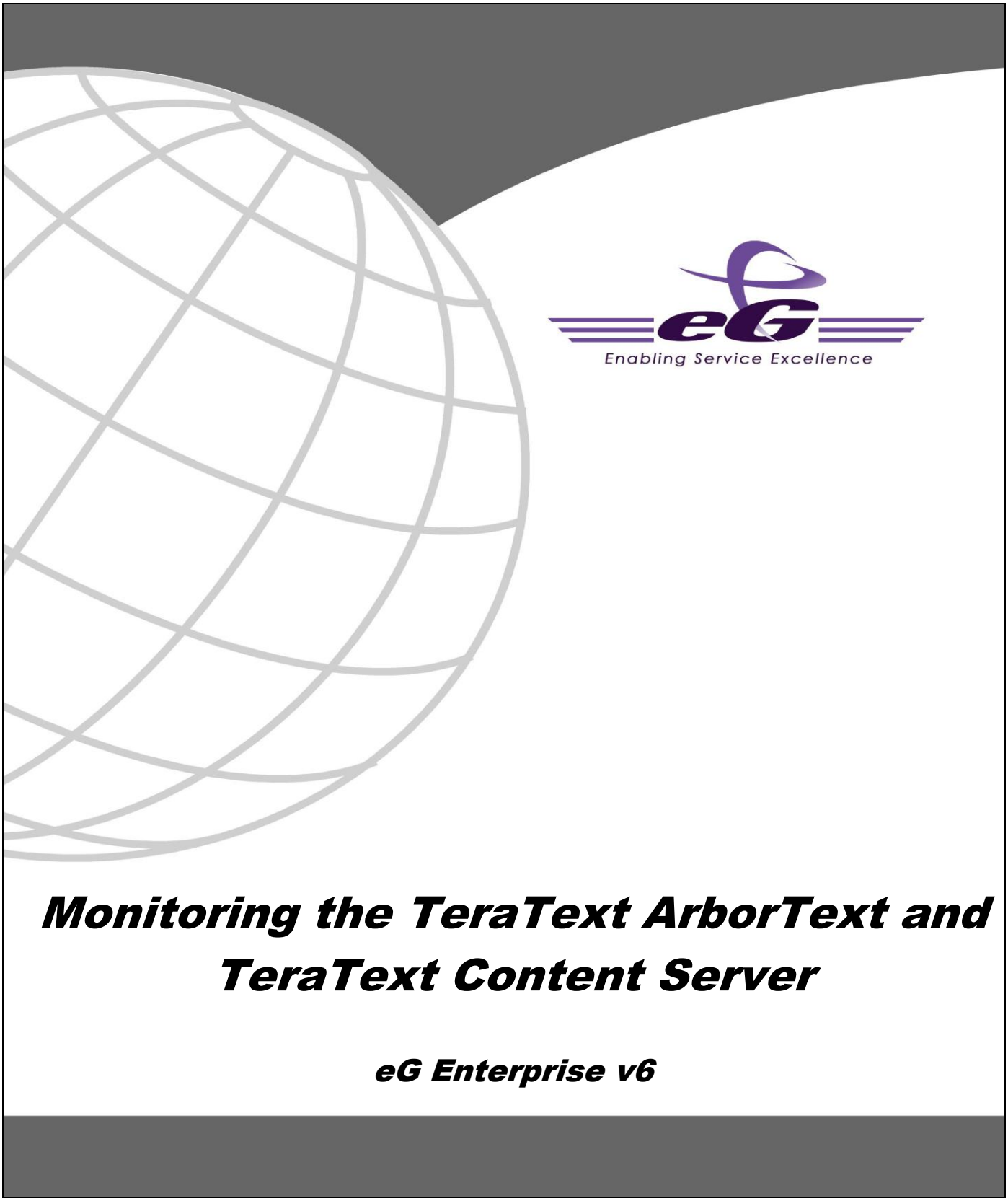

Monitoring the TeraText ArborText and TeraText Content Server

eG Enterprise v6

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Chapter 1

Monitoring TeraText Arbortext

TeraText Document Management System (DMS) supports an authoritative document repository to manage documents from draft through QA to final published baseline. TeraText DMS capabilities can be delivered in a default web interface (which provides a worklist interface) or via custom interfaces using browsers or directly in authoring environments such as Microsoft Word, Adobe FrameMaker, PTC/Arbortext Editor, and WordPerfect. Arbortext is a family of XML-based authoring, publishing, and content management products. The Arbortext Editor enables the authoring of structured content with real-time validation. Authors have the ability to create product-centric information which enables the delivery of contextual, up-to-date product and service information in the forms of interactive service procedures, illustrated parts lists, operator and service manuals, and product training materials. Users can create and edit document components and assemblies and implement publishing standards like DITA, S1000D and DocBook.

eG Enterprise provides a specialized *TeraText Arbortext* monitoring model that closely monitors the rendering jobs performed by the Arbortext Editor and reports failures.

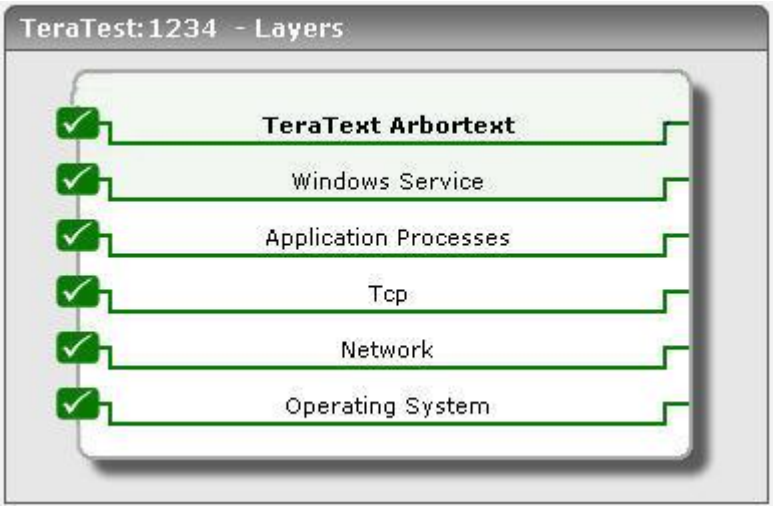

Figure 1.1: Layer model of the TeraText Arbortext component

Since the 5 layers at the bottom of Figure 1.1 have already been discussed in detail in the *Monitoring Unix and Windows Servers* document, the sections that follow will discuss the first layer alone.

1.1 The TeraText Arbortext Layer

This layer monitors the rendering jobs performed by Arbortext and reports the status of these jobs.

1.1.1 Arbortext Renderer Test

This test monitors the rendering status of the Arbortext renderer.

Purpose	Monitors the rendering status of the Arbortext renderer
Target of the test	Teratext Arbortext
Agent deploying the test	An internal agent

<table>
<tr><td>Configurable parameters for the test</td><td colspan="3">1. TEST PERIOD - How often should the test be executed
2. HOST - The host for which the test is to be configured
3. PORT - The port number at which the specified HOST listens
4. INFOLDERS – Provide the full path to each of the IN folders in a comma-separated list. IN folders are folders to which a JOB is submitted.
5. DETAILED DIAGNOSIS - To make diagnosis more efficient and accurate, the eG system embeds an optional detailed diagnostic capability. With this capability, the eG agents can be configured to run detailed, more elaborate tests as and when specific problems are detected. To enable the detailed diagnosis capability of this test for a particular server, choose the On option against DETAILED DIAGNOSIS. To disable the capability, click on the Off option.
The option to selectively enable/disable the detailed diagnosis capability will be available only if the following conditions are fulfilled:
➢ The eG manager license should allow the detailed diagnosis capability
➢ Both the normal and abnormal frequencies configured for the detailed diagnosis measures should not be 0.</td></tr>
<tr><td>Outputs of the test</td><td colspan="3">One set of results for the Teratext Arbortext being monitored</td></tr>
<tr><td rowspan="3">Measurements made by the test</td><td>Measurement</td><td>Measurement Unit</td><td>Interpretation</td></tr>
<tr><td>Jobs succeeded:
Indicates the number of jobs that succeeded during the last measurement period.</td><td>Number</td><td></td></tr>
<tr><td>Jobs failed:
Indicates the number of jobs that failed during the last measurement period.</td><td>Number</td><td>If the detailed diagnosis capability is enabled, the details of the jobs that failed will be made available to you.</td></tr>
<tr><td></td><td>Jobs in queue:
Indicates the number of jobs that were in queue during the last measurement period.</td><td>Number</td><td>A consistent increase in the value of this measure could indicate a slowdown in rendering.
If the detailed diagnosis capability is enabled, the details of the jobs in queue will be made available to you.</td></tr>
</table>

Chapter 2

Monitoring TeraText Content Server

TeraText is a non-relational text database. It is used to store and search through large amounts of textual data. TeraText operation utilises a heavy client server model. A basic setup can consist of a Content Server (CS), Advanced Search Interface, Application Server (AS), Security Server (SLS) and a Boot Server (boots).

The TeraText Content Server application provides a database server application that can store and manage records containing text accessible using Z39.50 network protocol interfaces. The TeraText Content Server application also provides proprietary network protocol interfaces that are accessible using TeraText administrative console interfaces to manage server services.

The sudden non-availability of the Content Server or a significant delay in the search operations performed by the server can severely impact the overall health of the TeraText database. To ensure peak performance of the database therefore, administrators need to always be on the look out for anomalies - both real and potential ones.

eG Enterprise offers a dedicated *TeraText Content Server* monitoring model, which monitors the internal operations and external availability of the Content Server from time-to-time, and proactively alerts administrators to current and probable performance issues.

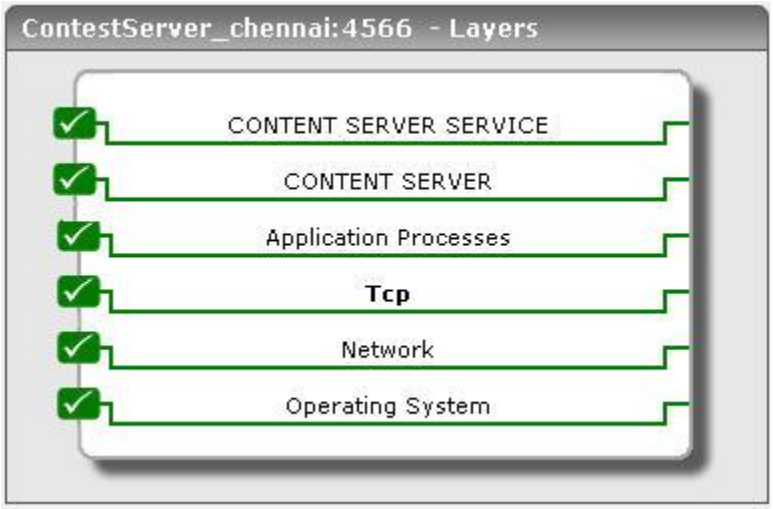

Figure 2.1: Layer model of the TeraText Content Server

Each layer of this *agent-based* monitoring model is mapped to a variety of tests that report on a wide range of performance parameters related to the TeraText Content Server. To enable the eG agent to do the same, you need to follow the steps below before attempting to manage the TeraText Content Server using the eG Enterprise system:

1. Copy the **teratext-asn1-5.3.3.jar** and **teratext-dbs-api-5.3.3.jar** files from the **<TERATEXT_INSTALL_DIR>** to the **<EG_AGENT_INSTALL_DIR>\lib** folder on the target Content Server and the server on which eG external agent is running.
2. If the eG agent is installed on a Windows host, modify the **debugoff.bat** and **debugon.bat** files to append the path of these two jar files into class path. Then, run the **debugoff.bat** file and restart the eG agent.
3. On Unix installations of the eG agent, modify the **start_agent.sh** script file and append the path of the jar files to the class path. Then, restart the eG agent.

Once this is done, you can then configure the eG agent to collect a wealth of performance metrics pertaining to the Content Server. Using these metrics, administrators can find quick and accurate answers for the following performance queries:

- Is the server available? If so, how quickly is it responding to client requests?
- Is any database on the Content Server occupying too much disk space? If so, which one is it and why? - is it because of too many files or is it because the file size is high?
- Has the disk cache been utilized optimally? Which file on the Content Server is using the disk cache most ineffectively?
- Is the server experiencing any memory contentions? If so, why? - is it because the disk cache is over-utilizing the memory resources? or is it due to a memory-hungry index cache?
- Are file operations experiencing any latencies?
- Is there any delay in the processing of record-change operations?
- Are security requests been processed quickly?
- Were records pertaining to present operations retrieved from the database in good time?

- Were any latencies noticed in the processing of Z39.50 operations?
- Is there any bottleneck in the processing of search requests or sort and merge requests?

Since the four layers at the bottom of Figure 2.1 have already been discussed in the *Monitoring Unix and Windows Servers* document, the sections that follow will deal with the first two layers alone.

2.1 The CONTENT SERVER Layer

Using the tests mapped to this layer, you can promptly detect:

- Database space contentions;
- Excessive memory usage by the Content Server
- Ineffective disk cache usage;
- Latencies in file access operations and record-change operations;
- Excessive memory usage by the index cache

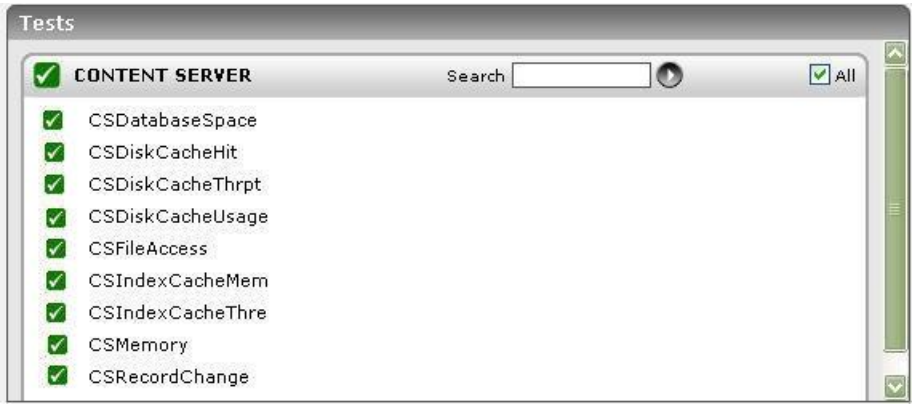

Figure 2.2: The tests mapped to the CONTENT SERVER layer

2.1.1 Database Space Test

If adequate space is not available to the databases of the Content Server, it can significantly impact database growth and the speed of database accesses. You hence need to continuously monitor the amount of disk space utilized by the databases, so that you can be forewarned of any probable disk space crisis. This test auto-discovers the databases on the Content Server, and reports the space usage of each database. In the process, the test proactively alerts administrators to excessive disk space usage by a database and also points you to the physical data files in that database that could be occupying too much disk space; this way, the test helps you zero-in on those physical files that could be contributing to the erosion of disk space.

Purpose	Auto-discovers the databases on the Content Server, and reports the space usage of each database

Target of the test	A Teratext Content Server		
Agent deploying the test	An internal agent		
Configurable parameters for the test	1. **TEST PERIOD** - How often should the test be executed 2. **HOST -** The host for which the test is to be configured 3. **PORT -** The port number at which the specified **HOST** listens 4. **USER, PASSWORD, CONFIRM PASSWORD** - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the **IR-EXPLAIN-1** database. Provide the credentials of such a user in the **USER** and **PASSWORD** text boxes, and confirm the password by retyping it in the **CONFIRM PASSWORD** text box. 5. **DETAILED DIAGNOSIS** - To make diagnosis more efficient and accurate, the eG system embeds an optional detailed diagnostic capability. With this capability, the eG agents can be configured to run detailed, more elaborate tests as and when specific problems are detected. To enable the detailed diagnosis capability of this test for a particular server, choose the **On** option against **DETAILED DIAGNOSIS**. To disable the capability, click on the **Off** option. The option to selectively enable/disable the detailed diagnosis capability will be available only if the following conditions are fulfilled: ➢ The eG manager license should allow the detailed diagnosis capability ➢ Both the normal and abnormal frequencies configured for the detailed diagnosis measures should not be 0.		
Outputs of the test	One set of results for each database on the Teratext Content Server being monitored		
Measurements made by the test	**Measurement**	**Measurement Unit**	**Interpretation**
	File count: Indicates the total file count of this database.	Number	The detailed diagnosis capability, if enabled, provides a list of all physical files in this database and the size (in KB) of each file. A quick look at this list will reveal which file is consuming maximum disk space.
	Total size: Indicates the total size of this database.	MB	Compare the value of this measure across databases to know which database is occupying the maximum disk space.

2.1.2 Disk Cache Hit Miss Test

Direct disk accesses are expensive operations, which may result in increasing the processing overheads and eventually, degrading the overall performance of the database server. The primary focus of administrators therefore is to improve the disk cache usage, so that direct disk accesses are kept at a minimum. By closely monitoring the requests to the Content Server and reporting the fraction of requests that have been serviced by the disk cache, this test reveals whether/not the disk cache has been effectively utilized and helps assess the impact of this usage on the processing overheads of the server. From the metrics reported by this test. administrators can also figure out if the disk cache needs any further fine-tuning.

<table>
<tr><td>Purpose</td><td colspan="3">Closely monitors the requests to the Content Server and reports the fraction of requests that have been serviced by the disk cache, and thus reveals whether/not the disk cache has been effectively utilized</td></tr>
<tr><td>Target of the test</td><td colspan="3">A Teratext Content Server</td></tr>
<tr><td>Agent deploying the test</td><td colspan="3">An internal agent</td></tr>
<tr><td>Configurable parameters for the test</td><td colspan="3">1. TEST PERIOD - How often should the test be executed
2. HOST - The host for which the test is to be configured
3. PORT - The port number at which the specified HOST listens
4. USER, PASSWORD, CONFIRM PASSWORD - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the IR-EXPLAIN-1 database. Provide the credentials of such a user in the USER and PASSWORD text boxes, and confirm the password by retyping it in the CONFIRM PASSWORD text box.</td></tr>
<tr><td>Outputs of the test</td><td colspan="3">One set of results for the Teratext Content Server being monitored</td></tr>
<tr><td rowspan="3">Measurements made by the test</td><td>Measurement</td><td>Measurement Unit</td><td>Interpretation</td></tr>
<tr><td>Hits:
Indicates the number of requests serviced by the disk cache during the last measurement period.</td><td>Number</td><td>A high value is desired for this measure.</td></tr>
<tr><td>Misses:
Indicates the number of requests that were not serviced by the disk cache during the last measurement period.</td><td>Number</td><td>A low value is desired for this measure.</td></tr>
</table>

	Hit ratio: Indicates the percentage of requests that were serviced by the disk cache.	Percent	A high ratio of hits is ideal. A very low ratio indicates that a majority of requests have been served by direct disk accesses only. This has an adverse impact on the overall health of the database server.

2.1.3 Disk Cache Throughput Test

This test monitors the number of discrete pages evicted from the disk cache, where the page size corresponds to the page size of the machine.

Purpose	Monitors the number of discrete pages evicted from the disk cache, where the page size corresponds to the page size of the machine		
Target of the test	A Teratext Content Server		
Agent deploying the test	An internal agent		
Configurable parameters for the test	1. **TEST PERIOD** - How often should the test be executed 2. **HOST -** The host for which the test is to be configured 3. **PORT -** The port number at which the specified **HOST** listens 4. **USER, PASSWORD, CONFIRM PASSWORD** - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the **IR-EXPLAIN-1** database. Provide the credentials of such a user in the **USER** and **PASSWORD** text boxes, and confirm the password by retyping it in the **CONFIRM PASSWORD** text box.		
Outputs of the test	One set of results for the Teratext Content Server being monitored		
Measurements made by the test	**Measurement**	**Measurement Unit**	**Interpretation**
	Page size: Indicates the page size of the machine.	Number	
	Pages evicted: Indicates the number of discrete pages evicted from the disk cache.	Number	

2.1.4 Disk Cache Usage Test

One of the common causes for a poor disk cache hit ratio is the lack of adequate memory resources for the disk cache. In the absence of memory, the disk cache will be able to store only a few frequently accessed files; this will compel the disk cache to reject many requests

for files, which will then be served only by direct accesses to the disk. Using this test, administrators can periodically track the memory usage of the disk cache, measure the overall disk cache usage, and promptly detect potential memory contentions. In the event of excessive disk cache usage, you can use the detailed diagnosis of the test to figure out which files in the cache are consuming maximum space.

<table>
<tr><td>Purpose</td><td colspan="3">Periodically tracks the memory usage of the disk cache, measures the overall disk cache usage, and promptly detects potential memory contentions</td></tr>
<tr><td>Target of the test</td><td colspan="3">A Teratext Content Server</td></tr>
<tr><td>Agent deploying the test</td><td colspan="3">An internal agent</td></tr>
<tr><td>Configurable parameters for the test</td><td colspan="3">1. TEST PERIOD - How often should the test be executed
2. HOST - The host for which the test is to be configured
3. PORT - The port number at which the specified HOST listens
4. USER, PASSWORD, CONFIRM PASSWORD - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the IR-EXPLAIN-1 database. Provide the credentials of such a user in the USER and PASSWORD text boxes, and confirm the password by retyping it in the CONFIRM PASSWORD text box.
5. DETAILED DIAGNOSIS - To make diagnosis more efficient and accurate, the eG system embeds an optional detailed diagnostic capability. With this capability, the eG agents can be configured to run detailed, more elaborate tests as and when specific problems are detected. To enable the detailed diagnosis capability of this test for a particular server, choose the On option against DETAILED DIAGNOSIS. To disable the capability, click on the Off option.
The option to selectively enable/disable the detailed diagnosis capability will be available only if the following conditions are fulfilled:
➢ The eG manager license should allow the detailed diagnosis capability
➢ Both the normal and abnormal frequencies configured for the detailed diagnosis measures should not be 0.</td></tr>
<tr><td>Outputs of the test</td><td colspan="3">One set of results for the Teratext Content Server being monitored</td></tr>
<tr><td rowspan="3">Measurements made by the test</td><td>Measurement</td><td>Measurement Unit</td><td>Interpretation</td></tr>
<tr><td>Total size:
Indicates the current size of the disk cache.</td><td>MB</td><td></td></tr>
<tr><td>Memory used:
Indicates the total memory that is currently in use.</td><td>MB</td><td>A consistent increase in the value of this measure indicates a gradual memory erosion.</td></tr>
</table>

	Disk cache usage: Indicates the percentage of disk cache that is currently in use.	Percent	The detailed diagnosis capability, if enabled, provides a list of files in the Content Sever; the amount of memory (in KB) of each file and the proportion of the disk cache (percentage) currently consumed by each file.

2.1.5 Index Cache Memory Usage Test

This test monitors the amount of memory used by the Content Server index cache.

Purpose	Monitors the amount of memory used by the Content Server index cache		
Target of the test	A Teratext Content Server		
Agent deploying the test	An internal agent		
Configurable parameters for the test	1. **TEST PERIOD** - How often should the test be executed 2. **HOST -** The host for which the test is to be configured 3. **PORT -** The port number at which the specified **HOST** listens 4. **USER, PASSWORD, CONFIRM PASSWORD** - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the **IR-EXPLAIN-1** database. Provide the credentials of such a user in the **USER** and **PASSWORD** text boxes, and confirm the password by retyping it in the **CONFIRM PASSWORD** text box.		
Outputs of the test	One set of results for the Teratext Content Server being monitored		
Measurements made by the test	**Measurement**	**Measurement Unit**	**Interpretation**
	Memory limit: Indicates the current amount of memory limit allocated to the index cache.	MB	
	Memory used: Indicates the amount of memory that is currently utilized by the index cache.	MB	A consistent increase in the value of this measure indicates excessive memory usage by the index cache.

2.1.6 Index Cache Thread Count Test

This test indicates the current workload on the Content Server's index cache by reporting the number of threads that are currently active on the index cache.

Purpose	Indicates the current workload on the Content Server's index cache by reporting the number of threads that are currently active on the index cache		
Target of the test	A Teratext Content Server		
Agent deploying the test	An internal agent		
Configurable parameters for the test	1. **TEST PERIOD** - How often should the test be executed 2. **HOST -** The host for which the test is to be configured 3. **PORT -** The port number at which the specified **HOST** listens 4. **USER, PASSWORD, CONFIRM PASSWORD** - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the **IR-EXPLAIN-1** database. Provide the credentials of such a user in the **USER** and **PASSWORD** text boxes, and confirm the password by retyping it in the **CONFIRM PASSWORD** text box.		
Outputs of the test	One set of results for the Teratext Content Server being monitored		
Measurements made by the test	**Measurement**	**Measurement Unit**	**Interpretation**
	Thread count: Indicates the number of threads that are currently running on the index cache.	Number	

2.1.7 File Access Test

Whenever a user complains of slowdowns when working with one/more files in the databases of the Content Server, administrators need to know which databases are responding slowly to file requests and which specific files are experiencing latencies. This test monitors the file operations on the Content Server, points you to slowdowns, and accurately reports which file in which database is causing the slowdown.

Purpose	Monitors the file operations on the Content Server, points you to slowdowns, and accurately reports which file in which database is causing the slowdown
Target of the test	A Teratext Content Server
Agent deploying the test	An internal agent

<table>
<tr><td>Configurable parameters for the test</td><td colspan="3">1. TEST PERIOD - How often should the test be executed
2. HOST - The host for which the test is to be configured
3. PORT - The port number at which the specified HOST listens
4. USER, PASSWORD, CONFIRM PASSWORD - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the IR-EXPLAIN-1 database. Provide the credentials of such a user in the USER and PASSWORD text boxes, and confirm the password by retyping it in the CONFIRM PASSWORD text box.
5. DETAILED DIAGNOSIS - To make diagnosis more efficient and accurate, the eG system embeds an optional detailed diagnostic capability. With this capability, the eG agents can be configured to run detailed, more elaborate tests as and when specific problems are detected. To enable the detailed diagnosis capability of this test for a particular server, choose the On option against DETAILED DIAGNOSIS. To disable the capability, click on the Off option.
The option to selectively enable/disable the detailed diagnosis capability will be available only if the following conditions are fulfilled:
➢ The eG manager license should allow the detailed diagnosis capability
➢ Both the normal and abnormal frequencies configured for the detailed diagnosis measures should not be 0.</td></tr>
<tr><td>Outputs of the test</td><td colspan="3">One set of results for the Teratext Content Server being monitored</td></tr>
<tr><td rowspan="3">Measurements made by the test</td><td>Measurement</td><td>Measurement Unit</td><td>Interpretation</td></tr>
<tr><td>Total count:
Indicates the total number of file operations observed during the last measurement period.</td><td>Number</td><td>The detailed diagnosis capability, if enabled, provides the count and average duration of file operations for each file. Using this information, you can quickly find out which file's operations took the maximum time to complete. The slowdown in file operations could be attributed to this file.</td></tr>
<tr><td>Average duration:
Indicates the average duration of the file operations.</td><td>Secs</td><td>Ideally, the value of this measure should be low. A steady increase in the value of this measure is indicative of a potential slowdown in file operations. In this case, you can use the detailed diagnosis of the Total count measure to know which file's operations took the maximum time to complete.</td></tr>
</table>

2.1.8 Memory Usage Test

This test monitors the memory usage of the Content Server, and promptly alerts administrators to a potential memory crunch on the server.

Purpose	Monitors the memory usage of the Content Server, and promptly alerts administrators to a potential memory crunch on the server		
Target of the test	A Teratext Content Server		
Agent deploying the test	An internal agent		
Configurable parameters for the test	1. **TEST PERIOD** - How often should the test be executed 2. **HOST -** The host for which the test is to be configured 3. **PORT -** The port number at which the specified **HOST** listens 4. **USER, PASSWORD, CONFIRM PASSWORD** - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the **IR-EXPLAIN-1** database. Provide the credentials of such a user in the **USER** and **PASSWORD** text boxes, and confirm the password by retyping it in the **CONFIRM PASSWORD** text box.		
Outputs of the test	One set of results for the Teratext Content Server being monitored		
Measurements made by the test	**Measurement**	**Measurement Unit**	**Interpretation**
	Memory used: Indicates the total memory usage of the Content Server process.	MB	A consistent increase in the value of this measure is a cause for concern, as it indicates a steady erosion of memory resources.

2.1.9 Record Changes Test

This test reports the number of append, insert, update, and delete record events that occurred on the Content Server and the time taken by the server to complete each of the aforesaid operations. This not only reveals the workload on the server, but also points you to slowdowns in record-change operations and the type of operation that experienced the maximum latency.

Purpose	Rports the number of append, insert, update, and delete record events that occurred on the Content Server and the time taken by the server to complete each of the aforesaid operations
Target of the test	A Teratext Content Server
Agent deploying the test	An internal agent

<table>
<tr><td>Configurable parameters for the test</td><td colspan="3">1. TEST PERIOD - How often should the test be executed
2. HOST - The host for which the test is to be configured
3. PORT - The port number at which the specified HOST listens
4. USER, PASSWORD, CONFIRM PASSWORD - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the IR-EXPLAIN-1 database. Provide the credentials of such a user in the USER and PASSWORD text boxes, and confirm the password by retyping it in the CONFIRM PASSWORD text box.
5. DETAILED DIAGNOSIS - To make diagnosis more efficient and accurate, the eG system embeds an optional detailed diagnostic capability. With this capability, the eG agents can be configured to run detailed, more elaborate tests as and when specific problems are detected. To enable the detailed diagnosis capability of this test for a particular server, choose the On option against DETAILED DIAGNOSIS. To disable the capability, click on the Off option.
The option to selectively enable/disable the detailed diagnosis capability will be available only if the following conditions are fulfilled:
➢ The eG manager license should allow the detailed diagnosis capability
➢ Both the normal and abnormal frequencies configured for the detailed diagnosis measures should not be 0.</td></tr>
<tr><td>Outputs of the test</td><td colspan="3">One set of results for each type of record-change operation performed on the Teratext Content Server being monitored</td></tr>
<tr><td rowspan="3">Measurements made by the test</td><td>Measurement</td><td>Measurement Unit</td><td>Interpretation</td></tr>
<tr><td>Count:
Indicates the total number of record-change operations performed during the last measurement period.</td><td>Number</td><td>This is a good indicator of the workload on the server.</td></tr>
<tr><td>Average duration:
Indicate the average time taken by this type of operation to complete.</td><td>Secs</td><td>Ideally, the value of this measure should be low. A steady increase in the value of this measure could indicate that record0change operations are not been performed as quickly as desired. Further investigations may be necessary to identify the root-cause of these latencies.</td></tr>
</table>

2.2 The CONTENT SERVER SERVICE Layer

Besides reporting the availability and responsiveness of the Content Server service, the tests mapped to this layer also report on the following:

- Delays in search operations performed on the server;
- Delays in processing of security requests;

- Latencies in processing of sort and merge requests;
- Bottlenecks in the processing of Z39.50 operations

Figure 2.3: The tests mapped to the Content Server Service layer

2.2.1 CSConnect Test

This test monitors the availability and response time of the Content Server from an external perspective.

Purpose	Monitors the availability and response time of the Content Server from an external perspective		
Target of the test	A Teratext Content Server		
Agent deploying the test	An external agent		
Configurable parameters for the test	1. **TEST PERIOD** - How often should the test be executed 2. **HOST -** The host for which the test is to be configured 3. **PORT -** The port number at which the specified **HOST** listens 4. **USER, PASSWORD, CONFIRM PASSWORD** - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the **IR-EXPLAIN-1** database. Provide the credentials of such a user in the **USER** and **PASSWORD** text boxes, and confirm the password by retyping it in the **CONFIRM PASSWORD** text box.		
Outputs of the test	One set of results for the Teratext Content Server being monitored		
Measurements made by the test	**Measurement**	**Measurement Unit**	**Interpretation**
	Availability: Indicates the availability of the Content server.	Percent	This measure reports the value *100* if the Content server is available to respond to a request and the value *0*.

	Response time: Indicates the time taken by the Content Server to respond to a user query.	Secs	A sudden increase in response time is indicative of a performance bottleneck in the Content Server.

2.2.2 Security Requests Test

This test reveals how well the Content Server processes security requests.

Purpose	Reveals how well the Content Server processes security requests		
Target of the test	A Teratext Content Server		
Agent deploying the test	An internal agent		
Configurable parameters for the test	1. **TEST PERIOD** - How often should the test be executed 2. **HOST -** The host for which the test is to be configured 3. **PORT -** The port number at which the specified **HOST** listens 4. **USER, PASSWORD, CONFIRM PASSWORD** - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the **IR-EXPLAIN-1** database. Provide the credentials of such a user in the **USER** and **PASSWORD** text boxes, and confirm the password by retyping it in the **CONFIRM PASSWORD** text box.		
Outputs of the test	One set of results for the Teratext Content Server being monitored		
Measurements made by the test	**Measurement**	**Measurement Unit**	**Interpretation**
	Count: Indicates the number of requests processed during the last measurement period.	Number	This is a good indicator of the request load on the server.
	Average duration: Indicates the average duration for processing a request.	Secs	Ideally, the value of this measure should be low. A high value could indicate a processing bottleneck on the Content Server.

2.2.3 ZAssociations Operations Test

This test monitors the processing of Z39.50 operations in the Content Server.

Purpose	Monitors the processing of Z39.50 operations in the Content Server
Target of the test	A Teratext Content Server

Agent deploying the test	An internal agent		
Configurable parameters for the test	1. **TEST PERIOD** - How often should the test be executed 2. **HOST -** The host for which the test is to be configured 3. **PORT -** The port number at which the specified **HOST** listens 4. **USER, PASSWORD, CONFIRM PASSWORD** - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the **IR-EXPLAIN-1** database. Provide the credentials of such a user in the **USER** and **PASSWORD** text boxes, and confirm the password by retyping it in the **CONFIRM PASSWORD** text box. 5. **DETAILED DIAGNOSIS** - To make diagnosis more efficient and accurate, the eG system embeds an optional detailed diagnostic capability. With this capability, the eG agents can be configured to run detailed, more elaborate tests as and when specific problems are detected. To enable the detailed diagnosis capability of this test for a particular server, choose the **On** option against **DETAILED DIAGNOSIS**. To disable the capability, click on the **Off** option. The option to selectively enable/disable the detailed diagnosis capability will be available only if the following conditions are fulfilled: ➢ The eG manager license should allow the detailed diagnosis capability ➢ Both the normal and abnormal frequencies configured for the detailed diagnosis measures should not be 0.		
Outputs of the test	One set of results for the Teratext Content Server being monitored		
Measurements made by the test	**Measurement**	**Measurement Unit**	**Interpretation**
	Completed count: Indicates the number of operations that were completed during the last measurement period.	Number	An increase or decrease in completed operations can represent a change in workload of the Content Server. The detailed diagnosis capability, if enabled, provides a list of completed operations for each type of operation.
	Average duration: Indicates the average duration for processing an operation.	Secs	Ideally, the value of this measure should be low. A high value could indicate a processing bottleneck on the Content Server.

2.2.4 ZAssociations Present Test

This test reports the time to retrieve records from the data storage for present operations.

Purpose	Reports the time to retrieve records from the data storage for present operations

Target of the test	A Teratext Content Server		
Agent deploying the test	An internal agent		
Configurable parameters for the test	1. **TEST PERIOD** - How often should the test be executed 2. **HOST -** The host for which the test is to be configured 3. **PORT -** The port number at which the specified **HOST** listens 4. **USER, PASSWORD, CONFIRM PASSWORD** - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the **IR-EXPLAIN-1** database. Provide the credentials of such a user in the **USER** and **PASSWORD** text boxes, and confirm the password by retyping it in the **CONFIRM PASSWORD** text box.		
Outputs of the test	One set of results for the Teratext Content Server being monitored		
Measurements made by the test	**Measurement**	**Measurement Unit**	**Interpretation**
	Count: Indicates the number of present operations during the last measurement period.	Number	This is a good indicator of the server workload.
	Average duration: Indicates the average duration for retrieving records of each present operation.	Secs	Ideally, the value of this measure should be low. A high value could indicate a processing bottleneck on the Content Server.

2.2.5 ZAssociations Search Test

This test measures how quickly the Content Server processes search operations.

Purpose	Measures how quickly the Content Server processes search operations
Target of the test	A Teratext Content Server
Agent deploying the test	An internal agent

Configurable parameters for the test	1. **TEST PERIOD** - How often should the test be executed 2. **HOST -** The host for which the test is to be configured 3. **PORT -** The port number at which the specified **HOST** listens 4. **USER, PASSWORD, CONFIRM PASSWORD** - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the **IR-EXPLAIN-1** database. Provide the credentials of such a user in the **USER** and **PASSWORD** text boxes, and confirm the password by retyping it in the **CONFIRM PASSWORD** text box.		
Outputs of the test	One set of results for the Teratext Content Server being monitored		
Measurements made by the test	**Measurement**	**Measurement Unit**	**Interpretation**
	Count: Indicates the number of search operations performed during the last measurement period.	Number	This is a good indicator of the server workload.
	Average duration: Indicates the average search duration.	Secs	Ideally, the value of this measure should be low. A high value could indicate a processing bottleneck on the Content Server.

2.2.6 ZAssociations Sort Test

This test reveals how swiftly the Content Server processes sort and merge requests.

Purpose	Reveals how swiftly the Content Server processes sort and merge requests		
Target of the test	A Teratext Content Server		
Agent deploying the test	An internal agent		
Configurable parameters for the test	1. **TEST PERIOD** - How often should the test be executed 2. **HOST -** The host for which the test is to be configured 3. **PORT -** The port number at which the specified **HOST** listens 4. **USER, PASSWORD, CONFIRM PASSWORD** - To monitor the Content Server, the eG agent should connect to the server using the credentials of a user with rights to access the **IR-EXPLAIN-1** database. Provide the credentials of such a user in the **USER** and **PASSWORD** text boxes, and confirm the password by retyping it in the **CONFIRM PASSWORD** text box.		
Outputs of the test	One set of results for the Teratext Content Server being monitored		
Measurements made by the	**Measurement**	**Measurement Unit**	**Interpretation**

test	**Sort count:** Indicates the number of sort operations during the last measurement period.	Number	This is a good indicator of the workload generated by sort requests to the Content Server.
	Average sort duration: Indicates the average sort duration.	Secs	Ideally, the value of this measure should be low. A high value could indicate bottlenecks while sorting.
	Merge count: Indicates the number of merge operations during the last measurement period.	Number	This is a good indicator of the workload generated by merge requests to the Content Server.
	Average merge duration: Indicates the average merge duration.	Secs	Ideally, the value of this measure should be low. A high value could indicate bottlenecks while merging.

Chapter 3

Conclusion

This document has clearly explained how eG Enterprise monitors **TeraText Arbortext** and **TeraText Content Server**. For more information on eG Enterprise, please visit our web site at www.eginnovations.com or write to us at sales@eginnovations.com.