Monitoring Citrix Storage Zones

eG Innovations Product Documentation

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Total Performance Visibility

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Chapter 1: Introduction

Citrix XenMobile is an enterprise mobility management solution that provides administrators with mobile device management (MDM), mobile application management (MAM) and online file-sharing capabilities. To deliver these services to end-users, the XenMobile software suite includes a wide range of components – the Citrix Netscaler that authenticates remote user sessions to the app store and ensures secure access, the XenMobile App Controller that stores the applications and data sources that can be accessed by users, Citrix ShareFile that enables efficient data sharing and synchronization across users, and the XenMobile MDM (a.k.a the XenMobile Device Manager) that protects the corporate network from mobile threats by applying configured mobile usage policies on devices and detecting non-conformances.

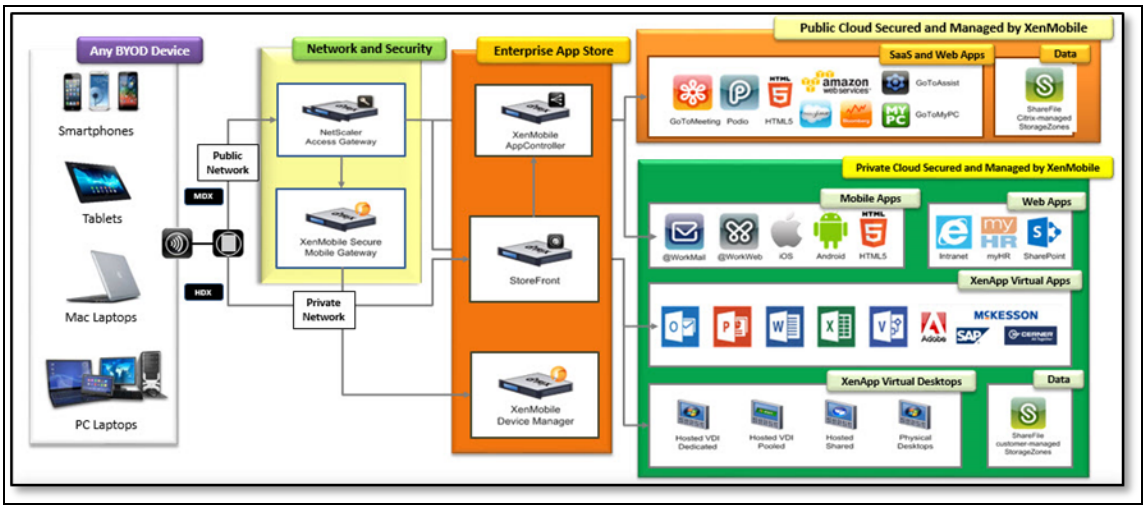

Figure 1.1: The Citrix XenMobile Architecture

The eG Enterprise Suite provides specialized monitors for each of the core components of the Citrix XenMobile service.

This document details how eG monitors Citrix Storage Zones and what metrics it collects from it.

Chapter 2: Administering the eG Manager to monitor the Citrix Storage Zones

1. Log into the eG administrative interface.
2. eG Enterprise cannot automatically discover Citrix Storage Zones server. You need to manually add the server using the **COMPONENTS** page (see Figure 2.1) that appears when the Infrastructure -> Components -> Add/Modify menu sequence is followed. Remember that components manually added are managed automatically.

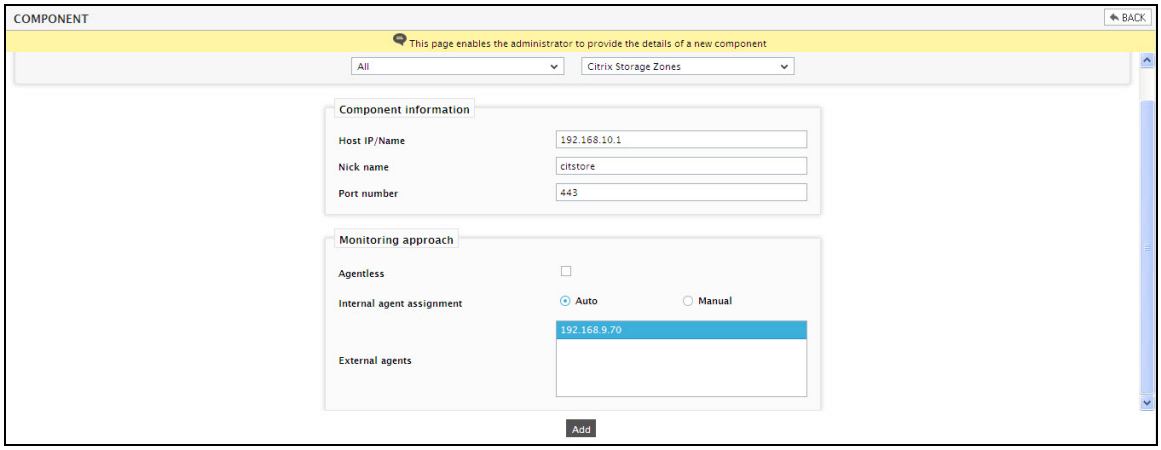

Figure 2.1: Adding a Citrix Storage Zones server

3. Specify the **Host IP** and the **Nick name** of the Citrix Storage Zones server in Figure 2.1. The Citrix Storage Zones servers are monitored in both agentless and agent based manners. Click on the **Add** button to manage the Citrix Storage Zones server.
4. Next, signout of the eG administrative interface.

Chapter 3: Monitoring Citrix Storage Zones

By default, Citrix ShareFile stores all user data in Citrix- managed cloud- based storage. Organizations that prefer not to store documents on the cloud, can use the ShareFile StorageZones Controller to save data on premise – i.e., within their data center.

The unavailability of an on-premise storage zone can deny users access to critical documents will adversely impact user productivity and cripple user confidence in the ShareFile technology. This is why, the availability and overall health of these storage zones have to be monitored continuously.

eG Enterprise provides a Citrix Storage Zone monitoring model that focuses on the health of all those critical parameters that keep a storage zone alive and accessible.

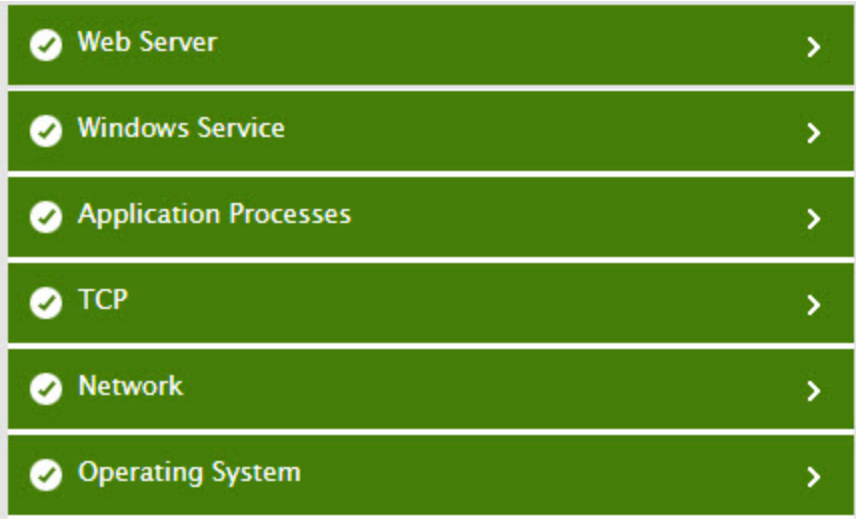

Figure 3.1: The layer model of the Citrix Storage Zone

Each layer of this model is mapped to tests that capture even the slightest of deviations in the performance of the infrastructure that supports on-premise storage zones.

The **Operating System** layer checks the CPU, memory, and I/O activity on the servers that support the storage zone and report abnormal resource usage patterns seen by these servers.

The **Network** layer checks whether network connectivity is available to the server supporting the storage zone and reports how long it takes to connect to this server. This way, the sudden unavailability of a storage zone is detected and reported.

The **TCP** layer indicates whether/not users are able to establish TCP connections to the server quickly. TCP connection drops and a high percentage of TCP retransmissions are captured and reported in the process.

The **Application Processes** and **Windows Service** layers periodically check the status of key processes/services supporting the storage zone and alert administrators if any process/service is unavailable or is not running. If users complain that a storage zone is not accessible, then the tests mapped to this layer will provide administrators with useful pointers to the probable cause of the problem. Moreover, these layers also scan Windows event logs for error/warning events related to the storage zone and promptly bring such events to the administrator's notice.

The **Web Server** layer tracks the status of the IIS web server that enables access to the files and folders stored in the storage zone. When doing so, the layer captures issues in the availability and operations of the IIS web server that can affect quick and easy access to the files and folders in the storage zone.

Using the metrics reported by these layers, administrators can find accurate answers for the following performance queries:

- Is the server supporting the storage zone available over the network? How healthy is the network connection to this server?
- Is the server consuming too much CPU/memory resources? Which process/service running on the server is responsible for this resource contention?
- Is the I/O activity on the server high? Why? Is any I/O-intensive processing happening on the server? Which process on the server is responsible for this?
- How is the TCP traffic to and from the server? Are TCP retransmissions high on the server?
- Are all processes/services critical to the functioning of the storage zone running? Is any such process/service not running currently?
- Has the Windows event log captured any critical error/warning event recently? Will that event impact storage zone availability?
- Is the web server enabling access to the files and folders in the storage zone accessible via HTTP/HTTPS?
- Are transactions to the web server healthy?
- Has the web server encountered any errors recently?

This document will not delve deep into each of the layers depicted by Figure 3.1. This is because, the tests mapped to the Operating System, Network, TCP, Application Processes, and Windows

Service layers have already been discussed elaborately in the *Monitoring Unix and Windows Servers* document. Likewise, the tests mapped to the **Web Server** layer have been dealt with in the *Monitoring Apache Web Server* document.

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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