Monitoring Citrix License Servers

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

©2015 eG Innovations Inc. All rights reserved.

Table of Contents

MONITORING CITRIX LICENSE SERVERS 1
1.1 The Citrix License Layer 2
1.1.1 Citrix Licenses Test 3
CONCLUSION 5

Table of Figures

Figure 8.1: Each product making a continuous connection to the license server 1
Figure 8.2: The layer model of a Citrix license server 2
Figure 8.3: Tests associated with the Citrix License layer 2

1

Monitoring Citrix License Servers

Every Citrix Access Suite product environment must have at least one shared or dedicated license server. Citrix Access Suite products seek permission from this license server to run. The first time a user connects to a Citrix Access Suite product (for example, the user starts a published application), the product requests a license from the license server. When the license server grants a license request, the Citrix Access Suite product reserves a license for its use. Reserving licenses for this purpose is known as *checking out licenses*. When the user logs off from the product server, the product returns the license to the license server. This process is known as *checking in licenses*. Citrix Access Suite products use a continuously open connection to the license server to check out licenses. Every time a Citrix Access Suite product starts, it opens a connection to the license server by checking out the *startup license*. The startup license is a Citrix system file that enables Citrix Access Suite products to maintain a connection to the license server. The following figure shows that each product on a server forms its own constant connection to the license server.

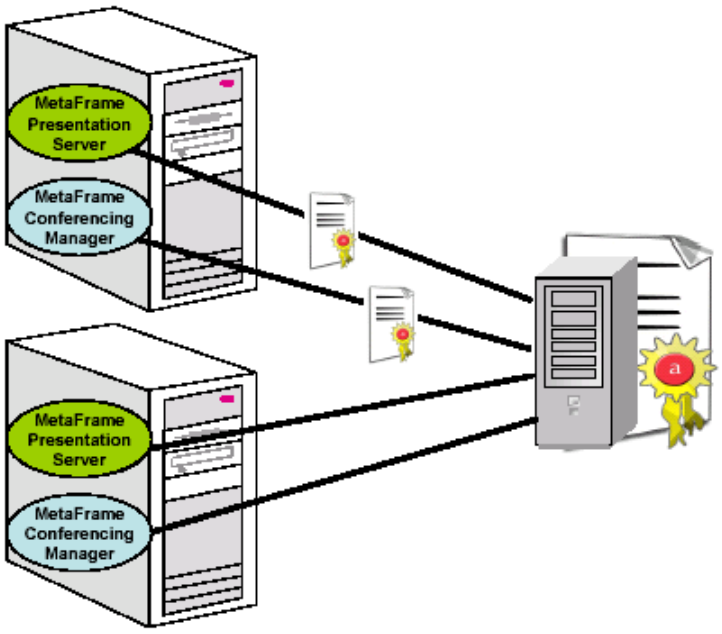

Figure 8.1: Each product making a continuous connection to the license server

Each product on a server makes a continuous connection to the license server. The license server can support up to 2000 continuous connections. If connections to the license server fail, then naturally, it would result in the user been denied access to a critical Citrix Access Suite product; if the failure persists or occurs frequently, then the user is bound to be dissatisfied with the quality of the service. In order to avoid such situations, connection and operational issues of the license server should be detected and resolved at the earliest, so that users have no cause for complaints. Continuous monitoring of the connections to the License server, and thorough monitoring of the key functions performed by the server can alone ensure service continuity. To provide such complete monitoring, eG Enterprise embeds an exclusive *Citrix License* monitoring model (see Figure 8.2).

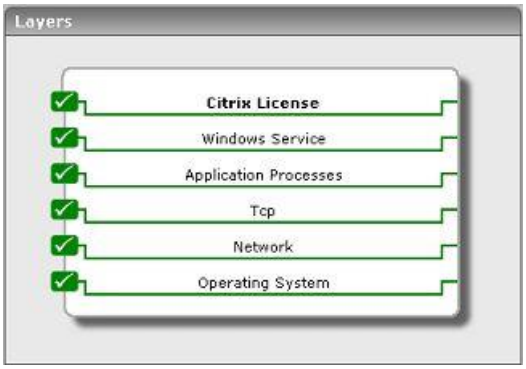

Figure 8.2: The layer model of a Citrix license server

Every layer of this model is mapped to a wide variety of tests that keep a constant check on every operational aspect of the License server and report its status. The sections to come will discuss the **Citrix License** layer only, as the remaining layers have already been dealt with in the *Monitoring Unix and Windows Servers* document.

1.1 The Citrix License Layer

To ascertain future license requirements and to detect license abuse, it is essential to closely follow the current license usage of the Access Suite. The tests mapped to the **Citrix License** layer enable this.

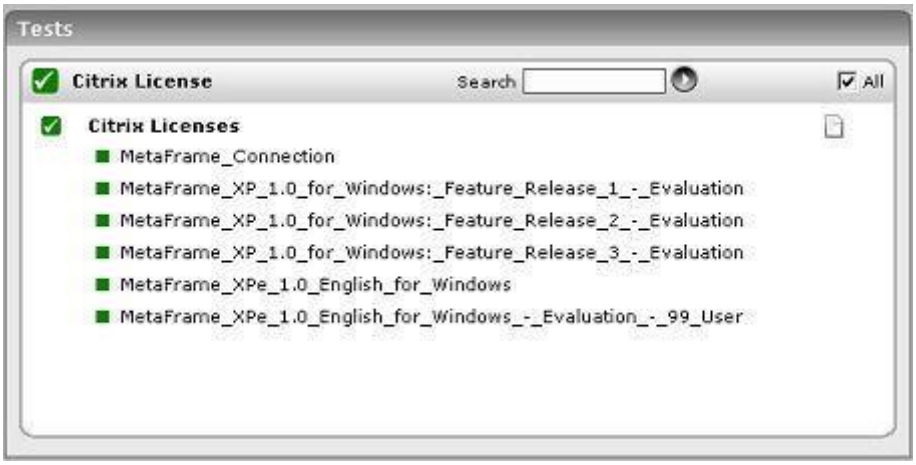

Figure 8.3: Tests associated with the Citrix License layer

1.1.1 Citrix Licenses Test

The CitrixLicense test reports statistics pertaining to the license usage of the Citrix Access Suite.

<table>
<tr><td>Purpose</td><td colspan="3">Reports statistics pertaining to the license usage of the Citrix Access Suite</td></tr>
<tr><td>Target of the test</td><td colspan="3">Any Citrix License 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. Since the CitrixLicense test is a resource-intensive test, it is recommended that you run the test less frequently. Accordingly, the TEST PERIOD for this test has been, by default, set to 10 minutes.
2. HOST – The host for which the test is to be configured
3. PORT – Refers to the port used by the Citrix License server
4. CITRIXHOME - Provide the full path to the install directory of the Citrix License server being monitored. By default, 'none' will be displayed here. In such a case, eG will auto-discover the install directory. Alternatively, you can explicitly specify the exact location of the install directory here. For example, c:|progra~1|CitrixLicense.
5. REREAD LICENSE - If this flag is set to Yes, then the eG agent will check for changes in license status everytime the test runs. If this flag is set to No, then the eG agent will not check for license changes.
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 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 is reported for every Citrix license being managed by the monitored Citrix License server</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>Licenses installed:
Indicates the number of licenses installed.</td><td>Number</td><td></td></tr>
<tr><td>Licenses in use:
Indicates the number of licenses currently being used.</td><td>Number</td><td>If this measure is equal to Licenses installed, then it indicates that all the licenses have been utilized. The detailed diagnosis of this measure will reveal the details of the used licenses.</td></tr>
</table>

	Available licenses: Indicates the number of licenses not in use.	Number	
	License utilization: Indicates the percentage of licenses currently being used.	Percent	If this value is 100, then it indicates that all the licenses have been used up.

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 **Citrix License 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 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.