Monitoring Citrix Web Interface Server

eG Innovations Product Documentation

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Total Performance Visibility

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Chapter 1: Introduction

One of the key components of the Citrix access architecture is the Citrix Web Interface. When a user tries to login to the web front-end from a browser, the request is received and forwarded by the web interface to the XML broker. The XML service translates and then forwards the user's application list request to the Citrix IMA service. The IMA service uses the user information to contact the Domain controller to validate the user and his/her access rights. The IMA service then builds a list of applications that the user has access to and returns this list to the XML service, which in turn, reformats the output in XML format and returns it via the web interface to the user.

To periodically monitor the data-flow between the web interface, the XML service, and the IMA service, and to keep track of the web interface's availability at all times, the eG Enterprise suite provides a specialized *Citrix Web Interface* monitoring model.

Chapter 2: Administering the eG Enterprise suite to Work with the Citrix Web Interface

To achieve the above, do the following:

1. Log into the eG administrative interface.
2. If a Citrix Web Interface is already discovered, then directly proceed towards managing it using the **COMPONENTS - MANAGE/UNMANAGE** page (Infrastructure -> Components -> Manage/Unmanage). However, if it is yet to be discovered, then run discovery (Infrastructure-> Components -> Discovery) to get it discovered or add the server manually using the **COMPONENTS** page (Infrastructure -> Components -> Add/Modify). Remember that components manually added are managed automatically. Discovered components, however, are managed using the **COMPONENTS - MANAGE/UNMANAGE** page. Figure 2.1 clearly illustrates the process of adding a Citrix Web Interface.

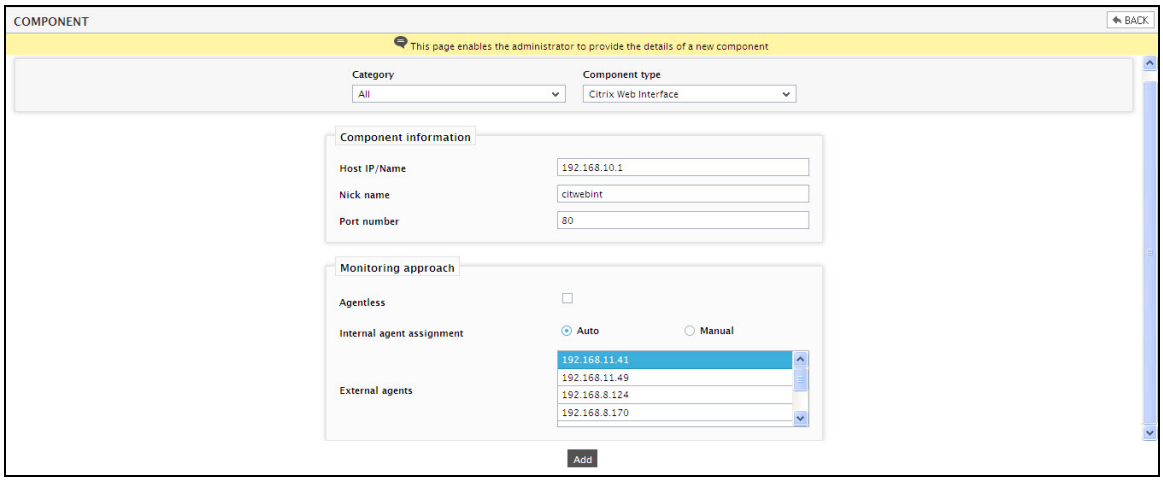

Figure 2.1: Adding a Citrix Web Interface

3. Specify the **Host IP/Name** of the Citrix Web Interface server to be monitored. Then, provide a **Nick name** for the server.
4. The **Port number** will be set as 80 by default. If the server is listening on a different port in your environment, then override this default setting.
5. Next, sign out of the eG administrative interface.

Chapter 3: Monitoring Citrix Web Interface Servers

eG offers a hierarchical monitoring model that contains various layers for continuously monitoring the Citrix Web Interface servers. Every layer of this hierarchical model is associated with tests that run at frequent intervals to verify whether all critical parameters of the server are in good health.

Figure 3.1: The layer model of the Citrix Web Interface

This chapter will discuss the **Citrix XML Service** only, as all other layers have been discussed extensively in the *Monitoring Web Servers* and *Monitoring Unix and Windows Servers* documents.

3.1 The Citrix XML Service Layer

This layer executes a test (see Figure 3.2) that checks whether the entire login and application enumeration process using the web interface (i.e., involving the XML service and IMA service of Citrix) is functioning properly.

Figure 3.2: The test associated with the Citrix XML Service layer

3.1.1 Citrix XML Access Test

This test verifies the interactions between the web interface, the XML service, and the IMA service.

A typical web interface interaction is composed of the following (see 3.1.1):

- Client device users utilize a Web browser to view the Log in page and enter their user credentials.
- The web interface reads users' information and uses the Web Interface's classes to forward the information to the Citrix XML Service; this service can execute on the Citrix Web Interface or on each of the XenApp servers in a server farm. The designated server acts as a broker between the NFuse server and the XenApp servers in a farm.
- The Citrix XML Service then retrieves a list of applications from the servers that users can access. These applications comprise the user's application set. The Citrix XML Service retrieves the application set from the Independent Management Architecture (IMA) system and Program Neighborhood Service, respectively.
- The Citrix XML Service then returns the user's application set information to the Web Interface's classes.

The user then clicks on the application of interest to him/her to access it.

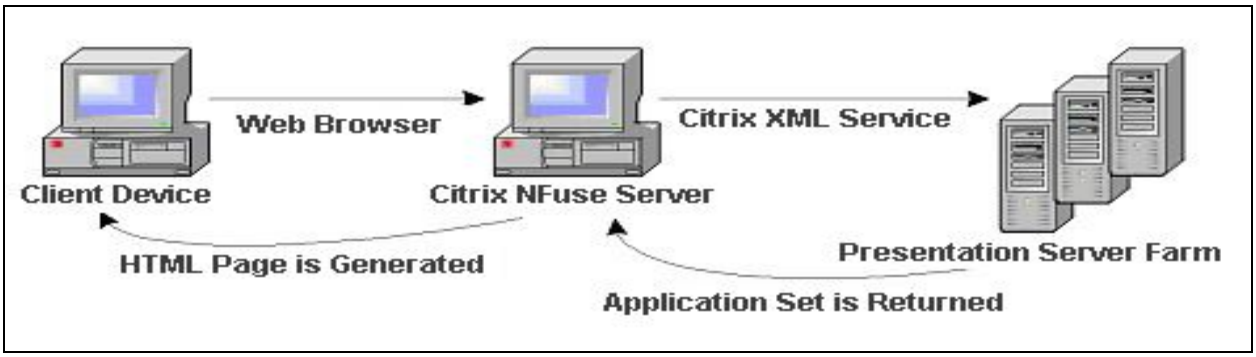

Figure 3.3: A typical web interface interaction

If the Citrix XML service executes on a Citrix Web Interface, then you can use this test to evaluate the availability and responsiveness of the XML service. This test emulates a user logging in to the web interface and requesting for a list of applications available to him/her. By emulating a request, this test checks that the entire login and application enumeration process using the web interface (i.e., involving the XML service and IMA service of Citrix) is functioning properly.

Target of the test : Any Citrix Web Interface

Agent deploying the test : An external agent

Outputs of the test : One set of results for every Citrix Web Interface monitored

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** – Refers to the port used by the Citrix server
4. **USER** - This test emulates a user logging into the NFuse server and requesting for a list of applications available to him/her. Therefore, in the **USER** text box, provide a valid user name which the test should use for logging into the NFuse server.
5. **PASSWORD** - Provide the **PASSWORD** of the specified **USER**.
6. **CONFIRM PASSWORD** - Confirm the password by retyping it in the **CONFIRM PASSWORD** box.
7. **SSL** - The web interface through which these tests are executing may be configured for HTTP or HTTPS access. If HTTPS access is configured, then this parameter should be set to **YES**.
8. **DOMAIN** - Provide the domain to which the user logs in.

9. **DOMAINTYPE** - A Citrix web interface can be set up to authenticate users by connecting to a Windows domain, or a Unix domain, or a Novell domain. The **DOMAINTYPE** value represents the type of domain being used to validate the user. The default value is "NT". For Unix, use "UNIX" and for Novell, use "NDS" in the domainType setting.
10. **XMLPORT** - Specify the port on which the Citrix XML Service is executing. In some Citrix environments, the XML service might share its port with the web server on Citrix NFuse. In such cases, the **XMLPORT** will be the same as the **PORT** specification.
11. **TIMEOUT** - Specify the duration (in seconds) for which the test needs to wait for a response from the server. At the end of this duration, the test will timeout.

Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Connection availability:	Tracks if the Citrix XML service is available to handle any requests.	Percent	If the TCP connection to the XML service port fails, this metric has a value of 0. Otherwise, it has a value of 100.
Authentication status:	Indicates if the user authentication succeeded.	Percent	It has a value of 100 if the user was authenticated, and a value of 0 if the authentication failed. If the user login is valid, yet authentication fails, the problem then lies with the Citrix IMA service's communication with the domain controller/active directory server.
Application enumeration status:	This metric indicates if the Citrix web interface was able to enumerate the applications available for the user logging in.	Percent	A value of 0 indicates that application enumeration failed, while a value of 100 denotes that the application enumeration operation succeeded. If authentication succeeds but application enumeration fails, then the problem is most likely to be in the Citrix XML service, its interaction with the IMA service, or with the IMA service itself.

Measurement	Description	Measurement Unit	Interpretation
TCP connection time:	Indicates the time taken to establish a TCP connection to the Citrix XML service.	Secs	If this value is significantly high, it could probably be because the network latency is high or the Citrix web interface host is overloaded.
Total response time:	Represents the total time taken for a user to login to the Citrix web interface and enumerate all the applications.	Secs	The value of this metric indicates the responsiveness of the Citrix web interface and its connectivity to the XML service.

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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