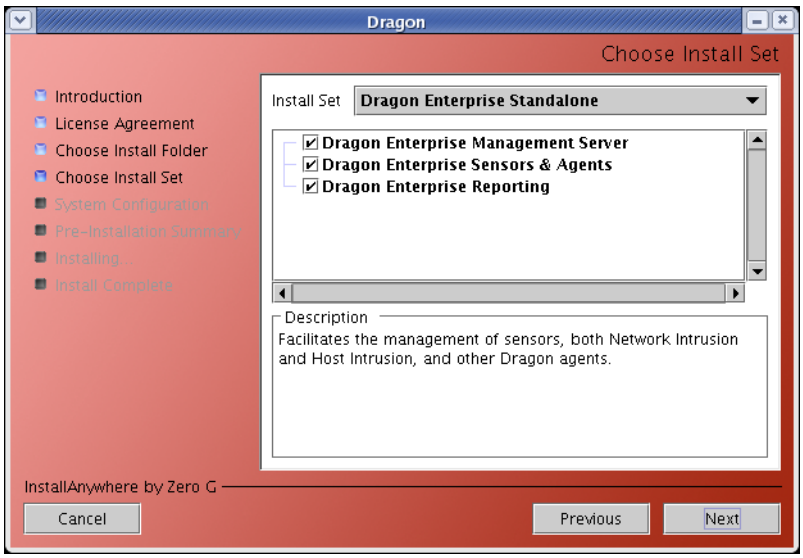
2. Execute the installation file, **Dragon.bin**, from the location to which it was untarred.

   The Installer wizard opens.

   The Dragon Enterprise Standalone selection installs all possible server components.

3. Click **Next** to accept all defaults through accepting the default installation directory screen. Make sure you accept the license agreement.

4. Select **Dragon Enterprise Standalone** from the pulldown menu.

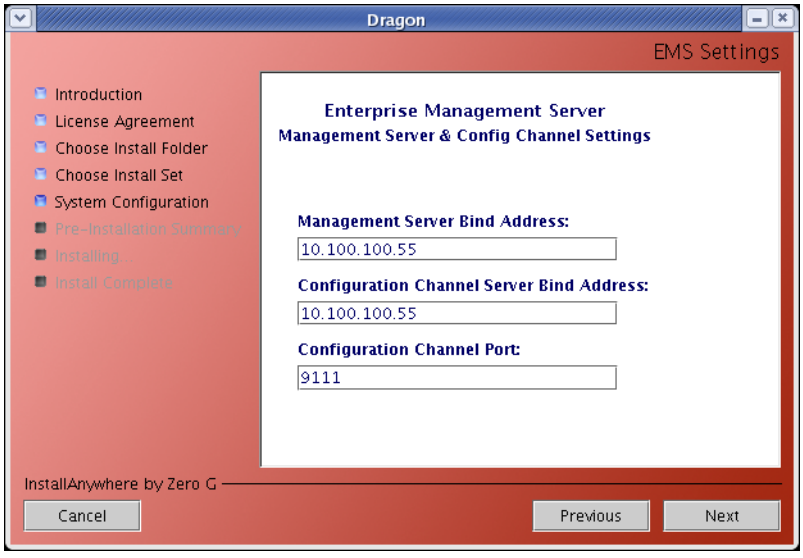


5. Click **Next**.
6. Enter the following criteria:

   Enterprise Management Server Bind Address: **10.100.100.55**

   Configuration Channel Server Bind Address: **10.100.100.55**

   Configuration Channel port: **9111**



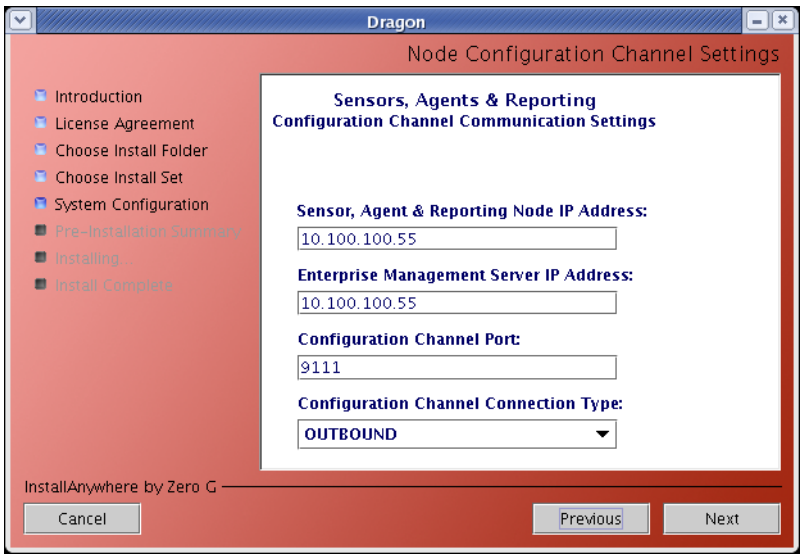
7. Click **Next**.
8. Enter the following criteria:

   Sensor, Agents & reporting Node IP Address: **10.100.100.55**

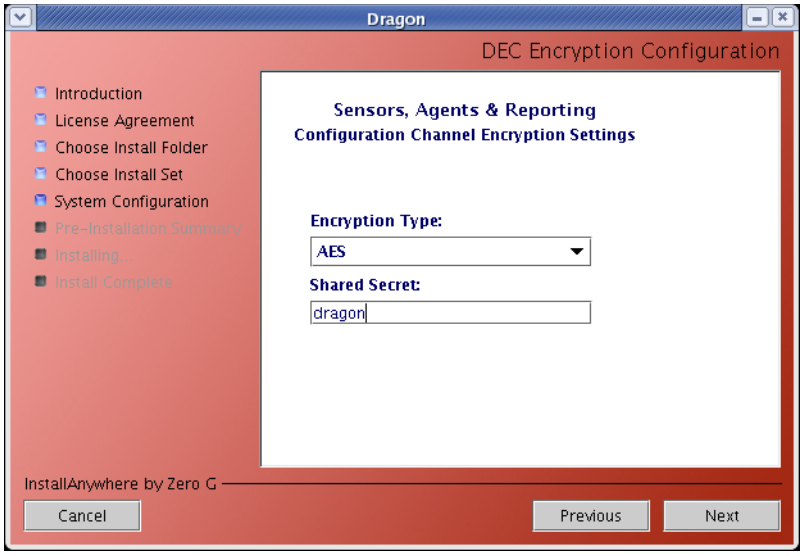
   Enterprise Management Server IP Address: **10.100.100.55**

   Configuration Channel port: **9111**

Configuration Channel Connection Type: **Outbound**



9. Click **Next**.
10. Enter the encryption type **AES** and the shared secret **dragon**.



11. Click **Next**.
12. Review the components to be installed and click **Install**.
13. Click **Done** when the installation is complete.

Dragon License Key Installation

This section assumes that you have already downloaded your license key as described in the *Dragon Intrusion Defense System Installation Guide* and have it available on diskette.

To copy the file from a floppy diskette:

1. Type **mount /dev/fd0 /mnt**

2. Type **cp /mnt/***keyfilename* **/usr/dragon/dragon.key**
3. Type **cp /mnt/***keyfilename* **/usr/dragon/policymgr/keys/dragon.key**
4. Ensure that the dragon.key file has the correct file permissions (Owner=dragon, Group=dragon) by entering the following commands:

   cd /usr/dragon for your EMS server or **usr/dragon/policy/keys** for other devices.

   ./install/fixperms.pl

   Note: Ignore missing file messages.

5. Type **umount /mnt**
6. Type **reboot** at the command prompt to reboot the system.

Starting the Server

After the server is installed, it must be started.

To start the server:

1. At the command prompt, enter **cd /usr/dragon**
2. At the command prompt, enter **./dragon-mgr-start.sh**

   The server is started. This may take some time. You can monitor progress in logs/jbsos.log.

EMS GUI Client Installation

The EMS Management GUI is installed on a Windows machine. It is assumed that this machine is up and running.

To start the installer:

1. Locate the Dragon Client Installation bundle either on your CD or in the location to which it was downloaded (for upgrades) and unzip the bundle.

   Note: If you are using a GUI facility to unzip the bundle, make sure the “recreate folder” structure option is enabled.

2. Execute the installation file **EMSClient.exe** from the location to which it was unzipped.
3. Follow the instructions in the wizard to complete your installation by accepting all defaults. Click **Finish** when the installation screens are complete.

Opening the EMS Client Application

Open the EMS Client on your Windows machine.

To open the EMS:

1. Open the Desktop folder entitled **Enterasys** and select **DragonEMSClient>EMSClientWindow**.

   EMSClientWindow is the executable. A login window appears.

2. Enter your username and password.

The default user ID is **dragon** and there is no password. If you have already changed the default password, use your own credentials.

3. Enter the IP address of your Linux server machine (**10.100.100.55**).
4. Click **OK**.

   A status screen appears indicating connection status. Once the connection is established, the Main window is displayed.

Add Your Linux Server to the Tree

Your Linux machine acts as server, Network Sensor, and Host Sensor. The server is a top-level node in the tree.

To add your Linux server:

1. Click the **Enterprise View** icon and the **Enterprise View** tab.
2. Right-click the top-level Enterprise node and select **Add New Device Node**.

   The Device Node Configuration window appears.
3. Enter the following criteria:

   Name: **fedora55**

   Shared Secret: **dragon**

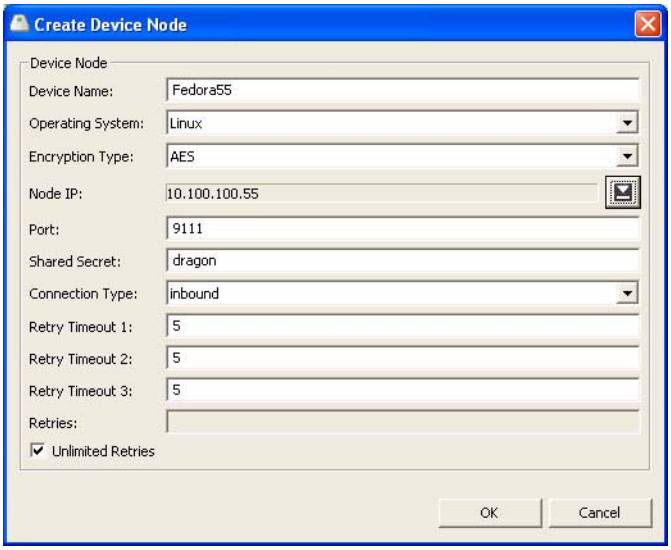
   Encryption Type: **AES**

   Operating System: **Linux**

   Node IP: **10.100.100.55**

   Note that the hostname is case sensitive and must match the hostname in your key file.

   All other default settings are accepted for this device. Note that in the Connection Type field, the connection is set to inbound. This is correct because your server was set to outbound.



4. Click **OK**.

   The display area is populated and the device is added to the tree under the selected node.

Adding a Network Sensor

Your Linux machine acts as server, Network Sensor, and Host Sensor. The network sensor is added as a node under the server.

To add a Network Sensor:

1. Click the **Enterprise View** icon and the **Enterprise View** tab.
2. Right-click **Fedora55** and select **Add New Network Sensor**.

   The display area is populated with high-level sensor settings and the sensor is added to the tree under the selected node.
3. Click the desired **Network Sensor** in the tree.

   The Device and Interfaces window is shown in the display area with the last tab selected open.
4. All default settings are accepted for this sensor.

   You may need to specify which device the Network Sensor uses to gather packets. If you need to make these changes, execute the following steps:

   a. Click the **Basic** tab and enter the desired settings in the Interface Settings pane.

   b. Highlight DRAGON-DEFAULT.

   c. Click **Edit** to invoke the settings window.

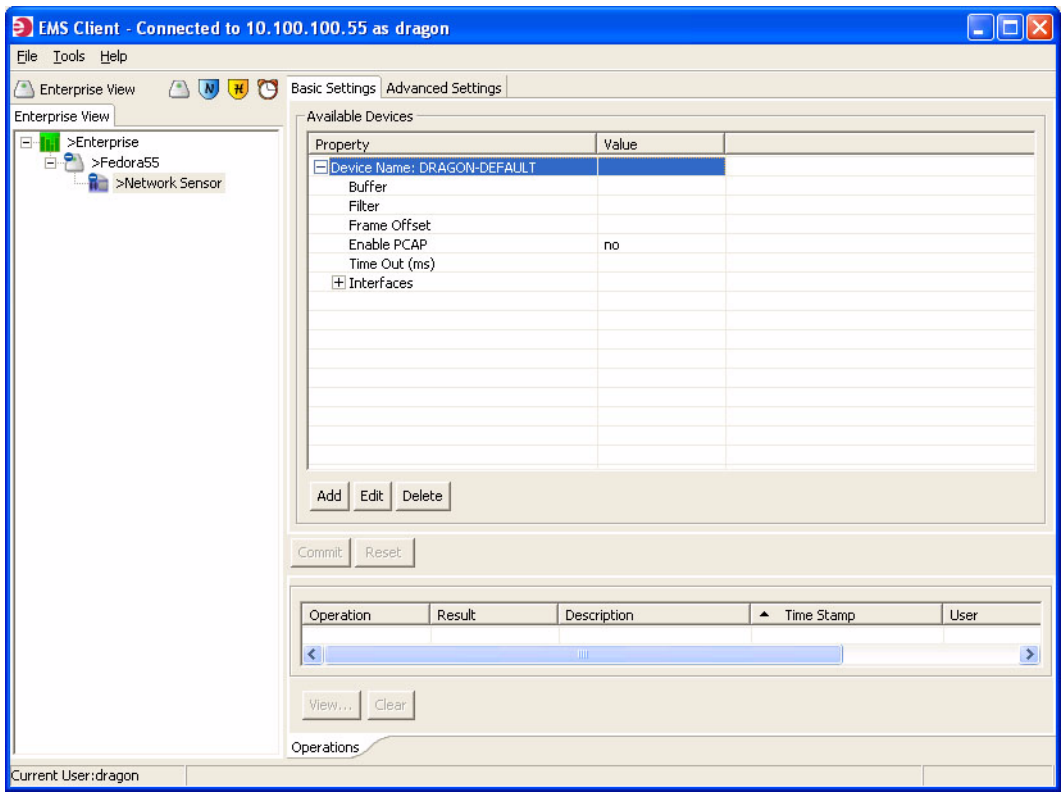
   d. Enter the desired values and add an interface.

   e. Click **Add.**

   f. Click **OK**.

   g. Click **Commit** to apply the change.

h. The values are displayed in the table for reference.



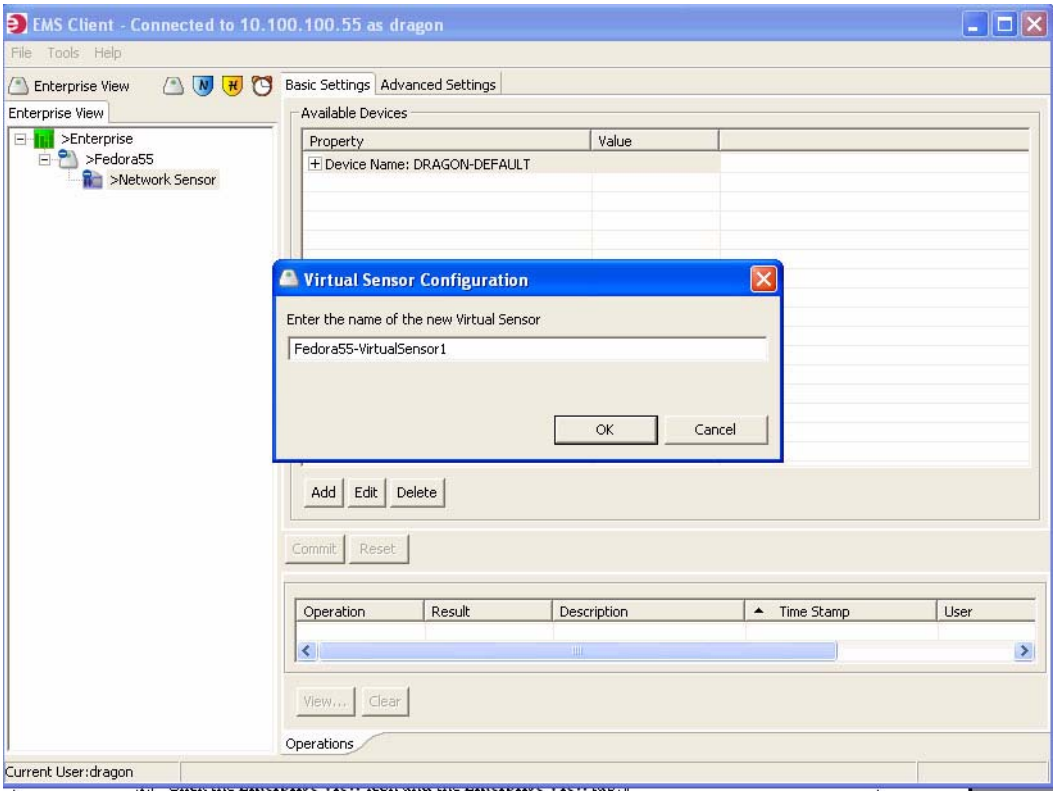
Adding a Virtual Network Sensor

Each physical network sensor must contain at least one virtual network sensor.

To add a Network Sensor:

1. Click the **Enterprise View** icon and the **Enterprise View** tab.
2. Right-click the Network Sensor and select **Add Virtual Sensor**.
   The Virtual Sensor Configuration window appears.

3. Enter the name **Fedora55-VirtualSensor1**.



4. Click **OK**.

   The display area is populated with Virtual Sensor settings and the device is added to the tree under the selected node.

5. Click **Fedora55-VirtualSensor1** in the tree.

   The display area is populated with Virtual Sensor settings. The last tab selected is on top.

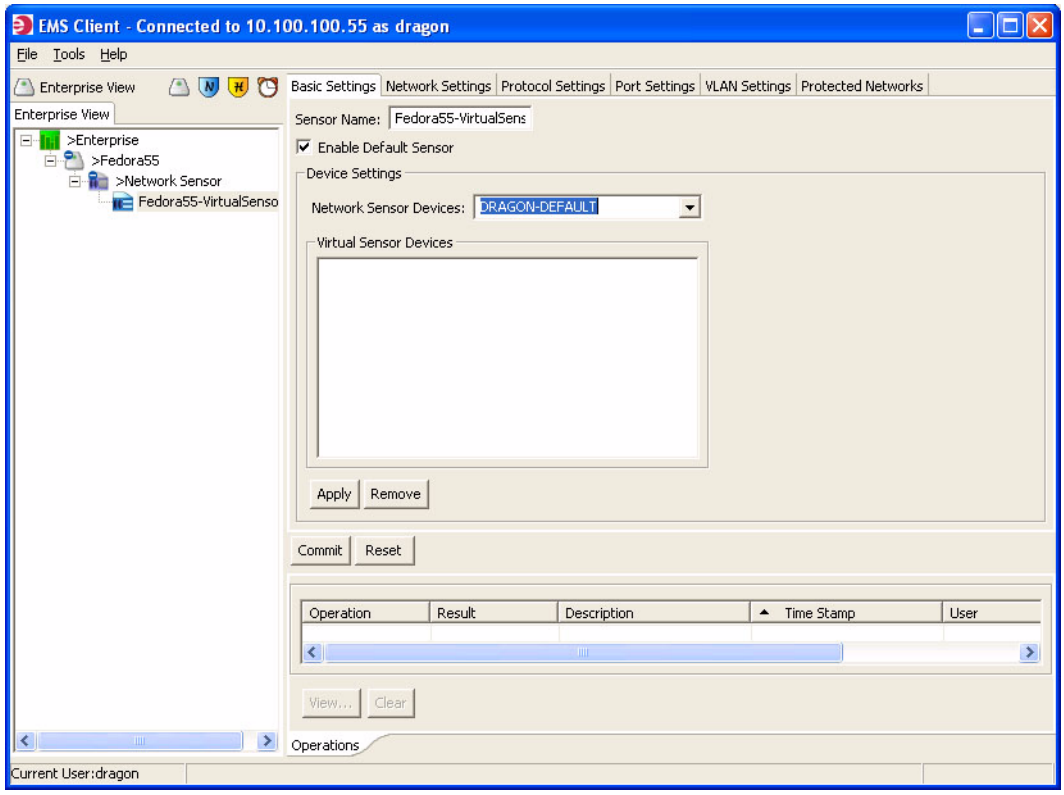
6. Click the **Basic Settings** tab.

7. Enter the following criteria:

   Check to enable Default Sensor

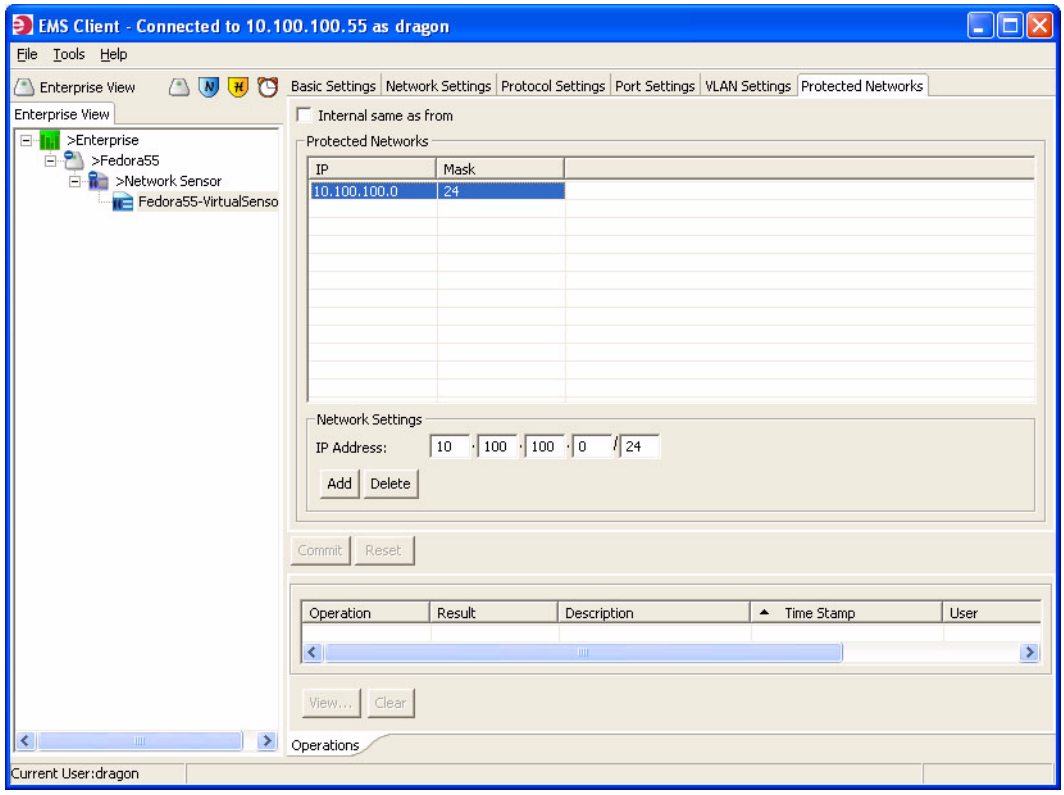
   Network Sensor Device: **Dragon Default**

8. Click **Apply**.



9. Click the **Protected Network** tab.
10. Change the IP address to a subnet address for which you want to generate events, such as **10.100.100.0/24**.

11. Click **Add**.



12. Click **Commit**.

    All other default settings are accepted for this sensor.

Create a New Network Policy

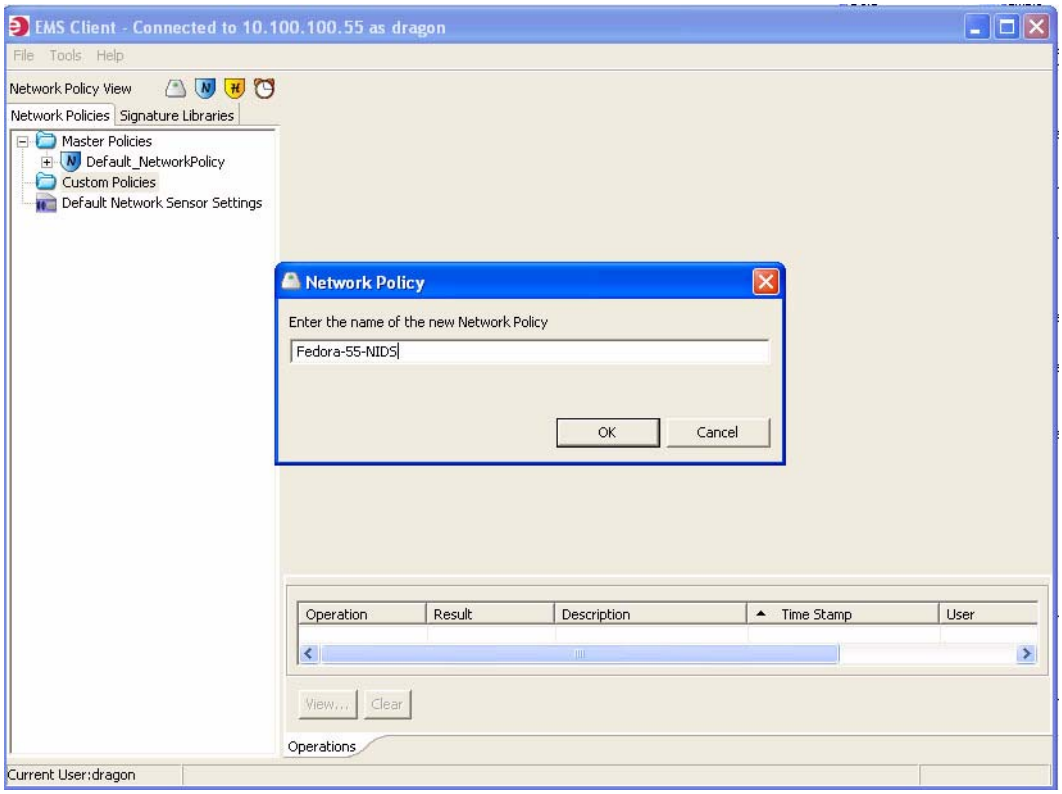
You can use the existing Network Sensor policy as a basis for a new Network Sensor policy.

To copy a policy:

1. Click the **Network Policy View** icon.
2. Click the expansion symbol to expand Master Policies.
3. Right-click **Default_NetworkPolicy** and highlight **Copy**.
4. Right-click **Custom Policies** and highlight **Paste**.

   A window appears asking you to provide a name for the policy.

5. Enter the name **Fedora-55-NIDS** for the policy.



6. Click **OK**.

   The policy is added to the tree. All default settings are accepted for this policy. Detailed instructions on configuring policies are described in *Dragon Intrusion Defense System Configuration Guide*.

Binding Policies

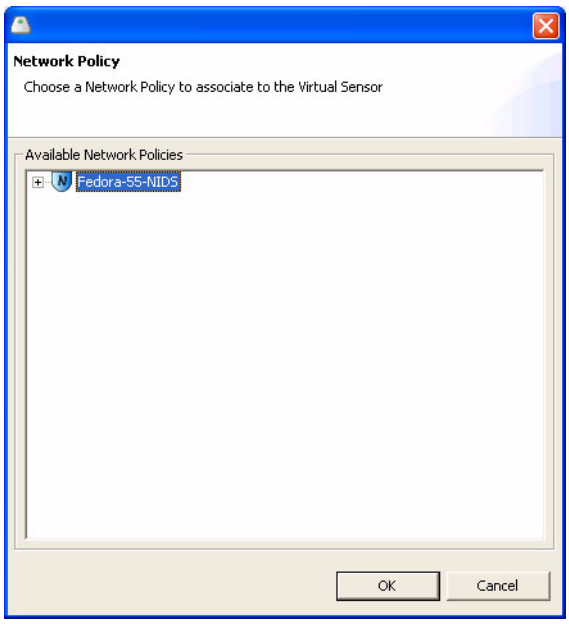
Now that you have created the Virtual Sensor and the sensor policy, you must bind them.

To bind your new policy to the Virtual Sensor:

1. Click the **Enterprise View** icon and the **Enterprise View** tab.
2. Right-click **Fedora55-VirtualSensor1** and select **Associate Network Policy**.

   The Network Sensor Policy window appears.

3. Select **Fedora-55-NIDS**.



4. Click **OK**.
   The policy is displayed below the Virtual Sensor in the tree.

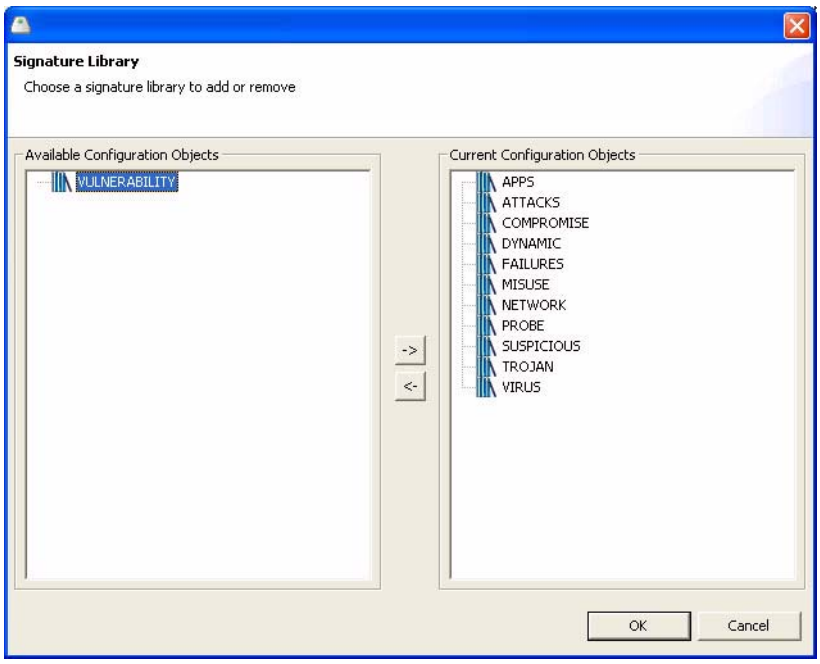
Binding Signatures

You must also bind signatures to the Virtual Sensor.

To bind signatures to the Virtual Sensor:

1. Click the **Enterprise View** icon and the **Enterprise View** tab.
2. Right-click **Fedora55-VirtualSensor1** and select **Apply/Remove Signature Library**.
   The Signature Library window appears.

3. Select each signature library and, using the arrows button, move it to Current Configuration.



4. Click **OK**.

   The signatures are displayed below the Virtual Sensor in the tree.

Adding a Host Sensor

For the purpose of this tutorial, your Linux machine acts as server, Network Sensor, and Host Sensor. The Host Sensor is added as a node under the server.

To add a Network Sensor:

1. Click the **Enterprise View** icon and the **Enterprise View** tab.
2. Right-click **Fedora55** and select **Add Host Sensor**.

   The display area is populated and the sensor is added to the tree under the selected node.
3. All default settings are accepted for this sensor. No configuration is needed.

Create a New Host Policy

You can use the existing Host Sensor policy as a basis for a new Host Sensor policy.

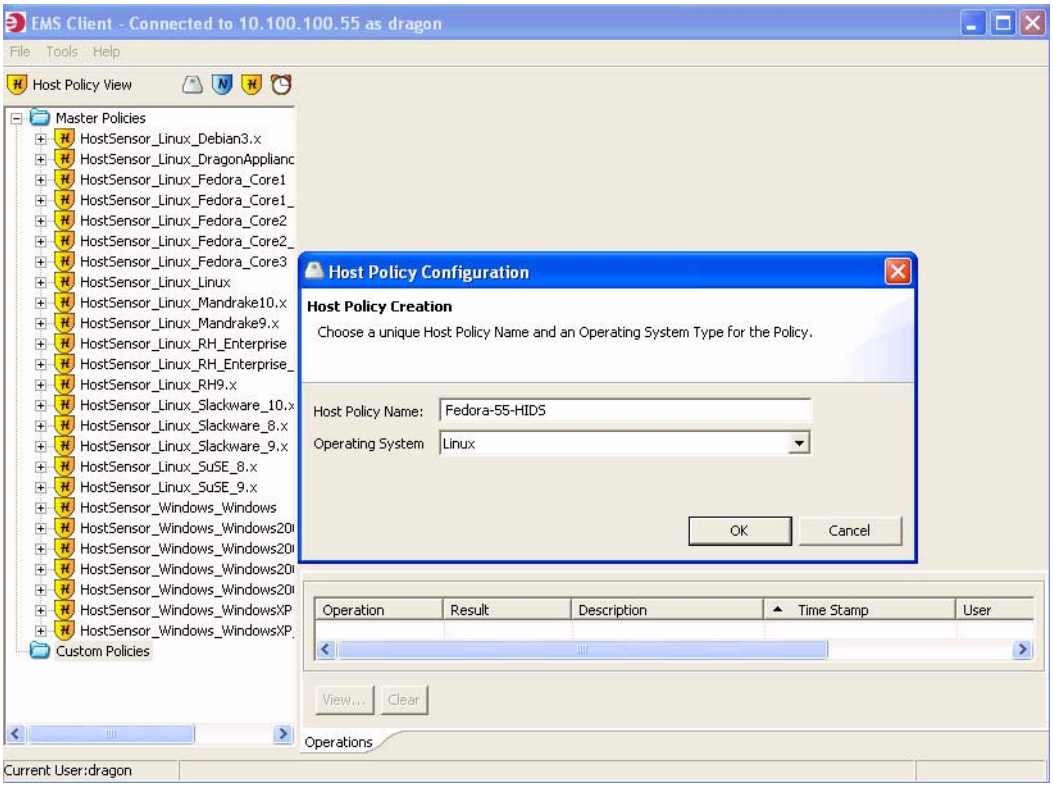
To copy a policy:

1. Click the **Host Policy View** icon.
2. Click the expansion symbol to expand Master Policies.
3. Right-click **HOSTSENSOR_LINUX_Fedora_Core3** and highlight **Copy**.

   You should select a policy that matches your OS to ensure the best configuration basis.
4. Right-click **Custom Policies** and highlight **Paste**.

   A window appears asking you to provide a name for the policy.

5. Enter the name **Fedora-55-HIDS**.



6. Click **OK**.

   The policy is added to the tree. All other default settings are accepted for this sensor.

Binding Host Sensor Policies

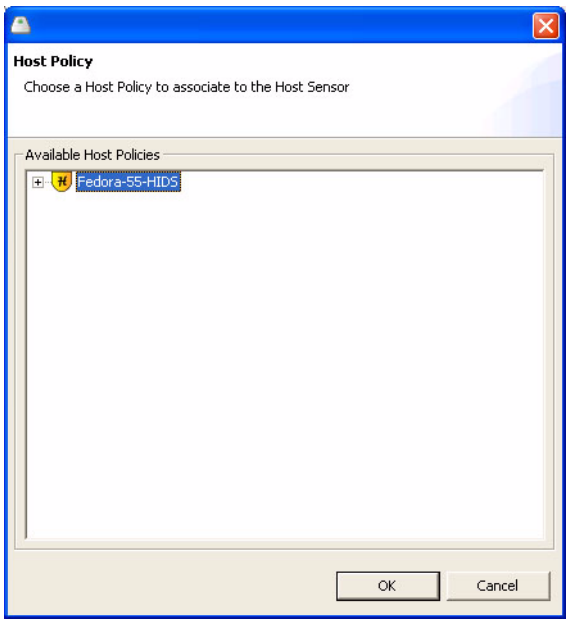
Now that you have created the Host Sensor and the sensor policy, you must bind them.

To bind your new policy to the Host Sensor:

1. Click the **Enterprise View** icon and the **Enterprise View** tab.
2. Right-click the Host Sensor and select **Associate Host Policy**.

   The Host Sensor Policy window appears.

3. Select **Fedora-55-HIDS**.



4. Click **OK**.
   The policy is displayed below the Host sensor in the tree.

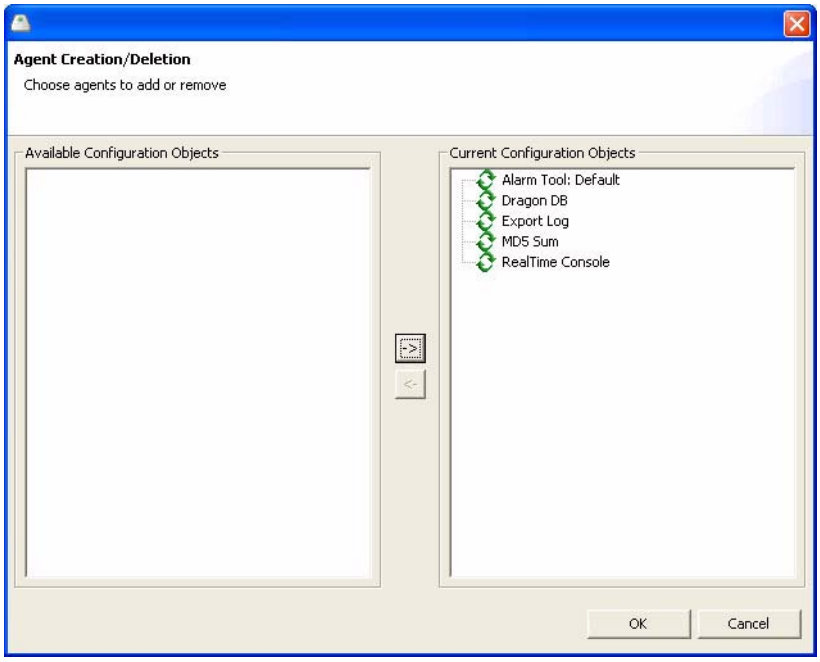
Adding Agents to a Node

You can add agents to your Linux server node.

To add an agent:

1. Click the **Enterprise View** icon and the **Enterprise View** tab.
2. Right-click **Fedora55** and select **Add/Remove Agents**.
   The Agent Creation/Deletion window appears.

3. Select all the agents using Ctrl-click and, using the right-arrow, move them to Current Configurations.



4. Click **OK**.

   The agents are added to the tree under the selected node.

5. The only agent for which we do not want to accept all defaults is the Alarmtool Agent. There is no need to configure the other agents.

Creating an Alarmtool Policy

You can use an existing policy to create a new policy.

To create a new policy:

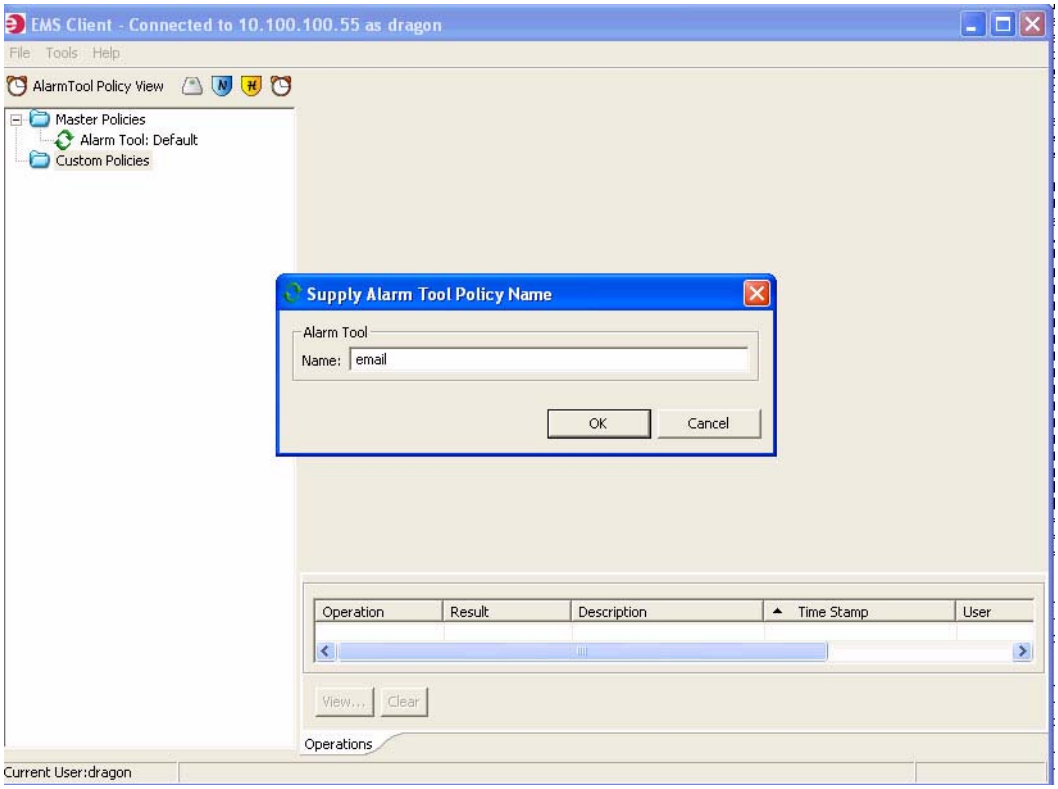
1. Click the **Alarmtool View** icon.

   A list of master and custom policies is displayed.

2. Click the expansion symbol to expand Master Policies.
3. Right-click **Alarm Tool: Default** and select **Copy**.
4. Right-click **Custom Policies** and highlight **Paste**.

   A window appears asking you to provide a name for the policy.

5. Enter the policy name **Email** and click **OK**.



6. The policy is added under Custom Policies.
7. Expand the tree to reveal the newly added policy and click it.

   The display area is populated with the last tab selected on top.
8. All default settings are accepted for this sensor. No configuration is needed. It is important that you verify that the Sendmail location in the in the Global Option/Main tabs matches your Sendmail install location. Also, if you make any changes to Event Groups, the changes must be carried through each of the Alarmtool configuration tabs. See the *Dragon Intrusion Defense System Configuration Guide* for detailed configuration information.

Binding Policies

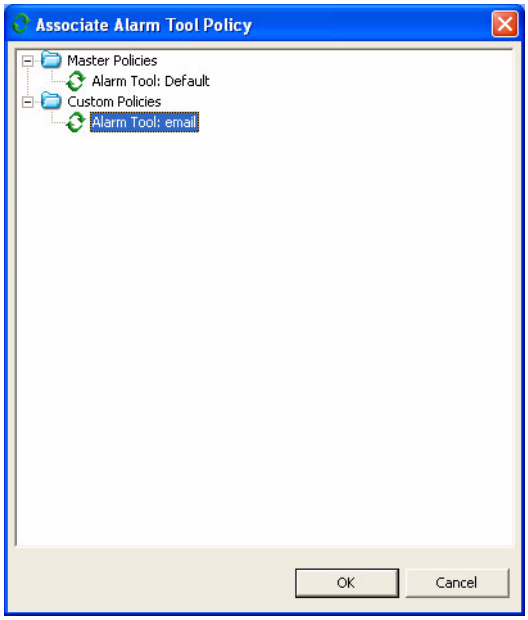
Now that you have created the policy, you must bind it to the agent.

To bind your new policy:

1. Click the **Enterprise View** icon and the **Enterprise View** tab.
2. Right-click the Alarmtool Agent and select **Associate Alarmtool Policy**.

   The Associate Alarmtool Policy window appears.

3. Select **Alarm Tool: Email**.



4. Click **OK**.

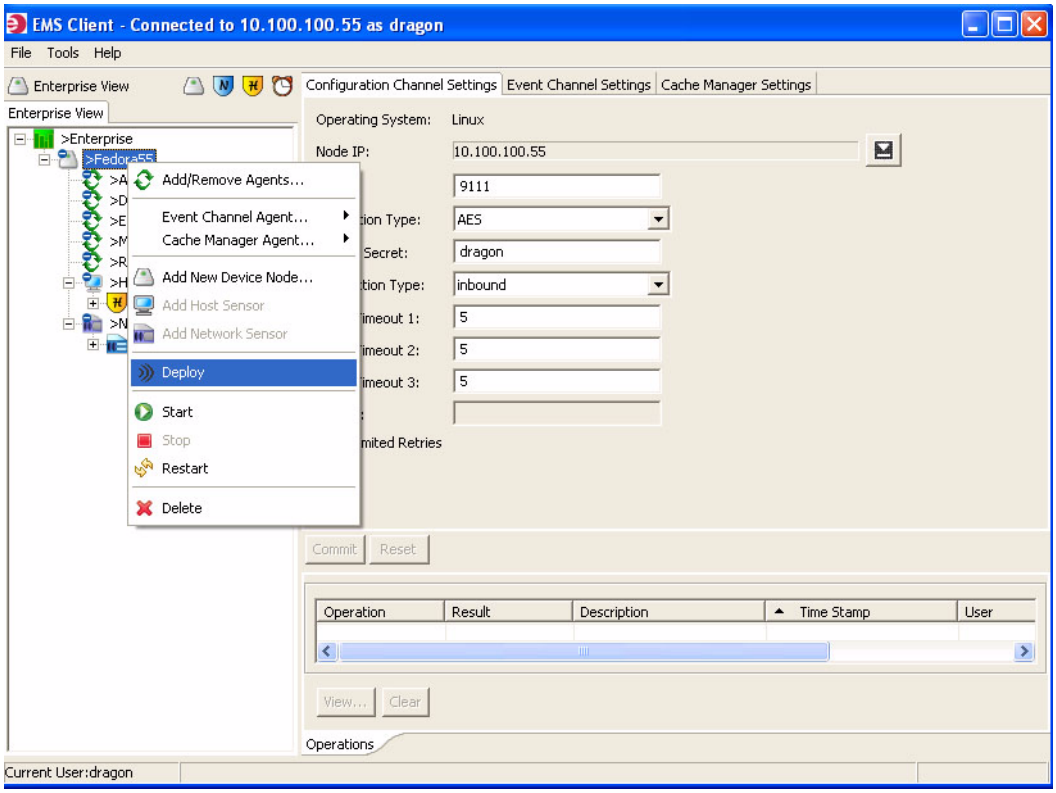
Deploying the Node

After you have set up your server node with its Network Sensor and Host Sensor as well as configured your agents, you must deploy the node.

To deploy the node:

1. Click the **Enterprise View** icon and the **Enterprise View** tab.

2. Right-click **Fedora55** and select **Deploy** from the context menu.



The new configuration settings are deployed to your Linux machine. The operations tab displays deployment status. The main status window, visible at the enterprise node, displays all node status. This completes the Dragon 7.0 Tutorial.