Monitoring SunRay Server

eG Innovations Product Documentation

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Total Performance Visibility

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Chapter 1: Introduction

SunRay Software is a secure, cost effective solution that delivers a virtual Windows, Linux or Solaris OS desktop to SunRay clients. It enables organizations to centrally manage and control the end-user desktop experience from the server, not the client, thereby virtually eliminating desktop maintenance.

Though the SunRay technology is designed to provide immunity to the server from availability issues caused by client-induced viruses, a bad network connection can still render the server unavailable to a SunRay client; this can deny the client access to critical desktops. Similarly, if the administrator inadvertently disables a crucial device service on the SunRay server – eg., the smart card reader – it can result in unsecured, unauthenticated Windows sessions to be alive on the SunRay server; data loss/theft will then become inevitable!

By periodically monitoring the SunRay server and the network connections leading to it, such problems can be averted. This is where eG Enterprise helps administrators.

Chapter 2: How to Monitor SunRay Server Using eG Enterprise?

eG Enterprise can monitor a SunRay Server in an agent-based manner. For this purpose, deploy an eG agent on the SunRay server that is to be monitored.

2.1 Managing the SunRay Server

The eG Enterprise cannot automatically discover the SunRay Server. This implies that you need to manually add the component for monitoring. Remember that the eG Enterprise automatically manages the components that are added manually. To manage a SunRay component, do the following:

1. Log into the eG administrative interface.
2. Follow the Components -> Add/Modify menu sequence in the **Infrastructure** tile of the **Admin** menu.
3. In the **COMPONENT** page that appears next, select *SunRay* as the **Component type**. Then, click the **Add New Component** button. This will invoke Figure 2.1.

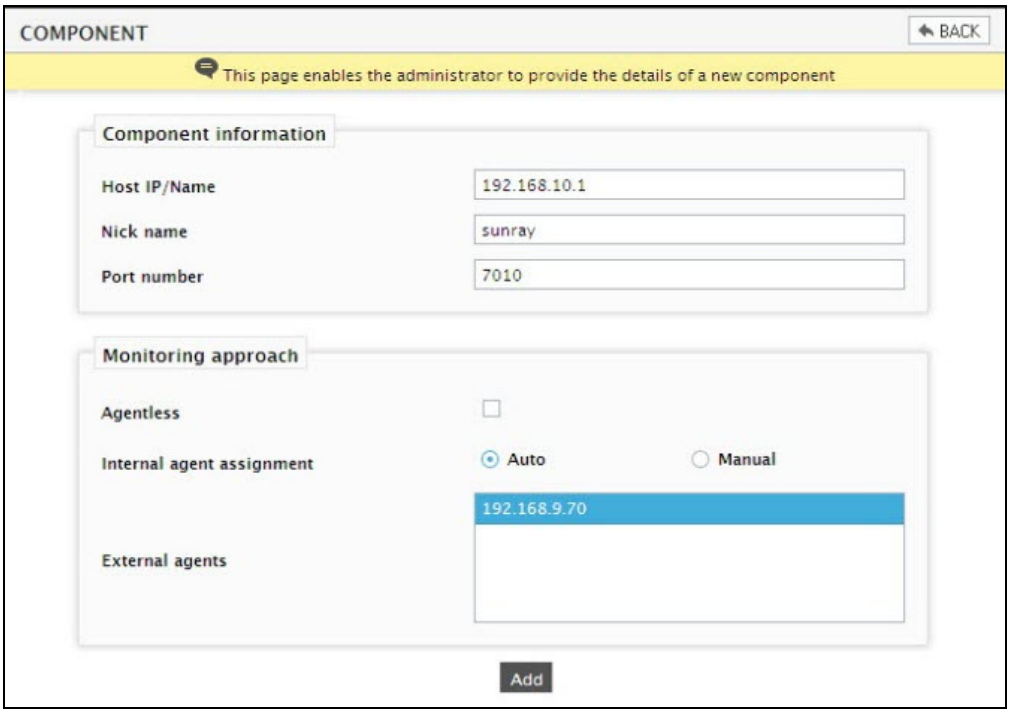

Figure 2.1: Adding a SunRay server

4. Specify the **Host IP/Name** and the **Nick name** of the SunRay server in Figure 2.1. Then, click the **Add** button to register the changes.
5. When you attempt to sign out, a list of unconfigured tests appears (see Figure 2.2).

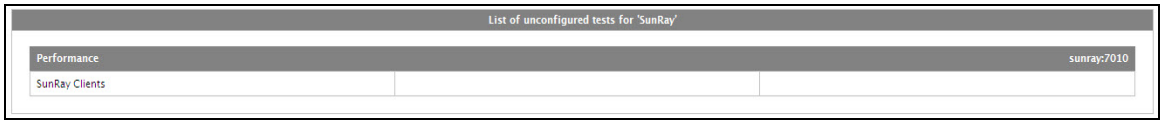

Figure 2.2: List of Unconfigured tests for the SunRay server

6. Click on the **SunRay Clients** test to configure it. To know how to configure this test, refer to **Monitoring SunRay Servers** chapter.
7. Finally, sign out of the eG administrative interface.

Chapter 3: Monitoring SunRay Servers

eG Enterprise provides a specialized monitoring model for the SunRay server, which monitors the client-server connections, the status of device services, and the user sessions on the SunRay server to detect anomalies, and promptly alert administrators to it.

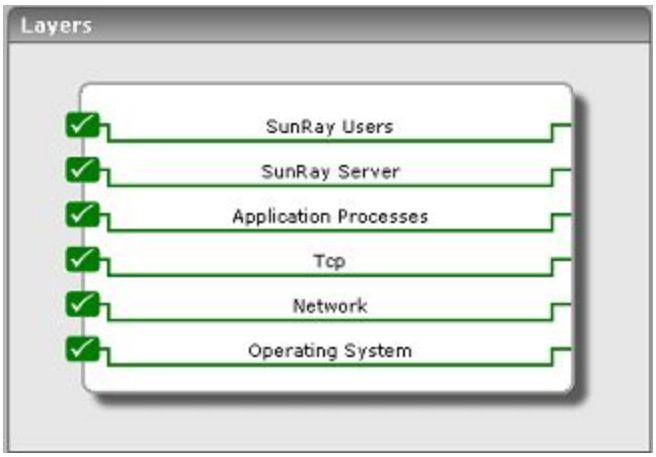

Figure 3.1: The layer model of a SunRay server

Using the tests mapped to each of the layers in the layer model, administrators can figure out the following:

- Is any SunRay client unable to connect to the server? If so, which one?
- Is the network traffic to the server from any client very heavy?
- Is any device service on the server disabled currently? If so, which service?
- Are there too many active sessions on the server?
- Are there any unknown sessions on the server?
- Have any sessions on the server been idle for too long a time?

The sections to come will shed light on which tests report the aforesaid metrics.

3.1 The SunRay Server Layer

The test mapped to this layer monitors the current status of the device services on the SunRay server.

Figure 3.2: The test mapped to the SunRay server

3.1.1 Ut Device Services Test

SunRay device services include USB devices connected through USB ports, internal serial ports, and internal smart card readers on the SunRay DTU. After installation of SunRay Server Software, all device services are enabled by default. Administrators can use this test to check whether each of these device services is enabled or not.

Target of the test : A SunRay server

Agent deploying the test : An internal agent

Outputs of the test : One set of results for each device service on the SunRay server monitored.

Configurable parameters for the test

Parameter	Description
Test period	How often should the test be executed
Host	The host for which the test is to be configured.
Port	Refers to the port at which SunRay server listens for requests. By default, this is 7010.

Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Service status	Indicates whether this service is enabled or disabled.	Percent	If the value of this measure is 100, it indicates that this service is enabled. Whereas, the value 0 indicates that this service is disabled. When internal

Measurement	Description	Measurement Unit	Interpretation
			serial service is disabled, users cannot access embedded serial ports on the SunRay DTU. The SunRay 170 has two embedded serial ports. When internal smart card reader service is disabled, users cannot access the internal smart card reader through the PC/SC or SCF interfaces for reading or writing; however, this does not affect session access or hotdesking with unauthenticated smart cards. When USB service is disabled, users cannot access any devices connected to USB ports. This does not, however, affect HID devices such as the keyboard, mouse, or barcode reader.

3.2 The SunRay Users Layer

This layer monitors the health of the network connections to the SunRay server, and also monitors the nature of the sessions on the server.

Figure 3.3: The tests mapped to the SunRay Users layer

3.2.1 SunRay Client Test

This test monitors the connectivity between each SunRay client and the SunRay server, so that the quality of each network link is checked and connection bottlenecks revealed.

Target of the test : A SunRay server

Agent deploying the test : An internal agent

Outputs of the test : One set of results for each client connected to the SunRay server.

Configurable parameters for the test

Parameter	Description
Test period	How often should the test be executed
Host	The host for which the test is to be configured.
Port	Refers to the port at which SunRay server listens for requests. By default, this is 7010.
Timeout	Specify the duration for which this test will wait for a response from the server. The default is 120 seconds.

Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Packets	Indicates the number of data packets received by the server from this client during the last measurement period.	Packets	
Dropped packets	Indicates the number of packets sent by this client that were dropped in transit during the last measurement period.	Packets	Ideally, this value should be low. A high value for this measure is indicative of poor network performance.
Packet traffic	Indicates the rate at which the server received data packets from this client.	Packets/Sec	
Bandwidth used	Indicates the bandwidth used by the SunRay server while receiving data packets from this client.	Kbytes/Sec	
Data transferred	Indicates the data sent by this client to the server during the last measurement period.	MBytes	

Measurement	Description	Measurement Unit	Interpretation
Latency	Indicates the average delay between transmission of a packet to the server from this client.	Msecs	Ideally, this value should be very low. A high value, or a consistent increase in the value, indicates the existence of a bottleneck in the network connection leading to the server from this client.
Delta latency	Indicates the difference in latency since the previous measurement period.	Msecs	Ideally, this value should be 0, or should at least be a very low value. A high value, or a steady increase in the value, indicates that the quality of the network connection between this client and the server is deteriorating.
Connect time	Indicates the duration for which this user session remained idle on the server during the last measurement period.	Secs	A low value is desired for this measure. A high value could indicate a network problem.
Idle time	Indicates the duration for which this user session remained idle on the server during the last measurement period.	Secs	Idle sessions are unnecessary resource drainers. You might want to set a low timeout value on the server to ensure that user sessions do not remain idle for too long a time.
Percent idle time	Indicates the percentage of time for which this user session was idle.	Percent	

3.2.2 SunRay Sessions Test

This test monitors the sessions to the SunRay server, and helps determine number and type of sessions on the server.

Target of the test : A SunRay server

Agent deploying the test : An internal agent

Outputs of the test : One set of results for the SunRay server that is being monitored.

Configurable parameters for the test

Parameter	Description
Test period	How often should the test be executed
Host	The host for which the test is to be configured.
Port	Refers to the port at which SunRay server listens for requests. By default, this is 7010.
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.

Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Active sessions	Indicates the number of sessions that are currently active on the server.	Number	This is a good indicator of the current workload on the server. The detailed diagnosis of this measure provides the details of the active sessions.
Detached sessions	Indicates the total number of detached sessions on the server in the last measurement period.	Number	
Login sessions	Indicates the number of login sessions on the server during the last measurement period.	Number	
Unknown sessions	Indicates the number of unknown sessions on the server during the last measurement period.	Number	

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.

To learn more visit www.eginnovations.com.

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