Monitoring Citrix Session Recording Server

eG Innovations Product Documentation

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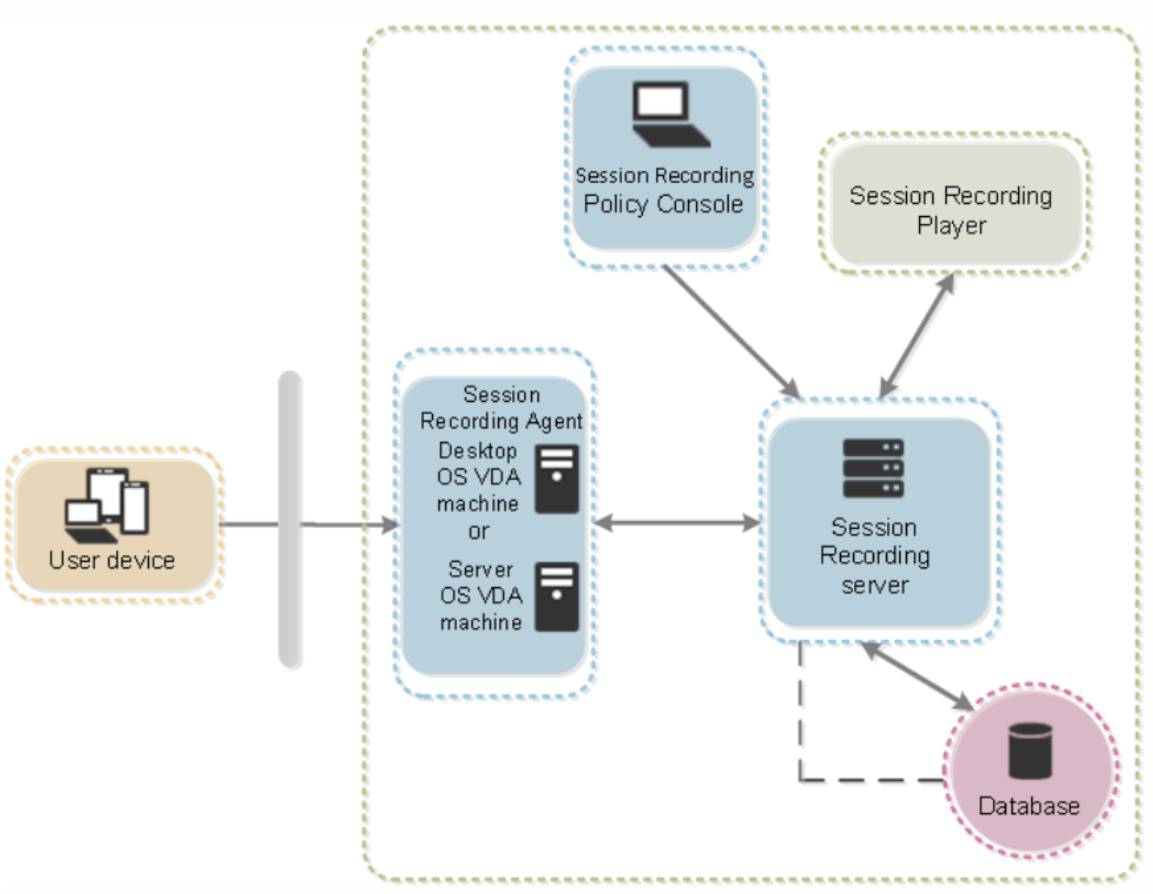
Total Performance Visibility

Table of Contents

Table of Figures

Chapter 1: Introduction

Session Recording allows you to record the on-screen activity of any user session hosted from a VDA for Server OS or Desktop OS, over any type of connection, subject to corporate policy and regulatory compliance. Session Recording records, catalogs, and archives sessions for retrieval and playback. The following illustration shows the Session Recording components and their relationship with each other:



Session Recording uses flexible policies to trigger recordings of application sessions automatically. This enables IT administrators to monitor and examine user activity of applications - such as financial operations and healthcare patient information systems - supporting internal controls for regulatory compliance and security monitoring. Similarly, Session Recording also aids in technical support by speeding problem identification and time-to-resolution.

To be able to quickly store all the XenApp sessions that are recorded and sent by the Citrix Session Recording Agent, the Session Recording Server should be allocated with sufficient storage space

and capable of processing the received recording messages with high throughput. If the space available on the server is not enough to store the recording files thar are being received as messages fro the Citrix Session Recording Agent, then the recording files may be kept in queue until they get enough space allocation or discarded forever. To avoid such eventualities, it is important for administrators to closely monitor the availability of storage space and throughput, promptly detect abnormalities, and fix them before it impacts recording. This is where eG Enterprise helps administrators.

Chapter 2: How to Monitor Citrix Session Recording Server Using eG Enterprise?

eG Enterprise monitors the Citrix Session Recording Server in an agent-based manner. For this purpose, an eG agent should be deployed on the target Session Recording Server. To start monitoring the Session Recording Server, first manage the Citrix Session Recording Server component using the steps given in the following section.

2.1 Managing Citrix Session Recording Server

eG Enterprise can automatically discover the Citrix Session Recording Server, and also lets you to manually add the component for monitoring. To manage a Citrix Session Recording Server manually, do the following:

1. Log into the eG admin interface.
2. If the Citrix Session Recording Server is already discovered, then directly proceed towards managing the broker using the **COMPONENTS – MANAGE/UNMANAGE** page.
3. However, if you are yet to discover the Citrix Session Recording Server, then run discovery (Infrastructure -> Components -> Discover) or follow the Components -> Add/Modify menu sequence in the **Infrastructure** tile of the **Admin** menu to manually add the component using the **Components** page. Click on the **Add new Component** button after choosing the *Citrix Session Recording Server* from the **Component Type** drop down list in the **Components** page. This will lead you to the **Add Component** page (Figure 2.1). Remember that components manually added are managed automatically.

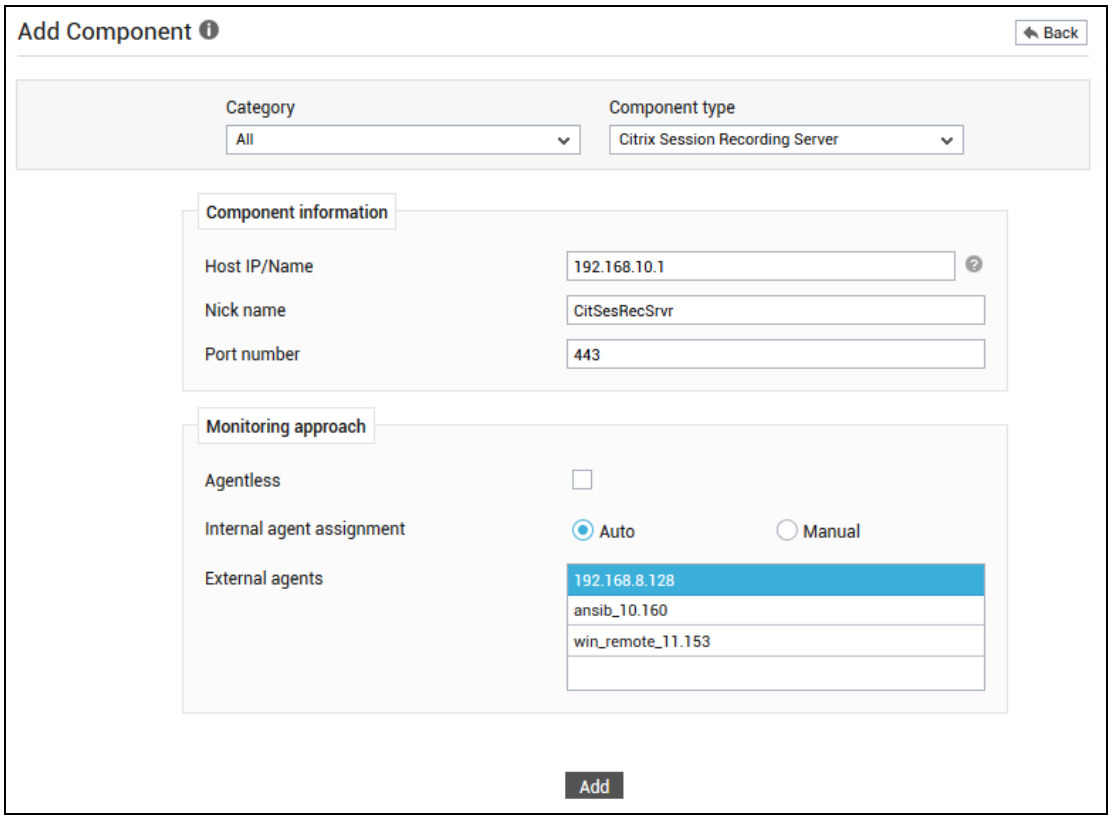


Figure 2.1: Adding a Citrix Session Recording Server

4. Specify the **Host IP/Name** and the **Nick name** of the Citrix Session Recording Server in Figure 2.1.
5. Specify the port at which the Citrix Session Recording Server is listening against the **Port number** text box. This is set as *443*, by default. If the Citrix Session Recording Server is listening on a different port, then override this default setting.
6. Then, pick an external agent from the **External agents** list box and click the **Add** button to add the component for monitoring.
7. When you attempt to sign out, a list of unconfigured tests will appear as shown in Figure 2.2.

Figure 2.2: List of Unconfigured tests to be configured for the Citrix Session Recording Server

8. Click on the Citrix Session Recording Storage test to configure it. To know how to configure the test, refer to Section **3.1.1**.
9. Once the test is configured, signout of the eG administrative interface.

Chapter 3: Monitoring Citrix Session Recording Server

The specialized monitoring model that eG Enterprise provides for the *Citrix Session Recording Server* (see Figure 3.1), enables 24 x 7 monitoring of the recording server, and proactive alerting of issues that surface.

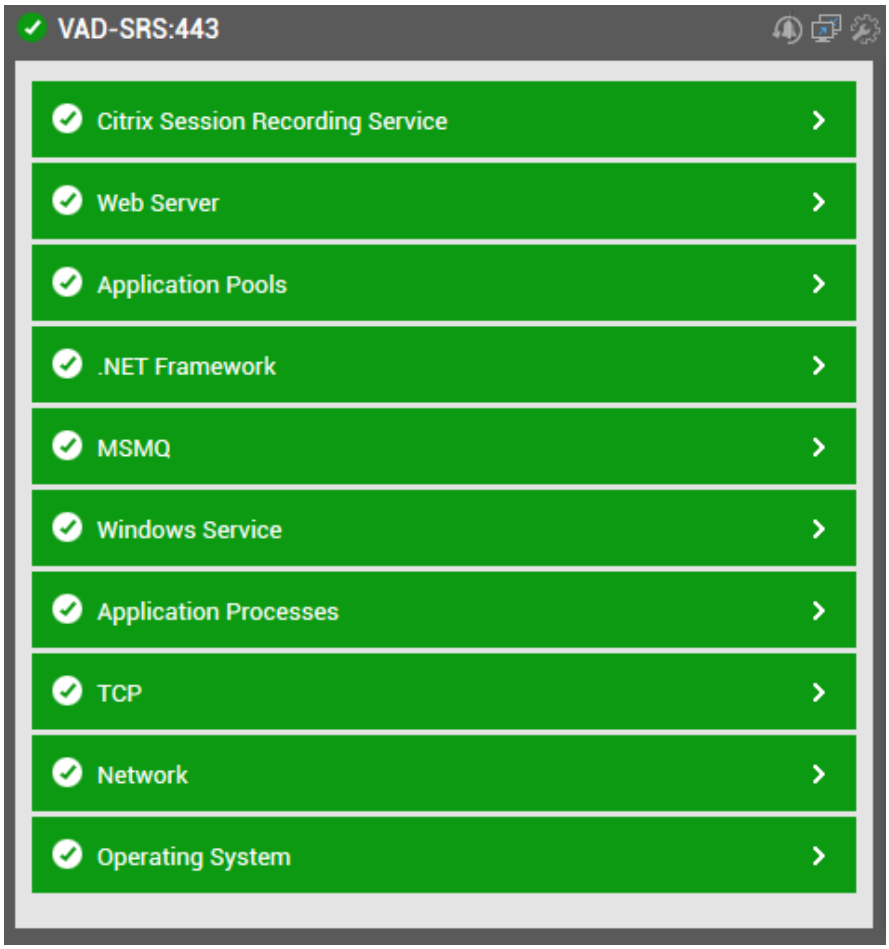


Figure 3.1: The layer model of the Citrix Session Recording Server

Using this model (see Figure 3.1) administrators can find quick answers to the following performance queries related to the Citrix Session Recording Server:

- How many XenApp sessions are being recorded by the target server?
- What is the message processing rate of the Storage Manager?
- How many files are in the recording folder?

- What is the average/maximum size of the files in the recording folder?
- What is the total file size of the recording folder?

The five layers at the bottom of Figure 3.1 have been dealt with extensively in the *Monitoring Unix and Windows Servers* document. For the details on the **MSMQ** layer, refer to the *Monitoring Microsoft MQ Server* document. The **.NET Framework**, **Application Pools** and **Web Server** layer have been elaborately discussed in the *Monitoring Microsoft IIS Web Server* document. The section that follows will discuss the **Citrix Session Recording Service** layer alone.

3.1 Citrix Session Recording Service Layer

The tests mapped to this layer help administrators to find out the following:

- The number of recorded files and size of the files in the recording folder on the Session Recording Server;
- The rate at which the Storage Manager processes the messages received from the Session Recording Agent;
- The number of messages received by the Storage Manager per second;

Figure 3.2: The tests mapped to the Citrix Session Recording Layer

3.1.1 Citrix Session Recording Storage Test

Citrix Session Recording Storage is a folder/directory/volume dedicated on the Session Recording Server to store the recordings received from the Session Recording Agent on the Citrix XenApp/XenDesktop server. As recordings increase with time, the size of the recording folder also grows. If the folder hogs the disk space available to the Session Recording Server, then there will be no room for new recordings on the server. In such a case, the new files will be kept in the receiving queue; if the disk space contention persists, many recordings may even be discarded from the queue and lost permanently. As a result, users may end up viewing incomplete recordings at the time of playback. This in turn will impact the reliability of and user experience with the Session Recording Server. To avoid this, administrators should track the growth in the size of the recording folder round-the-clock. This is where the **Citrix Session Recording Storage** test helps administrators!

This test continuously monitors the recording folder on the Session Recording Server and reports the count of files available in the folder, the average and maximum file size and the total size of the folder. These statistics help administrators to figure out if the recording folder is consuming disk space on the Recording Server excessively. This will prompt administrators to quickly initiate corrective measures, so that the recording folder always has space enough to accommodate new files.

Target of the test : Citrix Session Recording Server

Agent deploying the test : An internal agent

Outputs of the test : One set of results is reported for the Citrix Session Recording Server being monitored.

Configurable parameters for the test

Parameter	Description
Test Period	How often should the test be executed.
Host	The IP address of the host for which the test is being configured.
Port	Refers to the port used by the Citrix session recording server.
Recording Location	Specify the path to the recording folder where the recoded files should be stored. For example, C://sesrecserver/Recording.

Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Total files	Indicates the total number of files available in the recording folder.	Number	
Average file size	Indicates the average size of the files in the recording folder.	MB	
Maximum file size	Indicates the maximum file size of the recording folder.	MB	
Total file size	Indicates the total size of the recording folder.	MB	If the value of this measure grows dangerously close to the capacity of

Measurement	Description	Measurement Unit	Interpretation
			the drive on which the recording folder exists, it implies that very soon the folder will have no space to store new files. In such a case, you can do any of the following: • Add extra directories to load-balance across multiple folders • Allocate additional space • cleaning up the older files (if required)

3.1.2 Citrix Session Recording Storage Manager Test

Citrix Session Recording Storage Manager is a Windows service that manages the recorded session files received from each Session Recording- enabled computer running XenApp and XenDesktop. The Storage Manager receives the session recordings as message bytes via the Microsoft Message Queuing (MSMQ) service. To maintain the integrity of the recordings at all times, the Storage Manager should be able to manage the received messages as quickly as they are sent by the Session Recording agent. If, for any reason, the Storage Manager is slow in processing the messages, the messages will be backlogged in the CitrixSmAudData message queue. In such cases, administrators cannot playback a live session until the backlog is cleared. Where live playback of recordings is crucial for troubleshooting, any processing bottleneck on the Storage Manager can seriously delay troubleshooting. To avoid such eventualities, administrators should keep track of the message processing capability of the Storage Manager. This can be easily achieved using the **Citrix Session Recording Storage Manager** test!

Using this test, administrators can track the workload of the Session Recording Server and determine how well/badly the Storage Manager service is able to process this workload. In the process, administrators can rapidly identify current/potential processing bottlenecks on the Session Recording Server.

Target of the test : Citrix Session Recording Server

Agent deploying the test : An internal agent

Outputs of the test : One set of results is reported for the Citrix Session Recording Server being monitored.

Configurable parameters for the test

Parameter	Description
Test Period	How often should the test be executed.
Host	The IP address of the host for which the test is being configured.
Port	Refers to the port used by the Citrix Session Recording Server.

Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Active session recording count	Indicates the number of session recordings that are currently being received by the Session Recording Server.	Number	
Message throughput	Indicates the rate at which the message bytes were processed by the Storage Manager.	KB/sec	This measure is a good indicator of message processing capability of the Storage Manager. A high value is desired for this measure.
Messages	Indicates the rate at which the message were received.	Messages/sec	

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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