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## Chapter



# Configuring and Monitoring an Apache Web Server/IBM HTTP Server

Configuring an Apache web server/IBM HTTP Server to be monitored by an eG agent is an easy two step process.

- > Configuring the web server to work with the eG agent
- > Configuring the eG manager through its user interface to monitor the web server

## **1.1 Configuring an Apache/IBM HTTP Web Server on Unix**

eG Enterprise's unique web adapter technology enables individual transactions performed by users of a web site to be tracked in real-time without the need for explicit, expensive logging.

The web adapter must be configured for each and every web server that must be monitored by the eG agent. This adapter is part of the eG agent package for Solaris. In case of an Apache/IBM HTTP server on the other hand, a manual procedure needs to be followed in order to configure the web adapter.

To manually configure the eG web adapter on an Apache web server 1.x on Unix, do the following:

- 1. First, login to the Unix server as the Apache install user.
- 2. Edit the **<APACHE\_HOME>/conf/httpd.conf** file to append the following lines to the end of the file:

LoadModule eg1\_module libexec/mod\_eg1.so

- 3. Copy the file **mod\_eg1.so** from the **/opt/egurkha/lib** directory to **<APACHE\_HOME>/libexec** in the **<APACHE\_INSTALL\_USER>** directory.
- 4. Stop and restart the Apache server.

The same procedure applies while configuring the web adapter on an IBM HTTP Server 1.x on Unix.



To configure the web adapter on Apache 1.x on HPUX/AIX servers, the procedure is almost the same as what has been discussed above; however, the only difference is that you will have to append the following lines to the end of the **<APACHE HOME>/conf/httpd.conf** file:

LoadModule mod\_egurkha libexec/mod\_egurkha.so

To manually configure the eG web adapter on an Apache web server 2.0 on Unix, do the following:

- 1. First, login to the Unix server as the Apache install user.
- 2. Edit the <APACHE\_HOME>/conf/httpd.conf file to append the following line:

LoadModule eg2\_module modules/mod\_eg2.so

- 3. Copy the file **mod\_eg2.so** from the **/opt/egurkha/lib** directory to **<APACHE\_HOME>/modules** under **<APACHE\_INSTALL\_USER>**.
- 4. Stop and restart the Apache server.

The same procedure applies for configuring an IBM HTTP Server 2.0 on Unix

Note that you cannot configure the web adapter on Apache web server 2.0 / IBM HTTP Server 2.0 for HPUX.

To manually configure the eG web adapter on an Apache web server 2.2 on Unix, do the following:

- 1. First, login to the Unix server as the Apache install user.
- 2. Edit the **<APACHE\_HOME>/conf/httpd.conf** file to append the following line:

LoadModule eg2\_module modules/mod\_eg22.so

- 3. Copy the file **mod\_eg22.so** from the **/opt/egurkha/lib** directory to **<APACHE\_HOME>/modules** under **<APACHE\_INSTALL\_USER>**.
- 4. Stop and restart the Apache server.

To configure the eG web adapter on Apache 2.2 on HPUX/AIX, follow the same procedure explained above.

To manually configure the eG web adapter on an Apache web server 2.4 on Linux, do the following:

- 1. First, login to the Unix server as the Apache install user.
- 2. Edit the **<APACHE\_HOME>/conf/httpd.conf** file to append the following line:

LoadModule eg2\_module modules/mod\_eg24.so

- 3. Copy the file **mod\_eg24.so** from the **/opt/egurkha/lib** directory to **<APACHE\_HOME>/modules** under **<APACHE\_INSTALL\_USER>**.
- 4. Stop and restart the Apache server.

To configure the eG web adapter on Apache 2.4 on HPUX/AIX, follow the same procedure explained above.

To manually configure the eG web adapter on an IBM HTTP Server 2.x on AIX, do the following:

- 1. First, login to the AIX server as the IBM HTTP install user.
- 2. Edit the **<IBM\_HTTP\_HOME>/conf/httpd.conf** file to append the following line:

LoadModule eg2\_module modules/mod\_ibm\_eg2.so

- 3. Copy the file mod\_ibm\_eg2.so from the /opt/egurkha/lib directory to <IBM\_HTTP\_HOME>/modules under <IBM\_HTTP\_INSTALL\_USER>.
- 4. Stop and restart the IBM HTTP server.

To manually configure the eG web adapter on an IBM HTTP Server 6.x on Unix (Linux/Solaris/AIX), do the following:

- 1. First, login to the Unix server as the IBM HTTP install user.
- 2. Edit the **<IBM\_HTTP\_HOME>/conf/httpd.conf** file to append the following line:

LoadModule eg2\_module modules/mod\_ibm\_eg6.so

- 3. Copy the file **mod\_ibm\_eg6.so** from the **/opt/egurkha/lib** directory to **<IBM\_HTTP\_HOME>/modules** under **<IBM\_HTTP\_INSTALL\_USER>**.
- 4. Stop and restart the IBM HTTP server.

Note that the eG web adapter cannot be configured on an IBM HTTP Server 6.x on HPUX.

#### 1.1.1 Configuring the eG Web Adapter for an Apache Web Server on a 64-bit Linux Operating System

To configure the eG web adapter for an Apache web server on a 64-bit Linux host, do the following:

- 1. By default, the Java Runtime Environment (JRE) version 1.5 for 32-bit operating systems is bundled as part of the eG agent installable for Linux. To ensure that such an agent works smoothly on a 64-bit Linux operating system, follow the steps given below to change the JRE used by the eG agent, after deploying the standard Linux agent on the 64-bit Linux host:
  - Stop the eG agent.
  - Login to the eG agent host as the eG install user. You will currently be working in the /opt/egurkha directory.
  - > Move the JRE directory that is used by the eG agent (by default) to another location, say */tmp*.

#### mv jre /tmp

2. If a 64-bit-compatible version of the JRE is already available on the eG agent host, provide a soft link to that directory using the following command:

#### In -s <Full\_path\_to\_the\_directory\_containing\_the\_64-bit-compatible\_JRE> jre

For instance, if the 64-bit version of JRE is available in the **/opt/usr/JRE** directory, then the command will be:

#### In -s /opt/usr/JRE jre

- 3. On the other hand, if a compatible JRE does not pre-exist on the agent system, then download and install the 64-bit version of the JRE from the java.sun.com web site.
- 4. Then, provide a soft link to the JRE directory using the command indicated by step 4 above.

- 5. The eG agent for the 64-bit Linux host is bundled with the following shared libraries to be used by the eG web adapter, if configured on the host:
  - ➢ mod\_eg24.so
  - ➢ mod\_eg22.so
  - mod\_eg2.so
  - libeg\_reptr\_cat.so
  - libeg\_reptr\_total.so
  - libeg\_reptr\_site.so

These files are available in the /opt/egurkha/lib/lib64 directory on the host.

- 6. To enable the eG web adapter for Apache 2.0, following the steps given below:
  - > First, login to the Linux host as the Apache install user.
  - > Edit the **<APACHE\_HOME>/conf/httpd.conf** file to append the following line:
  - LoadModule eg2\_module modules/mod\_eg2.so
  - Copy the file mod\_eg2.so from the /opt/egurkha/lib/lib64 directory to <APACHE\_HOME>/modules under <APACHE\_INSTALL\_USER>.
  - > Copy the **libeg\*.so** files from the **/opt/egurkha/lib/lib64** directory to the **/opt/egurkha/lib** directory.
  - > Stop and restart the Apache server.
- 7. To enable the eG web adapter for Apache 2.2, following the steps given below:
  - > First, login to the Linux host as the Apache install user.
  - > Edit the **<APACHE\_HOME>/conf/httpd.conf** file to append the following line:

LoadModule eg2\_module modules/mod\_eg22.so

- Copy the file mod\_eg22.so from the /opt/egurkha/lib/lib64 directory to <APACHE\_HOME>/modules under <APACHE\_INSTALL\_USER>.
- > Copy the **libeg\*.so** files from the **/opt/egurkha/lib/lib64** directory to the **/opt/egurkha/lib** directory.
- > Stop and restart the Apache server.
- 8. To enable the eG web adapter for Apache 2.4, following the steps given below:
  - > First, login to the Linux host as the Apache install user.
  - > Edit the **<APACHE\_HOME>/conf/httpd.conf** file to append the following line:

LoadModule eg2\_module modules/mod\_eg24.so

- Copy the file mod\_eg24.so from the /opt/egurkha/lib/lib64 directory to <APACHE\_HOME>/modules under <APACHE\_INSTALL\_USER>.
- > Copy the libeg\*.so files from the /opt/egurkha/lib/lib64 directory to the /opt/egurkha/lib directory.
- > Stop and restart the Apache server.
- 9. Start the eG agent. 0.

## **1.2 Configuring an Apache/IBM HTTP Web server on** Windows Environments

The eG web adapter can be configured on an Apache/IBM HTTP web server on Windows, using a manual configuration process only. The same has been discussed below.

To manually configure the eG web adapter on an Apache web server 1.x on Windows, do the following:

- 1. First, login to the Windows server.
- 2. Edit the <APACHE\_HOME>\conf\httpd.conf file to append the following lines:

AddModule mod\_egurkha.c

LoadModule mod\_egurkha modules/mod\_egurkha.dll

- 3. Copy the file **mod\_egurkha.dll** from the **<EG\_AGENT\_INSTALL\_DIR>\lib** directory to **<APACHE\_HOME>\modules**.
- 4. Stop and restart the Apache server.

To manually configure the eG web adapter on an Apache web server 2.0 on Windows, do the following:

- 1. First, login to the Windows server.
- 2. Edit the <APACHE\_HOME>\conf\httpd.conf file to append the following line:

LoadModule egurkha\_module modules/mod\_egurkha2\_0.dll

- 3. Copy the file mod\_egurkha2\_0.dll from the <EG\_AGENT\_INSTALL\_DIR>\lib directory to <APACHE\_HOME>\modules.
- 4. Stop and restart the Apache server.

To manually configure the eG web adapter on an Apache web server 2.2 on Windows, do the following:

- 1. First, login to the Windows server.
- 2. Edit the <APACHE\_HOME>\conf\httpd.conf file to append the following line:

LoadModule egurkha\_module modules/mod\_egurkha2\_2.dll

- 3. Copy the file mod\_egurkha2\_2.dll from the <EG\_AGENT\_INSTALL\_DIR>\lib directory to <APACHE\_HOME>\modules.
- 4. Stop and restart the Apache server.

To manually configure the eG web adapter on an IBM HTTP server 1.x on Windows, do the following:

- 1. First, login to the Windows server.
- Edit the <IBM\_HTTPSERVER\_HOME>\conf\httpd.conf file to append the following line: LoadModule ibm\_egurkha\_module modules/ibm\_mod\_egurkha.dll
- 3. Copy the file **ibm\_mod\_egurkha.dll** from the **<EG\_AGENT\_INSTALL\_DIR>\lib** directory to **<IBM\_HTTPSERVER\_HOME>\modules**.
- 4. Stop and restart the IBM HTTP server.

To manually configure the eG web adapter on an IBM HTTP web server 2.x on Windows, do the following:

- 1. First, login to the Windows server.
- 2. Edit the **<IBM\_HTTPSERVER\_HOME>\conf\httpd.conf** file to append the following line:

LoadModule ibm\_ egurkha\_module modules/ibm\_mod\_egurkha.dll

- 3. Copy the file **ibm\_mod\_egurkha2\_0.dll** from the **<EG\_AGENT\_INSTALL\_DIR>\lib** directory to **<IBM\_HTTPSERVER\_HOME>\modules**.
- 4. Rename the <IBM\_HTTPSERVER\_HOME>\modules\ibm\_mod\_egurkha2\_0.dll to ibm\_mod\_egurkha.dll
- 5. Stop and restart the IBM HTTP server.

## **1.3 Administering the eG Manager to monitor the** Apache/IBM HTTP Web Server

To discover a web server automatically, the port on which it is running should be configured. To achieve this, do the following:

- 1. Log into the eG administrative interface as admin.
- 2. In the **ADMIN HOME** page that appears, use the following menu sequence: Infrastructure-> Components -> Discover.
- 3. In the Discovery page that comes up, click the **Change Preferences** button and using the **CHANGE PREFERENCES** page that appears next (see Figure 1.1), configure the port on which the web server is listening. Once done, click on the **Update** button.

	PORT SETTINGS
AGate	1 3900
wulate	1 (3900
Apache Web	: 80
Cache Database	: 1972
Citrix License	: 27000
Citrix MF	: 1494
Citrix MF XP	: 1494
Citrix Nfuse	: 80
Citrix Secure Gateway	: 443
Citrix STA	: 80
Citrix XenApp	: 1494
CON+	: NULL
DB2 UDB	: 50000
D82 UD8 - 6/7.x	: NUL
Date	: 52
Des la la la	1 00
Domain Controller	1 88
Domino Application	: 80
Domino Mail	: [25
EDirectory (Netware)	: NULL
EDirectory (Win/Unix)	: NULL
Emulated Client	: NULL
Exchange	: 691
Exchange 5.5	: 25
Exchange Cluster	: NULL
Exchange Messaging	: 00
External AD	: 309
External DNS	: 53
Esternal Eschange	- 601
Enternal Mail	. 071
External Mail	: (25
External Oracle	: 1521
External Web	: 00
Fiorano MQ	: 1056
FTP	: 21
Informix	: 1526
ISA Proxy	1 8060
Barr	. 1520
No.	- 3920
Jilun	: 8000
LDAP	: 309
MAX DB	: 7210
Nicrosoft MQ	: [1801
Microsoft Proxy	: 1745
Nicrosoft SOL	: 1433
N-SOI	: (3306
National Annual Content	- (100
mensualpe Appacation	10010
netscape Directory	: [389
Netware GwIa	: [25
Netware GwMta	: 7100
Netware GwPoa	: 1677
Netware GwWeb	: 7205
09i Application Server	: 6003
Oracle Application	: 6003
Oracle Cluster	: 1521
Oracle Database	1521
Canada Rosmanti	4004
stand Formsyl	
Oracle Web	: 2777
Orion	: 8081
Qmail	: NULL
Radius	: [1812
SAP R3	1 3200
SAP Web Application	3601
Eiskel Andiester	
secol Application	: AUL
Siebel Gaterray	: 2320
Siebel Web	: 00
SilverStream	: (99099
Siteminder 1view	: NULL
Siteminder Policy	: 44464
SSL Web	: 443
Even of the	
sunUNE Application	: 4848
SunONE Messaging	1 25
Sybase	: 4100
TCP	: NULL
Terminal	: 3389
Tompat	1 8080
ett	
Tuxedo Domain	: 12345
VPlware	: NULL
VMware host	: NUL
Voyager FrontEnd	: NUCL
Voyager FrontEnd	: NUL
Voyager FrontEnd Wap Gateway	: NUL : 9201,9202,9203,9204
Voyager FrontEnd Wap Gateway Web	: NUU. : 9201,9202,9203,9204 : 80
Voyager FrontEnd Wap Gateway Web WebLogic	: NUUL : (9201,9202,9203,9204 : (80 : (7001
Voyager FrontEnd Web WebLogic WebSphere Application - 4/5.x	: PULL : [9201,9202,9203,9204 : [90 : [7001 : [9000
Veyager FrontEnd Web Getemay WebLogic WebSphere Application - 4/5.x WebSphere MO	: PULL : (9201,9202,9203,9204 : (80 : (7008 : (9009 : (9009 : (9000) : (1414,3415
Voyager frontEnd Web Gotemay WebLogic WebSphere Application - 4/5.x WebSphere MQ	1 NULL 9 2020, 2020, 2020, 2020 8 00 1 7003 1 9000 1 1414, 1415 1 16
Voyager frontEnd Web WebLogic WebSphere Application - 4/5.x WebSphere MQ WebSphere MQ	1 MUL 1 9201,4202,4203,9204 1 900 1 9000 1 1444,4415 1 25
Voyager ProntEnd Web Web WebSphere Application - 4/5.x WebSphere MQ Windows Giulia Windows Giulia	: W0.0.4 : 9299,4009,5285,4204 : 909 : 7099 : 9090 : 1414,3415 : 25 : 7190 
Veyager PrentEnd Web Gatemay Webspic WebSpiceston - 4/5.x WebSphare MQ WebSphare MQ WebSphare MQ WebSphare MQ WebSer GenPea	r NOLA     SOLA 4002,4003,4004     SOLA 4002,4003,4004     SOLA 4002,4003,4004     SOLA 4002,4003,4004     SOLA 4004     SO
Veysger Prontford Web Geterway Web Logic WebSphere Application - 4/5.x WebSphere NQ Windows Gwitta Windows Gwitta Windows Gwitta	YOULA     Y
Veyager Prontford Was Gatemay WabSogie WabSphare Application - 4/5.x WabSphare Application - 4/5.x WabSens Gortha Windees Gortha Windees Gortha Windees Gortha Windees Gortha Windees Gortha Windees Gortha	NALA.   1929,502,702,703   1929   1929,502   1929,5

Figure 1.1: Configuring the web server port for automatic discovery

4. After updating the changes, begin the discovery process by clicking on the **Start Discovery** button in the **START DISCOVERY** page.

- 5. Discovered components will then have to be managed manually using the **COMPONENTS MANAGE/UNMANAGE** page that comes up on following the menu sequence: Infrastructure-> Components -> Manage/Unmanage.
- 6. In this screen, select **Web** server from the **Component type** drop down list as depicted by Figure 1.2 below.

COMPONENTS	S - MANAGE / UNMANAGE		
	I This page enables the administration	nistrator to manage/ur	nmanage the discovered servers.
	Component type	e : Web	
	MANAGED COMPONENTS		UNMANAGED COMPONENTS
		Unmanage>> << Manage	*192.168.10.102:80 *192.168.10.149:80 *192.168.10.165:80 *192.168.10.160 *192.168.10.22:80 *192.168.10.22:80 *192.168.10.36:80 *192.168.10.57:80 *192.168.10.77:80 *192.168.10.77:80 *192.168.10.79:80 *uscience 179:80 *uscience 1
	, Delete Components		Delete Components
		Update	

Figure 1.2: Selecting Web server from the drop-down list

7. The host names / IP addresses of the discovered but unmanaged web servers will then be populated in the UNMANAGED COMPONENTS list. To manage the web server, select it from the list, click the << Manage button and add it to the MANAGED COMPONENTS list as shown in Figure 1.3 below.

COMPONENTS - MANAGE / UNMANAGE		
It This page enables the administration	nistrator to manage/un	manage the discovered servers.
Component tra	web.	<b>x</b>
component type		
MANAGED COMPONENTS		UNMANAGED COMPONENTS
*192.168.10.102:80	Unmanage>> 	<pre>'192.168.10.149:80 '192.168.10.156:80 '192.168.10.156:80 '192.168.10.162:80 '192.168.10.22:80 '192.168.10.48:80 '192.168.10.51:80 '192.168.10.77:80 '192.168.10.91:80 '192.168.10.91:80 '192.168.10.91:80 '192.168.10.91:80 '*sen_server:80 '*192.168.10.100:80</pre>
Delete Components		Delete Components
	Update	

Figure 1.3: Managing the apache web server manually

- 8. Finally, register the changes by clicking the **Update** button.
- 9. If the web server is not automatically discovered, manually add it to the environment using the ADD/MODIFY COMPONENTS page. Components so added will automatically find a place in the MANAGED COMPONENTS list in the COMPONENTS MANAGE/UNMANAGE page above (see Figure 1.3). To access the ADD/MODIFY COMPONENTS page, follow the menu sequence: Infrastructure -> Components -> Add/Modify.
- 10. Here, select **Web** server from the **Component type** drop-down list (see Figure 1.4) and then, click the **Add New Component** button to add a new Apache Web server.

ADD.MODIFY WEB SERVER COMPONENTS	
This page enables the administrator to add a new component or modify an existing or	component of a chosen type.
Search 💿	Add New Component
Component type : Web	
There is no component available	

Figure 1.4: Selecting the Web server option from the drop-down list in the ADD/MODIFY page

11. In the **NEW COMPONENT DETAILS** page that appears, provide the details requested as depicted by Figure 1.6. If a valid hostname is specified in 1.6, make sure that this name can be resolved to the corresponding IP address via the DNS server of the target infrastructure. Also, indicate whether the component being added is to be monitored in an **Agentless** manner or not. This option will be available

to you only if the eG license enables the agentless monitoring capability. Moreover, if the **Agentless** option in Figure 1.6 s set to **No**, then an **Internal agent assignment** option will appear. If this is set to **Manual**, then you can associate multiple IPs/nicknames on a host with a single internal agent. The default selection **Auto** indicates that every IP/nick name on a host will be associated with a separate agent. For more details about the **Agentless** and **internal agent assignment** options, refer to the *eG User Manual*. Finally, select the **External Agent** that will monitor the component being added from an external perspective, and click the **Add** button in Figure 1.6 to register the changes.

Component type	: Web
Host IP/Name	: 192.168.10.61
Nick name	: 192.168.10.61
Port number	: 80
Agentless	: C Yes 🕫 No
internal agent assignment	: 🕫 Auto 🔿 Manual
External agents	: 192.168.8.72 ext_209 ext_25 ext_67 ext_72

Figure 1.5: Providing the new server details

12. Once the information is successfully updated, you will receive the confirmation via the following screen:

Parameters	configured for Web
Component type	:: Web
Host IP/Name	:: 192.168.10.61
Nick name	:: 192.168.10.61
Port number	:: 80
This p.	age redirects to Admin Home in 60 seconds, else you can go back to <b>Add/Modify components</b> 🖄 <b>Click here</b> 🗄 to add other components for the same system.

Figure 1.6: Viewing a summary of the details of a new server

13. Then, proceed to configure the services for the web server. A service can be a group of independent components / components that belong to a segment topology / a web site that can be hosted on one or more web servers. In other words, a web site is a subset of a service. The various services that users can avail via a web site are referred to as **transactions**. To configure services, first, follow the menu sequence, Infrastructure ->Services -> Configuration. This will open the LIST OF SERVICES page (see Figure 1.7).

LIST OF SERVICES	
I This page enables the administrator to add/modify/delete services.	
Search 💿	Add New Service
Select all Deselect all Delete selected	
A Ssociated Servers	Modify
IIS_App_Pools:999:IIS Web	
OnlyService	Modify
Associated Servers xen_server:Citrix XenServer, solaris_Virtual_10.20:Solaris Virtual	
🗖 🎲 buy.abc.com (Site)	Modify
Associated Servers 192.168.10.121:80:IIS Web	
Select all   Deselect all   Delete selected	

Figure 1.7: A page listing existing web sites

14. Then, click on the Add New Service button on the screen. In the screen that appears (see Figure 1.8) the Name of the service in the text box provided. Then, from the Is this service a website list box, select Yes, so as to indicate that the new service is a web site.



While adding a service that is **not** a web site, the **No** option needs to be selected from the **Is this service a website** list box.

CONFIGURE	CONFIGURE - SERVICE >>ADD / MODIFY			
		I This page enables the administrator to add a new service.		
		ADD NEW SERVICE		
	Name of the service	: www.abc.com		
	Associated to the zone	: None		
	Is this service a website	: Yes 💌		
		Add		

Figure 1.8: Adding a new service

15. Finally, click the **Update** button. Upon clicking, Figure 1.9 will appear, which will help an administrator configure a service that is a web site.

CONFIGURE	- SERVICE >> ADD / MODIFY					
	🚺 This page enables	s the administrator to add a new service.				
1		ADD NEW SITE				
	Name of the site	: www.abc.com				
	Alias name(s) for the site	: View				
	Segment(s) associated	: NONE				
	Segment list	: Independent_servers				
	EXISTING COMPONENTS 192.168.10.121:80:IIS Web 192.168.10.34:80:IIS Web 192.168.10.54:V0yager FrontEnd rama_is2008:80:IIS Web web:80:IIS Web	Add >>         ** Remove				
		Update				

Figure 1.9: Configuring a web site

16. The **Name of the site** box in Figure 1.9 will display the **Name of the service** specified earlier in Figure 1.8. The administrator can change it, if need be.



While adding a service that is **not** a website, the **Name of the site** text box of Figure 1.8 will be replaced by the **Name of the service** text box.

17. A single site can be addressed by various other names in the environment (e.g., www.abc.com may also be accessed as www.abc.com:80, abc.com, us.abc.com, 172.169.10.20 etc.). These names (or IP address:port combinations) can be specified in the **Alias name(s)** for the site text box. To ensure that all requests to a website are captured, it is essential to ensure that all the alias names for a site are specified accurately. The administrators can specify a maximum of six alias names, each of which should be comma separated. While multiple alias names can be specified for a site, in the monitor interface, all the statistics pertaining to this web site will be reported using its site name displayed in the **Name of the site** text box.



Alias names are applicable to web sites alone. Therefore, while configuring a service that is **not** a web site, the **Alias name(s)** for the site text box will not appear.

18. The **Segment list** box contains the list of fully configured segments in the target environment that contain atleast a single web or application server. The site can be associated with any of these segments. The **Independent\_servers** option in this list box enables the administrator to associate a site to a single web or application server that does not form a part of the segment topology. By default, a managed web server will be treated as an independent web server by the eG Enterprise system. Therefore, select the **Independent\_servers** option from the **Segment list**.



In case of services that are **not** web sites, the **Segment list** list box will list all the fully configured segments in the target environment – not just the segments that contain web / application servers.

19. Once a site is associated with a segment, the user interface lists the web and application servers that form a part of the selected segment (or, if the **Independent\_servers** option is chosen, the list of independent web and application servers in the target environment), in the **EXISTING COMPONENTS** list box. The components associated with the site are available in the **COMPONENTS UNDER NEW SITE** list box. The administrator can associate an existing component with the site by selecting the component and then clicking the **Add** >> button. Similarly, an associated component can be removed by clicking the << **Remove** button.



Unlike web sites that can be associated only with web / application servers, services that are **not** web sites can be associated with any component in the selected segment, or any independent component.

20. Finally, click the **Update** button to register the changes. On doing so, the following screen will pop up:

LOGICAL TOPO	OLOGY : WWW.ABC.COM			
	I This page enables the	e adm	ninistrator to associate/disassociate segme	ent components to/from a service.
	Alias name(s) for the site	:	abc	
	Selected servers	:	Web:192.168.10.61:80	
	ASSOCIATED COMPONEN	TS	Disassociate >> Associate</td <td>EXCLUDED COMPONENTS</td>	EXCLUDED COMPONENTS
s		₽₿	Update	
	8			

Figure 1.10: Configuring the dependencies of a web site

- 21. A web site inherits all of the dependencies of the web server(s) with which it is associated. In many instances, a web site may not use all the components that a web server on which it is hosted, is configured to use. To support such a scenario, the eG Enterprise suite allows the administrator to disassociate specific components for a web site. Figure 1.10 indicates the configuration of dependencies for a web site. The components associated with a site are shown in the ASSOCIATED COMPONENTS box and the non-related ones in the EXCLUDED COMPONENTS box. When a site is added for the first time, all the components that are associated with the corresponding web server(s) are available in the ASSOCIATED COMPONENTS list box. The administrator can associate or disassociate the components using the Associate or the Disassociate buttons. In our example, however, the web server associated with the site is an independent one. Hence, simply click the Update button and proceed to configure transactions.
- 22. Administrators can configure transactions to reflect the key operations performed by users of the web site. For performing this activity, first, open the LIST OF SITES AND TRANSACTIONS page (see Figure 1.11) using the following menu sequence: Infrastructure->Services->Transactions.

ADD / DELET	E TRANSACTION		
		$I\!\!I$ This page enables the administrator to add/delete transactions.	
		LIST OF SITES AND TRANSACTIONS	
	buy.abc.com Transactions Site does not contain transactions		Add / Delete Transaction
	IIS_Web_999 Transactions Gif ; Html		Add / Delete Transaction
	www.abc.com Transactions Site does not contain transactions		Add / Delete Transaction

Figure 1.11: A page listing existing transactions of a web site



Transactions can be configured for web sites only. Therefore, Figure 1.12 will not list the services that are not websites.

23. Then, click the Add/Delete Transaction button therein, thereby opening the following page:

TRANSACTION MANAGEMENT - www.abc.com		
This page enables the administrator to	configure a new transaction or delete an existi	ng transaction for a web site.
	NEW TRANSACTION DETAILS	
Transaction Name : login	Pages to be Included : indewx.jsp,lo	gin.jsp Add
[Choose an	image to be associated with the transaction]	
C Shopping	🕫 Login 0	O Search
© Browse Catalog	C Shipping	C WML
C Images	C Business Logic	C Static Resources
C Data transfer	C Database Access	C Registration
C Payment	C Bid	C Others

Figure 1.12: Configuring a new transaction

24. Here, specify the **Transaction Name** and the **Pages to be Included** (these are one or more regular expression patterns, where each pattern refers to a set of pages that constitute the transaction).



The transactions of a retail web site could be: login, registration, browsing of the product catalog, searching the catalog, adding to shopping cart, deleting items from the cart, payment, etc. The **PAGES TO BE INCLUDED** for the **Login** transaction could be represented by **\*/jsps/Loginform.jsp**.



While mentioning the **PAGES TO BE INCLUDED**, ensure the following:

- The page names should be prefixed by an \* (asterisk) or a slash (/). If not, no measurements will be gathered from such pages.
- 25. You can also associate an image with a transaction, by choosing the same from the list below.
- 26. Then, to add the transaction, click on the **Add** button. Clicking on **Add** will take you back to the **NEW TRANSACTION DETAILS** page above, where you would be prompted to add another transaction.
- 27. Now, if you attempt to sign out, the **Processes** test information will flash on the screen, prompting you to configure the test.

Performance	192.168.10.61:80
Processes	

Figure 1.13: Viewing the tests configuration table displaying the Processes test information

28. Clicking on the test name will lead you to the following screen:

	192.168.10.61	
TEST PERIOD	: 5 mins 💌	
HOST	: 192.168.10.61	
PORT	: 80	
* PROCESS	Terminal:C:\WINDOWS\Syst = em32\svchost <b>view</b>	
USEPS	: CYes CNo	
WIDE	: CYes C No	
USER	: none	
CORRECT	: CYes C No	
ISPASSIVE	: C Yes	

Figure 1.14: Viewing the Processes test configuration screen

- 29. In Figure 1.14, specify the following:
  - > TEST PERIOD How often should the test be executed
  - > HOST The host for which the test is to be configured
  - > **PORT -** The port to which the specified **HOST** listens
  - PROCESS In the PROCESS text box, enter a comma separated list of names:pattern pairs which identify the process(es) associated with the server being considered. processName is a string

that will be used for display purposes only. processPattern is an expression of the form - \*expr\* or expr or \*expr or expr\* or \*expr1\*expr2\*... or expr1\*expr2, etc. A leading '\*' signifies any number of leading characters, while a trailing '\*' signifies any number of trailing characters. The pattern(s) used vary from one application to another and must be configured per application. For example, for an iPlanet application server (Nas server), there are three processes named kcs, kjs, and kxs associated with the application server. For this server type, in the PROCESS text box, enter "kcsProcess:\*kcs\*, kjsProcess:\*kjs\*, kxsProcess:\*kxs\*, where \* denotes zero or more characters. Other special characters such as slashes (\) can also be used while defining the process pattern. For example, if a server's root directory is /home/egurkha/apache and the server executable bin named httpd exists in the directory, then, the process pattern is "\*/home/egurkha/apache/bin/httpd\*".



The **PROCESS** parameter supports process patterns containing the  $\sim$  character.

To determine the process pattern to use for your application, on Windows environments, look for the process name(s) in the Task Manager -> Processes selection. To determine the process pattern to use on Unix environments, use the ps command (e.g., the command "ps -e -o pid,args" can be used to determine the processes running on the target system; from this, choose the processes of interest to you.)

Also, while monitoring processes on Windows, if the **WIDE** parameter of this test is set to **true**, then your process patterns can include the full path to the process and/or the arguments supported by the process. For instance, your **PROCESSPATTERN** specification can be as follows:

*Terminal:C:\WINDOWS\System32\svchost DcomLaunch,Remote:C:\WINDOWS\system32\svchost.exe -k netsvcs*  -k

#### Also, note that the **PROCESS** parameter is **case-sensitive** in **Unix environments**.

To save the time and effort involved in such manual process specification, eG Enterprise offers an easy-to-use auto-configure option in the form of a **View** button that is available next to the **PROCESS** text box.

USER - By default, this parameter has a value "none"; this means that the test monitors all processes that match the configured patterns, regardless of the user executing them. If you want the test to monitor the processes for specific users alone, then, on Unix platforms, specify a comma-separated list of users to be monitored in the USER text box. For instance: *john,elvis,sydney* 

While monitoring Windows hosts on the other hand, your **USER** configuration should be a commaseparated list of "domain name-user name" pairs, where every pair is expressed in the following format: *Domainname\Username*. For example, to monitor the processes of user *john* and *elvis* who belong to domain *mas*, your **USER** specification should be: *mas\john,mas\elvis*. Also, on a Windows host, you will find system processes running on the following user accounts: *SYSTEM*, *LOCAL SERVICE*, and *NETWORK SERVICE*. While configuring these **USER** accounts, make sure the *Domainame* is always *NT AUTHORITY*. In this case therefore, your **USER** specification will be: *NT AUTHORITY\SYSTEM,NT AUTHORITY\LOCAL SERVICE,NT AUTHORITY\NETWORK SERVICE*.

If multiple **PROCESS**es are configured for monitoring and multiple **USERs** are also configured, then the test will check whether the first process is run by the first user, the second process by the second user, and so on. For instance, if the **PROCESS**es configured are *java:java.exe,apache:\*httpd\** and the **USERs** configured are *john,elvis*, then the test will check whether user *john* is running the process *java*, and user *elvis* is running the process *apache*. Similarly, if multiple **PROCESS**es are configured, but a single **USER** alone is configured, then the test will check whether the specified **USER** runs each of the configured **PROCESS**es. However, if you want to check whether a single process, say *java.exe*, is run by multiple users - say, *james* and *jane* - then, you have to do the following:

- Your USER specification should be: *james,jane* (if the target host is a Unix host), or <Domainname>\james,<Domainname>\jane (if the target host is a Windows host)
- Your PROCESS configuration should be: Process1:java.exe,Process2:java.exe. The number of processes in this case should match the number of users.
- Such a configuration will ensure that the test checks for the *java.exe* process for both the users, *james* and *jane*.
- CORRECT Increased uptime and lower mean time to repair are critical to ensuring that IT infrastructures deliver a high quality of service to users. Towards this end, the eG Enterprise suite embeds an optional auto-correction capability that enables eG agents to automatically correct problems in the environment, as soon as they occur. With this capability, as and when an abnormal situation is detected, an eG agent can initiate corrective actions automatically to resolve the problem. Automatic correction without the need for manual intervention by IT operations staff reduces service downtime and improves operational efficiency. By default, the auto-correction capability is available in the eG Enterprise suite for the Processes running measure of Processes test, and the Service availability measure of WindowsServices test. The eG Enterprise suite includes a default auto-correction script for Processes test.

When a process that has been configured for monitoring stops, this script automatically executes and starts the process. To enable the auto-correction capability for the Processes test, first, select the **TRUE** option against the **CORRECT** parameter in this page (by default, **FALSE** will be selected here).

- ALARMTYPE Upon selecting the true option, three new parameters, namely, ALARMTYPE, USERPARAMS, and CORRECTIVESCRIPT will appear. You can set the corrective script to execute when a specific type of alarm is generated, by selecting an option from the ALARMTYPE list box. For example, if the Critical option is chosen from the ALARMTYPE list box, then the corrective script will run only when a critical alarm for the Processes test is generated. Similarly, if the Critical/Major option is chosen, then the corrective script will execute only when the eG Enterprise system generates critical or major alarms for the Processes test. In order to ensure that the corrective script executes regardless of the alarm type, select the Critical/Major/Minor option.
- USERPARAMS The user-defined parameters that are to be passed to the corrective script are specified in the USERPARAMS text box. One of the following formats can be applied to the USERPARAMS specification:

*exec@processName:command*: In this specification, *processName* is the display name of the process pattern specified against the PROCESS parameter, and *command* is the command to be executed by the default script when the process(es) represented by the *processName* stops. For example, assume that the **PROCESS** parameter of Processes test has been configured in the following manner: *Apache:\*/opt/egurkha/manager/apache/bin/httpd\*,Tomcat:\*java\*tomcat\**,

where *Apache* and *Tomcat* are the *processNames* or display names of the configured patterns. If auto-correction is enabled for these processes, then the **USERPARAMS** specification can be as follows:

#### exec@Apache:/opt/egurkha/manager/apache/bin/apachectl start,Tomcat: /opt/tomcat/bin/catalina.sh start

This indicates that if the processes configured under the *processName "Apache"* stop (i.e. \*/opt/egurkha/manager/apache/bin/httpd\*), then the script will automatically execute the command "/opt/egurkha/manager/apache/bin/apachect/ start" to start the processes. Similarly, if the "Tomcat" processes (i.e. \*java\*tomcat\*) stop, the script will execute the command "/opt/tomcat/bin/catalina.sh start" to start the processes.

*command*: In this specification, *command* signifies the command to be executed when any of the processes configured for monitoring, stop. Such a format best suits situations where only a single process has been configured for monitoring, or, a single command is capable of starting all the configured processes. For example, assume that the **PROCESS** parameter has been configured to monitor *IISWebSrv:\*inetinfo\**. Since only one process requires monitoring, the first format need not be used for configuring the **USERPARAMS**. Therefore, simplify specify the command, *"net start World Wide Web Publishing Service"*.



- The USERPARAMS specification should be placed within double quotes if this value includes one or more blank spaces (eg.,"*Apache:/opt/egurkha/bin/apachectl start*").
- Note that if a processName configured in the PROCESS parameter does not have a corresponding entry in USERPARAMS (as discussed in format 1), then the auto-correction capability will not be enabled for these processes.
- CORRECTIVESCRIPT Specify none in the CORRECTIVESCRIPT text box to use the default auto-correction script. Administrators can build new auto-correction capabilities to address probable issues with other tests, by writing their own corrective scripts. To know how to create custom auto-correction scripts, refer to the eG User Manual.
- > WIDE This parameter is valid on Solaris and Windows systems only.

On Solaris systems (before v11), if the value of the **WIDE** parameter is **Yes**, the eG agent will use *usr/ucb/ps* instead of */usr/bin/ps* to search for processes executing on the host. In Solaris 11, the eG agent uses the */usr/bin/ps auxwww* command to perform the process search. The */usr/ucb/ps* and the */usr/bin/ps auxwww* commands provide a long output (> 80 characters), whereas */usr/bin/ps* only outputs the first 80 characters of the process path and its arguments. However, some Solaris systems are configured with tightened security, which prevents the *usr/ucb/ps* and/or the */usr/bin/ps auxwww* command to be executed by any and every user to the system - in other words, only pre-designated users will be allowed to execute this command. The **sudo** (*superuser do*) utility (see http://www.gratisoft.us/sudo/) can be used to allow designated users to execute this command. If your system uses **sudo** to restrict access to the commands that return a long output, then set **WIDE** to **Yes** and then specify the value *sudo* for the */usr/ucb/ps* and/or the */usr/bin/ps auxwww* command (as the case may be) to monitor

processes (like it would do if the **WIDE** parameter were set to be **Yes**), but it would also use **sudo** to execute this command.

If the *Processes* test on Solaris 11 fails, then do the following:

- Check whether the **WIDE** parameter is set to **Yes**.
- If so, then make sure that the **KEONIZEDSERVERCMD** parameter is set to **sudo**.
- If the test still fails, then look for the following error in the **error\_log** file (that resides in the **/opt/egurkha/agent/logs** directory) on the eG agent host:

*ERROR ProcessTest: ProcessTest failed to execute [sudo: pam\_authenticate: Conversation failure]* 

• The aforesaid error occurs if the *sudo* command prompts for a password at runtime. If you find such an error in the **error\_log** file, then, open the **SUDOERS** file on the target host and append an entry of the following format to it:

*Defaults:* <*eG\_Install\_Username*> *!authenticate* 

For instance, if *eguser* is the eG install user, then your entry will be: *Defaults:eguser !authenticate* 

This entry will make sure that you are no longer prompted for a password.

• Save the file and restart the eG agent.

On Windows environments, by default, the eG agent uses *perfmon* to search for the processes that match the configured patterns. Accordingly, the **WIDE** parameter is set to **No** by default. Typically, a process definition in Windows includes the *full path to the process*, the *process name*, and *process arguments* (if any). *Perfmon* however scans the system only for *process names* that match the configured patterns – in other words, the process path and arguments are ignored by *perfmon*. This implies that if multiple processes on a Windows host have the same name as specified against **PROCESSPATTERN**, then *perfmon* will only be able to report the overall resource usage across all these processes; it will not provide any pointers to the exact process that is eroding the host's resources. To understand this better, consider the following example. Typically, Windows represents any Java application executing on it as *java.exe*. Say, two Java applications are executing on a Windows host, but from different locations.

If *java.exe* has been configured for monitoring, then by default, *perfmon* will report the availability and average resource usage of both the Java applications executing on the host. If say, one Java application goes down, then *perfmon* will not be able to indicate accurately which of the two Java applications is currently inaccessible. Therefore, to enable administrators to easily differentiate between processes with the same name, and to accurately determine which process is unavailable or resourcehungry, the eG agent should be configured to perform its process searches based on the process path and/or process arguments, and not just on the process name – in other words, the eG agent should be configured **not to use perfmon**.

To achieve this, first, set the WIDE parameter to Yes. This will instruct the eG agent to not use



*perfmon* to search for the configured process patterns. Once this is done, then, you can proceed to configure a **PROCESSPATTERN** that includes the *process arguments* and/or the *process* path, in addition to the *process* name. For instance, if both the *Remote Access Connection Manager* service and the *Terminal Services* service on a Windows host, which share the same name – *svchost* - are to be monitored as two different processes, then your **PROCESSPATTERN** specification should be as follows:

*Terminal:C:\WINDOWS\System32\svchost -k DcomLaunch,Remote:C:\WINDOWS\system32\svchost.exe -k netsvcs* 

You can also use wildcard characters, wherever required. For instance, in the above case, your **PROCESSPATTERN** can also be:

Terminal:\*svchost -k DcomLaunch,Remote:\*svchost.exe -k netsvcs

Similarly, to distinctly monitor two processes having the same name, but operating from different locations, your specification can be:

*JavaC:c:\javaapp\java.exe,JavaD:d:\app\java.exe* 

 Before including process paths and/or arguments in your PROCESSPATTERN configuration, make sure that the WIDE parameter is set to true. If not, the test will not work.



- If your PROCESSPATTERN configuration includes a process path that refers to the *Program Files* directory, then make sure that you **do not a include a** ~ (tilde) while specifying this directory name. For instance, your PROCESSPATTERN specification should not be say, *Adobe:C:\Progra~1\Adobe\AcroRd32.exe*.
- KEONIZEDSERVERCMD On Solaris takes hosts, this test an additional **KEONIZEDSERVERCMD** parameter. Keon is a security mechanism that can be used with a multitude of operating systems to provide a centralized base for user account and password management, user access and inactivity control, system integrity checking, and auditing. If the Keon security model is in use on the Solaris host being monitored, then this test may require special user privileges for executing the operating system commands. In such a case, specify the exact command that the test is permitted to execute, in the **KEONIZEDSERVERCMD** text box. For example, if the keon command to be executed by the test is *sudo*, specify *sudo* in the **KEONIZEDSERVERCMD** text box. Alternatively, you can even specify the full path to the sudo command in the KEONIZEDSERVERCMD text box. On the other hand, if a Keon security model is not in place, then set the KEONIZEDSERVERCMD parameter to none.
- USEGLANCE This flag applies only to HP-UX systems. HP GlancePlus/UX is Hewlett-Packards's online performance monitoring and diagnostic utility for HP-UX based computers. There are two user interfaces of GlancePlus/UX -- *Glance* is character-based, and *gpm* is motif-based. Each contains graphical and tabular displays that depict how primary system resources are being utilized. In environments where *Glance* is run, the eG agent can be configured to integrate with *Glance* to pull out the process status and resource usage metrics from the HP-UX systems that are being monitored. By default, this integration is disabled. This is why the USEGLANCE flag is set to No by default. You can enable the integration by setting the flag to Yes. If this is done, then the

test polls the Glance interface of HP GlancePlus/UX utility to pull out the desired metrics.

USEPS - This flag is applicable only for AIX LPARs. By default, on AIX LPARs, this test uses the tprof command to compute CPU usage of the processes on the LPARs. Accordingly, the USEPS flag is set to No by default. On some AIX LPARs however, the tprof command may not function properly (this is an AIX issue). While monitoring such AIX LPARs therefore, you can configure the test to use the ps command instead for metrics collection. To do so, set the USEPS flag to Yes.

Alternatively, you can set the **AlXusePS** flag in the **[AGENT\_SETTINGS]** section of the **eg\_tests.ini** file (in the **<EG\_INSTALL\_DIR>\manager\config** directory) to **yes** (default: **no**) to enable the eG agent to use the **ps** command for CPU usage computations on AIX LPARs. If this global flag and the **USEPS** flag for a specific component are both set to **no**, then the test will use the default **tprof** command to compute CPU usage of processes executing on AIX LPARs. If either of these flags is set to **yes**, then the **ps** command will perform the CPU usage computations for such processes.

In some high-security environments, the **tprof** command may require some special privileges to execute on an AIX LPAR (eg., *sudo* may need to be used to run **tprof**). In such cases, you can prefix the **tprof** command with another command (like *sudo*) or the full path to a script that grants the required privileges to **tprof**. To achieve this, edit the **eg\_tests.ini** file (in the **<EG\_INSTALL\_DIR>\manager\config** directory), and provide the prefix of your choice against the **AixTprofPrefix** parameter in the **[AGENT\_SETTINGS]** section. Finally, save the file. For instance, if you set the **AixTprofPrefix** parameter to *sudo*, then the eG agent will call the **tprof** command as *sudo tprof*.

- ISPASSIVE If the value chosen is YES, then the server under consideration is a passive server in a cluster. No alerts will be generated if the server is not running. Measures will be reported as "Not applicable' by the agent if the server is not up.
- 30. Upon clicking the **Update** button, the following screen will appear:

Process	es paramete	ers configured for 192.168.10.61:80 (Web)
TEST PERIOD		5 mins
HOST	111	192.168.10.61
PORT		80
PROCESS		Terminal:C:\WINDOWS\System32\svchost
USEPS		No
WIDE	11	No
USER		none
CORRECT	111	No
ISPASSIVE		No
This p	age redirects t	to Admin Home in 60 seconds, else you can go back to Parameters configuration for test 쏊

Figure 1.15: Viewing a summary of the Processes test parameters



- 31. The HTTP test emulates a user accessing a web server. Since this test can be executed from a location external to the web server, it presents an unbiased external perspective of the state of the web server. Though this test, by default, does not require any configuration, it offers some specialized parameters, which if configured, generate certain interesting performance statistics pertaining to the web server.
- 32. To configure the parameters of this test, first open the **AGENTS TESTS SPECIFIC CONFIGURATION** page by following the menu sequence: Agents -> Tests -> Configure ->Specific.

First choose the type of component (from the **Component type** list box) and the specific component (from the **Component name** list box). Then choose type of a test (from the **Test type** list box). Doing so will provide the agent summary details and as well the configuration status of all the tests pertaining to the chosen component respectively.

In this page, you will view the configuration status of all the tests to the chosen component in a broad spectrum of classification such as **UNCONFIGURED TESTS**, **CONFIGURED TESTS** and **EXCLUDED TESTS**.

Configured tests are displayed in two types of categories namely,

• Tests with specific configuration

(Tests that explicitely require user intervention for its execution).

• Tests with default configuration

(Test that are ready to be executed by its default settings).

Using this interface, you can do the following:

- Configure an unconfigured test
- Reconfigure a test from the **Tests with specific configuration** category.
- Reconfigure a test from the **Tests with default configuration** category.
- Exclude/Include a test from its execution

To reconfigure a configured test, select the test from the **CONFIGURED TESTS** list box and click on the **Reconfigure** button.

	This page enables the administrate	or to configure a test for a com	iponent.	
		Click here 🏙 te	o enable and disable p	performance tests for W
Component type : Web	×	Component Search :	Search	Q.
Component name : 192,168.1	0.61:80	Test type :	Performance	V
AGENT SUMMARY				
INTERNAL AGENT	192.168.10.61			
EXTERNAL AGENT(S)	192.168.8.72			
EXTERNAL AGENT(S) UNCONFIGURED TEST	192.168.8.72	LED TESTS	EXCLUDED	TESTS

Figure 1.16: Reconfiguring Http test

This will invoke the parameters to be configured for the chosen test. Finally click on the **Update** button to implement the changes as depicted by the Figure 1.16.

- 33. The test configuration page reveals the following parameters (see Figure 1.17):
  - **TEST PERIOD** how often should the test be executed
  - URL The web page being accessed. While multiple URLs (separated by commas) can be provided, each URL should be of the format URL name:URL value. URL name is a unique name assigned to the URL, and the URL value is the value of the URL. For example, a URL can be specified as HomePage:http://192.168.10.12:7077/, where HomePage is the URL name and http://192.168.10.12:7077/ is the URL value.
  - **HOST** The host for which the test is to be configured.
  - > **PORT** The port number on which the specified **HOST** listens
  - COOKIEFILE Whether any cookies being returned by the web server need to be saved locally and returned with subsequent requests
  - PROXYHOST The host on which a web proxy server is running (in case a proxy server is to be used)
  - > **PROXYPORT** The port number on which the web proxy server is listening
  - PROXYUSERNAME The user name of the proxy server
  - > **PROXYPASSWORD** The password of the proxy server
  - > **CONFIRM PASSWORD** Confirm the **PROXYPASSWORD** by retyping it here.
  - CONTENT is a set of instruction:value pairs that are used to validate the content being returned by the test. If the CONTENT value is *none:none*, no validation is performed. The number of pairs specified in this text box, must be equal to the number of URLs being monitored. The instruction should be one of *Inc* or *Exc. Inc* tells the test that for the content returned by the web server to be valid, the content must include the specified value (a simple string search is done in this case). An instruction of *Exc* instructs the test that the server's output is valid if it does not contain the specified value. In both cases, the content specification can include wild card patterns. For

example, an Inc instruction can be *Inc:\*Home page\**. An Inc and an Exc instruction can be provided in quick succession in the following format: *Inc:\*Home Page\*,Exc:\*home* 

- CREDENTIALS –The HttpTest supports HTTP authentication. The CREDENTIALS parameter is to be set if a specific user name / password has to be specified to login to a page. Against this parameter, the URLname of every configured URL will be displayed; corresponding to each listed URLname, a Username text box and a Password text box will be made available. If the web server on which HttpTest executes supports 'Anonymous user access', then this parameter will take either of the following values:
  - a valid **Username** and **Password** for every configured **URLname**
  - none in both the Username and Password text boxes of all configured URLnames (the default setting), if no user authorization is required

Some IIS web servers however, support NTLM (Integrated Windows) authentication, where valid **CREDENTIALS** are mandatory. In other words, a *none:none* specification will not be supported by such IIS web servers. Therefore, in this case, against each configured **URLname**, you will have to provide a valid **Username** in the format: *domainname*|*username*, followed by a valid **Password**.

Please be sure to check if your web site requires HTTP authentication while configuring this parameter. HTTP authentication typically involves a separate pop-up window when you try to access the page. Many sites use HTTP POST for obtaining the user name and password and validating the user login. In such cases, the username and password have to be provided as part of the POST information and NOT as part of the **CREDENTIALS** specification for the HTTP test.

Moreover, SSL-enabled web sites are typically secured by a private key, public key, or a publicprivate key pair. If the web page configured for this test is SSL-enabled – i.e., if an HTTPS URL is specified against URL – and the contents of this web page can only be accessed using a **private key**, then the full path to the private key file will have to be provided against **Private key file path** and the password of the private key file should be specified against **Password**. If no such private key protects the contents of the configured **URL**, then set the **Private key file path** and its **Password** to *none*.

- TIMEOUT Here, specify the maximum duration (in seconds) for which the test will wait for a response from the server. The default TIMEOUT period is 30 seconds.
- ENCODING Sometimes the eG agent has to parse the URL content with specific encoding other than the default (ISO-8859-1) encoding. In such a case, specify the type of encoding using which the eG agent can parse the URL content in the ENCODING text box. By default, this value is none.

The parameters to be compared for 192.10	192.168.10.61
TEST PERIOD	: 5 mins 💌
URL	: HomePage:http://192.1 View
HOST	: 192.168.10.61
PORT	: 80
ENCODING	: none
COOKIEFILE	: none
PROXYHOST	: none
PROXYPORT	: none
PROXYUSERNAME	: none
PROXYPASSWORD	: ••••
CONFIRM PASSWORD	: ••••
CONTENT	: none:none
CREDENTIALS	HomePage Username : admin Password : ••••• Private Key File Path : none File Password : ••••
TIMEOUT	: 30
APPLY TO OTHER COMPONENTS	:
	Update

Figure 1.17: Configuring the HTTP test

34. Now, all your web server related tests are configured and the target server is ready to report measures to the eG server.

### 1.4 Monitoring the Apache/IBM HTTP Web Server

The next step is to log in to eG Enterprise's monitor interface to check the measures reported about the Apache/IBM HTTP web server. For this, login to the eG monitor interface as a supermonitor/monitor user, click on the **Components** option in the menu bar, and select the **Servers** option from the **Components** menu. By default, a managed web server will show up as an independent server in the eG Enterprise's monitor interface.

To view the measurements pertaining to your Apache/IBM HTTP web server, just click on it. On clicking, a screen displaying the various layers that constitute the Apache/IBM HTTP web server will appear .

Similarly, from the **SERVICES HEALTH** page that appears on clicking the **Services** menu option, web sites, transactions and other services can be monitored.

## **1.5 Troubleshooting**

If the Apache server tests are in an **UNKNOWN** state, then proceed to check whether the web adapter has been configured properly. While configuring an Apache server, setup will request for the full path to the root directory of the server. Ensure that this path is the same as the value displayed against the **ServerRoot** parameter in the **httpd.conf** file in the **<APACHE\_SERVER\_HOME <\conf** directory (see Figure 1.18).



Figure 1.18: The ServerRoot parameter in the httpd.conf file

Next, check whether a file named **webadapter.<PID>** is created in the **<EG\_HOME\_DIR>\agent\config** directory. This is a clear indicator of the successful deployment of the web adapter. Now, verify whether the **PID** in **webadapter.<PID>** matches with the **PID** of any one of the **Apache.exe** processes in the **Windows Task Manager** (see Figure 1.19). If it does not match, then the web adapter may not work. Under such circumstances, delete the **webadapter.<PID>** file and restart the Oracle Http Server. Sometimes, an additional **webadapter** file will be created with a PID that does not match any of the **Apache.exe** PIDs listed in the **Windows Task Manager**. In such a case, delete the additional **webadapter.<PID>** file and restart the eG agent.

🔍 C:\eGurkha\agent\config	C:\eGurkha\agent\config									
File Edit View Favorites T	ools Helj									100 A
🖨 Back 🔹 🔿 🔹 🔯 Searc	:h 🔁 Fo	lders 🎯 🦉	R X 6							
Address 🗀 C:\eGurkha\agent\con	fig									• @@
Folders			×			-	Name 🔺		Size	Туре
🚮 Desktop	📕 Wind	ows Task Mar	nager				apache_root.txt		0 KB	Text Document
🖻 🔄 My Documents	File Op	tions View H	elp				clusteroutput		30 KB	File
E 🛄 My Computer	Applical	ions Processe	Performanc	e			CorrectiveScriptsList.ini		0 KB	Configuration Sett
🗄 🛃 3½ Floppy (A:)						[	B eg_agents.ini		16 KB	Configuration Sett
E - Windows 2000 (C:)	Ima	ge Name	PID	CPU	CPU Time	Mem Usa 🔺	Blea dhini		37 KB	Configuration Sett
E Copy or Extend	Apa	che.exe	2644	00	0:00:05	17,200	i eg maintenance.ini		1 KB	Configuration Sett
E Gurkha	Apa	che.exe	2732	00	0:00:03	10,656	🖉 eg_managers.ini		0 KB	Configuration Sett
🗄 🗀 .snmp	CME	D.EXE	2912	00	0:02:22	1,068	eg_newtests.ini		1 KB	Configuration Sett
🖻 🧰 agent	csrs	s.exe	184	00	1:03:30	2,024	👸 eg_nick.ini		0 KB	Configuration Sett
🕀 🧰 config	dfss	Watch.exe	68U 1512	00	0:00:06	2,376	📓 eg_recover.ini		1 KB	Configuration Sett
🕀 🧰 data	dlho	st.exe	1868	00	0:04:09	3,492	s eg_remote.ini		1 KB	Configuration Sett
🗷 🛄 logs	exp	orer.exe	656	02	0:09:04	10,820	eg_setup.ini		U KB	Configuration Sett
🗄 🔛 threshold	ifwe	b60.EXE	2292	00	0:05:43	13,476	Blea tectiofo ini		1 KD 2 VB	Configuration Sett
	IKer	nel.exe	1400	00	0:00:01	9,112	S en tests ini		5 KB	Configuration Sett
E LE	ineti	nfo.exe	1532	00	1:49:15	5,692	leg thresholds.ini		89 KB	Configuration Sett
T napager	java	exe	2900	00	0:00:01	11.156	eg_topology.ini		5 KB	Configuration Sett
	js.e:	xe	2648	00	32:05:35	55,008	webadapter.2732		1 KB	2732 File
🗄 🧰 Extend	llssr	v.exe	764	00	0:00:16	1,864				
🖲 🧰 Inetpub	1 LSA:	DD-EAE	299	00	0:26:28	3,45				
🗄 🧰 jdk1.3.1_08										
🖲 🧰 micros					Er	d Process				
🕀 🛄 MicrosiN										
e oracle	Processes	: 51 CPU	Usage: 37%	Mem	Usage: 1187	780K / 2519856 🍌				
H-C admin										
🗄 🧰 dev6i										
🕀 🧰 IAS										
😑 🧰 Apache										
🖻 🛄 Apache										
🗄 🛄 bin										
ter cgi-bi	in									
E Conr	nin									
			<u> </u>	1)			<u> </u>	lent i		<u> </u>
Type: 2732 File Size: 45 bytes								45 bytes	Hy Corr	puter

Figure 1.19: PID in the file name matching with the PID of one of the Apache.exe processes

Also, ensure that the **Listen** ports configured in the **webadpater**.<**PID**> file (see Figure 1.20) are the same as those which are listed in the httpd.conf file in the **<APACHE\_SERVER\_HOME>**\conf directory (see Figure 1.20).



Figure 1.20: Listen ports displayed in the webadpater.<PID> file



Figure 1.21: Listen ports displayed in the httpd.conf file

Note that the **Listen** ports displayed in the **webadapter.<PID>** file are prefixed by a `\*', which typically represents an IP address. However, if a specific IP address substitutes the `\*' in the **webadapter.<PID>** file, then, in the eG administrative interface, the Oracle Http server must be managed using that IP address only.

Finally, check whether the directives indicated by Figure 1.22 exist in the httpd.conf file in the <APACHE\_SERVER\_HOME>\conf directory.

💽 TextPad - [C:\oracle\IAS\Apache\Apache\conf\httpd.conf]	_ 8 ×
Elle Edit Search Yiew Icols Macros Configure Window Help	_ 8 ×
」 D 😂 🖬 🗧 🚭 🖪 📓 🖏 📾 의 오 🖉 🚎 🚝 ୩ 😂 ザ 🏟 🐼 🐼 🚱 👁 💀 🕨 🕅	
LoadHodule perc.pr., module     modules/ApscheModulePerl.DLL       LoadHodule oprocnyr.module     modules/ApscheModuleProcnyr.dll       #LoadModule ssl_module     modules/ApscheModulePatCGI.dll       LoadHodule ssl_module     modules/ApscheModulePatCGI.dll       AddHodule ssl_module     modules/ApscheModulePatCGI.dll	•
ClearModuleList AddRodule mod_snoc c AddRodule mod_snoc c AddRodule mod_snice_squor c AddRodule mod_nike c AddRodule mod_nepcilation.c AddRodule mod_nolude.c AddRodule mod_stoindex.c AddRodule mod_strict AddRodule mod_strict AddRodule mod_size AddRodule mod_size.c AddRodule mod_size.c	
#AddModule mod_fastoj.c AddModule mod_ssl.c AddModule mod_egurkha.c	=
webadapter.2732 🛐 httpd conf	
227 22 Read Ovr Block Sync	Rec Caps

Figure 1.22: eG-specific directives in the httpd.conf file
# Chapter 2

# **Configuring and Monitoring an IIS Web Server**

The eG agent is capable of monitoring IIS web servers (ver. 4, 5, 6, and 7) in an agent-based and an agentless manner; however, note that, in the agentless mode, the solution cannot monitor web transactions to web sites configured on the target IIS web server.

To enable eG to monitor an IIS web server, the following activities need to be performed:

- > Configuring an IIS web server to work with the eG agent
- > Administering the eG manager through its user interface to monitor the IIS web server

# 2.1 Configuring an IIS Web Server to work with the eG Agent on Windows Environments

## 2.1.1 Configuring the eG Agent to Monitor Web Transactions to Web Sites on an IIS Web Server Operating on Windows 2000/2003

To enable the eG agent to monitor an IIS web server on Windows 2000/2003, follow the steps below:

- First, make sure 'logging' is enabled on these platforms;
- Next, make sure that the eG agent configuration is modified to support web transaction monitoring.

The sub-sections that follow will discuss each of these steps elaborately.

#### 2.1.1.1 Enabling Logging on the IIS Web Server

Logging triggers the creation of log files that track the URLs accessed on the IIS web server. The eG Enterprise suite requires these log files for monitoring the transactions to the web sites hosted on the IIS web server. In the absence of these log files, an eG agent will not be able to monitor web site transactions for Microsoft IIS web servers. Therefore, in order to enable the eG Enterprise suite to perform effective web transaction monitoring, logging must be enabled for the managed web sites.

# 2.1.1.1.1 Enabling Logging for Web Sites on Windows 2003

In the case of an IIS web server on Windows 2003, logging can be enabled using the procedure discussed below:

1. Open the Internet Information Services (IIS) Manager on the IIS web server host using the menu sequence Start -> Programs -> Administrative Tools -> Internet Information Services (IIS) Manager. Figure 2.1 will then appear.

🐌 Internet Information Services (IIS) Ma	nager				_ B ×
🛐 Eile Action Yiew Window Help					_ <del>-</del> - <del>-</del> ×
Internet Information Services Internet Information Services Image: Construction Point Construction Image: Construction Point Constructi	Computer	Yes	Version IIS V6.0	Status	

Figure 2.1: The IIS console

2. If all the web sites on the IIS web server are being monitored by eG, then you will have to enable logging for all. To achieve this, right-click on the **Web Sites** node in the tree structure on the left pane of Figure 2.1, and select **Properties** (see Figure 2.2) from the shortcut menu that appears.



Figure 2.2: Selecting the Properties option from the shortcut menu of the Web Sites node (Windows 2003)

3. Next, click the **Web Site** tab of the **Properties** dialog box (see Figure 2.3) that appears, and ensure that the **Enable logging** check box is selected.

Directory Se	ecurity	HTTP	Headers	Custon	n Errors	Service
Web Site	Performa	nce I I	SAPI Filters	Home [	Directory	Document:
-Web site ide	entification					
Description						
IP address		(All Unass	igned)		-	Advanced
TCP port;			55	nort:		
-Connection:	ş					
Connection: Co <u>n</u> nectior	; n timeout:		120 secon	ds		
Connection: Connectior	; i timeout: HTTP Keer	-Alives	120 secon	ds		
Connection: Connectior	; i timeout: HTTP <u>K</u> eep	-Alives	120 secon	ds		
Connection: Connection Connection Enable	s 1 timeout: HTTP <u>K</u> eep	-Alives	120 secon	ds		
Connection: Connection Connection Enable	s 1 timeout: HTTP <u>K</u> eep logging -	-Alives	120 secon	ds		
Connection: Connection Connection Enable	s h timeout: HTTP <u>K</u> eep logging – g format:	-Alives	120 secon	ds		1
Connection: Connection Connection Enable Enable Active lo	s h timeout: HTTP <u>K</u> eep logging g format: tended Log	-Alives	120 secon	ds	operties	
Connection: Connection Connection Enable Enable Active lo W3C Ex	s h timeout: HTTP <u>K</u> eep logging – g format: tended Log	-Alives	120 secon	ds	operties	
Connection: Connection Connection Enable Enable Active lo	s htimeout: HTTP <u>K</u> eep logging – g format: tended Log	-Alives	120 secon	ds <u>Pr</u>	operties	]
Connection: Cognection Cognection Enable Enable Active lo W3C Ex	s h timeout: HTTP Keep logging g format: tended Log	-Alives	izo secon	ds	operties	]
Connection: Connection F Enable G Enable Active lo W3C Ex	s h timeout: HTTP <u>K</u> eep logging – g format: tended Log	-Alives	i 20 secon	ds	operties	]

Figure 2.3: Enabling logging for all the web sites

- 4. Finally, click on the **Apply** and **OK** buttons to register the changes.
- 5. If only a few selected web sites on the IIS web server are being monitored by the eG Enterprise suite, then logging needs to be enabled for those specific sites only. To achieve this, right-click on the web site being monitored from the tree-structure in the left pane the IIS Manager, and select **Properties** from the shortcut menu (see Figure 2.4).



Figure 2.4: Selecting the Properties option for the egurkha web site

6. Next, select the Web Site tab from the Properties dialog box, and select the Enable Logging check box

Directory Security	HTTP Headers	Custom Errors	Service
Web Site Performa	ince ISAPI Filters	Home Directory	Documents
Web site identification	0		
Description:			
TP address:	(All Upassigned)		tiduanced
	(In Charangerous)		ulliver receiver
ICP port:	55	_port:	
Connections			
Connection timeout:	III secon	ds	
	All		
I≪ Enable HTTP Keet	)-AIIVES		
Enable logging			
Active les formation			
W2C Extended Lo	- Ele Exmat	Properties	ſ
Twoc extended to	g rile Formac		

as depicted by Figure 2.5. Finally, click on the **Apply** button and then the **OK** button.

Figure 2.5: Enabling access logging for the egurkha web site

#### 2.1.1.1.2 Enabling Logging for Web Sites on Windows 2000

In the case of an IIS web server on a Windows 2000 host, follow the steps below to enable logging for the web sites.

- 1. Open the **Internet Information Services** console on the IIS host using the menu sequence Start -> Programs -> Administrative Tools -> Internet Services Manager.
- 2. If all the web sites on the IIS web server are being monitored by eG, you will have to enable logging for all. To achieve this, right-click on the node representing the IIS host in the tree structure in the left pane of the IIS console (see Figure 2.6), and select **Properties** from the shortcut menu that appears.

		Description		State	Host Header Name	IP Address	Port	Status	
ternet Informa	tion Services	Default F	IP Site	Running		* All Unassigned *	21	10 II 594044	5100
🔍 * egurkha24		Default W	eb Site	Running		* All Unassigned *	80		
Default	Connect		on Web Site	Running		* All Unassigned *	6394		
E 🔬 Default	Disconnect		P Virtual Server	Running		* All Unassigned *	25		
E 🤣 Adminis E 🌭 Default E 🕸 Default	Backup/Restore Restart IIS	Configuration	P Wrtual Server	Running		* All Unassigned *	119		
Cy room	New All Tasks	1	•						
	View	1							
	Refresh Export List								
	Properties								
	Help								

Figure 2.6: Selecting the Properties option from the shortcut menu of the IIS host node

3. Click on the **Edit** button in Figure 2.7 to modify the **Properties** of the IIS web server.

	Edit the properties inherited by all sites created on this computer.
	Master Properties: WWW Service
Ena	ble Bandwidth Throttling
Limit n	etwork bandwidth available for all Web and FTP sites on this
compi	rer.
Ma <u>x</u> m	um network use: 11,024 kb/s
Comput	er MIME Map
	Configure the MIME types for all web
à	
-	

Figure 2.7: Clicking on the Edit button

4. Next, click the **Web Site** tab of the **Properties** dialog box (see Figure 2.8) that appears, and ensure that the **Enable Logging** check box is selected.

Documents   Web Site	Directory Securi Operators	ty HTTPH Performance	leaders	Custom Filters	Errors   Home	Service Directory
∣ -Web Site Ide	ntification	r enomina iso	1			
Description:					ŕ	
IP Address	(All Uni	assigned)			Adva	nced.
TCP Port	80	-	CI Part			
Time of	1	_1. °	SEVER.	1	11	
Connections						
• Unlimite	d					
C Limited	To:	1.000 con	nections			
Connection	Timeout	900 sec	onds			
	eep-Alives Enable	d				
Enable I	ogging					
Anthon Inc	- farmet					
White aug	romac lended Log File Fo	rrant	-	Propertie	e. [	
1.00 EN	consist and the re	ningi.				

Figure 2.8: Selecting the 'Enable Logging' checkbox

- 5. Finally, click on the **Apply** and **OK** buttons to register the changes.
- 6. If only a few selected web sites on the IIS web server are being monitored by the eG Enterprise suite, then logging needs to be enabled for those specific sites only. To achieve this, right-click on the web site being monitored from the tree-structure in the left pane of the IIS console, and select **Properties** from the shortcut menu (see Figure 2.9).

		Description	State	Host Header Name	IP Address	Port	Status	
hternet Information Serv Fegurkha26 Default FTP Site Default Web Sit Administration V Control of the Site Control of the Site Co	Explore Open Browse	Default FTP Site Default Web Site A Administration Web Site Sam Default SMTP Wituel Server Default NNTP Wituel Server	Running Running Running Running Running		* All Unassigned * * All Unassigned * * All Unassigned * * All Unassigned * * All Unassigned *	21 80 6394 25 119		
	Start Stop Pause							
New All Tasl Delete Refres	New All Tasks Delete Refresh							
	Properties Help							

Figure 2.9: Selecting the Properties option for the Default web site

7. Next, select the **Web Site** tab from the **Properties** dialog box, and select the **Enable Logging** check box as depicted by Figure 2.10. Finally, click on the **Apply** button and then the **OK** button.

/eb Site Operators	Performance   I	SAPI Filters   1	Iome Directo	ry Documen
Web Site Identification				
Description:	Default Web Site			
IP Address:	[All Unassigned]			Advanced
ICP Port:	80	SSL Port		
Connections				
Unlimited				
C Limited To:	1,000	connections		
Connection Timeout	900	seconds		
HTTP Keep-Alive	s Enabled			
Enable Logging				
Active log format				
W3C Extended Lo	g File Format	*	Properties	. [
	Terrana and a			_

Figure 2.10: Enabling access logging for the Default web site

#### 2.1.1.2 Modifying the eG Agent Configuration to Enable Web Transaction Monitoring

In order to monitor the web transactions to the web sites on an IIS web server, a specific filter needs to be installed on the IIS web server to track all requests to and from the web server. To achieve this, the eG agent on the IIS web server has to be modified. To do so, perform the steps given below:

 Select Uninstall Agent from the options available under the eG Monitoring Suite -> eG Agent menu. The screen depicted by Figure 2.11 will appear. Here, select the Modify option and click the Next > button.

eG Agent Setu	p X
<b>Welcome</b> Modify, repa	ir, or remove the program.
Welcome to current insta	the eG Agent Setup Maintenance program. This program lets you modify the llation. Click one of the options below.
Modify	
<b>B</b>	Select new program features to add or select currently installed features to remove.
C Repair	Reinstall all program features installed by the previous setup.
	Remove all installed features.
InstallShield	< Back Next > Cancel

Figure 2.11: Modifying the agent configuration

2. If the eG agent setup program identifies an IIS server in the user environment, it expects the user to state if he/she wants to monitor this IIS server as depicted by Figure 2.12. If the user chooses **Yes**, the Setup installs a specific filter that will be used to track all requests to and from a web server. The default option is **No**.

Question	
?	An IIS web server is installed on your system. The eG agent can instrument your web server to monitor critical transactions in real-time. To do this, the agent will install an ISAPI filter for your web server and you will need to restart the World Wide Web Publishing Service (W3SVC). Would you like to configure this enhanced IIS web server monitoring capability?
	Yes No

Figure 2.12: IIS web server monitoring

3. Then, restart the World Wide Web Publishing Service.

#### 2.1.2 Configuring the eG Agent to Monitor an IIS Web Server Operating on Windows 2008

The eG agent can monitor an IIS web server operating on Windows 2008 only if the **Web Server** role is configured on the target Windows 2008 server.

Typically, for an IIS web server to function on a Windows 2008 server, a **Web Server Role** should be configured on the server. The **Web Server** role in Windows Server® 2008 lets you share information with users on the Internet, an intranet, or an extranet. If such a role does not exist on a Windows 2008 server, then, you cannot monitor the transactions to the IIS web server on that host; this is because, the ISAPI filter required for transaction monitoring cannot be installed on a Windows 2008 server without the **Web Server** role.

To configure this **Web Server** role on a Windows 2008 server, follow the steps detailed below:

- 1. Login to the Windows 2008 server as a local/domain administrator.
- 2. Open the **Server Manager** console by following the menu sequence, Start -> Programs -> Administrative Tools -> Server Manager (see Figure 2.13).



Figure 2.13: Opening the Server Manager

3. The **Server Manager** console then appears (see Figure 2.14).

ie Accion view Help				
Server Manager (EGLRKHA20	Server Manager (EGURKHA2008LIC)			
Roles Features Diagnostics Configuration	Get an overview of the status of	this server, perform top management tasks, and add or remov	e server roles and features.	
Ca storage	Server Summary		Server Summary Help	Ĩ
	Computer Information Full Computer Name: Domain: Local Area Connection: Remote Desktop: Product ID: Do not show me this console at log	eguiHha2008lic.CHN.EGURKHA.COM CHN.EGURKHA.COM IPv4 address assigned by DHCP, IPv6 enabled Enabled 55041-339-3906613-76477 on	<ul> <li>Change System Properties</li> <li>Wew Network Connections</li> <li>Configure Remote Desktop</li> </ul>	
	Security Information     Windows Prewal:     Windows Updates:     Last checked for updates:	Off Install updates automatically using Microsoft Update 11/2/2008 6:22 PM	Go to Windows Firewal     Configure Updates     Check for New Roles     Ron Security Configuration Waard     Configure IE ESC	
	Last installed updates: IE Enhanced Security Configuration (ESC):	10/30/2008 3:00 AM On for Administrators On for Users		
	Roles Summary		Roles Summary Help	
	Roles: 1 of 16 installed		🗿 Go to Roles	

Figure 2.14: The Server Manager console

4. In the **Server Manager** console, click on the **Roles** node in the tree-structure in the left panel of the console. The information in the right-panel will change to display a **Roles Summary** and related details. To add a new role, click on the **Add Roles** option in the right panel of Figure 2.15.



Figure 2.15: Clicking on the Roles node in the tree-structure

5. This will invoke the **Add Roles Wizard**. Click on the **Next** button in the welcome screen of Figure 2.16 to proceed with the role creation.

Add Roles Wizard	X
Before You B	Begin
Before You Begin Server Roles Confirmation Progress Results	This wizard helps you install roles on this server. You determine which roles to install based on the tasks you want this server to perform, such as sharing documents or hosting a Web site. Before you continue, verify that: • The Administrator account has a strong password • Network settings, such as static IP addresses, are configured • The latest security updates from Windows Update are instaled If you have to complete any of the preceding steps, cancel the wizard, complete the steps, and then run the wizard again. To continue, click Next. Step this page by default
	< Previous Next > Instal Cancel

Figure 2.16: Clicking on the Next button in the welcome screen of the Add Roles Wizard

6. The next step of the wizard prompts you to pick one/more roles to install on the Windows 2008 server. Select the **Web Server (IIS)** role depicted by Figure 2.17 to install it. Then, click the **Next** button to proceed.

Before You Begin	Select one or more roles to install on this server.	Description
Web Server (115) Role Services Confirmation Progress Results	Active Directory Certificate Services     Active Directory Domain Services     Active Directory Federation Services     Active Directory Rights Management Services     Directory Rights Management Services     UDI Services     UDDI Services     Wieb Server (115)     Windows Deployment Services	Web Server (IIS) provides a reliable, manageable, and scalable Web application infrastructure.

Figure 2.17: Selecting the Web Server (IIS) role

7. Then, when Figure 2.18 appears, click on the **Next** button to switch to the next step of the role installation.



Figure 2.18: An introduction to the web server role

8. The next step will prompt you to choose the role services. Select all the listed services and click the Next button to proceed. Make sure that the IIS Management Scripts and Tools feature in particular is installed and enabled for the 'Web Server' role.

Add Roles Wizard Select Role	e Services	X
Before You Begin Server Roles Web Server (IIS) Role Services Confirmation Progress Results	Select the role services to install for Web Server (IIS): Role services:	Description: FTP Publishing Service includes the File Transfer Protocol (FTP) Server and the FTP management console. You might setup an FTP publishing service to allow users to upload and download files.
	< <u>P</u> revious	Next > Install Cancel

Figure 2.19: Selecting the required role services

9. The screen that appears subsequently provides a summary of your specifications. After reviewing your selections, you can confirm installation of the chosen web server role by clicking on the **Install** button in Figure 2.20.

Add Roles Wizard		×
Confirm Instal	lation Selections	
Before You Begin Server Roles Web Server (IIS) Role Services Confirmation	To install the following roles, role services, or features, click Install.	<b>_</b>
Progress Results	<ul> <li>Find out more about Windows System Resource Manager (WSRM) and how it can help optimize CPU usage</li> <li>Web Server</li> <li>Common HTTP Features</li> <li>Static Content</li> <li>Default Document</li> <li>Directory Browsing</li> <li>HTTP Errors</li> <li>HTTP Redirection</li> <li>Application Development</li> <li>ASP.</li> <li>CGI</li> <li>ISAPI Extensions</li> <li>ISAPI Extensions</li> <li>ISAPI Filters</li> <li>Server Side Includes</li> </ul>	
	< <u>Previous</u> <u>Install</u> Cancel	

Figure 2.20: Installing the web server role

10. Once installation completes successfully, Figure 2.21 will appear confirming the success of the installation.



Figure 2.21: A message indicating that installation was successful

11. Click on the **Close** button in Figure 2.21 to close the wizard. Figure 2.22 will then appear displaying the newly installed role.



Figure 2.22: The Roles page in the right panel displaying the Web Server (IIS) role that was just installed

## 2.1.3 Configuring the eG Agent to Monitor the Web Transactions to Web Sites on an IIS Web Server Operating on Windows 2008

To perform web site transaction monitoring on an IIS web server executing on Windows 2008, you need to install and configure **Advanced Logging** on the target IIS web server, soon after you create the **Web Server** role on the Windows 2008 server.

IIS Advanced Logging is an extension for Internet Information Services (IIS) 7 that provides enhanced data collection and real-time server and client-side logging capabilities. It can be managed by using IIS Manager and other tools that can work with the IIS 7 configuration system.

The Advanced Logging feature supports complex Web and media delivery scenarios that demand flexibility and control. These scenarios may require custom logging fields, real-time access to data, greater control over what gets logged and when, extensibility for new sources of data, the ability to consolidate log data posted by clients and correlate it to server data, the option of sharing data from various sources and storing it in multiple logs, capturing system-state information, inclusion of canceled requests in logs, and even logging multiple times per request.

In order to monitor the web transactions to IIS 7 (that is bundled with the Windows 2008 server), the eG agent requires that the **Advanced Logging** be installed and configured on IIS 7. The steps in this regard have been discussed below:

1. Login to the IIS host.

2. Download the executable that installs the **Advanced Logging** feature from any of the following URLs, depending upon whether the IIS 7 installation is a 32-bit one or a 64-bit one:

32-bt/64-bit	URL
32-bit	http://www.microsoft.com/downloads/en/details.aspx?FamilyID=4d110e78-95cb- 4764-959c-b8afc33df496&displaylang=en
64-bit	http://www.microsoft.com/downloads/en/details.aspx?FamilyID=793051A8-36A0- 4342-BDFE-47A6B0E3488F

- 3. Once the download is complete, go to the directory to which the executable was downloaded and double-click on it.
- 4. Figure 2.23 will then appear. Accept the license by selecting the **I accept the terms in the License Agreement** check box, and click on the **Install** button to proceed with the installation.



Figure 2.23: Accepting the license agreement

5. Once the installation ends, Figure 2.24 will appear indicating the successful installation of the **Advanced Logging** feature. Click the **Finish** button to exit the wizard.



Figure 2.24: Finishing the installation

 Next, proceed to configure the Advanced Logs. For that, first, open the Internet Information Services (IIS) Manager console using the menu sequence: Start -> Programs -> Administrative Tools -> Internet Information Services (IIS) Manager. Figure 2.25 will then appear.

Internet Information Services (IIS) Manager	_ 8 ×
	) 🖾 🖄 I 🔞 👻
Ele View Help	10
Connections         WIN-DXME8FXB0N3 Home         Group by: Area         Start Page         Start Page         MUN-DXME8FXB0N3 (WIN-DXME         Start Page         MET         MET       MET       MET       Method       Connection       Machine Key       Pages and Controls         MET       Session State       SITP E-mail       Strings       Machine Key       Pages and Controls	Actions Manage Server Restart Start Start Stop View Application Pools View Sites Pieup Online Help
IIS         Advanced       ASP       AsP       Corr       Solution       Default       Browsing         Advanced       ASP       Authentication       CGI       Corr       Solution       Default       Browsing         Error Pages       Failed Request       Handler       Handler       Heriting       Hit       Filter       Solution         Handler       Handlers       Hit       Respon       IPv4 Address       ISAPI and Coria	
ISAPI Filters Logging MIME Types Modules Output Server Worker Caching Certificates Processes	
Content View	
Ready	

Figure 2.25: The Internet Information Services (IIS) Manager console

7. Click on the node representing the IIS web server host in the tree-structure in the left panel of the console. The right panel will change to display a variety of options. In the **IIS** section of the right panel, click on the **Advanced Logging** option. Figure 2.26 will then appear. In the **Actions** list in the right panel, click on the **Add Log Definition** option (as indicated by Figure 2.26) to add a new log definition.

We beb         Set: Page         Set: Page         With Application Pagee         With Application Pa	WIN-DXME8FXBON	13 🕨			M 🖄 🖄 🖤 🗸
Image: State Fage   Image: State Fage <th>jile <u>V</u>iew <u>H</u>elp</th> <th></th> <th></th> <th></th> <th></th>	jile <u>V</u> iew <u>H</u> elp				
Contract Version     Cont	rections	Advanced Logging			Alerts           Image: Image: Advanced Logging feature is disabled.
Group by: No Grouping     Name     Name     Nome     No	MIN-DXME8FXBON3 (WIN-DXME)	Use this feature to create and manage log log, and to configure additional logging se	<ul> <li>definitions, which specify which se tings.</li> </ul>	rver-side and client-side logging fields to	Actions
Name A       Enabled	FTP Sites	Group by: No Grouping			Add Log Definition
Petures View     Content View	æ- oo Sites	Name  %COMPUTERNAME%-Server	Enabled Enabled		Enable Advanced Logging Enable Client Logging Edit Logging Fields Edit Log Directory View Log Files
Difectures View 🖧 Content View					Help Online Help
		Features View			

Figure 2.26: Viewing the list of log definitons that pre-exist

8. In the Log Definition page that appears, specify WebAdapterFile as the Base file name. Check the Enabled option, the Publish real-time events option, and the Write to disk sub-option.

Eie Vew Lielp         Connections         Start Page         Start Page         MaphibioWsEXEXENS (Winkbowse         E babled         E babled         E babled         E babled         E babled         E babled         Start new tigg file when configuration changes         Maximum direction (r seconds)         Start new tigg file when configuration changes         Maximum direction (r seconds)         Start new tigg file when configuration changes         Maximum direction (r seconds)         Selected Fields         Move Light         Move Light			
Somections       Log Definition         Start Page       Application Pools         YmterDowneerscenos (WINN-Downeers)       West Log Files         YmterDowneerscenos (Winn-Downeerscenos)       West Log Files         YmterDowneerscenos (Winn-Downeerscenos)       Help         Orall File Rollover       © Sphedule         Doaly       Start new log file when configuration changes         Maximum file size (n klobytes)       Move Einst         Selected Fields       Edl(         ID       Header Name         Move Log       Move Last         Move Log       Move Last	<u>File Yiew H</u> elp		
Features View	Lie Wew Help Cannections Start Page Start Page Shart Page Comparison Pools Comparison Pools Com	Selected Fields         Selected Fields         Selected Fields         Maximum file size (in kilobytes)         Selected Fields         Edition         Selected Fields         Move Einst         Move Last	Actions

Figure 2.27: Adding a new log file definition

- 9. Then, click on the **Select Fields** button at the bottom of the **Log Definition** page to select he server-side and client-side logging fields to be logged in the specified log file. Doing so will invoke Figure 2.28, from which you wil have to select the following fields:
  - > UserName
  - ➢ URI-Stem
  - URI-QueryString
  - Time-Local
  - > Time Taken
  - > Status
  - Server-IP
  - Server Port
  - Server Name
  - > Site Name
  - > CPU-utilization
  - Bytes Sent
  - Bytes Received
  - ≻ Host
  - > Client Ip
  - > Date-local

ID	Source Name	Source Type	Category	Header Name
Win325tatus	Win32Status	Built-In	Default	sc-win32-status
W3WP-PrivateBytes	\Process(w3wp)\Pri	Performance C	Default	W3WP-PrivateB
🗹 UserName	UserName	Request Header	Default	cs-username
User Agent	User-Agent	Request Header	Default	cs(User-Agent)
URI-Stem	URI-Stem	Built-In	Default	cs-uri-stem
URI-Querystring	URI-Querystring	Built-In	Default	cs-uri-query
Time-UTC	Time-UTC	Built-In	Default	time
🗹 Time-Local	Time-Local	Built-In	Default	time-local
🗹 Time Taken	Time-Taken	Built-In	Default	TimeTakenMS
Substatus	Substatus	Built-In	Default	sc-substatus
🗹 Status	Status	Built-In	Default	sc-status
🗹 Site Name	SiteName	Built-In	Default	s-sitename
Server-IP	Server-IP	Built-In	Default	s-ip
Server Port	ServerPort	Built-In	Default	s-port
7		7. dt 7		1.1

Figure 2.28: Selecting the logging fields to be logged

- 10. Click on the **OK** button in Figure 2.28 to confirm the selection. When this is done, the **Selected Fields** section of the **Log Definition** page will get updated with your selection (see Figure 2.29). Use the **Move First, Move Up, Move Down**, and **Move Last** buttons adjacent to your selection to re-arrange the sequence of the logging fields. The desired sequence is as follows:
  - > Time-Local
  - > Host
  - Server-IP
  - Server Port
  - Status
  - > URI-stem
  - URI-QueryString
  - CPU-utilization
  - Bytes Sent
  - Bytes Received
  - Time Taken
  - Server Name
  - Site Name
  - User Name
  - Client Ip
  - Date-local

ections					Actions
31218	Log Den	nition			EV Apply
Start Page	Wab@dantarEila			-	Ex Cancel
WIN-DXME8FXBON3 (WIN-DXME	[webHoopten ie				View Log Files
Application Pools	I∕ E <u>n</u> abled				
Sites	Publish real-time ev	rents			Return To Advanced Logging
H-e Sites	Write to disk				🕢 Help
	Log File Rollover				Online Help
	Schedule				
	Date				
	- India	<u> </u>			
	Start new log f	file when configuration o	hanges		
	C Maximum duration	(in seconds)			
	86400	-			
	C. Harrison Ola chard	Se Eduka Anal			
	C Maximum file sige (	in kilobytes)			
	1024				
	Selected Fields				
	ID	Header Name	Required Default Value		
	Time-Local	time-local	No	Edit	
	Time-cocar				
	Host	cs(Host)	No		
	Host Server-IP	cs(Host) s-lp	No		
	Host Server-IP Server Port	cs(Host) s-lp s-port	No No	-	
	Host Server-IP Server Port Status	cs(Host) s-ip s-port sc-status	No	we First	
	Host Server-IP Server Port Skatus URI-Stern	cs(Host) s-ip s-port sc-status cs-uri-stem	No No <u>Mo</u> No No <u>Mo</u>	ove First	
	Hinte-Cocan Host Server-IP Server Port Status URI-Stem URI-Querystring	cs(Host) s-lp s-port sc-status cs-uri-stem cs-uri-stem cs-uri-query	No No <u>Mt</u>	ove First	
	Hind-Octa Server-IP Server Port Status URI-Stem URI-Querystring CPU-Ublization	cs(Host) s-lp s-port sc-status cs-uri-stem cs-uri-query CPU-Utilization	No No No No No No No No	ove First	
	Host Server-IP Server Port Status URI-Stem URI-Querystring CPU-Ublization Bytes Sent	cs(Host) s-ip s-port sc-status cs-uri-stem cs-uri-query CPU-Utilization sc-bytes	No	ove First	
	Hist Server-IP Server-Port Status URI-Stem URI-Querystring CPU-Utilization Bytes Sent Bytes Received	cs(Host) s-ip s-port sc-status cs-uri-stem cs-uri-query CPU-Utilization sc-bytes cs-bytes	No	ove First love Lip we Doggn	
	Hist Server-IP Server Port Status URI-Querystring CPU-Ublization Bytes Sent Bytes Received	cs(Host) s-ip s-port sc-status cs-uri-stem cs-uri-query CPU-Utilization sc-bytes cs-bytes		ove First love Lp ve Do <u>vn</u> ove Last	
	Hist Hist Server-IP Server-IP Server Port Status URI-Stem URI-Querystring CPU-Ublization Bytes Sent Bytes Received	cs(Host) s-port sc-status cs-uri-stem cs-uri-stem cs-uri-query CPU-Utilization sc-bytes cs-bytes	No No No No No No No No No No No No No N	ove First love Lp ve Do <u>vr</u> n ove Last	

Figure 2.29: Re-arranging the sequence of the logging fields

11. Then, apply the changes by clicking on the **Apply** button indicated by Figure 2.29 above. Once the changes are saved, click on the **Return to Advanced Logging** option indicated by Figure 2.29 above. Figure 2.30 will then appear. In the right panel of Figure 2.30, you will find that the newly added **WebAdapterFile** is appended to the list of log file definitions that pre-exist.

⊻iew <u>H</u> elp			
ections			Alerts
Start Page			The Advanced Logging featuris disabled.
WIN-DXME8FXB0N3 (WIN-DXME)	Use this feature to create and manage log log, and to configure additional logging set	definitions, which specify which server-side and client-side logging fields to tings.	Actions
K FTP Sites	Group by: No Grouping -		Add Log Definition
- Sites	Name 🔺	Enabled	Edit Log Definition
	%COMPUTERNAME%-Server	Enabled	X Remove Log Definition
	WebAdapterFile	Enabled	Disable Log Definition
			Clone Log Definition
			Enable Advanced Logging
			Enable Client Logging
			Edit Logging Fields
			Edit Log Directory
			View Log Files
			🕢 Help
			Online Help
			Common ricip

Figure 2.30: The newly added log definition displayed in the list of log files that pre-exist

12. Now, select the **WebAdapterFile** entry in Figure 2.30 and click on the **Edit Log Directory** option in the **Actions** list, as indicated by Figure 2.30. When Figure 2.31 appears, change the default values of the **Server log directory** and **Default site log directory** text boxes to <**EG\_INSTALL\_DIR>\agent\logs\llSAdvlogs** directory. Then, click the **OK** button therein.

dit Log Directory	?
Server log directory:	
C:\eGurkha\agent\logs\IISAdvlogs	
Default site log directory:	
C:\eGurkha\agent\logs\IISAdvlogs	
ОК	Cancel

Figure 2.31: Changing the server log and default site log directories

13. You will then return to Figure 2.30. Select the **WebAdapterFile** entry yet again, and this time, click on the **View Log Files** option in the **Actions** list. This will invoke Figure 2.32, where all the log files saved to the **<EG\_INSTALL\_DIR>\agent\logs\IISAdvlogs** directory will be displayed.

Ele Edit View Tools Help  Organize V Wiews V  Favorite Links Documents Pictures Music More >  Folders Folders Folders Grapher Gurkha Grapher Gorg Gorg Gorg Gorg Gorg Gorg Gorg Gor	G 🕖 🕨 🔹 Computer 🔹 Local Disk	(C:) 🔹 eGurkha 👻 agent 👻 logs 👻 IISAdvlogs	▼ 🌇 Search		
Favorite Links   Documents   Pictures   Music   More >   Folders   Floppy Disk Drive (A:)   Floppy Disk Drive (A:)   AdvancedLogs   eg_adapter   eGurkha   .smmp   agent   locaflig   listAdvlogs   snmptrapd	Eile Edit View Iools Help ○ Organize ▼ III Views ▼				
Documents   Pictures   Music   More      Folders Folders Enologis eg_adapter eg_adapter eGurkha .snmp agent config data logs IISAdvlogs smptrapd	Favorite Links	Name  WebAdapterFile D20110616-110119988	Date modified	Type Text Document	Size 1
Pictures Music More >> Folders Folders Guadapter eguadapter eguadapter eGurkha isnmp agent config data ilSAdvlogs smptrapd	Documents	WebAdapterFile D20110617-000000143	6/16/2011 9:53 PM	Text Document	
Music   More      Folders Floppy Disk Drive (A:) AdvancedLogs eg_adapter eguakha .snmp agent Locafig data IsSAdvlogs ISAdvlogs snmptrapd	E Pictures	WIN-DXME8FXB0N3-Server_D20110616-11012	6/16/2011 5:00 PM	Text Document	1
More » Folders  Floppy Disk Drive (A:) Floppy Disk Drive (A:) AdvancedLogs eg_adapter eGurkha snmp agent config data logs IISAdvlogs snmptrapd	Music	WIN-DXME8FXB0N3-Server_D20110617-00000	6/16/2011 9:53 PM	Text Document	
	Folders				

Figure 2.32: List of log files saved to the AdvancedLogs directory

14. To view a log file, click on any of the log files in the list of Figure 2.32. The chosen log file will then open in Notepad as depicted by Figure 2.33.

📕 WebAdapterFile_D20110405-062614106 - Notepad	
<u>File Edit Format View Help</u>	
#Software: IIS Advanced Logging Module #Version: 1.0	
#Start-Date: 2011-04-05 06:26:14.107 #Fields: time-local cs(Host) s-ip s-port sc-status cs-uri-stem cs-uri-qu sc-bytes cs-bytes TimeTakenMS s-computername s-sitename cs-username 23:26:13.615 "192.168.8.185" 192.168.8.185 80 200 /iisstart.htm - 100 934	ery CPU-Utilization
DXME8FXBUN3 DEFAULT WEB SITE - 23:26:13.615 "192.168.8.185" 192.168.8.185 80 200 / - 100 934 152 5 "WIN-	-DXME8FXB0N3"
23:30:49.272 "192.168.8.185" 192.168.8.185 80 200 /iisstart.htm - 0.1885	934 152 0 "WIN-
23:30:49.272 "192.168.8.185" 192.168.8.185 80 200 / - 0.1885 934 152 1 "w	/IN-DXME8FXB0N3"
23:32:29.521 - 192.168.8.185 80 200 /iisstart.htm - 22.02 953 18 16 "WIN- "DEFAULT WEB SITE" -	-DXME8FXB0N3"
23:32:29.521 - 192.168.8.185 80 200 / - 22.02 953 18 18 "WIN-DXME8F×BON3" -	"DEFAULT WEB SITE"
#Software: IIS Advanced Logging Module #version: 1.0	
#Start-Date: 2011-04-05 06:33:30.386 #Fields: time-local cs(Host) s-ip s-port sc-status cs-uri-stem cs-uri-qu sc-bytes cs-bytes TimeTakenMS s-computername s-sitename cs-username 23:33:30.094 "localhost:1977" ::1 1977 200 /Test.html - 100 386 246 181 "	wery CPU-Utilization WIN-DXME8FXB0N3"
23:33:30.268 "localhost:1977" ::1 1977 404 /favicon.ico - 100 5352 224 49 "TESTING" -	WIN-DXME8FXB0N3"
23:36:11.597 - 192.168.8.185 80 200 /iisstart.htm - 3.211 953 18 0 "WIN-C "DEFAULT WEB SITE" -	XME8FXBON3"
23:36:11.597 - 192.168.8.185 80 200 / - 3.211 953 18 0 "WIN-DXME8FXBON3"	"DEFAULT WEB SITE"
23:36:18.297 192.168.8.185 192.168.8.185 80 200 /115start.ntm - 0 934 DXME8FXB0N3" "DEFAULT WEB SITE" - 23:36:18.297 "192.168.8.185" 192.168.8.185 80 200 / - 0 934 152 0 "WIN-C	152 0 WIN- XME8FXBON3"
23:40:20.302 "localhost:1977" ::1 1977 304 /Test.html - 3.119 211 332 2 " "TESTING" -	WIN-DXME8FXB0N3"
23:40:20.450 "localhost:1977" ::1 1977 304 /Test.html - 3.119 211 332 1 "	WIN-DXME8FXB0N3"



# 2.2 Administering the eG Manager to monitor the IIS Web Server

After installation of eG agent, please follow the following steps to configure eG to monitor an IIS web server.

- 1. Login to eG user interface as an administrator.
- 2. If the IIS Web Server is already discovered, navigate to the **COMPONENTS- MANAGE/UNMANAGE** page following the menu Infrastructure -> Components -> Manage/Unmanage, to manage it.
- 3. On the other hand, if the IIS Web Server is yet to be discovered, then run the discovery procedure to get IIS Web servers discovered, or manually add the IIS Web server. To run the discovery, open the **START DISCOVERY** page using the Infrastructure -> Components -> Discover menu sequence, and click the **Start Discovery** button.
- To manually add the IIS Web Server, go to the ADD/MODIFY COMPONENTS page through the Infrastructure -> Components -> Add/Modify menu sequence and then add the server as indicated by Figure 2.34.

2			-	Apr 22, 2010 13:56:38 IST	Profile	Help	😃 Signo
Admin	Monitor	Acosto	Reporter				
TS	Inastructure	Agents	Audits				≪ Bac
	🚺 This page e	nables the	administrator to p	provide the details of a new component			
			NEW COMPONEN	IT DETAILS		l.	
Component type		: IIS Web					
Host IP		: 192.168	.10.61				
Nick name		: 192.168	.10.61				
Port number		: 80					
MTS enabled		: C Yes	No				
Agentless		: C Yes	No				
Internal agent assignment		: 何 Aut	o C Manu	al			
External agents		192.16	3.10.144				
			2010				
			Add				

Figure 2.34: Adding an IIS web server

5. If a Microsoft Transaction server (MTS) is available on the target IIS web server, then, you can manage the MTS server along with your IIS web server by setting the **MTS enabled** flag to **Yes**. This will automatically add a **Microsoft Transaction** server component, with the same IP-nickname as the IIS web server (see Figure 2.35)

	MODIFY COMPONENT DETAILS	
Component type	: Microsoft Transaction	
Host IP	: 192.168.10.61	
Nick name	: 192.168.10.61	
Agentless	: C Yes 🕞 No	
Internal agent assignment	: 🕶 Auto 🔿 Manual	
External agents	192.168.10.144	

Figure 2.35: An MTS server being automatically added

6. Components added using the ADD/MODIFY COMPONENTS page will automatically appear in the MANAGED COMPONENTS list of the COMPONENTS - MANAGE/UNMANAGE page (see Figure 2.36). Discovered servers, on the other hand, need to be managed manually using the COMPONENTS - MANAGE/UNMANAGE page (see Figure 2.36). For accessing this page, use the menu sequence Infrastructure -> Components -> Manage/Unmanage. The screen below shows all the IIS Web Servers discovered in a given range but not managed. Select the component-type that requires monitoring from the Component type list. To manage a particular component of the selected type, select the component from the UNMANAGED COMPONENTS list and click on the << Manage button and finally, the Update button.</p>

COMPONENTS - MANAGE / UNMANAGE		
I This page enables the admi	nistrator to manage/uni	manage the discovered servers.
Component type	e ; Web	·
MANAGED COMPONENTS		UNMANAGED COMPONENTS
		192.168.10.51:80
		webserver-3012:3012
		webserver-9001:9001
		webserver-9005;9002
	Unmanage>>	
	<< Manage	
Delete Components		Delete Components
	Update	

Figure 2.36: Viewing the list of unmanaged IIS web servers

7. After managing the web server, the screen would appear as shown below:

COMPONENTS .	ANACE /INMANACE		
COMPONENTS - P	AANAGE / UNIMANAGE		
	This page enables the admir	istrator to manage/unr	manage the discovered servers.
	Component type	: Web	×
	MANAGED COMPONENTS		UNMANAGED COMPONENTS
	192.168.10.61:80		192,168,10,51:80
			webserver-3012:3012
			webserver-9001:9001 webserver-9002:9002
			webserver-9005:9005
		llomanage))	
		unnanage"	
		** Manage	
	Delete Components		Delete Components
		Update	

Figure 2.37: Managing an IIS web server

8. Then, proceed to configure web sites and related transactions for the IIS web server in the same manner as done for the Apache web server.



T Please refer to Section 1.3 above for a more elaborate discussion on how to configure web sites and transactions.

9. Once this is done, sign out of the administrative interface.

# **2.3 Monitoring the IIS Web Server**

To view the measurements reported by the eG agent, log in as the monitor / supermonitor user. Click on the **Components** option in the menu bar, and select the **Servers** option from the **Components** menu. By default, the IIS web server will appear as an independent server. To view the measurements pertaining to your IIS web server, just click on the symbol representing the same in the **COMPONENT LIST** page. On clicking, a screen displaying the layer model, tests, and measurements of the web server will appear .

If you wish to have eG plot a graph of the measurements, click on the **Graph** button against the corresponding measurement. To view the history of a measurement, click on the **History** button. Clicking on the **Feedback** button will enable you to provide details of action taken to fix errors (if any).

Once you are through with viewing measurements, exit the monitor user interface by selecting the **SIGNOUT** option.

# **2.4 Troubleshooting**

If the eG agent does not report any measures pertaining to the transactions that have been configured for an IIS web server, then restart the World Wide Web (WWW) Publishing service. To achieve this, do the following:

1. Select the Services option from the Start -> Programs -> Administrative Tools menu (see Figure 2.38).



Figure 2.38: Selecting the Services option from the Administrative Tools menu

Services						_ 8 ×
Action ⊻iew ← →	) 🛍 🖬 🖆 🗗 🗟 🔒 😫 🕨 💻	■>				
Tree	Name	Description S	tatus 🛆	Startup Type	Log On As	<b>▲</b>
Services (Local)	🖏 eGurkhaAgent			Automatic	LocalSystem	
9 <b>1</b> 3	Rax Service	Helps you		Manual	LocalSystem	
	Replication	Maintains fi		Manual	LocalSystem	
	Kanal Service			Manual	LocalSystem	
	Salaring Connection Sharing	Provides n		Manual	LocalSystem	
	Kan a start a	Allows sen		Disabled	LocalSystem	
	Kerberos Key Distribution Center	Generates		Disabled	LocalSystem	
	Cogical Disk Manager Administrative Service	Administrat		Manual	LocalSystem	
	NetMeeting Remote Desktop Sharing	Allows aut		Manual	LocalSystem	
	Network DDE	Provides n		Manual	LocalSystem	
	Network DDE DSDM	Manages s		Manual	LocalSystem	
	NT LM Security Support Provider	Provides s		Manual	LocalSystem	
	Performance Logs and Alerts	Configures		Manual	LocalSystem	
	QoS RSVP	Provides n		Manual	LocalSystem	
	Remote Access Auto Connection Manager	Creates a		Manual	LocalSystem	
	Remote Procedure Call (RPC) Locator	Manages t		Manual	LocalSystem	
	Routing and Remote Access	Offers rout		Disabled	LocalSystem	
	Smart Card	Manages a		Manual	LocalSystem	
	Smart Card Helper	Provides s		Manual	LocalSystem	
	SNMP Trap Service	Receives tr		Manual	LocalSystem	
	🐝 Telnet	Allows a re		Manual	LocalSystem	
	Terminal Services	Provides a		Disabled	LocalSystem	-
	Uninterruptible Power Supply	Manages a		Manual	LocalSystem	
	W Utility Manager	Starts and		Manual	LocalSystem	
	Windows Installer	Installs, re		Manual	LocalSystem	
	World Wide Web Publishing Service	Stort	ted	Automatic	LocalSystem	
	Application Management	Stop	ted	Manual	LocalSystem	-
	Alerter	Pause	ted	Automatic	LocalSystem	
	COM+ Event System	Pesime	ted	Manual	LocalSystem	
	Computer Browser	Pectart	ted	Automatic	LocalSystem	
	CefWatch	Restart	ted	Automatic	LocalSystem	
	BHCP Client	All Tasks 🛛	ted	Automatic	LocalSystem	
	Bistributed File System	Defrech	ted	Automatic	LocalSystem	
	Bistributed Link Tracking Client	Refresh	ted	Automatic	LocalSystem	
	Bistributed Transaction Coordinator	Properties	ted	Automatic	LocalSystem	
	BONS Client		ted	Automatic	LocalSystem	
	🐝 eGmon	Неір	ted	Manual	LocalSystem	
	eGurkhaTomcat	S	tarted	Manual	LocalSystem	-
Stop service World Wide Web !	Publishing Service on Local Computer					

2. From the right pane of the window that appears, select **World Wide Web Publishing Service**, right-click on it, and then, select **Stop** from the shortcut menu that appears to stop the service (see Figure 2.39).

Figure 2.39: Stopping the World Wide Web Publishing Service

3. Now, to start the service, select it and right-click on it again. Then, from the shortcut menu, select **Start** (see Figure 2.40).

No. Services				
] <u>A</u> ction ⊻iew ] ← →	) 🛍 🖬 🗗 🗗 🗛 🔮 ] 🕨 💷	==>		
Tree	Name	Description Status A	Startup Type	Log On As
Services (Local)	🍓 eGurkhaAgent		Automatic	LocalSystem
	Rax Service	Helps you	Manual	LocalSystem
	File Replication	Maintains fi	Manual	LocalSystem
	Revice Indexing Service		Manual	LocalSystem
	Sinternet Connection Sharing	Provides n	Manual	LocalSystem
	Notersite Messaging	Allows sen	Disabled	LocalSystem
	Kerberos Key Distribution Center	Generates	Disabled	LocalSystem
	Service Service	Administrat	Manual	LocalSystem
	NetMeeting Remote Desktop Sharing	Allows aut	Manual	LocalSystem
	Network DDE	Provides n	Manual	LocalSystem
	Network DDE DSDM	Manages s	Manual	LocalSystem
	NT LM Security Support Provider	Provides s	Manual	LocalSystem
	Reformance Logs and Alerts	Configures	Manual	LocalSystem
	Second Se	Provides n	Manual	LocalSystem
	Remote Access Auto Connection Manager	Creates a	Manual	LocalSystem
	Remote Procedure Call (RPC) Locator	Manages t	Manual	LocalSystem
	Routing and Remote Access	Offers rout	Disabled	LocalSystem
	Smart Card	Manages a	Manual	LocalSystem
	Smart Card Helper	Provides s	Manual	LocalSystem
	SNMP Trap Service	Receives tr	Manual	LocalSystem
	🖏 Telnet	Allows a re	Manual	LocalSystem
	Terminal Services	Provides a	Disabled	LocalSystem
	W Uninterruptible Power Supply	Manages a	Manual	LocalSystem
	🖏 Utility Manager	Starts and	Manual	LocalSystem
	Windows Installer	Installs, re	Manual	LocalSystem
	World Wide Web Pub	Provides W	Automatic	LocalSystem
	Application Managem	Provides s Started	Manual	LocalSystem
	Alerter Stop	Notifies sel Started	Automatic	LocalSystem
	COM+ Event System	Provides a Started	Manual	LocalSystem
	Computer Browser	Maintains a Started	Automatic	LocalSystem
	BefWatch Restart	Started	Automatic	LocalSystem
	DHCP Client All Tasks	Manages n Started	Automatic	LocalSystem
	Distributed File Syste	Manages Io Started	Automatic	LocalSystem
	Distributed Link Track	Sends notif Started	Automatic	LocalSystem
	Distributed Transacti Properties	Coordinate Started	Automatic	LocalSystem
	DNS Client	Resolves a Started	Automatic	LocalSystem
	eGmon Help	Started	Manual	LocalSystem
	🖏 eGurkhaTomcat	Started	Manual	LocalSystem
Start service World Wide Web	Publishing Service on Local Computer			

Figure 2.40: Starting the service

Now, log into the monitor interface to check whether the transactions are being monitored. If measures are still not been reported, then, do the following:

1. Select the **Internet Services Manager** option from the Start -> Programs -> Administrative Tools menu (see Figure 2.41).



Figure 2.41: Selecting the Internet Services Manager option on Windows 2000

2. If the IIS web server executes on a Windows 2000 host, then, from the left pane of the Internet Information Services window that appears, select the IIS web server's host, right-click on it and choose the Properties option (see Figure 2.42). In case of the Windows 2003 host on the other hand, expand the node representing the IIS web server's host in the left pane, right-click on the Web Sites sub-node within, and pick the Properties option (see Figure 2.43).

😋 Internet Inf	formation Services					
Action View		🖻 🔮 🗟	3   📮   🕨			
Tree		Description		State	Host Header Nam	e IP Address
🝓 Internet Info	rmation Services	Default FTP Site		Running		* All Unas:
	Connect	iic web sic	e Veb Site	Running		* All Unass * All Unass
	Disconnect	ha		Running		* All Unas:
E	Backup/Restore Configur	ation IIt SMTP Vi	rtual Server	Running		* All Unas:
	Restart IIS					
r	New	•				
	All Tasks	• •				
	View	•				
F	Refresh					
E	Export List					
F	Properties					
H	Help					
					-	
		•				<u> </u>
Opens property s	heet for the current sele	ction.				

Figure 2.42: Editing the properties of the IIS web server's host (in IIS console on Windows 2000)

🐌 Internet Inform	mation Servic	es (IIS) Manager			
ile Action	View Windov	v Help			_B×
	3 😰 🔟				
internet Inform	ation Services	Computer	Local	Version	Status
EG183 (loca	l computer) s ion Pools	EG183 (local computer)	Yes	IIS V6.0	
ter s ter s	New All Tasks	4			
	New Window	from Here			
	Refresh				
	Properties				
	Help				
4		٩			•
Opens the properties	dialog box for	the current selection.			

Figure 2.43: Picking the Properties option from the Web Sites tab (in the IIS console on Windows 2003)

3. On a Windows 2000 host, selecting the web server host's **Properties** will lead you to Figure 2.44.

* egtest02 Properties	<u>? ×</u>
Internet Information Services Server Extensions	
Master Properties Edit the properties inherited by all sites created on this computer. Master Properties: WWW Service	
Enable Bandwidth Throttling     Limit network bandwidth available for all Web and FTP sites on this     computer.     Magimum network use:     1,024     kb/s	
Computer MIME Map Configure the MIME types for all web sites on this computer.	
OK Cancel Apply	Help

Figure 2.44: The Properties dialog box

As indicated by Figure 2.44, select **WWW Service** from the **Master Properties** list and click the **Edit** button to edit the properties of the selected service. Doing so will result in the display of a dialog box containing many tab pages. Click on the **ISAPI Filters** tab page (see Figure 2.45).

	WWW Service Documents Web Site Filters ins executed	Master Pr Director Operato talled here a	roperties for egtest ry Security   HTTP F rs   Performance re active for all web site listed below. These filt	D2 Ieaders Custom ISAPI Filters s on this computer ar ers are not displayed	Errors Service Home Directory
eG Enterprise's WebTransFilter	t	Status	Filter Name sspifilt Compression Web TransFilter md5filt fpexedll.dll	Priority High High Low Low	Agd <u>B</u> emove Edit Disabl <u>e</u> Help

Figure 2.45: Viewing the status of the ISAPI filters

4. On a Windows 2003 host, selecting the **Properties** option of the **Web Sites** node will lead you to a **Web Sites Properties** dialog box. Click on the **ISAPI Filters** tab page in that dialog box, and look for the **WebTransFilter** therein.

rectory Security	/ HTTP Headers	Custom Errors	Service	ASP.NET
/eb Site P	erformance ISAPI Filt	ers Home	Directory	Documents
The following fil the order listed cannot be view	ters are active for all Web below. These filters are vis ed on the property pages o	sites on this con sible only from th of individual Web	nputer and exe his property pa p sites,	ecuted in age, and
Status	Filter Name	Priority	Ac	Id
1	WebTransFilter	High		
1	ASP.NET_2.0.50727.0	Low	<u>R</u> ei	nove
			Ed	įt
			En	able
			Mo	/e yp
Details			Mose	down
Filter Name:	WebTransFilter			a ugwii
Status:	Loaded			
Executable:	D:\eGur\WebTransFill	ter, dll		
Priority:	High			

Figure 2.46: The Web Site Properties dialog box

5. Check the status of the WebTransFilter listed in the tab. Transaction monitoring in web servers is governed by this filter. The status of this filter has to be GOOD (indicated by an up arrow in green color) (see Figure 2.46), for the eG agent to perform transaction monitoring effectively. If the status of the filter is BAD (represented by a down arrow in red color) or UNKNOWN (indicated by a down arrow in blue color), then, you might have to reload the filter. For that, first, select the filter in Figure 2.46 and click the Remove button alongside it to remove it. Then, click the Add button. Doing so will result in the display of a screen wherein the Filter Name and the path to the filter Executable has to be specified (see Figure 2.47).

Filter Proper	ties	×
<u>F</u> ilter Name:	WebTransFilter	
Executable: d:\eGurkha\lib\WebTransFilter.dll		
		<u>B</u> rowse
	OK Cancel	<u>H</u> elp

Figure 2.47: Adding the filter

- 6. The WebTrans filter will be available in the **<EG\_HOME\_DIR>/lib** directory. Specify the same against the **Executable** text box and then, click the **OK** button to register the changes.
- 7. Clicking on the **OK** button will take you back to the dialog box depicted by Figure 2.45. Click on the **OK** button in the dialog box and then, on the **OK** button in Figure 2.44.

8. Once the filter is loaded, restart the WWW service once again by following the procedure discussed previously.
# 3

## **Configuring and Monitoring an iPlanet/SunONE Web Server**

The eG Enterprise suite supports internal monitoring of an iPlanet/SunONE web server only on Solaris environment. The process of configuring and monitoring the Netscape / iPlanet Enterprise Server using eG, involves three simple steps:

- > Configuring a iPlanet/SunONE Enterprise Server to work with the eG agent
- > Administering the eG manager to monitor the iPlanet/SunONE Enterprise Server
- > Monitoring the iPlanet/SunONE Enterprise Server

# **3.1 Configuring a iPlanet/SunONE Web Server to work** with the eG Agent

The eG web adapter on an iPlanet/SunONE Enterprise Server can be configured manually, or using the **setup\_webadapter** script provided by eG. When setting up the agent (using the **setup\_agent** script), the **setup\_webadapter** script is called if you choose to configure monitoring for a web server.

Before configuring the web adapter, ensure the following:

- eG expects 2 directories namely "logs" and "config" under the iPlanet root directory (iPlanet Home dir). If these directories do not exist, the web adapter configuration will fail.
- The setup\_webadapter script assumes that the webserver start and stop scripts are called start and stop respectively. These scripts should be available in the server root directory itself. After the web adapter configuration is completed, the original versions are backed up as start.pre\_egurkha and stop.pre\_egurkha, respectively.
- the iPlanet/SunONE ≻ If directories not in the above structure, you are may need to set up a directory structure in this format (using symbolic links) for the setup\_webadapter script to work.
- During setup, the web adapter configuration prompts you to confirm whether the server is configured to support SSL or not. Check the magnus.conf file in the config directory of the iPlanet/SunONE web server. Look for the specification "Security on". This directive indicates that SSL is enabled. Otherwise, SSL is not enabled.

### 3.1.1 Configuring the eG Web Adapter for an iPlanet/SunONE Web Server (before Version 6.0)

eG Enterprise's unique web adapter technology enables individual transactions performed by users of a web site to be tracked in real-time without the need for explicit, expensive logging.

The web adapter is part of the eG agent package for Solaris. When the agent on Solaris is configured, it is enabled to communicate with the web adapter to report statistics in real-time to the eG manager.

For configuring the eG web adapter for an iPlanet/SunONE web server (before version 6.0), you can use the **setup\_webadapter** script in the **/opt/egurkha/bin** directory. The steps involved in configuring the iPlanet/SunONE web server to use the web adapter technology are:



A user can install the eG web adapter capability only for the web servers that he/she has the permission to administer.

- 1. First, run the command on the iPlanet / SunONE web server host: /opt/egurkha/bin/setup\_webadapter
- 2. The **setup\_agent** script on Solaris executes this command automatically. Hence, if you get here from step 9 of Section 3.1.1 above, you do not have to explicitly run this command.
- 3. Upon executing the above command, the following message will appear. Type **n** to continue with the setup.

```
Only a SunONE/iPlanet web server can be configured for monitoring using
this script.
For monitoring an Apache or IBM web server, please refer to the eG
Installation Manual.
Do you want to continue y/n? [y]: y
```

4. Upon confirming, you will view the following message. Type **y** here to continue.

```
Note: Only a web server administrator has permissions to configure the eG web adapter capability for a web server.
Do you want to continue y/n? [y]: y
```

5. Next, setup will want to know whether the current user is the web server's administrator or not.

Are you the administrator of this web server? y/n [y]:

6. Entering **y** or **n** here will bring up the following query:

```
Please enter the user name of the web server's administrator:
Next, you will need to enter the web server administrator's
password...
```

Password:

7. Next, enter the root directory of the web server to be configured. Also, indicate whether the web server is SSL-enabled.

```
Enter the root directory of the SunONE / iPlanet web server: /usr/local/web
Is this web server enabled for SSL support? y/n [n]:
```

- 8. Based on the server type and the root directory, the **setup\_webadapter** script proceeds to modify the web server startup scripts to use the eG web adapter when the web server starts up.
- 9. Then the user has to specify whether this web server is enabled for SSL support. If the user chooses y, the setup process configures the web adapter for SSL support. The following error message appears if the web server is not configured with Dynamic Shared Object (DSO) support.

- 10. Next, the configuration process prompts the user to determine if the user is the administrator of the web server that is to be configured for monitoring by an eG agent. If the user is not the web server administrator, the configuration process prompts the user for the web server administrator's login name and password.
- 11. The configuration process attempts to update the web server's startup file(s) to include eG-specific start-up information. The configuration process terminates with the following message:

12. In the case of an iPlanet web server (prior to version 6.0), the start and stop files are modified after

retaining a copy of them called **start.pre\_egurkha** and **stop.pre\_egurkha**. To uninstall the web adapter capability, replace the existing **start** and **stop** files with **start.pre\_egurkha** and **stop.pre\_egurkha** respectively.

#### 3.1.2 Configuring the eG Web Adapter for a SunONE Web Server Version 6.x on Solaris

To configure the eG web adapter for a SunONE web server version 6.x on Solaris, follow the steps given below:

- 1. Login as a SunONE install user.
- 2. Open **magnus.conf** file in the **<SERVER\_ROOT>/<SERVERNAME>/config/magnus.conf** file, and append the following lines.

```
Init fn="load-modules" shlib="/opt/egurkha/lib/sun1webadapter_6.so"
funcs="onServerInit,onChildInit,onLog"
Init fn="onServerInit" WEB_SERVER_ROOT=<ServerRoot>\<ServerName>
```

- 3. Save the file.
- 4. Next, open the **obj.conf** file from the same location, and insert the following lines.

```
NameTransfn=document-root root="$docroot"
```

```
PathCheck fn="onChildInit"
```

AddLog fn=flex-log name="access"

AddLog fn="onLog"

- 5. Save the file.
- 6. Finally, restart the webserver.

#### 3.1.3 Manually Configuring the Web Adapter

While manually configuring the web adapter on an iPlanet/SunONE Enterprise server, you need to explicitly modify the following script files:

- > start
- > stop

These files will be available in the **SERVER\_ROOT>** directory.

Make the following changes to the start script.

```
#!/bin/sh
```

#### Configuring and Monitoring an iPlanet/SunONE Web Server

CLASSPATH=/opt/egurkha/lil	o/eg_agent.jar:/opt/egur	kha/lib/classes111.zip:\$0	CLASSPATH
export			CLASSPATH
/opt/egurkha/jre/bin/java	IplanetConfig	-serverRoot	/data3/iplanet4.1
NUM_SEMAPHORES=2			
export			NUM_SEMAPHORES
WEB_SERVER=netscape			
WEB_SERVER_ROOT=/data3	/iplanet4.1		
LD_LIBRARY_PATH=/opt/egu	ırkha/lib:\$LD_LIBRARY	_PATH	
export			WEB_SERVER
export			WEB_SERVER_ROOT
LD_PRELOAD=/opt/egurkha/	ib/libnes_eg_wa.so:\$LI	D_PRELOAD	
export LD_PRELOAD LD_LIB	RARY_PATH		
The Remaining lines	of the start s	cript.	

The lines in **Bold** are the ones that need to be manually specified in the **start** script file. If the **setup\_webadapter** script were used, then these are the lines which will be automatically written by eG into the **start** script.

The line in white has to be additionally specified for iPlanet server version 6.0 alone. The server root directory reference in this line will have to be changed accordingly.

Next, make the following changes to the **stop** script.

```
!/bin/sh
WEB_SERVER_ROOT=/data3/iplanet4.1
export WEB_SERVER_ROOT
/usr/bin/ps -aef -o pid,args | grep "$WEB_SERVER_ROOT" | grep
"eg_nes_mon" | /usr/bin/awk '{ print $1 }' | xargs kill -9 > /dev/null
2>&1
-----
The Remaining lines of the start script.
-----
```

Note:

If the iPlanet/SunONE Enterprise server (version less than 6.0) is SSL-enabled, then the **obj.conf**, available in the **<SERVER\_ROOT>/config** directory, will have to be modified. Make the following changes to this file:

Init fn=flex-init access="/data3/iplanet4.1/https-sun07.chn.equrkha.com/logs/access" format.access="%Ses->client.ip% -%Req->vars.auth-user% [%SYSDATE%] \"%Req->reqpb.clf-request%\" %Reg->srvhdrs.clf-status% %Reg->srvhdrs.contentlength%" Init fn=load-types mime-types=mime.types fn=load-modules Init shlib="/opt/egurkha/lib/lib\_eg\_ssl.so" funcs=getRequest,getResponse fn="load-Init modules" shlib="/data3/iplanet4.1/bin/https/lib/libNSServletPlugin.so" funcs="NSServletEarlyInit,NSServletLateInit,NSServletNameTrans,NSServ letService" shlib flags="(global|now)" Init fn="NSServletEarlyInit" EarlyInit=yes Init fn="NSServletLateInit" LateInit=yes <Object name=default> NameTrans fn="NSServletNameTrans" name="servlet" NameTrans fn="pfx2dir" from="/servlet" dir="/data3/iplanet4.1/docs/servlet" name="ServletByExt" NameTrans fn=pfx2dir from=/ns-icons dir="/data3/iplanet4.1/ns-icons" name="es-internal"

PathCheck fn=getRequest	
PathCheck	fn=unix-uri-
clean	
PathCheck	fn="check-acl"
acl="default"	
PathCheck	fn=find-
pathinfo	
PathCheck fn=find-index	index-
names="index.html,home.html"	
ObjectType	fn=type-by-
extension	
ObjectType fn=force-typ	be
type=text/plain	
Service method=(GET HEAD) t	ype=magnus-internal/imagemap

## **3.2 Administering the eG Manager to monitor the iPlanet/SunONE Web Server**

To administer eG so that it monitors the iPlanet/SunONE web server, do the following:

- 1. Login as an administrator to the eG administrative interface
- If the Netscape / iPlanet Enterprise Server is not discovered automatically, then either run discovery to get them discovered (Infrastructure -> Components -> Discover) or add them using the ADD/MODIFY COMPONENTS page (Infrastructure -> Components -> Add/Modify) (see Figure 3.1). Components manually added will be automatically managed by the eG Enterprise system (see Figure 3.1).

#### Configuring and Monitoring an iPlanet/SunONE Web Server

	( January 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10	
omponent type	: Web	
ost IP/Name	: 192.168.10.61	
ck name	: 192.168.10.61	
ort number	: 80	
gentless	: C Yes 🕫 No	
ternal agent assignment	: 🕫 Auto 🔿 Manual	
ternal agents	: 192.168.8.72 ext_209 ext_25 ext_67 ext_72	

Figure 3.1: Adding an iPlanet/SunONE web server

- On the other hand, if the iPlanet/SunONE web server is discovered automatically, proceed to manage them manually using the COMPONENTS - MANAGE/UNMANAGE page (Infrastructure -> Components -> Manage/Unmanage).
- 4. Then, proceed to configure the web sites and transactions.



Refer to Section 1.3 of Chapter 1 above for the procedure for configuring web sites and transactions

5. Now, when you try to sign out, the following screen will appear, prompting you to configure the Processes test.

	List of unconfigured tes	its for Web
Performance		192.168.10.61:80
Processes		

Figure 3.2: A page listing the unconfigured tests for the iPlanet/SunONE web server

6. Click on the test name in this page to configure it. While configuring, remember to provide the **PROCESSPATTERN**.



Refer to Section 1.3 of Chapter 1 above for details on configuring the Processes test and specifying the **PROCESSPATTERN**.

#### Configuring and Monitoring an iPlanet/SunONE Web Server

- 7. After configuring, sign out of the administrative interface.
- 8. Start the agent running on the system hosting the iPlanet/SunONE web server.

#### **3.3 Monitoring the iPlanet/SunONE Server**

- 1. Login as a monitor / supermonitor to the eG monitor user interface
- 2. Click on the **Components** option in the menu bar, and select the **Servers** option from the **Components** menu.
- 3. Click on the iPlanet/SunONE Server to view its measurements.

## **Configuring and Monitoring Oracle HTTP Servers**

This chapter will discuss how to administer and monitor Oracle HTTP servers.

#### 4.1 Administering the eG Manager to work with an Oracle HTTP Server

- 1. Ensure that the web adapter is configured.
- 2. Next, login to the administrative interface of eG as an administrator (admin).
- 3. Manually add the Oracle HTTP server to be monitored using the ADD/MODIFY COMPONENTS page (see Figure 4.1). To navigate to the ADD/MODIFY COMPONENTS page, follow the menu sequence: Infrastructure -> Components -> Add/Modify.

COMPONENT	S	
	🚺 This page	enables the administrator to provide the details of a new component.
		NEW COMPONENT DETAILS
	Component type	: Oracle Web
	Host IP	: 192.168.10.51
	Host/Nick name	: 192.168.10.51
	Port number	: 7777
	Agentless	: C Yes 📀 No
	Internal agent assignment	: 🕫 Auto C Manual
	External agents	: 192.168.10.20 aix-10.3 Linux-10.12
		Add

Figure 4.1: Adding the details of a new Oracle Http server

4. The Oracle HTTP Server so added will be managed automatically by eG. Now, try to sign out of the user interface. Doing so, will bring up a page, which prompts you to configure the tests for the Oracle Http server. Click on the OraHttpServer test in the page to configure it. Upon clicking, the test parameters will be displayed (see Figure 4.2).

	192.168.10.51	
TEST PERIOD	: 5 mins 🗸	
HOST	: 192.168.10.51	
PORT	: 7777	
HOMEDIR	: D:\Ora\Infra	

Figure 4.2: Configuring the Oracle HTTP Server test

- 5. Specify the following in Figure 4.2:
  - > **TEST PERIOD** How often should the test be executed
  - > **HOST -** The host for which the test is to be configured
  - > **PORT -** The port to which the specified **HOST** listens
  - > HOMEDIR The path to the directory in which the Oracle 9i application server has been installed
- 6. Click the **Update** button in Figure 4.2, and then, log out of the administrative interface.

#### **4.2 Monitoring the Oracle HTTP Server**

- 1. Login as a monitor / supermonitor user.
- 2. Click on the **Components** option in the menu bar, and select the **Servers** option from the **Components** menu.
- 3. Click on the Oracle Http server being monitored to view its measurements .

#### 4.3 Troubleshooting Oracle HTTP Server Monitoring

If all the tests associated with the Oracle HTTP server are in an **UNKNOWN** state, it could indicate any/all of the following:

The eG agent is not running

In such a case, start the eG agent by following the procedure described in the *eG Installation Manual*.

> The Oracle HTTP server is not running

To verify this, open the **Services** window (Programs -> Administrative Tools -> Services), and view the **Status** of the **OracleHttpServer** service. If the **Status** column corresponding to the **OracleHttpServer** service is blank, it indicates that the service has not been started (see Figure 4.3). Therefore, start the service by right-clicking on the **OracleHttpServer** service and selecting the **Start** option from the shortcut menu (see Figure 4.4).

Services						_ 8 ×
Action View						اسر استاسی
Tree	Name /	Description	Status	Startun Tyne	Log On As	
(B). Complete (Local)	Water Policy Agent	Manages I	Started	Automatic	LocalSystem	
Services (Local)	Kerberos Key Distribution Center	Generates	blartoa	Disabled	LocalSystem	
	Wallicense Logging Service		Started	Automatic	LocalSystem	
	Wal opical Disk Mapager	Logical Disk	Started	Automatic	LocalSystem	
	Cogical Disk Manager Administrative Service	Administrat	5141104	Manual	LocalSystem	
	Messenger	Sends and	Started	Automatic	LocalSystem	
	Net Logon	Supports p	Started	Automatic	LocalSystem	
	NetMeeting Remote Desktop Sharing	Allows aut		Manual	LocalSystem	
	Network Connections	Manages o	Stated	Manual	LocalSystem	
	Network DDE	Provides n		Manual	LocalSystem	
	Network DDE DSDM	Manages s		Manual	LocalSystem	
	NT LM Security Support Provider	Provides s		Manual	LocalSystem	
	Oracle Reports Server [Rep60 opera]		Stated	Automatic	LocalSystem	_
	CracleHTTPServer			Automatic	LocalSystem	
	Oracleora92TN5Listener		Started	Automatic	LocalSystem	
	OracleServiceOPERA		Started	Automatic	LocalSystem	
	Performance Logs and Alerts	Configures		Manual	LocalSystem	
	Plug and Play	Manages d	Started	Automatic	LocalSystem	
	Print Spooler	Loads files	Started	Automatic	LocalSystem	
	Protected Storage	Provides pr	Started	Automatic	LocalSystem	
	QoS RSVP	Provides n		Manual	LocalSystem	
	Remote Access Auto Connection Manager	Creates a		Manual	LocalSystem	
	Remote Access Connection Manager	Creates a	Started	Manual	LocalSystem	
	Remote Procedure Call (RPC)	Provides th	Started	Automatic	LocalSystem	
	Remote Procedure Call (RPC) Locator	Manages t		Manual	LocalSystem	
	Remote Registry Service	Allows rem	Started	Automatic	LocalSystem	
	Removable Storage	Manages r	Started	Automatic	LocalSystem	
	Routing and Remote Access	Offers rout		Disabled	LocalSystem	
	RunAs Service	Enables st	Started	Automatic	LocalSystem	
	Security Accounts Manager	Stores sec	Started	Automatic	LocalSystem	
	Server .	Provides R	Started	Automatic	LocalSystem	
	Simple Mail Transport Protocol (SMTP)	Transports	Started	Automatic	LocalSystem	
	Smart Card	Manages a		Manual	LocalSystem	
	Smart Card Helper	Provides s		Manual	LocalSystem	
	SNMP Service	Includes a		Manual	LocalSystem	
	SNMP Trap Service	Receives tr		Manual	LocalSystem	
	Symantec AntiVirus Client	Provides re	Started	Automatic	LocalSystem	
	System Event Notification	Tracks syst	Started	Automatic	LocalSystem	-
	. j. on					
						J

Figure 4.3: OracleHttpServer not started

Services							
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Services (Local)	IPSEC Policy Agent		Manages I	Started	Automatic	LocalSystem	
offer / /	Kerberos Key Distribution Center		Generates		Disabled	LocalSystem	
	Service Logging Service			Started	Automatic	LocalSystem	
	🖏 Logical Disk Manager		Logical Disk	Started	Automatic	LocalSystem	
	🖏 Logical Disk Manager Administrati	ve Service	Administrat		Manual	LocalSystem	
	Messenger		Sends and	Started	Automatic	LocalSystem	
	🖏 Net Logon		Supports p	Started	Automatic	LocalSystem	
	NetMeeting Remote Desktop Sha	ring	Allows aut		Manual	LocalSystem	
	Network Connections		Manages o	Started	Manual	LocalSystem	
	Network DDE		Provides n		Manual	LocalSystem	
	Network DDE DSDM		Manages s		Manual	LocalSystem	
	NT LM Security Support Provider		Provides s		Manual	LocalSystem	
	Oracle Reports Server [Rep60_o	pera]		Started	Automatic	LocalSystem	
	OracleHTTPServer	Shave			Automatic	LocalSystem	
	Oracleora92TNSListener	Stop		Started	Automatic	LocalSystem	
	OracleServiceOPERA	Dourse		Started	Automatic	LocalSystem	
	Performance Logs and Alerts	Decime	Configures		Manual	LocalSystem	
	No Plug and Play	Resulto	Manages d	Started	Automatic	LocalSystem	
	Print Spooler		Loads files	Started	Automatic	LocalSystem	
	Protected Storage	All Tasks 🕨	Provides pr	Started	Automatic	LocalSystem	
	QoS RSVP	Defrech	Provides n		Manual	LocalSystem	
	Remote Access Auto Connectio	Refresit	Creates a		Manual	LocalSystem	
	Remote Access Connection Mar	Properties	Creates a	Started	Manual	LocalSystem	
	Remote Procedure Call (RPC)	1.1la	Provides th	Started	Automatic	LocalSystem	
	Remote Procedure Call (RPC) Li_	нер	Manages t		Manual	LocalSystem	
	Remote Registry Service		Allows rem	Started	Automatic	LocalSystem	
	Removable Storage		Manages r	Started	Automatic	LocalSystem	
	Routing and Remote Access		Offers rout		Disabled	LocalSystem	
	RunAs Service		Enables st	Started	Automatic	LocalSystem	
	Security Accounts Manager		Stores sec	Started	Automatic	LocalSystem	
	Server		Provides R	Started	Automatic	LocalSystem	
	Simple Mail Transport Protocol (S	MTP)	Transports	Started	Automatic	LocalSystem	
	Smart Card		Manages a		Manual	LocalSystem	
	Smart Card Helper		Provides s		Manual	LocalSystem	
	SNMP Service		Includes a		Manual	LocalSystem	
	SNMP Trap Service		Receives tr		Manual	LocalSystem	
	Symantec AntiVirus Client		Provides re	Started	Automatic	LocalSystem	
	System Event Notification		Tracks syst	Started	Automatic	LocalSystem	•

Figure 4.4: Starting the OracleHttpServer service

If the service has already been started, then check whether the service is running in the local system account. If the entry in the Log On As column corresponding to the OracleHttpServer service is LocalSystem, it indicates that the service is running in the local system account (see Figure 4.5). If not, then modify the Log On As entry by first selecting the service, right-clicking on it, and selecting the Properties option from its shortcut menu (see Figure 4.6).

🍇 Services						_ 8
Action View 🛛 📛	→ 🕮 🖬 😭 🔁 😼 😫 ] ≻ ■ 🗉 ■>					
Tree	Name A	Description	Status	Startup Type	Log On As	
Services (Local)	PSEC Policy Agent	Manages I	Started	Automatic	LocalSystem	
<b>1</b>	Kerberos Key Distribution Center	Generates		Disabled	LocalSystem	
	License Logging Service		Started	Automatic	LocalSystem	
	Logical Disk Manager	Logical Disk	Started	Automatic	LocalSystem	
	Cogical Disk Manager Administrative Service	Administrat		Manual	LocalSystem	
	Messenger .	Sends and	Started	Automatic	LocalSystem	
	Net Logon	Supports p	Started	Automatic	LocalSystem	
	NetMeeting Remote Desktop Sharing	Allows aut		Manual	LocalSystem	
	Network Connections	Manages o	Started	Manual	LocalSystem	
	Network DDE	Provides n		Manual	Loca System	
	Network DDE DSDM	Manages s		Manual	Loca System	
	NT LM Security Support Provider	Provides s		Manual	Loca System	
	Oracle Reports Server [Rep60_opera]		Started	Automatic	Localystem	
	OracleHTTPServer		Started	Automatic	LocalSystem	
	Oracleora92TN5Listener		Started	Automatic	LocalSystem	
	CracleServiceOPERA		Started	Automatic	LocalSystem	
	Performance Logs and Alerts	Configures		Manual	LocalSystem	
	Plug and Play	Manages d	Started	Automatic	LocalSystem	
	Print Spooler	Loads files	Started	Automatic	LocalSystem	
	Protected Storage	Provides pr	Started	Automatic	LocalSystem	
	QoS RSVP	Provides n		Manual	LocalSystem	
	Remote Access Auto Connection Manager	Creates a		Manual	LocalSystem	
	Remote Access Connection Manager	Creates a	Started	Manual	LocalSystem	
	Remote Procedure Call (RPC)	Provides th	Started	Automatic	LocalSystem	
	Remote Procedure Call (RPC) Locator	Manages t		Manual	LocalSystem	
	Remote Registry Service	Allows rem	Started	Automatic	LocalSystem	
	Removable Storage	Manages r	Started	Automatic	LocalSystem	
	Routing and Remote Access	Offers rout		Disabled	LocalSystem	
	RunAs Service	Enables st	Started	Automatic	LocalSystem	
	Security Accounts Manager	Stores sec	Started	Automatic	LocalSystem	
	Server	Provides R	Started	Automatic	LocalSystem	
	Simple Mail Transport Protocol (SMTP)	Transports	Started	Automatic	LocalSystem	
	Smart Card	Manages a		Manual	LocalSystem	
	Smart Card Helper	Provides s		Manual	LocalSystem	
	SNMP Service	Includes a		Manual	LocalSystem	
	SNMP Trap Service	Receives tr		Manual	LocalSystem	
	Symantec AntiVirus Client	Provides re	Started	Automatic	LocalSystem	
	System Event Notification	Tracks syst	Started	Automatic	LocalSystem	
J	J					 

Figure 4.5: The OracleHttpServer service running in the LocalSystem account

No. Services							_ <u>8</u> ×
Action View	> 🖮 🖬 🔛 🔁 😼 🔒 👔 🕨 🗉 🛛	•					
Tree	Name A		Description	Status	Startup Type	Log On As	<b></b>
Services (Local)	Sector Agent		Manages I	Started	Automatic	LocalSystem	
	Kerberos Key Distribution Center		Generates		Disabled	LocalSystem	
	Service Logging Service			Started	Automatic	LocalSystem	
	Subscription of the second sec		Logical Disk	Started	Automatic	LocalSystem	
	Service Service Service		Administrat		Manual	LocalSystem	
	Messenger		Sends and	Started	Automatic	LocalSystem	
	Net Logon		Supports p	Started	Automatic	LocalSystem	
	NetMeeting Remote Desktop Sharing		Allows aut		Manual	LocalSystem	
	Network Connections		Manages o	Started	Manual	LocalSystem	
	Network DDE		Provides n		Manual	LocalSystem	
	Network DDE DSDM		Manages s		Manual	LocalSystem	
	NT LM Security Support Provider		Provides s		Manual	LocalSystem	
	Oracle Reports Server [Rep60_opera]			Started	Automatic	LocalSystem	
	OracleHTTPServer	Start		Started	Automatic	LocalSystem	
	Cracleora92TNSListener	Stop		Started	Automatic	LocalSystem	
	CracleServiceOPERA	Pause		Started	Automatic	LocalSystem	
	Performance Logs and Alerts	Resume	Configures		Manual	LocalSystem	
	Selection of Play	Restart	Manages d	Started	Automatic	LocalSystem	
	Rint Spooler		Loads files	Started	Automatic	LocalSystem	
	Protected Storage	All Tasks •	Provides pr	Started	Automatic	LocalSystem	
	QoS RSVP	Refresh	Provides n		Manual	LocalSystem	
	Remote Access Auto Connection Manager		Creates a		Manual	LocalSystem	
	Remote Access Connection Manager	Properties	Creates a	Started	Manual	LocalSystem	
	Remote Procedure Call (RPC)	Help	Provides th	Started	Automatic	LocalSystem	
	Remote Procedure Call (RPC) Locator		Manages t		Manual	LocalSystem	
	Remote Registry Service		Allows rem	Started	Automatic	LocalSystem	
	Removable Storage		Manages r	Started	Automatic	LocalSystem	
	Routing and Remote Access		Offers rout		Disabled	LocalSystem	
	RunAs Service		Enables st	Started	Automatic	LocalSystem	
	Security Accounts Manager		Stores sec	Started	Automatic	LocalSystem	
	Server .		Provides R	Started	Automatic	LocalSystem	
	Simple Mail Transport Protocol (SMTP)		Transports	Started	Automatic	LocalSystem	
	Smart Card		Manages a		Manual	LocalSystem	
	Smart Card Helper		Provides s		Manual	LocalSystem	
	SNMP Service		Includes a		Manual	LocalSystem	
	SNMP Trap Service		Receives tr		Manual	LocalSystem	
	Symantec AntiVirus Client		Provides re	Started	Automatic	LocalSystem	
	System Event Notification		Tracks syst	Started	Automatic	LocalSystem	•
Opens property sheet for the	e current selection.						

Figure 4.6: Selecting the Properties option

Then, select the Log On tab from the Properties dialog box that appears, and choose the Local System account option from it (see Figure 4.7).

OracleHTTPServer Prope	erties (Local Computer)
General Log On Reco	very Dependencies
Log on as:	
<ul> <li>Local System accour</li> <li>Allow service to in</li> </ul>	nt iteract with desktop
C <u>I</u> his account:	Browse
Password:	
Confirm password:	
You can enable or disabl	e this service for the hardware profiles listed below:
Hardware Profile	Service
Profile 1	Enabled
	<u>Enable</u> <u>Disable</u>
	OK Cancel Apply

Figure 4.7: Selecting the Local System account

- > Finally, click on the **Apply** button and then the **OK** button in Figure 4.7 to register the changes.
- ➢ If Oracle 9ias Release 1 is being used, then eG will be able to monitor the Oracle HTTP server running on it, only if it is managed as a Web\_server. In such a case, if the OracleHttpServer service is running in

the Local system account only, proceed to check whether the web adapter has been configured properly. While configuring an Apache server, setup will request for the full path to the root directory of the server. Ensure that this path is the same as the value displayed against the **ServerRoot** parameter in the **httpd.conf** file in the **<ORA\_HTTP\_SERVER\_HOME>\conf** directory (see Figure 4.8).

TextPad - [C:\oracle\IA5\Apache\Apache\conf\httpd.conf]	_ 8 ×
Elle Edit Search View Iools Macros Configure Window Help	_ 8 ×
_ C 🛎 🖬 🖥 🖧 📓 👗 🖻 🖻 🔍 ♀ व 🗊 😂 ¶ 🔮 ♥ ∯ 😡 👁 🕸 🖓 • 🕪 → №	
<pre># NOTE: Where filenames are specified, you must use forward slashes # NOTE: Where filenames are specified, you must use forward slashes # instead of backslashes (e.g., "c:/apache" instead of "c:\apache"). # If a drive letter is omitted, the drive on which Apache.exe is located # vill be used by default. It is recommended that you always supply # an explicit drive letter in absolute paths, however, to avoid # confusion. #</pre>	•
<pre>### Section 1: Global Environment # # The directives in this section affect the overall operation of Apache, # such as the number of concurrent requests it can handle or where it # can find its configuration files. #</pre>	
# # ServerType is either inetd, or standalone. Inetd mode is only supported on # Unix platforms. # ServerType standalone	
# ServerRoot: The top of the directory tree under which the server's # configuration, error, and log files are kept. # Do NOT add a slash at the end of the directory path.	
ServerRoot "C:NoracleNIASNApacheNApache" # # PidFile: The file in which the server should record its process # identification number when it starts. # PidFile logs/httpd.pid	
<pre># # ScoreBoardFile: File used to store internal server process information. # Not all architectures require this. But if yours does (you'll know because # this file will be created when you run Apache) then you *must* ensure that # no two invocations of Apache share the same scoreboard file. # ScoreBoardFile logs/httpd.scoreboard</pre>	
# In the standard configuration, the server will process httpd.conf (this "file creation by the formand line option") orm conf. and access conf	•
webadapter.2722 😭 httpd conf	
40 bytes selected 63 41 Read (Ovr Block Sync	Rec Caps

Figure 4.8: The ServerRoot parameter in the httpd.conf file

Next, check whether a file named webadapter.<PID> is created in the <eg\_home\_dir>\agent\config directory. This is a clear indicator of the successful deployment of the web adapter. Now, verify whether the pid in webadapter.<PID> matches with the pid of any one of the Apache.exe processes in the Windows Task Manager (see Figure 4.9). If it does not match, then the web adapter may not work. Under such circumstances, delete the webadapter.<PID> file and restart the Oracle Http Server. Sometimes, an additional webadapter file will be created with a PID that does not match any of the Apache.exe PIDs listed in the Windows Task Manager. In such a case, delete the additional webadapter.<PID> file and restart the eG agent.

🔍 C:\eGurkha\agent\config							_ 8 ×
Fie Edit View Eavorites Tools Help							
							- 20
Address C:\eGurkha\agent\conf	ig						<u>▼</u> (~ ∞
Folders	The state	×	and the second		Name A	Size	Туре
🚮 Desktop	Windows Task Mana	iger			apache_root.txt	0 KB	Text Document
My Documents	File Options View Hel	P			a clusteroutput	30 KB	File
E 🖳 My Computer	Applications Processes	Performance			S CorrectiveScriptsList.ini	0 KB	Configuration Sett
🗄 📑 3½ Floppy (A:)		· ·			B eg_agents.ni	16 KB	Configuration Sett
E- Windows 2000 (C:)	Image Name	PID CPU	CPU Time	Mem Usa 🔺	B ag db ini	1 ND 27 KB	Configuration Sett
E Copy of Extend	Apache.exe	2644 00	0:00:05	17,200	B eq maintenance ini	37 KD	Configuration Sett
Documents and Setti	Apache.exe	2732 00	0:00:03	10,656	B eg managers ini	1 KD 0 KB	Configuration Sett
	CMD.EXE	2432 00 2912 00	0:02:15	1,068	B en newtests.ini	1 KB	Configuration Sett
E Simp	csrss.exe	184 00	1:03:30	2.024	B en pickini	0.KB	Configuration Sett
	DefWatch.exe	680 00	0:00:06	2,376	B eq recover.ini	1 KB	Configuration Sett
E Coning	dfssvc.exe	1512 00	0:00:11	1,604	B eq remote.ini	1 KB	Configuration Sett
	ainost.exe	1868 UU 656 D2	0:09:09	3,492	🗑 eg setup.ini	0 KB	Configuration Sett
H http://	ifcserv.exe	1172 00	0:05:43	3,036	🐻 eg_siteInfo.ini	1 KB	Configuration Sett
F D bin	ifweb60.EXE	2292 03	0:00:00	13,476	🕫 eg_testinfo.ini	3 KB	Configuration Sett
IRF	IKernel.exe	1400 00	0:00:01	9,112	🐻 eg_tests.ini	5 KB	Configuration Sett
н 🗀 њ	inetinro.exe	1532 00	1:49:15	5,692	eg_thresholds.ini	89 KB	Configuration Sett
🖲 🧰 manager	java.exe	2900 02	0:00:02	11,156	eg_topology.ini	5 KB	Configuration Sett
🕀 🙆 tmp	js.exe	2648 00	32:05:35	55,008	webadapter.2732	1 KB	2732 File
🗄 🧰 Extend	lissrv.exe	764 00	0:00:16	1,864			
🗉 🧰 Inetpub	LDADD.EXE	244 00	0:26:28	3,45			
🕀 🛄 jdk1.3.1_08							
😟 🛄 micros			En	d Process			
🗈 🛄 MicrosiN							
🖻 🧰 oracle	Processes: 51 CPU U	age: 37% Mem	Usage: 11877	780K / 2519856 /			
9.2.0	)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		111			
🕀 🛄 admin							
🗷 🛄 dev6i							
IAS							
🖃 🛄 Apache							
E Gai-bi	n						
		<u> </u>			•		<u> </u>
Type: 2732 File Size: 45 bytes					45 by	es 📙 My Con	iputer

Figure 4.9: PID in the file name matching with the PID of one of the Apache.exe processes

Also, ensure that the Listen ports configured in the webadpater.<PID> file (see Figure 4.10) are the same as those which are listed in the httpd.conf file in the <ora\_http\_server\_home>\conf directory (see Figure 4.11).



Figure 4.10: Listen ports displayed in the webadpater.<PID> file

TextPad - [C:\oracle\IAS\Apache\Apache\conf\httpd.conf]	
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」D 😂 🖬 🗐 🚭 📐 🔄 👗 🛍 🗟   그 으   व 🗊   व ୩   🎱 🂖 🔱 🐼   � 🕸 🔶   • III →   🎗	
<pre># # Fort: The port to which the standalone server listens. Certain firewall # products must be configured before Apache can listen to a specific port. # Other running httpd servers will also interfere with this port. Disable # all firewall, security, and other services if you encounter problems. # To help diagnose problems use the Windows NT command NETSTAT -a # Fort 80</pre>	1
<pre>## ## SSL Support ## ## When we also provide SSL we have to listen to the ## standard HTTP port (see above) and to the HTTPS port ##</pre>	-
Listen 80 Listen 443	
<pre># # ServerAdmin: Your address, where problems with the server should be # e-mailed. This address appears on some server-generated pages, such # as error documents. # ServerAdmin you@your.address</pre>	
<pre># ServerName allows you to set a host name which is sent back to clients for # your server if it's different than the one the program would get (i.e., use " 'www' instead of the host's real name). # Note: You cannot just invent host names and hope they work. The name you # define here must be a valid DNS name for your host. If you don't understand # this, ask your network administrator. # If your host doesn't have a registered DNS name, enter its IP address here. # You will have to access it by its address (e.g., http://123.45.67.89/) # anyway, and this will make redirections work in a sensible way. # 127.0.0.1 is the TCP/IP local loop-back address, often named localhost. Your # machine always knows itself by this address. If you use Apache strictly for # local testing and development, you may use 127.0.0.1 as the server name. # ServerName EGSERVER01 ServerName 192.168.10.36</pre>	
۱ <u>۴</u>	v.
webadapter.2732 🛐 httpd.conf	
	300 11 Read Ovr Block Sync Rec Caps

Figure 4.11: Listen ports displayed in the httpd.conf file

- Note that the Listen ports displayed in the webadapter.<PID> file are prefixed by a `\*', which typically represents an IP address. However, if a specific IP address substitutes the `\*' in the webadapter.<PID> file, then, in the eG administrative interface, the Oracle Http server must be managed using that IP address only.
- Finally, check whether the directives indicated by Figure 4.12 exist in the httpd.conf file in the <ORA\_HTTP\_SERVER\_HOME>\conf directory.

💽 TextPad - [C\oracle\IAS\Apache\Apache\conf\httpd.conf]	_ 8 ×
Elle Edit Search View Icols Macros Configure Window Help	_ # ×
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LoadHodule porcease, acquie LoadHodule sorte as a construction of the second se	
AddModule mod_spires c AddModule mod_proxy; c AddModule mod_proxy; c AddModule mod_revrite c AddModule mod_info.c AddModule mod_info.c AddModule mod_usertrack.c AddModule mod_usertrack.c AddModule mod_estrack.c AddModule mod_procmsr.c AddModule mod_procmsr.c AddModule mod_esl.c AddModule mod_esl.c	ľ
S websdater 2722 S bind over	
En woodooper.choc En Intercont	ec Caps

Figure 4.12: eG-specific directives in the httpd.conf file

## **Configuring and Monitoring Apache Web Servers**

The eG Enterprise suite provides a generic Web server component-type that allows administrators to effectively monitor any web server - be it an Apache web server, IBM HTTP server, or an iPlanet web server. The eG web adapter can be deployed on a Web server, so as to snoop on the real web transactions to the server and retrieve a wide range of real-time statistics pertaining to the critical transactions that are configured using the eG administrative interface.

On the other hand, some administrators might require in-depth insight into the performance of an Apache web server in particular, without enabling the web adapter capability. To cater to the requirements of such administrators, eG provides a specialized Apache\_web\_server model.

This section delineates the procedures involved in configuring and monitoring an Apache web server.

# 5.1 Configuring an Apache Web Server for Monitoring by the eG Enterprise suite

To pull out metrics related to the health of the Apache web server, the eG agent accesses a specific URL on the Apache server that contains the required metrics. To allow the eG agent to access this URL, you need to ensure that the following entries in the <a href="https://www.apacheen.comfile

LoadModule status\_module modules/mod\_status.so <IfModule mod\_status.c> ExtendedStatus On </IfModule> <Location /server-status> SetHandler server-status Order deny,allow Deny from all Allow from <domain name to give access> </Location>

#### Configuring and Monitoring Apache Web Servers

In case of the Apache web server v2.2 however, you will have to append the following entries to the **httpd.conf** file, soon after uncommenting the *LoadModule status\_module modules/mod\_status.so* entry:

<IfModule mod\_status.c> <Location /server-status> SetHandler server-status Order deny,allow Deny from all Allow from **<domain name to give access>** </Location> </IfModule>

While uncommenting or inserting (depending upon the version of Apache being monitored) the aforesaid block, make sure that the **<domain name to give access>** is configured with the fully qualified domain name that should be permitted to access the URL on the Apache web server. Alternatively, you can even specify the IP address of a particular host that should be granted access, or a space-separated list of 'allowed' IP addresses. Since it is the eG agent that should be allowed access to the URL, specify the fully qualified name of the domain to which the eG agent belongs and/or the IP address of the eG agent in **<domain name to give access>**. For example, your entry can read as follows:

Allow from mas.eginnovations.com

(OR)

Allow from mas.eginnovations.com 192.168.8.56

This will be the local host's IP/host name in case of an internal agent, or the IP/host name of a remote Windows host in case of a remote agent.

#### 5.2 Administering the eG Enterprise suite to Monitor an Apache Web Server

To achieve this, do the following:

- 1. Login to the administrative interface of eG as an administrator (admin).
- 2. If the Apache web server is automatically discovered, then use the COMPONENTS -MANAGE/UNMANAGE page to manage the server. On the other hand, if the Apache web server is not discovered automatically, then either run discovery to get them discovered (Infrastructure -> Components -> Discover) or add them using the ADD/MODIFY COMPONENTS page (Infrastructure -> Components -> Add/Modify) (see Figure 5.1). Components manually added will be automatically managed by the eG Enterprise system (see Figure 5.1).

#### Configuring and Monitoring Apache Web Servers

COMPONENT	S		blassing adapted		
		u inis page ena	ibles the admini	strator to provide the details of a new col	mponent.
			NEW (	COMPONENT DETAILS	
	Component type	:	Apache Web		
	Host IP	:	192.168.10. 5	1	
	Host/Nick name	:	192168.10.51		
	Port number	:	80		
	Agentless	:	C Yes		
	Internal agent assignment	:	Auto	O Manual	
	External agents	:	192.168.10.2 aix-10.3 Linux-10.12	0	
				Add	

Figure 5.1: Adding the details of a new Apache web server

3. Now, try to sign out of the user interface. Doing so, will bring up a page, which prompts you to configure the tests for the Apache web server.

🚺 This page enables the administrator to view	w unconfigured tests
	Proceed to Signout
List of unconfigured tests for 'Apa	ache Web'
PERFORMANCE CONFIGURATION	192.168.10.51:80
Processes	

Figure 5.2: The list of unconfigured tests for the Apache web server

4. Click on the Processes test in Figure 5.2 to configure it. Upon clicking, the test parameters will be displayed (see Figure 5.3).

Processes parameters to be configured for 192.168.10.51:80 (Apache Web)						
192.168.10.51						
TEST PERIOD	: S mins 💌					
HOST	: 192.168.10.51					
PORT	: 80					
PROCESS	: webserver: "httpd* *					
USER	: none					
CORRECT	: C True @ False					
	Update					

Figure 5.3: Configuring the Processes test

#### Configuring and Monitoring Apache Web Servers



Refer to Section 1.3 of Chapter 1 above for details on configuring the Processes test and specifying the **PROCESSPATTERN**.

5. After configuring the Processes test, sign out of the eG admin interface.

#### 5.3 Monitoring the Apache Web Server

To view the measurements of the *Apache Web* server, do the following:

- 1. Login as a monitor / supermonitor user.
- 2. Click on the **Components** option in the menu bar, and select the **Servers** option from the **Components** menu.
- 3. Click on the Apache Web server being monitored to view its measurements .

## Configuring and Monitoring External Web Servers

There is no doubt that it is imperative to monitor the request processing ability of the web server, the amount of data load that a web server can handle, or the key transactions to a web site hosted by the server. In fact, eG Enterprise addresses these critical internal monitoring needs using dedicated web server monitoring models (*IIS Web, Apache Web, Web,* etc.), and its unique web adapter technology, all of which have been discussed previously. However, sometimes, administrators might only be interested in knowing whether the web server is available or not, and if so, how responsive it is to user requests. To cater to such monitoring needs, eG Enterprise offers the exclusive, *External Web* model. This model requires only an external agent, which employs native application-level protocols, to ascertain the availability and responsiveness of the web server. This section discusses the procedure involved in configuring and monitoring external web servers.

#### 6.1 Administering the eG Manager to Work with an External Web Server

To administer eG so that it monitors the External web server, do the following:

- 1. Login as an administrator to the eG administrative interface
- Next, add the external web server manually using the ADD/MODIFY COMPONENTS page (Infrastructure -> Components -> Add/Modify) (see Figure 6.1). Components manually added will be automatically managed by the eG Enterprise system (see Figure 6.1).

#### Configuring and Monitoring External Web Servers

COMPONENT	S	
		I This page enables the administrator to provide the details of a new component.
		NEW COMPONENT DETAILS
	Component type	: External Web
	Host IP	: 192.168.10.60
	Host/Nick name	: 192.168.10.60
	Port number	: 80
	External agents	: 192.166.10.20 aix-10.3 hpux Linux-10.12
		Add

Figure 6.1: Adding an External web server

3. Now, sign out of the administrative interface.

#### 6.2 Monitoring the External Web Server

- 1. Login as a monitor / supermonitor to the eG monitor user interface.
- 2. Click on the **Components** option in the menu bar, and select the **Servers** option from the **Components** menu.
- 3. Click on the External Web server to view its measurements .

# 7

### **Troubleshooting Web Servers**

- > If the Http test and Network test are reporting current measures, but none of the other tests are reporting measures, make sure that the internal agent for the web server is running.
- If only the Http test and Network test are not reporting any measures, make sure that the external agent for the web server is running. By default, an external agent executes on the same host as the eG manager.
- > If the WebServer test, WebSite test and WebSiteTransaction test are not running, check the following:
  - Did you remember to configure the target web server with the eG web adapter?
  - Did you restart the web server after configuring?
  - Is the web adapter running? On Unix systems, check for **config/webadapter**.\* files. If they do not exist, it indicates that the webadapter is not running.
  - Verify whether sufficient shared memory segments exist
  - Check the log files
- > If the Processes test is not reporting measures, check whether you have configured the web server's process via the admin interface.
- ➢ If the Http test is showing 0, while actually, the web server is running, then it means that the parameters of the Http test have not been adequately configured. In such a case, follow the steps provided in Section 1.3 to configure the parameters of this test.

We recognize that the success of any product depends on its ability to address real customer needs, and are eager to hear from you regarding requests for enhancements to the products, suggestions for modifications to the product, and feedback regarding what works and what does not. Please provide all your inputs as well as any bug reports via email to support@eginnovations.com.

### Conclusion

This document has described in detail the steps for configuring and monitoring the **Web Servers**. For details of how to administer and use the eG Enterprise suite of products, refer to the user manuals.

We will be adding new measurement capabilities into the future versions of the eG Enterprise suite. If you can identify new capabilities that you would like us to incorporate in the eG Enterprise suite of products, please contact <u>support@eginnovations.com</u>. We look forward to your support and cooperation. Any feedback regarding this manual or any other aspects of the eG Enterprise suite can be forwarded to feedback@eginnovations.com.