



# Monitoring Netware

eG Innovations Product Documentation

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## Chapter 1: Introduction

Novell Netware is a local-area network (LAN) operating system developed by Novell Corporation. NetWare is a software product that runs on a variety of different types of LANs, from Ethernets to IBM token-ring networks. It provides users and programmers with a consistent interface that is independent of the actual hardware used to transmit messages. To ensure peak performance of the Netware server, the health of the server should be continuously monitored. This is where eG Enterprise helps administrators.

## Chapter 2: How to Monitor Netware Servers Using eG Enterprise?

eG Enterprise, by default, monitors the Netware servers in an 'agentless' manner – i.e., using a remote agent, which is typically deployed on an external host and not on the monitored host. For further details on eG Enterprise's Agentless Monitoring capability, please refer to the eG User Manual. For further details on eG Enterprise's Agentless Monitoring capability, please refer to the *Administering eG Enterprise* document.

The broad steps for monitoring the server using eG Enterprise are as follows:

- Managing the Netware Server
- Configuring the tests

These steps have been discussed in following sections.

### 2.1 Managing the Netware Server

The eG Enterprise cannot automatically discover the Netware server. This implies that you need to manually add the component for monitoring. Remember that the eG Enterprise automatically manages the components that are added manually. To manage a Netware Server component, do the following:

1. Log into the eG administrative interface.
2. Follow the Components -> Add/Modify menu sequence in the **Infrastructure** tile of the **Admin** menu.
3. In the **COMPONENT** page that appears next, select *Netware* as the **Component type**. Then, click the **Add New Component** button. This will invoke Figure 2.1.

COMPONENT

This page enables the administrator to provide the details of a new component

**Component Information**

Host IP/Name: 192.168.10.1

Nick name: netware

**Monitoring approach**

Agentless: ☒

OS: Other

Mode: SNMP

Remote agent: 192.168.9.70

External agents: 192.168.9.70

**Additional information**

Add

Figure 2.1: Adding a Netware server

- Netware servers are by default monitored in an agentless manner. Accordingly, the **Agentless** flag in Figure 2.1 is set to **Yes** by default. To perform agentless monitoring of the Netware server, select *Other* as the **OS** and *SNMP* as the **Mode** in Figure 2.1. Then, select a **Remote agent** and click the **Add** button to add the server.

## 2.2 Configuring the tests

- When you attempt to signout of the eG administrative interface, a list of unconfigured tests listing the Netware tests requiring manual configuration, will appear (see Figure 2.2).

List of unconfigured tests for 'Netware'		
Performance		netware
Nw Processes	Device Uptime	Network Interfaces
Nw File Systems	Nw Memory	Nw Processor
Nw Volume Space	TCP Statistics	

Figure 2.2: List of unconfigured tests for the Netware server

- Click on the test names to configure. To know how to configure the Netware server specific tests, refer to [Monitoring Netware Servers](#) chapter.
- Once again, try to signout of the administrative interface. This time you will be prompted to configure the **Network Interfaces** test. To know the details on configuring this test, refer to the *Monitoring Cisco Routers* document.
- Finally, signout of the eG administrative interface.

## Chapter 3: Monitoring Netware Servers

The eG Enterprise suite offers agentless monitoring of Netware servers, using SNMP support provided by the Netware operating system. The specialized Netware monitoring model (see Figure 3.1) offered by eG Enterprise for monitoring the Novell Netware operating system is shown below:

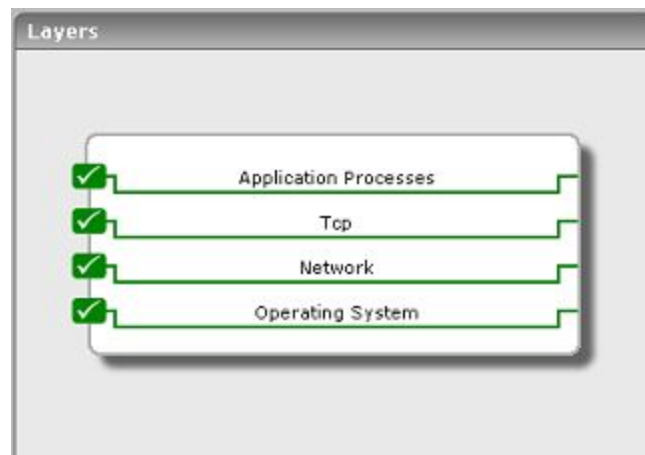


Figure 3.1: The layer model of a Netware server

Each layer of Figure 3.1 and the tests mapped to it are discussed in the sections to come.

### 3.1 The Operating System Layer

The tests associated with the (3.1) monitor the file systems on Netware, and the usage of the CPU, memory, and storage resources on Netware.



Figure 3.2: The tests associated with the Operating System layer

### 3.1.1 NwMemory Test

This test monitors the Novell Netware system memory.

**Target of the test :** Any host on Novell Netware

**Agent deploying the test :** A remote agent

**Outputs of the test :** One set of results for every host being monitored.

**Configurable parameters for the test**

Parameter	Description
Test Period	How often should the test be executed.
Host	The IP address of the host for which this test is to be configured.
SNMPPort	The port at which the monitored target exposes its SNMP MIB; The default value is 161.
SNMPVersion	By default, the eG agent supports SNMP version 1. Accordingly, the default selection in the SNMPversion list is <b>v1</b> . However, if a different SNMP framework is in use in your environment, say SNMP <b>v2</b> or <b>v3</b> , then select the corresponding option from this list.
SNMPCommunity	The SNMP community name that the test uses to communicate with the firewall. This parameter is specific to SNMP <b>v1</b> and <b>v2</b> only. Therefore, if the SNMPVersion chosen is <b>v3</b> , then this parameter will not appear.
UserName	This parameter appears only when <b>v3</b> is selected as the SNMPVersion. SNMP version 3 (SNMPv3) is an extensible SNMP Framework which supplements the SNMPv2 Framework, by additionally supporting message security, access control, and remote SNMP configuration capabilities. To extract performance statistics from the MIB using the highly secure SNMP v3 protocol, the eG agent has to be configured with the required access privileges – in other words, the eG agent should connect to the MIB using the credentials of a user with access permissions to be MIB. Therefore, specify the name of such a user against this parameter.
Context	This parameter appears only when v3 is selected as the SNMPVersion. An SNMP context is a collection of management information accessible by an SNMP entity. An item of management information may exist in more than one context and an SNMP entity potentially has access to many contexts. A context is identified by the SNMPEngineID value of the entity hosting the management information (also called a contextEngineID) and a context name that identifies the specific context (also called a contextName). If the Username provided is associated with a context name, then the



Parameter	Description
	eG agent will be able to poll the MIB and collect metrics only if it is configured with the context name as well. In such cases therefore, specify the context name of the Username in the Context text box. By default, this parameter is set to <i>none</i> .
AuthPass	Specify the password that corresponds to the above-mentioned Username. This parameter once again appears only if the SNMPversion selected is <b>v3</b> .
Confirm Password	Confirm the AuthPass by retyping it here.
AuthType	<p>This parameter too appears only if <b>v3</b> is selected as the SNMPversion. From the Authtype list box, choose the authentication algorithm using which SNMP v3 converts the specified username and password into a 32-bit format to ensure security of SNMP transactions. You can choose between the following options:</p> <ul style="list-style-type: none"> <li>• <b>MD5</b> – Message Digest Algorithm</li> <li>• <b>SHA</b> – Secure Hash Algorithm</li> </ul>
EncryptFlag	This flag appears only when <b>v3</b> is selected as the SNMPversion. By default, the eG agent does not encrypt SNMP requests. Accordingly, the this flag is set to <b>No</b> by default. To ensure that SNMP requests sent by the eG agent are encrypted, select the <b>Yes</b> option.
EncryptType	<p>If this EncryptFlag is set to <b>Yes</b>, then you will have to mention the encryption type by selecting an option from the EncryptType list. SNMP v3 supports the following encryption types:</p> <ul style="list-style-type: none"> <li>• <b>DES</b> – Data Encryption Standard</li> <li>• <b>AES</b> – Advanced Encryption Standard</li> </ul>
EncryptPassword	Specify the encryption password here.
Confirm Password	Confirm the encryption password by retyping it here.
Timeout	Specify the duration (in seconds) within which the SNMP query executed by this test should time out in this text box. The default is 10 seconds.
Data Over TCP	By default, in an IT environment, all data transmission occurs over UDP. Some environments however, may be specifically configured to offload a fraction of the data traffic – for instance, certain types of data traffic or traffic pertaining to specific components – to other protocols like TCP, so as to prevent UDP overloads. In such environments, you can instruct the eG agent to conduct the SNMP data traffic related to the monitored target over TCP (and not UDP). For this, set this flag to <b>Yes</b> . By default, this flag is set to <b>No</b> .

**Measurements made by the test**

Measurement	Description	Measurement Unit	Interpretation
Cache buffers	Indicates the cache buffers currently in use.	MB	A high value can be an indicative of poor system performance.
Moveable cache memory	Indicates the cache moveable memory.	MB	
Cache non-movable memory	Indicates the cache non moveable memory.	MB	
NLM memory usage	Indicates the memory allocated for all the Netware loadable modules (NLM).	MB	A high value can be an indicative of poor system performance.

**3.1.2 Nw File Systems Test**

This test monitors the Novell Netware file system.

**Target of the test :** Any host on Novell Netware

**Agent deploying the test :** A remote agent

**Outputs of the test :** One set of results for every host being monitored.

**Configurable parameters for the test**

Parameter	Description
Test Period	How often should the test be executed.
Host	The IP address of the host for which this test is to be configured.
SNMPPort	The port at which the monitored target exposes its SNMP MIB; The default value is 161.
SNMPVersion	By default, the eG agent supports SNMP version 1. Accordingly, the default selection in the SNMPversion list is <b>v1</b> . However, if a different SNMP framework is in use in your environment, say SNMP <b>v2</b> or <b>v3</b> , then select the corresponding option from this list.
SNMPCommunity	The SNMP community name that the test uses to communicate with the firewall. This parameter is specific to SNMP <b>v1</b> and <b>v2</b> only. Therefore, if the SNMPVersion chosen is <b>v3</b> , then this parameter will not appear.

Parameter	Description
UserName	This parameter appears only when <b>v3</b> is selected as the SNMPVersion. SNMP version 3 (SNMPv3) is an extensible SNMP Framework which supplements the SNMPv2 Framework, by additionally supporting message security, access control, and remote SNMP configuration capabilities. To extract performance statistics from the MIB using the highly secure SNMP v3 protocol, the eG agent has to be configured with the required access privileges – in other words, the eG agent should connect to the MIB using the credentials of a user with access permissions to be MIB. Therefore, specify the name of such a user against this parameter.
Context	This parameter appears only when <b>v3</b> is selected as the SNMPVersion. An SNMP context is a collection of management information accessible by an SNMP entity. An item of management information may exist in more than one context and an SNMP entity potentially has access to many contexts. A context is identified by the SNMPEngineID value of the entity hosting the management information (also called a contextEngineID) and a context name that identifies the specific context (also called a contextName). If the Username provided is associated with a context name, then the eG agent will be able to poll the MIB and collect metrics only if it is configured with the context name as well. In such cases therefore, specify the context name of the Username in the Context text box. By default, this parameter is set to <i>none</i> .
AuthPass	Specify the password that corresponds to the above-mentioned Username. This parameter once again appears only if the SNMPversion selected is <b>v3</b> .
Confirm Password	Confirm the AuthPass by retyping it here.
AuthType	<p>This parameter too appears only if <b>v3</b> is selected as the SNMPVersion. From the Authtype list box, choose the authentication algorithm using which SNMP v3 converts the specified username and password into a 32-bit format to ensure security of SNMP transactions. You can choose between the following options:</p> <ul style="list-style-type: none"> <li>• <b>MD5</b> – Message Digest Algorithm</li> <li>• <b>SHA</b> – Secure Hash Algorithm</li> </ul>
EncryptFlag	This flag appears only when <b>v3</b> is selected as the SNMPversion. By default, the eG agent does not encrypt SNMP requests. Accordingly, the this flag is set to <b>No</b> by default. To ensure that SNMP requests sent by the eG agent are encrypted, select the <b>Yes</b> option.
EncryptType	If this EncryptFlag is set to <b>Yes</b> , then you will have to mention the encryption type by selecting an option from the EncryptType list. SNMP v3 supports the following encryption types:

Parameter	Description
	<ul style="list-style-type: none"> <li>• <b>DES</b> – Data Encryption Standard</li> <li>• <b>AES</b> – Advanced Encryption Standard</li> </ul>
EncryptPassword	Specify the encryption password here.
Confirm Password	Confirm the encryption password by retyping it here.
Timeout	Specify the duration (in seconds) within which the SNMP query executed by this test should time out in this text box. The default is 10 seconds.
Data Over TCP	By default, in an IT environment, all data transmission occurs over UDP. Some environments however, may be specifically configured to offload a fraction of the data traffic – for instance, certain types of data traffic or traffic pertaining to specific components – to other protocols like TCP, so as to prevent UDP overloads. In such environments, you can instruct the eG agent to conduct the SNMP data traffic related to the monitored target over TCP (and not UDP). For this, set this flag to <b>Yes</b> . By default, this flag is set to <b>No</b> .

### Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
File read rate	Indicates the number of file reads per second performed by the file system during the last measurement period.	Reads/Sec	A dramatic increase in this value may be indicative of excessive I/O traffic.
File write rate	Indicates the number of file writes per second performed by the file system during the last measurement period.	Writes/Sec	
Data read rate	Indicates the KBytes read per second by the file system during the last measurement period.	Kbytes/Sec	
Data write rate	Indicates the KBytes written per second by the file system during the last	Kbytes/Sec	

Measurement	Description	Measurement Unit	Interpretation
	measurement period.		
Files open	Indicates the number of open files in the file system.	Number	A very high value can lower the system performance.
Record locks	Indicates the current number of record locks.	Number	

### 3.1.3 NwProcessor Test

This test monitors the Novell Netware system processors.

**Target of the test :** Any host on Novell Netware

**Agent deploying the test :** A remote agent

**Outputs of the test :** One set of results for every processor being monitored.

**Configurable parameters for the test**

Parameter	Description
Test Period	How often should the test be executed.
Host	The IP address of the host for which this test is to be configured.
SNMPPort	The port at which the monitored target exposes its SNMP MIB; The default value is 161.
SNMPVersion	By default, the eG agent supports SNMP version 1. Accordingly, the default selection in the SNMPversion list is <b>v1</b> . However, if a different SNMP framework is in use in your environment, say SNMP <b>v2</b> or <b>v3</b> , then select the corresponding option from this list.
SNMPCommunity	The SNMP community name that the test uses to communicate with the firewall. This parameter is specific to SNMP <b>v1</b> and <b>v2</b> only. Therefore, if the SNMPVersion chosen is <b>v3</b> , then this parameter will not appear.
UserName	This parameter appears only when <b>v3</b> is selected as the SNMPVersion. SNMP version 3 (SNMPv3) is an extensible SNMP Framework which supplements the SNMPv2 Framework, by additionally supporting message security, access control, and remote SNMP configuration capabilities. To extract performance statistics from the MIB using the highly secure SNMP v3 protocol, the eG agent has to be configured with the

Parameter	Description
	required access privileges – in other words, the eG agent should connect to the MIB using the credentials of a user with access permissions to be MIB. Therefore, specify the name of such a user against this parameter.
Context	This parameter appears only when v3 is selected as the SNMPVersion. An SNMP context is a collection of management information accessible by an SNMP entity. An item of management information may exist in more than one context and an SNMP entity potentially has access to many contexts. A context is identified by the SNMPEngineID value of the entity hosting the management information (also called a contextEngineID) and a context name that identifies the specific context (also called a contextName). If the Username provided is associated with a context name, then the eG agent will be able to poll the MIB and collect metrics only if it is configured with the context name as well. In such cases therefore, specify the context name of the Username in the Context text box. By default, this parameter is set to <i>none</i> .
AuthPass	Specify the password that corresponds to the above-mentioned Username. This parameter once again appears only if the SNMPversion selected is <b>v3</b> .
Confirm Password	Confirm the AuthPass by retyping it here.
AuthType	<p>This parameter too appears only if <b>v3</b> is selected as the SNMPversion. From the Authtype list box, choose the authentication algorithm using which SNMP v3 converts the specified username and password into a 32-bit format to ensure security of SNMP transactions. You can choose between the following options:</p> <ul style="list-style-type: none"> <li>• <b>MD5</b> – Message Digest Algorithm</li> <li>• <b>SHA</b> – Secure Hash Algorithm</li> </ul>
EncryptFlag	This flag appears only when <b>v3</b> is selected as the SNMPversion. By default, the eG agent does not encrypt SNMP requests. Accordingly, the this flag is set to <b>No</b> by default. To ensure that SNMP requests sent by the eG agent are encrypted, select the <b>Yes</b> option.
EncryptType	<p>If this EncryptFlag is set to <b>Yes</b>, then you will have to mention the encryption type by selecting an option from the EncryptType list. SNMP v3 supports the following encryption types:</p> <ul style="list-style-type: none"> <li>• <b>DES</b> – Data Encryption Standard</li> <li>• <b>AES</b> – Advanced Encryption Standard</li> </ul>
EncryptPassword	Specify the encryption password here.

Parameter	Description
Confirm Password	Confirm the encryption password by retyping it here.
Timeout	Specify the duration (in seconds) within which the SNMP query executed by this test should time out in this text box. The default is 10 seconds.
Data Over TCP	By default, in an IT environment, all data transmission occurs over UDP. Some environments however, may be specifically configured to offload a fraction of the data traffic – for instance, certain types of data traffic or traffic pertaining to specific components – to other protocols like TCP, so as to prevent UDP overloads. In such environments, you can instruct the eG agent to conduct the SNMP data traffic related to the monitored target over TCP (and not UDP). For this, set this flag to <b>Yes</b> . By default, this flag is set to <b>No</b> .

### Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Processor usage	Indicates the Processing load on this processor for the last second, expressed as a percentage.	Percent	A high value could signify a CPU bottleneck. The CPU utilization may be high because a few processes are consuming a lot of CPU, or because there are too many processes contending for a limited resource. Check the currently running processes to figure out the exact cause of the problem.
Processor interrupts	Indicates the average rate per second at which the processor handles interrupts from applications or hardware devices.	Interrupts/Sec	High interrupt rates can indicate hardware problems. Compare this value with CPU usage. If this value increases dramatically without a corresponding increase in system activity, it can indicate a hardware problem.
Processor interrupt time	Indicates the amount of time that the processor spent receiving and servicing hardware interrupts during the measure interval.	Secs	This value is an indirect indicator of the activity of devices that generate interrupts, such as the system clock, the mouse, disk drivers, data communication lines, network interface cards and other peripheral devices. These devices normally

Measurement	Description	Measurement Unit	Interpretation
			interrupt the processor when they have completed a task or require attention. A high value indicates a hardware problem.
Processor threads	Indicates the total number of threads in the processor.	Number	

### 3.1.4 Nw Volume Space Test

This test monitors the volumes (disk drives) in a host on Novell Netware.

**Target of the test :** Any host on Novell Netware

**Agent deploying the test :** A remote agent

**Outputs of the test :** One set of results for every disk partition being monitored.

**Configurable parameters for the test**

Parameter	Description
Test Period	How often should the test be executed.
Host	The IP address of the host for which this test is to be configured.
SNMPPort	The port at which the monitored target exposes its SNMP MIB; The default value is 161.
SNMPVersion	By default, the eG agent supports SNMP version 1. Accordingly, the default selection in the SNMPversion list is <b>v1</b> . However, if a different SNMP framework is in use in your environment, say SNMP <b>v2</b> or <b>v3</b> , then select the corresponding option from this list.
SNMPCommunity	The SNMP community name that the test uses to communicate with the firewall. This parameter is specific to SNMP <b>v1</b> and <b>v2</b> only. Therefore, if the SNMPVersion chosen is <b>v3</b> , then this parameter will not appear.
UserName	This parameter appears only when <b>v3</b> is selected as the SNMPVersion. SNMP version 3 (SNMPv3) is an extensible SNMP Framework which supplements the SNMPv2 Framework, by additionally supporting message security, access control, and remote SNMP configuration capabilities. To extract performance statistics from the MIB using the highly secure SNMP v3 protocol, the eG agent has to be configured with the



Parameter	Description
	required access privileges – in other words, the eG agent should connect to the MIB using the credentials of a user with access permissions to be MIB. Therefore, specify the name of such a user against this parameter.
Context	This parameter appears only when v3 is selected as the SNMPVersion. An SNMP context is a collection of management information accessible by an SNMP entity. An item of management information may exist in more than one context and an SNMP entity potentially has access to many contexts. A context is identified by the SNMPEngineID value of the entity hosting the management information (also called a contextEngineID) and a context name that identifies the specific context (also called a contextName). If the Username provided is associated with a context name, then the eG agent will be able to poll the MIB and collect metrics only if it is configured with the context name as well. In such cases therefore, specify the context name of the Username in the Context text box. By default, this parameter is set to <i>none</i> .
AuthPass	Specify the password that corresponds to the above-mentioned Username. This parameter once again appears only if the SNMPversion selected is <b>v3</b> .
Confirm Password	Confirm the AuthPass by retyping it here.
AuthType	<p>This parameter too appears only if <b>v3</b> is selected as the SNMPversion. From the Authtype list box, choose the authentication algorithm using which SNMP v3 converts the specified username and password into a 32-bit format to ensure security of SNMP transactions. You can choose between the following options:</p> <ul style="list-style-type: none"> <li>• <b>MD5</b> – Message Digest Algorithm</li> <li>• <b>SHA</b> – Secure Hash Algorithm</li> </ul>
EncryptFlag	This flag appears only when <b>v3</b> is selected as the SNMPversion. By default, the eG agent does not encrypt SNMP requests. Accordingly, the this flag is set to <b>No</b> by default. To ensure that SNMP requests sent by the eG agent are encrypted, select the <b>Yes</b> option.
EncryptType	<p>If this EncryptFlag is set to <b>Yes</b>, then you will have to mention the encryption type by selecting an option from the EncryptType list. SNMP v3 supports the following encryption types:</p> <ul style="list-style-type: none"> <li>• <b>DES</b> – Data Encryption Standard</li> <li>• <b>AES</b> – Advanced Encryption Standard</li> </ul>
EncryptPassword	Specify the encryption password here.

Parameter	Description
Confirm Password	Confirm the encryption password by retyping it here.
Timeout	Specify the duration (in seconds) within which the SNMP query executed by this test should time out in this text box. The default is 10 seconds.
Data Over TCP	By default, in an IT environment, all data transmission occurs over UDP. Some environments however, may be specifically configured to offload a fraction of the data traffic – for instance, certain types of data traffic or traffic pertaining to specific components – to other protocols like TCP, so as to prevent UDP overloads. In such environments, you can instruct the eG agent to conduct the SNMP data traffic related to the monitored target over TCP (and not UDP). For this, set this flag to <b>Yes</b> . By default, this flag is set to <b>No</b> .

### Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Total space	Indicates the total size of a volume.	GB	
Usage	Indicates the percentage of the disk space currently being used.	Percent	When the utilization of a volume approaches 100%, many applications using the partition could begin to experience failures. Therefore, ensure that adequate space is always available in the volume.
Free space	Indicates the amount of space in the volume that is currently available for use.	GB	
Freeable	Indicates the amount of freeable space (in GB) being used by previously deleted files on this volume	GB	When the freeable space value increases, it can be reclaimed as free space by purging deleted files.

## 3.2 The Network Layer

Use the tests associated with this layer to measure the health of the network connectivity to the Netware host.



Figure 3.3: The tests associated with the Network layer

The **Network** test has been discussed in-depth in the *Monitoring Unix and Windows Servers* document. The **Network Interfaces** test has been explained in the *Monitoring Cisco Router* document.

### 3.3 The Tcp Layer

The test mapped to this layer measures the health of the TCP connections to and from the Network host.



Figure 3.4: The test associated with the Tcp layer

This test has been discussed in the *Monitoring Juniper SA Device* document.

### 3.4 The Application Processes Layer

The test associated with this layer monitors the NLMs executing on the Network host, and the resource usage of each of the NLMs.



Figure 3.5: The test associated with the Application Processes layer

3.4.1 Nw Processes Test

This test reports a variety of memory statistics for a specified Netware Loadable Module (nlm).

**Target of the test :** Any host on Novell Netware

**Agent deploying the test :** A remote agent

**Outputs of the test :** One set of results for every nlm being monitored.

Configurable parameters for the test

Parameter	Description
Test Period	How often should the test be executed.
Host	The IP address of the host for which this test is to be configured.
SNMPPort	The port at which the monitored target exposes its SNMP MIB; The default value is 161.
SNMPVersion	By default, the eG agent supports SNMP version 1. Accordingly, the default selection in the SNMPversion list is <b>v1</b> . However, if a different SNMP framework is in use in your environment, say SNMP <b>v2</b> or <b>v3</b> , then select the corresponding option from this list.
SNMPCommunity	The SNMP community name that the test uses to communicate with the firewall. This parameter is specific to SNMP <b>v1</b> and <b>v2</b> only. Therefore, if the SNMPVersion chosen is <b>v3</b> , then this parameter will not appear.
UserName	This parameter appears only when <b>v3</b> is selected as the SNMPVersion. SNMP version 3 (SNMPv3) is an extensible SNMP Framework which supplements the SNMPv2 Framework, by additionally supporting message security, access control, and remote SNMP configuration capabilities. To extract performance statistics from the MIB using

Parameter	Description
	the highly secure SNMP v3 protocol, the eG agent has to be configured with the required access privileges – in other words, the eG agent should connect to the MIB using the credentials of a user with access permissions to be MIB. Therefore, specify the name of such a user against this parameter.
Context	This parameter appears only when v3 is selected as the SNMPVersion. An SNMP context is a collection of management information accessible by an SNMP entity. An item of management information may exist in more than one context and an SNMP entity potentially has access to many contexts. A context is identified by the SNMPEngineID value of the entity hosting the management information (also called a contextEngineID) and a context name that identifies the specific context (also called a contextName). If the Username provided is associated with a context name, then the eG agent will be able to poll the MIB and collect metrics only if it is configured with the context name as well. In such cases therefore, specify the context name of the Username in the Context text box. By default, this parameter is set to <i>none</i> .
AuthPass	Specify the password that corresponds to the above-mentioned Username. This parameter once again appears only if the SNMPversion selected is <b>v3</b> .
Confirm Password	Confirm the AuthPass by retyping it here.
AuthType	<p>This parameter too appears only if <b>v3</b> is selected as the SNMPversion. From the Authtype list box, choose the authentication algorithm using which SNMP v3 converts the specified username and password into a 32-bit format to ensure security of SNMP transactions. You can choose between the following options:</p> <ul style="list-style-type: none"> <li>• <b>MD5</b> – Message Digest Algorithm</li> <li>• <b>SHA</b> – Secure Hash Algorithm</li> </ul>
EncryptFlag	This flag appears only when <b>v3</b> is selected as the SNMPversion. By default, the eG agent does not encrypt SNMP requests. Accordingly, the this flag is set to <b>No</b> by default. To ensure that SNMP requests sent by the eG agent are encrypted, select the <b>Yes</b> option.
EncryptType	<p>If this EncryptFlag is set to <b>Yes</b>, then you will have to mention the encryption type by selecting an option from the EncryptType list. SNMP v3 supports the following encryption types:</p> <ul style="list-style-type: none"> <li>• <b>DES</b> – Data Encryption Standard</li> <li>• <b>AES</b> – Advanced Encryption Standard</li> </ul>
EncryptPassword	Specify the encryption password here.

Parameter	Description
Confirm Password	Confirm the encryption password by retyping it here.
Timeout	Specify the duration (in seconds) within which the SNMP query executed by this test should time out in this text box. The default is 10 seconds.
Data Over TCP	By default, in an IT environment, all data transmission occurs over UDP. Some environments however, may be specifically configured to offload a fraction of the data traffic – for instance, certain types of data traffic or traffic pertaining to specific components – to other protocols like TCP, so as to prevent UDP overloads. In such environments, you can instruct the eG agent to conduct the SNMP data traffic related to the monitored target over TCP (and not UDP). For this, set this flag to <b>Yes</b> . By default, this flag is set to <b>No</b> .
Process	The name of the Network Loadable Module (nlm) that corresponds to the GWIA application being monitored. By default, " <i>gwia.nlm</i> " will be displayed here.

### Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Processes running	Indicates the number of instances of a process currently executing on a host.	Number	This value indicates if too many or too few processes corresponding to an application are executing on the host.
Memory usage	This value represents the ratio of the resident set size of the process to the physical memory of the host system, expressed as a percentage.	Percent	A sudden increase in memory utilization for a process may be indicative of memory leaks in the application.

## 3.5 Troubleshooting

If all the layers of a generic Netware server are in **unknown** state, then, first check to see if the eG agent is running. If not, start the eG agent. If the eG agent is already up and running, then check whether SNMP has been enabled for the Netware server. If not, enable SNMP using the command load SNMP.

## About eG Innovations

eG Innovations provides intelligent performance management solutions that automate and dramatically accelerate the discovery, diagnosis, and resolution of IT performance issues in on-premises, cloud and hybrid environments. Where traditional monitoring tools often fail to provide insight into the performance drivers of business services and user experience, eG Innovations provides total performance visibility across every layer and every tier of the IT infrastructure that supports the business service chain. From desktops to applications, from servers to network and storage, from virtualization to cloud, eG Innovations helps companies proactively discover, instantly diagnose, and rapidly resolve even the most challenging performance and user experience issues.

eG Innovations is dedicated to helping businesses across the globe transform IT service delivery into a competitive advantage and a center for productivity, growth and profit. Many of the world's largest businesses use eG Enterprise to enhance IT service performance, increase operational efficiency, ensure IT effectiveness and deliver on the ROI promise of transformational IT investments across physical, virtual and cloud environments.

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