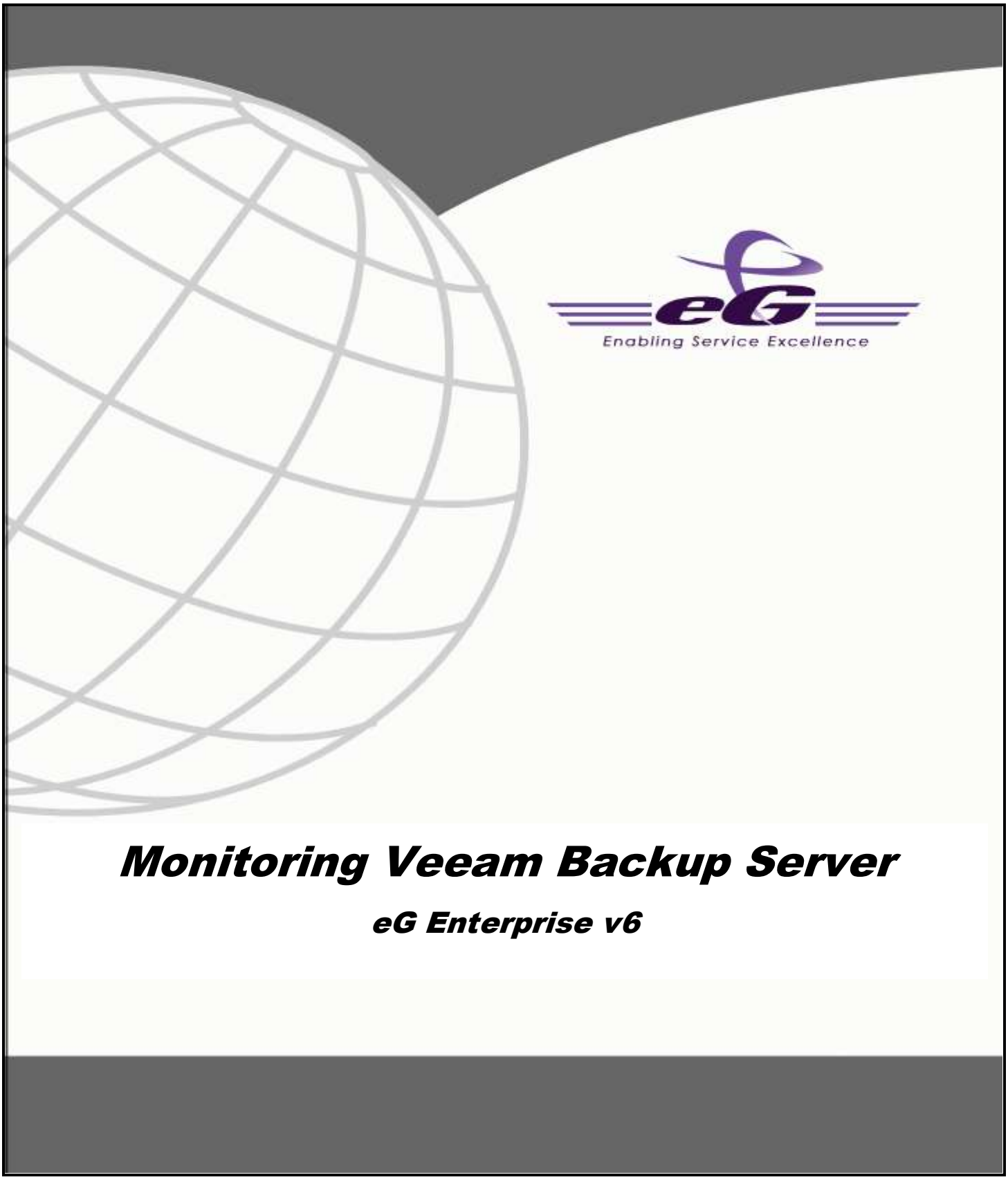

Monitoring Veeam Backup Server

eG Enterprise v6

Restricted Rights Legend

The information contained in this document is confidential and subject to change without notice. No part of this document may be reproduced or disclosed to others without the prior permission of eG Innovations Inc. eG Innovations Inc. makes no warranty of any kind with regard to the software and documentation, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

Trademarks

Microsoft Windows, Windows NT, Windows 2000, Windows 2003 and Windows 2008 are either registered trademarks or trademarks of Microsoft Corporation in United States and/or other countries.

The names of actual companies and products mentioned herein may be the trademarks of their respective owners.

Copyright

©2014 eG Innovations Inc. All rights reserved.

Table of Contents

MONITORING THE VEEAM BACKUP SERVER **1**

1.1 The Backup Services Layer 2

1.1.1 Veeam Jobs Summary Test 2

1.1.2 Veeam Jobs Details 5

CONCLUSION **8**

Table of Figures

Figure 1.1: The layer model of the Veeam Backup server 1
Figure 1.2: Tests running on the Backup Services Layer 2

1

Monitoring the Veeam Backup Server

Veeam Backup and Replication is a data protection software providing fast, flexible and reliable backup and recovery of virtualized applications and data.

In virtualized IT infrastructures providing mission-critical services to end-users, an efficient backup and restore mechanism is necessary for ensuring that critical servers that are involved in the delivery of a service do not suffer any data loss. Veeam backup and replication servers are becoming very crucial to the normal functioning of such infrastructures. If the backup service of the server fails, or consumes too much time to backup or restore the data of one/more key infrastructure components, these components might not be able to function properly until such time that all its data is restored to it. This in turn could have a disastrous effect on the service delivery. If such an outcome is to be prevented, the Veeam backup server needs to be closely monitored.

eG Enterprise offers an exclusive *Veeam Backup server* monitoring model (see Figure 1.1), which keeps tabs on the backup and restore operations performed by the server, and reports deviations much before they impact the performance of the server as a whole, or the dependent service.

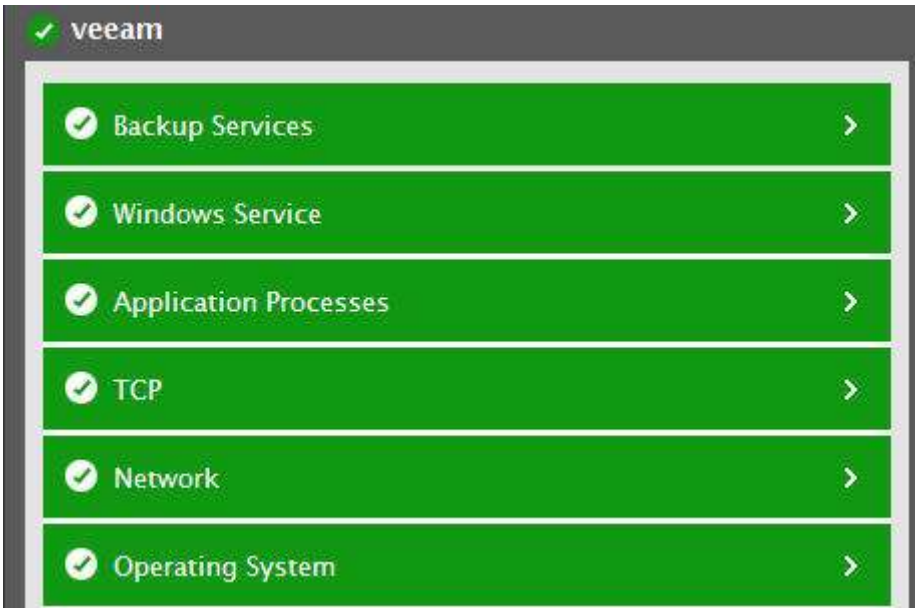

Figure 1.1: The layer model of the Veeam Backup server

The bottom 5 layers of Figure 1.1 have already been discussed elaborately in the *Monitoring Generic Servers* document. The section to follow will discuss the **Backup Services** layer alone in detail.

1.1 The Backup Services Layer

The tests mapped to this layer measure the level of efficiency with which the Veeam Backup server performs backups.

Figure 1.2: Tests running on the Backup Services Layer

1.1.1 Veeam Jobs Summary Test

The **Veeam Job Summary** test reports the status of all the jobs executing on a Veeam Backup server and the time taken by all the jobs in the backup server.

Purpose	Reports the status of all the jobs executing on a Veeam Backup server and the time taken by all the jobs in the backup server
Target of the test	A Veeam Backup 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 – Refers to the port used by the Veeam Backup server. Here it is NULL.
4. IN PROGRESS JOBS DURATION – Specify the time duration in minutes beyond which a job is termed to be a long running job. By default, this parameter is set to 30.
5. DD FREQUENCY - Refers to the frequency with which detailed diagnosis measures are to be generated for this test. For this test, the DD FREQUENCY is set to 1:1 by default. This indicates that, by default, detailed measures will be generated every time this test runs and also every time the test detects a problem.
6. DETAILED DIAGNOSIS - To make diagnosis more efficient and accurate, the eG Enterprise suite 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. To disable the capability, click on the Off option.
The option to selectively enabled/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 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 jobs:
Indicates the total number of jobs in the Backup server.</td><td>Number</td><td></td></tr>
<tr><td>Total successful jobs:
Indicates the number of backup jobs that were completed successfully since the last time the test was executed.</td><td>Number</td><td>A high value of this measure indicates the good health of the backup server.
A low value indicates that the backup jobs could be aborting or are being skipped due to errors in opening the objects or in the media.</td></tr>
</table>

	Total failed jobs: Indicates the number of jobs that failed since the start of the server.	Number	A high value of this measure indicates that the backup server is unable to verify or open the object for backup. In such cases, administrators can check the media for errors. The Detailed diagnosis for this measure if enabled, lists the name of the job, the type of the job, the size, the start time, the end time, the duration, the age of the job, the next running time of the job and the message stating the reason for the failure of the job.
	Total pending jobs: Indicates the number of jobs that are currently pending in the backup server.	Number	A high value indicates that the backup server is unable to process the jobs. This may be due to performance issues, endlessly running jobs etc.
	Total jobs in progress: Indicates the number of jobs that are currently in progress.	Number	
	Total warning jobs: Indicates the number of jobs for which warning was issued.	Number	
	Newly completed jobs: Indicates the number of jobs that were completed during the last measurement period.	Number	The Detailed diagnosis for this measure if enabled, lists the name of the job, the type of the job, the size, the start time, the end time, the duration, the age of the job, the next running time of the job and the message.
	Newly failed jobs: Indicates the number of jobs that failed during the last measurement period.	Number	A high value of this measure indicates that the backup server is unable to verify or open the object for backup. In such cases, administrators can check the media for errors. The Detailed diagnosis for this measure if enabled, lists the name of the job, the type of the job, the size, the start time, the end time, the duration, the age of the job, the next running time of the job and the message stating the reason for the failure of the job.

	Long running jobs: Indicates the number of jobs that were running for a duration longer than the time mentioned against the *IN PROGRESS JOBS DURATION* text box while configuring this test.	Number	A high value for this measure is a cause of concern as the execution of such long running jobs may affect all other jobs in the server which may eventually lead to the slowdown of the backup server. The Detailed diagnosis for this measure if enabled, lists the name of the job, the type of the job, the size, the start time, the end time, the duration, the age of the job, the next running time of the job and the message.
	Average size: Indicates the average size of the jobs that are currently pending.	GB	
	Average duration: Indicates the average time taken by all jobs in the backup server.	Mins	

1.1.2 Veeam Jobs Details

This test reports the current status of each job, time taken to complete the job and the total size of this job. Using this test, administrators may identify the job that is taking too long to complete.

Purpose	Reports the current status of each job, time taken to complete the job and the total size of this job. Using this test, administrators may identify the job that is taking too long to complete
Target of the test	A Veeam Backup 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 – Refers to the port used by the Veeam Backup server. Here it is NULL.
4. DETAILED DIAGNOSIS - To make diagnosis more efficient and accurate, the eG Enterprise suite 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. 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 job in the Veeam Backup server being monitored</td></tr>
<tr><td>Measurements made by the test</td><td>Measurement</td><td>Measurement Unit</td><td>Interpretation</td></tr>
</table>

<table>
<tr>
<td></td>
<td>Backup job status:
Indicates the current status of this job.</td>
<td></td>
<td>The values reported by this measure and their numeric equivalents are available in the table below:

<table>
<tr><th>Measure Value</th><th>Numeric Value</th></tr>
<tr><td>Failed</td><td>0</td></tr>
<tr><td>Warning</td><td>1</td></tr>
<tr><td>Pending</td><td>2</td></tr>
<tr><td>Inprogess</td><td>3</td></tr>
<tr><td>Success</td><td>4</td></tr>
</table>

Note:
This measure reports the Measure Values listed in the table above to indicate the current status of this job. However, in the graph of this measure, the current status of this job is indicated using only the Numeric Values listed in the above table.
The Detailed diagnosis for this measure if enabled, lists the name of the job, the type of the job, the size, the start time, the end time, the duration, the age of the job, the next running time of the job and the message.</td>
</tr>
<tr>
<td></td>
<td>Duration:
Indicates the time taken by the server to backup this job.</td>
<td>Mins</td>
<td>If the value of this measure is abnormally high, then it indicates that the job is processing endlessly.
Comparing the value of this measure across jobs will help administrators to identify the job that is taking too long to complete.</td>
</tr>
<tr>
<td></td>
<td>Size:
Indicates the size of this job.</td>
<td>GB</td>
<td></td>
</tr>
</table>

2

Conclusion

This document has described in detail the monitoring paradigm used and the measurement capabilities of the eG Enterprise suite of products with respect to **the Veeam Backup server**. 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 support@eginnovations.com. 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.