Monitoring WebtoB Web Server

eG Innovations Product Documentation

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Total Performance Visibility

Table of Contents

Table of Figures

Chapter 1: Introduction

WebtoB is a web server that provides superior performance and reliability. When used together with JEUS - the world's first Web Application Server that is Java EE 6 certified, these products improve performance by sharing memory and eliminating the network traffic required when the products are deployed on two servers. JEUS and WebtoB can monitor each other's nodes and load balancing to insure coordination. They also deliver remarkable security advances. Together, they can sense and remediate a Denial of Service attack, and minimize its effect on legitimate requests. Since no open firewall port is needed between them, the entire class of attack is eliminated. JEUS and WebtoB are ideal for Enterprises seeking unrivaled security, performance, reliability, throughput and lower costs.

The availability of a web site and the response time for user accesses to the site are the most critical metrics of web performance. Both these metrics may vary depending from one website to another and even from one transaction to another.

Sometimes, administrators may want to know only overall health indicators such as the availability of the WebtoB web server, the data processing ability of the server, the data traffic handled by the server, etc., monitored. To cater to the requirements of such administrators, eG Enterprise provides a specialized WebtoB Web Server model

The specialized monitoring model offered by eG Enterprise help administrators for continuously monitoring the WebtoB Web servers in the environment. The statistics reported by this model enables administrators to find out accurate answers to all the performance related queries.

Chapter 2: How does eG Enterprise monitor the WebtoB Web server?

eG Enterprise monitors the WebtoB Web server in an agent-based manner. All that is required for this is a single eG agent deployed on the target web server. This eG agent pulls out the wealth of information about health of the web servers, and the key metrics related to the transactions and services. To configure the eG agent to monitor the web server, a set of pre-requisites needs to be set in place. These requirements are discussed in the following section.

2.1 Pre-requisites for Monitoring WebtoB Web Server using eG Enterprise

To cater to the requirements of different users, eG Enterprise offers a specialized WebtoB Web Server monitoring model for monitoring the WebtoB Web server. To use this model, administrators should fulfill the pre-requisite as mentioned below:

Identify the node name of the WebtoB Web Server that is to be monitored. This node name should be specified while configuring the tests for the WebtoB Web server. To know how to identify the node name of the WebtoB Web server that is being monitored, follow the steps mentioned below:

- Execute the wsboot.exe available in the <WEBTOB_INSTALL_DIR>\bin folder from the command prompt of the target WebtoB Web server.
- The resultant output as shown in Figure 2.1 displays the node name of the target WebtoB Web Server that is to be monitored.

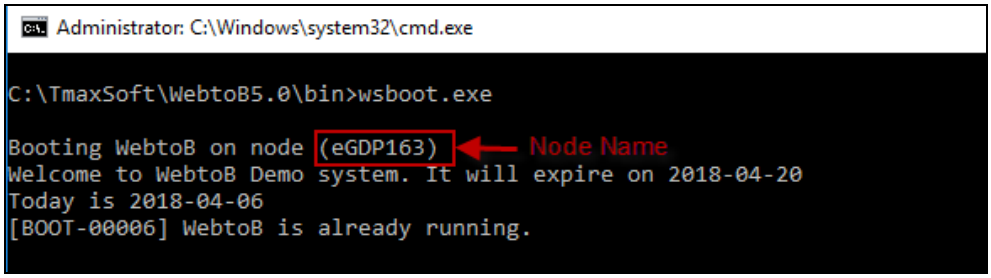

Figure 2.1: Identifying the node name of the WebtoB Web server

2.2 Managing the WebtoB Web Server

The eG Enterprise cannot automatically discover the WebtoB Web server. This implies that you need to manually add the component for monitoring. Remember that the eG Enterprise

automatically manages the components that are added manually. To manage a WebtoB Web server, do the following:

1. Log into the eG administrative interface.
2. Follow the Components -> Add/Modify menu sequence in the **Infrastructure** tile of the **Admin** menu.
3. In the **COMPONENT** page that appears next, select WebtoB Web server as the **Component type**. Then, click the **Add New Component** button. This will invoke Figure 2.2.

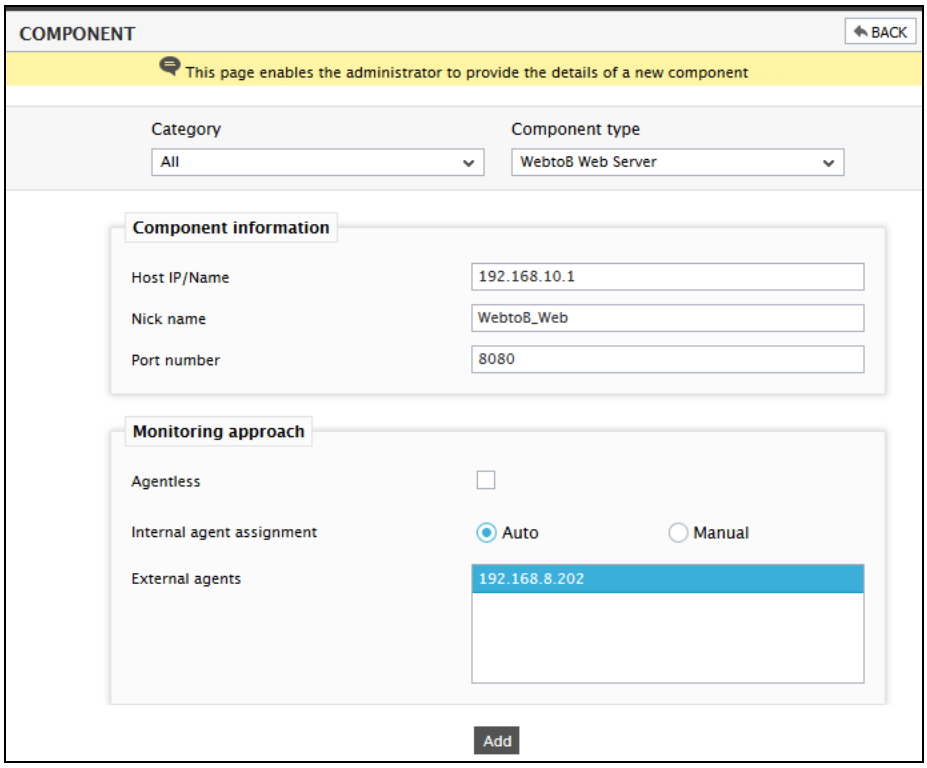

Figure 2.2: Adding a WebtoB Web server

4. Specify the **Host IP** and the **Nick name** of the WebtoB Web server in Figure 2.2. By default, the Port at which the server listens to is specified as 8080. If the server listens to any other port, then specify the port number in the Port text box.
5. By default, the **Agentless** option will be unchecked while you add the WebtoB Web server.
6. Click the **Add** button to add the component.
7. When you attempt to sign out, a list of unconfigured tests will appear as shown in Figure 2.3.

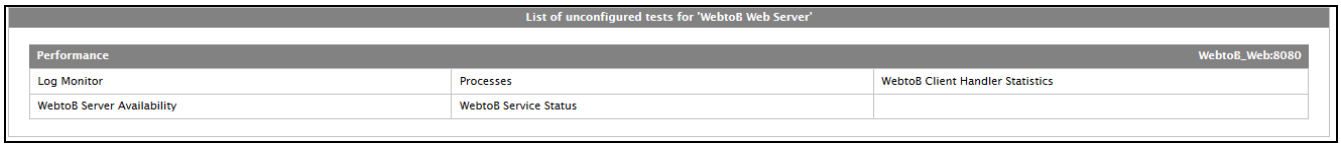

Figure 2.3: List of unconfigured tests to be configured for the WebtoB Web Server

8. Click on the any test from the list of unconfigured tests. For instance, click on the **WebtoB Werver Availability** test to configure it. In the page that appears, specify the parameters as shown in Figure 2.4.

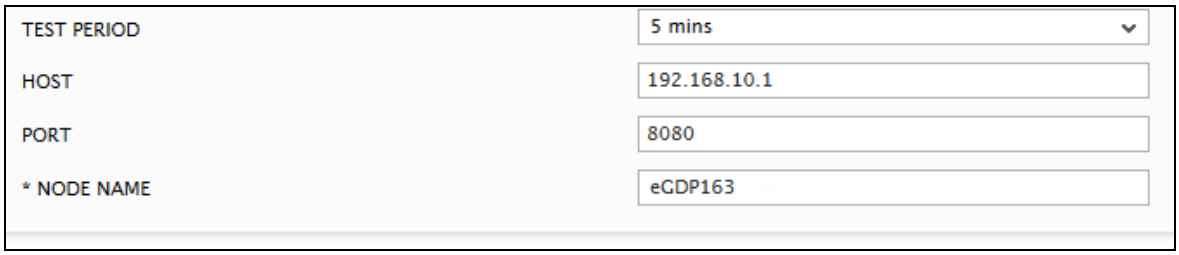

Figure 2.4: Configuring the WebtoB Server Availability test

9. To know how to configure these parameters, refer to **Monitoring the WebtoB Web Server** .
10. Next, try to signout of the eG administrative interface, now you will be prompted to configure the **Processes** test and **Log Monitor** test. To know how to configure the **Processes** and **Log Monitor** tests, refer to *Monitoring Unix and Windows* document.
11. Finally signout of the eG administrative interface.

Chapter 3: Monitoring the WebtoB Web Server

eG Enterprise provides a specialized WebtoB Web Server monitoring model (see Figure 3.1), which periodically pulls out a wealth of information about health of the web servers, and the key metrics related to the transactions and services.

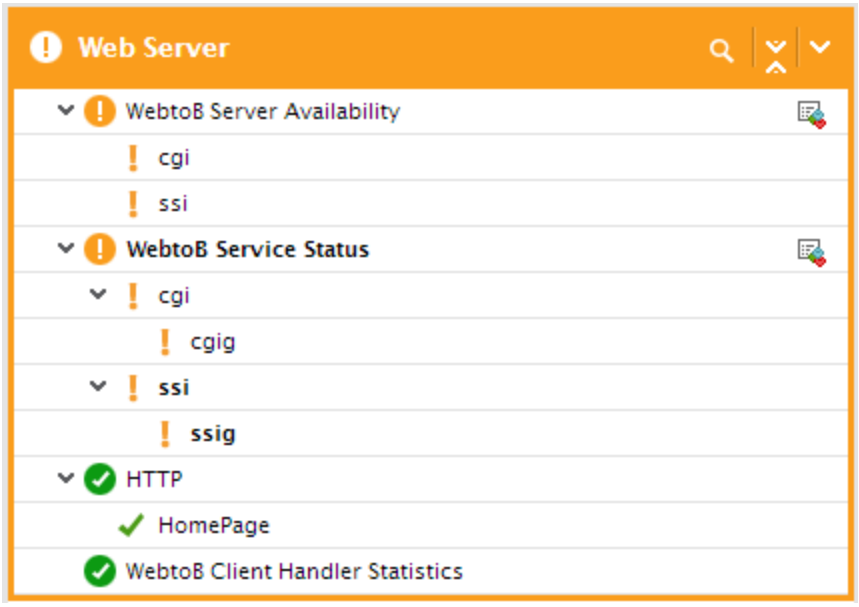

Figure 3.1: The layer model of the WebtoB Web Server

Using the metrics reported, administrators can find quick and accurate answers for the following performance questions:

- Is the web server available?
- How well the web server responds to user requests?
- What is the status of each service associated with the web server?
- How well the requests to each service are processed?
- How many clients were connected to the server?
- How many client connections were queued?
- How many client connections were in *Waiting* state?

Since the tests pertaining to the **Windows Service**, **TCP**, **Network** and **Operating System** layers have already been dealt in the *Monitoring Unix and Windows Server* document, let us now discuss the tests pertaining to the Web Server layer alone in the forthcoming section.

3.1 The Web Server Layer

This layer tracks the availability and responsiveness of the web server, the request processing capability of each service associated with the web server and the clients connected to the web server.

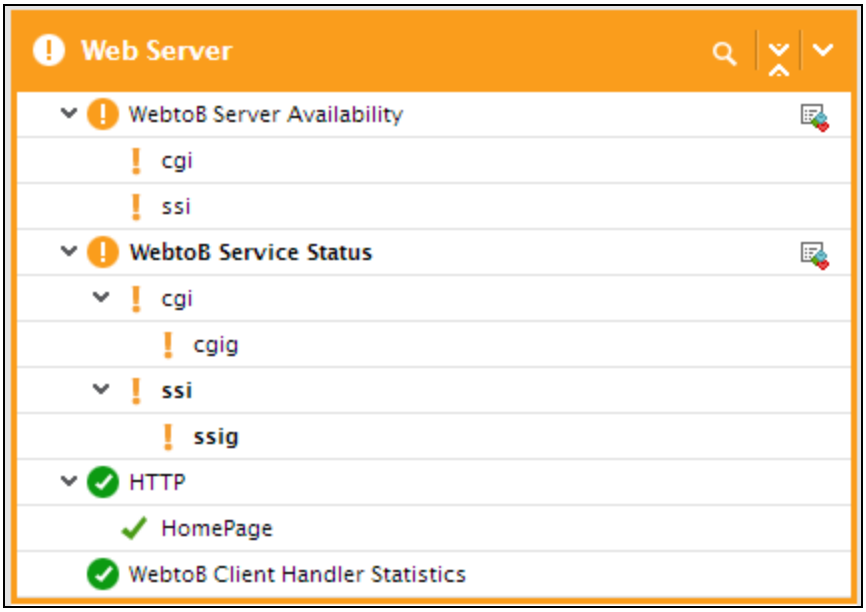

Figure 3.2: The tests mapped to the Web Server layer

Since the **HTTP** test had already been dealt in the *Monitoring Apache Web Servers* document, let us now discuss the remaining tests mapped to this layer in detail.

3.1.1 WebtoB Server Availability Test

This test reveals the current status of the web server and also the number of times the web server was restarted and rebooted. This test also throws light on the number of requests processed by the web server and the requests that were waiting in the queue.

Target of the test : A WebtoB Web Server

Agent deploying this test : An internal agent

Outputs of the test : One set of results for the WebtoB Web Server being monitored

Configurable parameters for the test

Parameters	Description
Test period	This indicates 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. By default, the port number is 8080.
Node Name	Specify the name of the WebtoB node that is to be monitored. To know how to figure out the name of the node, refer to Section **Chapter 2**

Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Status	Indicates the current status of the web server.		The values reported by this measure and its numeric equivalents are mentioned in the table below: **Measure Value** / **Numeric Value** Ready / 0 Not ready / 1 **Note:** By default, this measure reports the current status of the web server. The graph of this measure however, is represented using the numeric equivalents only - 0 or 1.
Server restart count	Indicates the number of times the web server was restarted abnormally.	Number	
Server reboot count	Indicates the number of times the web server was rebooted abnormally.	Number	
Number of request processed	Indicates the number of requests that were processed by the web	Number	This measure is a good indicator of load on the web server.

Measurement	Description	Measurement Unit	Interpretation
	server during the last measurement period.		
Number of request waiting in queue	Indicates number of requests that are currently waiting in the queue.	Number	A very high value of this measure could indicate a processing bottleneck.
Number of request waited in queue	Indicates the number of requests that were waiting in the queue during the last measurement period.	Number	
Number of request removed from queue	Indicates the number of requests that were removed from the queue.	Number	
Number of requests returned due to exceeding the maximum queue size	Indicates the number of requests that were returned since the count was exceeding the maximum configured queue size.	Number	

3.1.2 WebtoB Service Status Test

This test auto-discovers the services running on the target web server and for each service, this test reports the current status. In addition, this test reports the number of processes that were running, the requests processed and the time taken to respond to requests.

Target of the test : A WebtoB Web Server

Agent deploying the test : An internal agent

Outputs of the test : One set of results for the target WebtoB Web server being monitored.

Configurable parameters for the test

Parameter	Description
Test Period	How often should the test be executed.
Host	The host for which the test is to be configured.

Parameter	Description
Port	The port to which the specified host listens. By default, the port number is 8080.
Node Name	Specify the name of the WebtoB node that is to be monitored. To know how to figure out the name of the node, refer to Section **Chapter 2**

Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Status	Indicates the current status of this service.		The values reported by this measure and its numeric equivalents are mentioned in the table below: Measure Value / Numeric Value Ready / 0 Not ready / 1 **Note:** By default, this measure reports the current status of each service. The graph of this measure however, is represented using the numeric equivalents only - 0 or 1.
Total process	Indicates the number of processes of this service that were handled during the last measurement period.	Number	
Number of request processed	Indicates the number of requests that were processed for this service.	Number	Comparing the value of this measure across services helps administrators figure out the service that is processing the maximum number of requests.
Average response time	Indicates the average time taken by this service to respond to requests.	Seconds	A high value for this measure is a cause of concern.
Maximum process	Indicates the maximum number of processes of	Number	

Measurement	Description	Measurement Unit	Interpretation
	this service that can be handled by the web server.		
Process created	Indicates the percentage of processes that were created for this service during the last measurement period.	Percent	

3.1.3 WebtoB Client Handler Statistics Test

This test reports the total number of clients connected to the target web server.

Target of the test : A WebtoB Web Server

Agent deploying the test : An internal agent

Outputs of the test : One set of results for the target WebtoB Web server being monitored.

Configurable parameters for the test

Parameter	Description
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. By default, the port number is 8080.
Node Name	Specify the name of the WebtoB node that is to be monitored. To know how to figure out the name of the node, refer to Section **Chapter 2**.

Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Total client connections	Indicates the total number of clients connected to the server.	Number	

Measurement	Description	Measurement Unit	Interpretation
HTTP handler	Indicates the number of HTTP handlers configured for the server.	Number	
Client connection waiting for request	Indicates the number of connections that were in WAIT state waiting for a request.	Number	
Queued client connections	Indicates the number of client connections that were waiting in queue.	Number	
Client connection ready to process a request	Indicates the number of client connections that were in RUN state.	Number	These connections are ready to process the requests.

About eG Innovations

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

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

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