Monitoring VMware Horizon Cloud Pod

eG Innovations Product Documentation

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Total Performance Visibility

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Chapter 1: Introduction

The Cloud Pod Architecture feature uses standard Horizon components to provide cross-datacenter administration, global and flexible user-to-desktop mapping, high availability desktops, and disaster recovery capabilities. With the Cloud Pod Architecture feature, multiple pods can be linked together to provide a single large desktop and application brokering and management environment.

A pod consists of a set of Connection Server instances, shared storage, a database server, and the vSphere and network infrastructures required to host desktop and application pools. In a traditional Horizon implementation, you manage each pod independently. With the Cloud Pod Architecture feature, you can join together multiple pods to form a single Horizon implementation called a pod federation. A pod federation can span multiple sites and datacenters and simultaneously simplify the administration effort required to manage a large-scale Horizon deployment.

Connection Server instances in a pod federation use the Global Data Layer to share key data. Shared data includes information about the pod federation topology, user and group entitlements, policies, and other Cloud Pod Architecture configuration information. n a Cloud Pod Architecture environment, shared data is replicated on every Connection Server instance in a pod federation. Entitlement and topology configuration information stored in the Global Data Layer determines where and how desktops are allocated across the pod federation. Horizon sets up the Global Data Layer on each Connection Server instance in a pod federation when you initialize the Cloud Pod Architecture feature.

If any of the VMware Horizon Connection Server instances in a Pod fail or exhibit unhealthy performance patterns, it may delay or even deny users access to desktops, thus severely impacting the user experience with the desktop service. To avoid such adversities, the operations and all-round health of each of the VMware Horizon View Connection server instance within the VMware Horizon Cloud Pod should be continuously monitored. The eG Enterprise helps administrators in continuous monitoring of VMware Horizon Cloud Pod.

Chapter 2: How Does eG Enterprise Monitor VMware Horizon Cloud Pod?

eG Enterprise monitors the VMware Horizon Cloud Pod using a single eG agent on any remote host in the environment. This agent is capable of monitoring the performance of the Cloud Pod and collect the required metrics by executing the *Powershell* scripts.

To enable the eG agent to collect the required metrics, the following pre-requisites should be fulfilled:

- Ensure that the user accessing the target VMware Horizon Cloud Pod should possess *read-only administrator* role defined in the Horizon View management console.
- Ensure that the VMware PowerCLI executable is installed on the remote host on which the eG agent resides. If the VMware PowerCLI is not installed, then, you can download the same from the following location:

  https://my.vmware.com/web/vmware/details?downloadGroup=PCLI650R1&productId=757#product_downloads

2.1 Managing the VMware Horizon Cloud Pod

To achieve this, follow the steps given below:

1. Log into the eG administrative interface.
2. eG Enterprise cannot automatically discover the VMware Horizon Cloud Pod. You need to manually add the component 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.

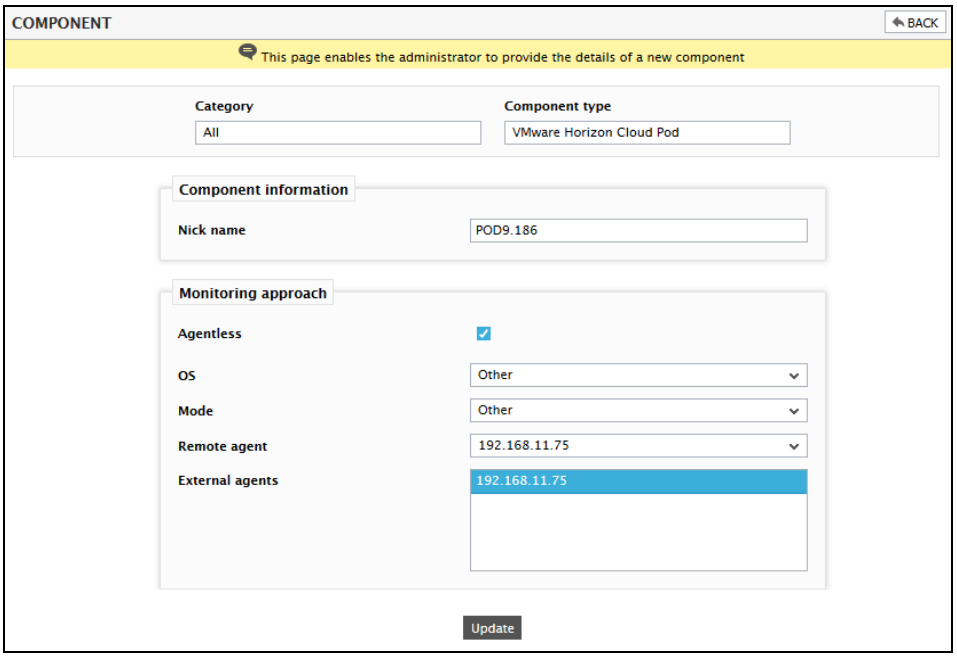

Figure 2.1: Adding a VMware Horizon Cloud Pod

3. Specify the **Nick name** of the VMware Horizon Cloud Pod in Figure 2.1. Also select **Other** as the **OS** and **Other** as the **Mode**. Then, choose a remote agent from the **Remote agent** drop down.
4. Then, click the **Add** button to register the changes.
5. Now, when you attempt to sign out of the eG administrative interface, Figure 2.2 appears, listing the tests requiring manual configuration.

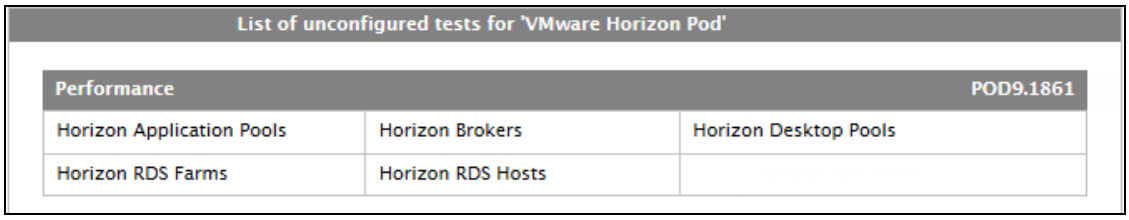

Figure 2.2: The list of unconfigured tests for VMware Horizon Cloud Pod

6. Click on the **Horizon Application Pools** test to configure it. To know how to configure the test, refer to Section **3.2.1**.
7. Finally, signout of the eG administrative interface.

Chapter 3: Monitoring the VMware Horizon Cloud Pod

eG Enterprise offers a specialized *VMware Horizon Cloud Pod model*, which periodically evaluates the service levels achieved by the VMware Horizon Connection Server instances, and proactively alerts administrators to potential performance troubles.

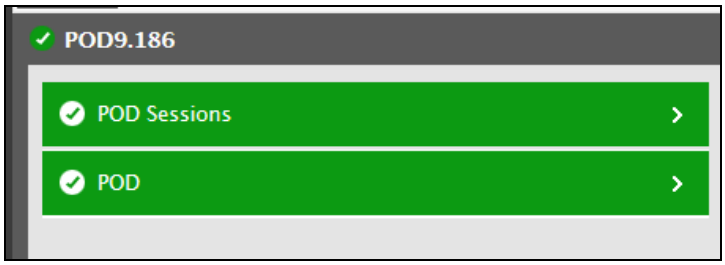

Figure 3.1: Layer model of VMware Horizon Cloud Pod

Each layer of the Figure 3.1 is mapped to a variety of tests that provide valuable insights into the overall health and performance of **VMware Horizon Cloud Pod**. With the help of the metrics reported by these tests, you can find quick and accurate answers for the following queries:

- How many desktops exist in each desktop pool?
- Which desktop pools are currently disabled?
- Is any desktop idle in a pool? If so, which desktop pool is it?
- Are there too many inactive desktops in a pool? If so, which pool is it?
- Are all virtual desktops accessible over the network? Which desktop is not?
- How many desktops on each desktop pool were in Error state?
- How many desktops need to be maintained in each desktop pool?
- How many desktops can be accommodated in each desktop pool?
- What is the percentage of desktops that were actively used in each desktop pool?
- How many RDS Hosts exist in each application pool?
- Which application pools are currently disabled?
- What is the current status of each application pool?
- How many RDS hosts are available in each RDS farm?
- How many application pools are available in each RDS farm?

- Is each RDS farm enabled or not?
- How many sessions were initiated on the desktops/applications on each RDS farm using PCoIP, Blast and RDP protocols?
- What is the current status of each RDS host?
- How many connections can be provided to the desktops/applications on each RDS host simultaneously?
- How many VMware Horizon Connection Servers were enabled on the target VMware Horizon Cloud Pod?
- How many VMware Horizon Connection Servers were disabled on the target VMware Horizon Cloud Pod?
- How many sessions were initiated on the desktops/applications on each RDS host using PCoIP, Blast and RDP protocols?

The sections that follow will focus on the layers of Figure 3.1 in detail.

3.1 The POD Layer

Using the test mapped to this layer, administrators can figure out the number of VMware Horizon Connection Server instances that were enabled and disabled within the target VMware Horizon Cloud Pod.

Figure 3.2: The test mapped to the POD layer

3.1.1 Broker Details Test

This test monitors the target VMware Horizon Cloud Pod and for each VMware Horizon Cloud Pod in a site, reports the number of VMware Horizon Connection Server instances that were enabled and disabled.

Target of the test : A VMware Horizon Cloud Pod

Agent deploying the test : A remote agent

Outputs of the test : One set of results for each *Site:Cloud* Pod combination on the VMware Horizon Cloud Pod 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 used by the target VMware Horizon Cloud Pod. By default, this is set to NULL.
Connection Server Name	By default, this test connects to every VMware Horizon Connection Server configured in the VMware Horizon Cloud Pod remotely and collects the required metrics. For this, it is necessary to specify valid credentials of the VMware Horizon Connection Servers. To help administrators provide these credentials quickly and easily, the eG administrative interface embeds a special configuration page. To access this page, simply click on the encircled '+' icon that appears alongside this parameter in the test configuration page. To know how to use this special page, refer to Section **3.1.1.1**.
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
Enabled connection servers	Indicates the number of Horizon Connection Servers that were enabled on this cloud pod.	Number	The detailed diagnosis of this measure lists the name of the Horizon Connection Servers that were enabled and the URL through which the connection servers can be accessed.

Measurement	Description	Measurement Unit	Interpretation
Disabled connection servers	Indicates the number of Horizon Connection Servers that were disabled on this cloud pod.	Number	The detailed diagnosis of this measure lists the name of the Horizon Connection Servers that were disabled and the URL through which the connection servers can be accessed.

3.1.1.1 Configuring the VMware Horizon Connection Servers for Monitoring

In order to enable the eG agent to connect to the VMware Horizon Connection Servers in the target VMware Horizon Cloud Pod and pull out metrics, the eG administrative interface provides a special page using which multiple VMware Horizon Connection Servers and their respective domain and the users authorized to log into the connection servers can be specified. To access this page, click the encircled '+' icon against the Connection Server Name parameter in the test configuration page. Figure 3.3 then appears using which the credentials of the VMware Horizon Connection Servers can be configured for monitoring.

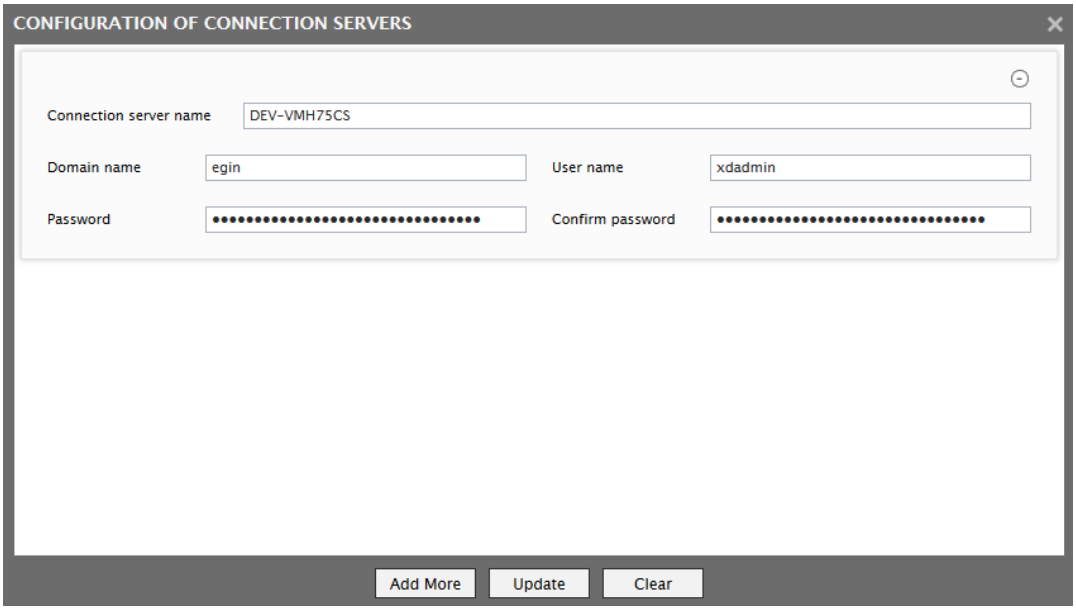

Figure 3.3: Adding the VMware Horizon Connection Server to a Pod

To add a VMware Horizon Connection Server, do the following:

1. First, provide the name of the VMware Horizon Connection Server against the **Connection server name** text box.

2. Then, provide the **Domain name** to which the VMware Horizon Connection Server belongs to. If the connection server does not belong to any domain, specify *none* here.
3. The eG agent must be configured with user privileges that will allow the agent to communicate with the VMware Horizon Connection Server in a particular domain and extract statistics. If none is specified against **Domain name**, then, specify the name of the user who is authorized to access the VMware Horizon Connection Server against the **User name**. On the other hand, if a valid **Domain name** has been specified, then a domain administrator account can be provided in the **User name** text box.
4. The password corresponding to the user specified against the **User name** should be mentioned in the **Password** text box.
5. Confirm the password by retyping it in the **Confirm Password** text box.
6. To add more VMware Horizon Connection Servers for monitoring, click the **Add More** button.
7. To clear all the user specifications, simply click the **Clear** button.
8. To remove the details of a particular VMware Horizon Connection Server alone, just click the encircled '-' button.
9. To save the specification, just click the **Update** button. This will lead you back to the test configuration page, where you will find the multiple domain names, user names, and passwords listed against the respective fields.

3.2 The POD Sessions Layer

Using the tests mapped to this layer, administrators can figure out the composition and usage of the desktop pools, applications, the desktop usage on the RDS farms and the sessions connected on the RDS hosts.

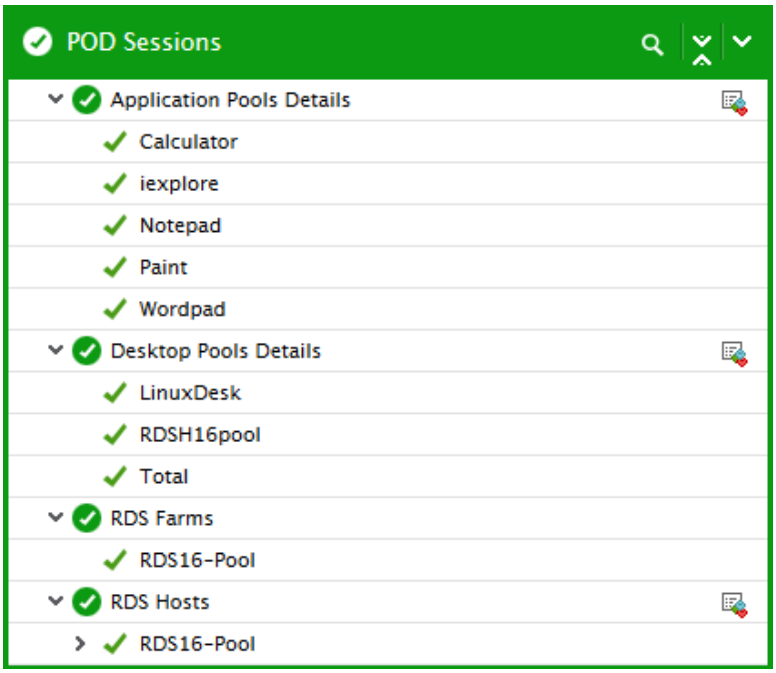

Figure 3.4: The test mapped to the POD Sessions layer

3.2.1 Application Pools Details Test

This test monitors the status of each application pool configured on the VMware Horizon Cloud Pod and also reports whether/not each application pool is enabled. In addition, this test also reports the number of RDS hosts that are using each application pool.

Target of the test : A VMware Horizon Cloud Pod

Agent deploying the test : A remote agent

Outputs of the test : One set of results for each application pool configured on the VMware Horizon Cloud Pod 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 used by the target VMware Horizon Cloud Pod. By default, this is set to NULL.

Parameter	Description
Connection Server Name	By default, this test connects to every VMware Horizon Connection Server configured in the VMware Horizon Cloud Pod remotely and collects the required metrics. For this, it is necessary to specify valid credentials of the VMware Horizon Connection Servers. To help administrators provide these credentials quickly and easily, the eG administrative interface embeds a special configuration page. To access this page, simply click on the encircled '+' icon that appears alongside this parameter in the test configuration page. To know how to use this special page, refer to Section **3.2.1**.
DD Frequency	Refers to the frequency with which detailed diagnosis measures are to be generated for this test. The default is *1:1*. This indicates that, by default, detailed measures will be generated every time this test runs, and also every time the test detects a problem. You can modify this frequency, if you so desire. Also, if you intend to disable the detailed diagnosis capability for this test, you can do so by specifying *none* against DD Frequency.
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
Is application enabled?	Indicates whether/not this application is enabled.		The values reported by this measure and its numeric equivalents are mentioned in the table below: **Measure value** / **Numeric Value** Yes / 0 No / 1

<table>
<tr><th>Measurement</th><th>Description</th><th>Measurement Unit</th><th>Interpretation</th></tr>
<tr><td></td><td></td><td></td><td>Note:

By default, this measure reports the Measure Values listed in the table above to indicate whether/not this application is enabled. The graph of this measure however, is represented using the numeric equivalents only i.e., 0 or 1.

The detailed diagnosis of this measure lists the name of the RDS farms on which the application is enabled.</td></tr>
<tr><td>Application status</td><td>Indicates the current status of this application.</td><td></td><td>The values reported by this measure and its numeric equivalents are mentioned in the table below:

<table><tr><th>Measure value</th><th>Numeric Value</th></tr><tr><td>Available</td><td>0</td></tr><tr><td>Unavailable</td><td>1</td></tr></table>
Note:

By default, this measure reports the Measure Values listed in the table above to indicate the current status of this application. The graph of this measure however, is represented using the numeric equivalents only i.e., 0 or 1.</td></tr>
<tr><td>Total RDS hosts</td><td>Indicates the total number of RDS hosts using this application.</td><td>Number</td><td>The detailed diagnosis of this measure lists the name of the RDS hosts that are using the application.</td></tr>
</table>

3.2.2 Desktop Pools Details Test

This test monitors the status and usage of each desktop pool configured on the targrt VMware Horizon Cloud Pod.

Target of the test : A VMware Horizon Cloud Pod

Agent deploying the test : A remote agent

Outputs of the test : One set of results for each desktop pool configured on the VMware Horizon Cloud Pod 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 used by the target VMware Horizon Cloud Pod. By default, this is set to NULL.
Connection Server Name	By default, this test connects to every VMware Horizon Connection Server configured in the VMware Horizon Cloud Pod remotely and collects the required metrics. For this, it is necessary to specify valid credentials of the VMware Horizon Connection Servers. To help administrators provide these credentials quickly and easily, the eG administrative interface embeds a special configuration page. To access this page, simply click on the encircled '+' icon that appears alongside this parameter in the test configuration page. To know how to use this special page, refer to Section **3.2.2**.
Total Session DD	By default, this flag is set to **No**, indicating that this test will not report detailed diagnostics for the **Total Sessions** measure. This means that the test, by default, will not capture and store the details of every session initiated on the desktops of each desktop pool, in the eG database. This default setting is ideal for desktops characterized by the initiation of thousands of sessions simultaneously, as it helps conserve space in the eG database and reduce the strain on the database. However, if your eG database is well-sized and you want to view the complete list of sessions initiated by the desktops in a desktop pool, enable the detailed diagnosis capability of the **Total Sessions** measure by setting this flag to **Yes**.
Show Total Desktop DD	By default, this flag is set to **No**, indicating that this test will not report detailed diagnostics for the **Total Desktops registered** measure. This means that the test, by default, will not capture and store the details of the total number of desktops registered in each desktop pool, in the eG database. This default setting is ideal for desktops characterized by the initiation of thousands of sessions simultaneously, as it helps conserve space in the eG database and reduce the strain on the database. However, if your eG database is well-sized and you want to view the complete list of sessions initiated by the desktops in a desktop pool, enable the detailed diagnosis capability of the **Total Desktops registered** measure by setting this flag to **Yes**.
Disconnected Desktop DD	By default, this flag is set to **No**, indicating that this test will not report detailed diagnostics for the **Disconnected Desktop Sessions** measure. This means that the test, by default, will not capture and store the details of the desktop sessions that were

Parameter	Description
	disconnected in each desktop pool, in the eG database. This default setting is ideal for desktops characterized by the disconnection of thousands of sessions simultaneously, as it helps conserve space in the eG database and reduce the strain on the database. However, if your eG database is well-sized and you want to view the complete list of desktop sessions that were disconnected in a desktop pool, enable the detailed diagnosis capability of the **Disconnected Desktop Sessions** measure by setting this flag to **Yes**.
Disconnected Application DD	By default, this flag is set to **No**, indicating that this test will not report detailed diagnostics for the **Disconnected Desktop Sessions** measure. This means that the test, by default, will not capture and store the details of the applications in each desktop pool that were disconnected from the View Client, in the eG database. This default setting is ideal for desktops characterized by the disconnection of thousands of applications simultaneously, as it helps conserve space in the eG database and reduce the strain on the database. However, if your eG database is well-sized and you want to view the complete list of applications that were disconnected in a desktop pool, enable the detailed diagnosis capability of the **Disconnected Applications** measure by setting this flag to **Yes**.
Maintenance Desktop DD	By default, this flag is set to **No**, indicating that this test will not report detailed diagnostics for the **Maintenance desktops** measure. This means that the test, by default, will not capture and store the details of the desktops that were in the *maintenance* mode, in the eG database. This default setting is ideal for desktop pools that contained thousands of desktops in *maintenance* mode simultaneously, as it helps conserve space in the eG database and reduce the strain on the database. However, if your eG database is well-sized and you want to view the complete list of desktops that were in *maintenance* mode, enable the detailed diagnosis capability of the **maintenance desktops** measure by setting this flag to **Yes**.
DD Frequency	Refers to the frequency with which detailed diagnosis measures are to be generated for this test. The default is *1:1*. This indicates that, by default, detailed measures will be generated every time this test runs, and also every time the test detects a problem. You can modify this frequency, if you so desire. Also, if you intend to disable the detailed diagnosis capability for this test, you can do so by specifying *none* against DD Frequency.
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.

Parameter	Description
	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
Is pool enabled?	Indicates whether this desktop pool is enabled or not.		This measure reports either *Enabled* or *Disabled* as the status of this desktop pool. The numeric values that correspond to the above-mentioned states are as follows: State: Enabled — Numeric Value: 1 State: Disabled — Numeric Value: 0 **Note:** By default, this measure reports the above-mentioned states while indicating the status of this desktop pool. However, the graph of this measure will be represented using the corresponding numeric equivalents of the states as mentioned in the table above.
Is pool entitled?	Indicates whether any users or groups have been entitled to access this pool or not.		This measure reports either *Entitled* or *UnEntitled* as the status of the user in this desktop pool. The numeric values that correspond to the above-mentioned states are as follows:

<table>
<tr><th>Measurement</th><th>Description</th><th>Measurement Unit</th><th>Interpretation</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><th>State</th><th>Numeric Value</th></tr>
<tr><td>Entitled</td><td>1</td></tr>
<tr><td>UnEntitled</td><td>0</td></tr>
</table>
Note:
By default, this measure reports the above-mentioned states while indicating whether any users or groups have been entitled to access this pool or not. However, the graph of this measure will be represented using the corresponding numeric equivalents of the states as mentioned in the table above.
</td></tr>
<tr><td>Total entitled users in pool</td><td>Indicates the total number of entitled users presents in this pool.</td><td>Number</td><td>The detailed diagnosis of this measure displays the details of entitled users present in this desktop pool.</td></tr>
<tr><td>Total sessions</td><td>Indicates the total number of remote sessions to the desktops in this desktop pool.</td><td>Number</td><td>The details of the remote sessions can be viewed in the detailed diagnosis.</td></tr>
<tr><td>Total desktops registered</td><td>Indicates the total number of registered desktops present in this desktop pool.</td><td>Number</td><td>The detailed diagnosis of this measure provides the details of the registered desktops.</td></tr>
<tr><td>Desktop source</td><td>Indicates the source of this desktop pool.</td><td></td><td>The values reported by this measure and its corresponding numeric equivalents are mentioned in the table below:
<table>
<tr><th>State</th><th>Numeric Value</th></tr>
<tr><td>Remote Desktop Services</td><td>1</td></tr>
<tr><td>vCenter (instant clone)</td><td>2</td></tr>
<tr><td>vCenter (linked clone)</td><td>3</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Measurement</th><th>Description</th><th>Measurement Unit</th><th>Interpretation</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><th>State</th><th>Numeric Value</th></tr>
<tr><td>vCenter</td><td>4</td></tr>
<tr><td>Others</td><td>0</td></tr>
</table>
Note:
By default, this measure reports the above-mentioned states while indicating the source of this desktop pool. However, the graph of this measure will be represented using the corresponding numeric equivalents of the states as mentioned in the table above.
</td></tr>
<tr><td>Pool type</td><td>Indicates the type of this desktop pool.</td><td></td><td>The values that this measure can report and their corresponding numeric values are listed in the table below:
<table>
<tr><th>Measure Value</th><th>Description</th><th>Numeric Value</th></tr>
<tr><td>Manual desktop pool</td><td>Manual desktop pools are a collection of existing vCenter Server virtual machines, physical computers, or third-party virtual machines. In automated or manual pools, each Windows machine is available for one user to access remotely at a time.</td><td>2</td></tr>
<tr><td>RDS desktop pool</td><td>RDS desktop pools are not a collection of Windows machines, but instead, provide users</td><td>1</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Measurement</th><th>Description</th><th>Measurement Unit</th><th>Interpretation</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><th>Measure Value</th><th>Description</th><th>Numeric Value</th></tr>
<tr><td></td><td>with desktop sessions on RDS hosts. Multiple users can have desktop sessions on an RDS host simultaneously.</td><td></td></tr>
<tr><td>Automated Desktop Pool</td><td></td><td>3</td></tr>
</table>
Note:
By default, this measure reports the above-mentioned Measure Values while indicating the pool type. However, in the graph of this measure, the same will be represented using the corresponding numeric equivalents only.
</td></tr>
<tr><td>Agent unreachable desktops</td><td>Indicates the number of desktops in this pool that are currently in the Agent unreachable state.</td><td>Number</td><td></td></tr>
<tr><td>Provisioned desktops</td><td>Indicates the number of desktops in this pool that are currently in the Provisioned state.</td><td>Number</td><td>A non-zero value for this measure indicates that one/more desktops in the pool are powered-off or suspended.</td></tr>
<tr><td>Available desktops</td><td>Indicates the number of desktops in this pool that are currently in the Available state.</td><td>Number</td><td>This refers to the number of desktops that are powered on and ready for an active connection.</td></tr>
<tr><td>Agent disable desktops</td><td>Indicates the number of desktops in this pool that are currently in the Agent Disabled state.</td><td>Number</td><td></td></tr>
<tr><td>Invalid ip desktops</td><td>Indicates the number of desktops in this pool that</td><td>Number</td><td></td></tr>
</table>

Measurement	Description	Measurement Unit	Interpretation
	are currently in the *Invalid IP* state.		
Agent needs reboot desktops	Indicates the number of desktops in this pool that are currently in the *Agent needs reboot* state.	Number	
Protocol failure desktops	Indicates the number of desktops in this pool that are currently in the *Protocol failure* state.	Number	
Domain failure desktops	Indicates the number of desktops in this pool that are currently in the *Domain failure* state.	Number	
Already used desktops	Indicates the number of desktops in this pool that are currently in the *Already used* state.	Number	If a desktop that is set to refresh on log off is reset, the desktop goes into the Already Used state.
Desktops with configuration error	Indicates the number of desktops in this pool that are currently experiencing configuration errors.	Number	A high value for this measure indicates that many errors occurred during desktop configuration. This is worrisome and should be investigated.
Desktops with provisioning error	Indicates the number of desktops in this pool that are currently experiencing provisioning errors.	Number	A high value for this measure indicates that many errors occurred during desktop provisioning. This is worrisome and should be investigated.
Error desktops	Indicates the number of desktops in this pool that are in the *Error* state currently.	Number	A non-zero value for this measure is a cause for concern, as it indicates that one/more desktops in the pool have experienced an unknown error.
Unassigned user connected desktops	Indicates the number of desktops in this desktop pool that are currently in	Number	

Measurement	Description	Measurement Unit	Interpretation
	the *Unassigned user connected* state.		
Unassigned user disconnected desktops	Indicates the number of desktops in this desktop pool that are currently in the *Unassigned user disconnected* state.	Number	
Unknown desktops	Indicates the number of desktops in this pool that are currently in an *Unknown* state.	Number	Ideally, the value of this measure should be 0.
Provisioning desktops	Indicates the number of desktops in this pool that are currently in the *Provisioning* state.	Number	A non-zero value for this measure indicates that desktops in the pool are being provisioned.
Customizing desktops	Indicates the number of desktops in this pool that are presently in the *Customizing* state.	Number	A non-zero value for this measure indicates that one/more desktops in an automated pool are being customized.
Waiting for agent desktops	Indicates the number of desktops in this pool that are currently in *Waiting for agent* state.	Number	
Deleting desktops	Indicates the number of desktops in this pool that are currently in the *Deleting* state.	Number	A non-zero value for this measure indicates that one/more desktops in the pool have been marked for deletion, and will be deleted soon.
Maintenance desktops	Indicates the number of desktops in this pool that are in the *Maintenance mode* presently.	Number	When a desktop is in the Maintenance mode, users cannot log in or use that desktop.
Startup desktops	Indicates the number of desktops in this pool that are currently in the *Startup* state.		
PCoIP connected	Indicates the number of	Number	The details of the PCoIP sessions can be

Measurement	Description	Measurement Unit	Interpretation
sessions	PCoIP sessions to the desktops in this desktop pool.		viewed in the detailed diagnosis.
Blast connected sessions	Indicates the number of Blast sessions to the desktops in this desktop pool.	Number	The details of the Blast sessions can be viewed in the detailed diagnosis.
RDP connected sessions	Indicates the number of RDP sessions to the desktops in this desktop pool.	Number	The details of the RDP sessions can be viewed in the detailed diagnosis.
Connected desktop sessions	Indicates the number of desktops in this pool that are currently in Connected state i.e., the desktops are in active sessions and have active remote sessions to a Horizon client.	Number	
Disconnected desktop sessions	Indicates the number of desktops in this pool that are currently in Disconnected state i.e., the desktops are in active sessions but are disconnected from the Horizon client.	Number	
Connected applications	Indicates the number of applications in this pool that are in active sessions and have active remote connections to a View client.	Number	
Disconnected applications	Indicates the number of applications in this pool that are in active	Number	

Measurement	Description	Measurement Unit	Interpretation
	sessions but are disconnected from the View client.		
Spare desktops	Indicates the number of spare (powered on) desktops that are to be maintained in this pool.	Number	Generally, you want the number of spare desktops at least to equal the number of users that log in within a short time span (usually a few minutes). These reserves ensure that users have an available desktop. You should monitor user-login activity and adjust the settings accordingly.
Maximum desktops	Indicates the maximum number of desktops that can be accommodated in this pool.	Number	
Minimum desktops	Indicates the minimum number of desktops to be maintained in this pool.	Number	
Percentage of disconnected desktop sessions	Indicates the percentage of disconnected desktops in this pool.	Percent	A value close to 100% for this measure could indicate that almost all the desktops in the pool are disconnected from the View client. This is a cause for serious concern and requires immediate attention.
Desktop utilization	Indicates the percentage of desktops actively used in this pool.	Percent	Ideally, the value of this measure should be high.

3.2.3 RDS Farms Test

Farms are collections of RDS hosts and facilitate the management of those hosts. Farms can have a variable number of RDS hosts and provide a common set of applications or RDS desktops to users. When you create an RDS desktop pool or an application pool, you must specify a farm. To know the composition of an RDS farm and track the status of the desktops and applications in the farm, take the help of the RDS Farms test. For every RDS farm on the target VMware Horizon Cloud Pod, this test reports the count of RDS hosts in the farm, the number and type of sessions active in that farm, and the state of desktops and applications in that farm.

Target of the test : A VMware Horizon Cloud Pod

Agent deploying the test : A remote agent

Outputs of the test : One set of results for each RDS farm managed by the VMware Horizon Cloud Pod 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 used by the target VMware Horizon Cloud Pod. By default, this is set to NULL.
Connection Server Name	By default, this test connects to every VMware Horizon Connection Server configured in the VMware Horizon Cloud Pod remotely and collects the required metrics. For this, it is necessary to specify valid credentials of the VMware Horizon Connection Servers. To help administrators provide these credentials quickly and easily, the eG administrative interface embeds a special configuration page. To access this page, simply click on the encircled '+' icon that appears alongside this parameter in the test configuration page. To know how to use this special page, refer to Section **3.2.3**.
Show RDS Host DD	By default, this flag is set to **No**, indicating that this test will not report detailed diagnostics for the **RDS Hosts** measure. This means that the test, by default, will not capture and store the details of every RDS host in a farm, in the eG database. This default setting is ideal for large RDS farms characterized by hundreds of hosts, as it helps conserve space in the eG database and reduce the strain on the database. However, if your eG database is well-sized and you want to view the complete list of RDS hosts in a farm, enable the detailed diagnosis capability of the **RDS hosts** measure by setting this flag to **Yes**.
Total Session DD	By default, this flag is set to **No**, indicating that this test will not report detailed diagnostics for the **Total Sessions** measure. This means that the test, by default, will not capture and store the details of every session initiated using the RDS host in a farm, in the eG database. This default setting is ideal for large RDS farms characterized by hundreds of hosts wherein thousands of sessions are initiated, as it helps conserve space in the eG database and reduce the strain on the database. However, if your eG database is well-sized and you want to view the complete list of sessions initiated using the RDS hosts in a farm, enable the detailed diagnosis capability of the **Total Sessions** measure by setting this flag to **Yes**.

Parameter	Description
DD Frequency	Refers to the frequency with which detailed diagnosis measures are to be generated for this test. The default is *1:1*. This indicates that, by default, detailed measures will be generated every time this test runs, and also every time the test detects a problem. You can modify this frequency, if you so desire. Also, if you intend to disable the detailed diagnosis capability for this test, you can do so by specifying *none* against DD Frequency.
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
RDS hosts	Indicates the number of RDS hosts in this farm.	Number	
Application pools	Indicates the number of application pools in this farm.	Number	Application pools let you deliver applications to many users. The applications in application pools run on a farm of RDS hosts. The detailed diagnosis of this measure lists the name of the application pools, the RDS farm associated to the application pool, the RDS hosts to which the application pool is associated to and the *Enabled* status of the application pool.

Measurement	Description	Measurement Unit	Interpretation
Total sessions	Indicates the total number of remote sessions to desktops/applications in this farm.	Number	The detailed diagnosis of this measure lists the name of the user who initiated the session, the RDS farm to which the user is associated to, the start time of the session, the DNS name, the status of the session, the protocol through which the session was initiated and the IP address.
Connected desktop sessions	Indicates the number of desktops in this farm that are in active sessions and have active remote connections to a View client.	Number	The detailed diagnosis of this measure lists the name of the user who initiated the session, the RDS farm to which the user is associated to, the start time of the session, the DNS name, the status of the session, the protocol through which the session was initiated and the IP address.
Disconnected desktop sessions	Indicates the number of desktops in this farm that are in active sessions but are disconnected from the View client.	Number	A non-zero value is a cause for concern. The detailed diagnosis of this measure lists the name of the user who initiated the session, the RDS farm to which the user is associated to, the start time of the session, the DNS name, the status of the session, the protocol through which the session was initiated and the IP address.
Connected applications	Indicates the number of applications in this farm that are in active sessions and have active remote connections to a View client.	Number	The detailed diagnosis of this measure lists the name of the user who accessed the application, the RDS farm to which the user is associated to, the start time of the session through which the application was accessed, the DNS name, the status of the session, the protocol through which the session was

<table>
<tr><th>Measurement</th><th>Description</th><th>Measurement Unit</th><th>Interpretation</th></tr>
<tr><td></td><td></td><td></td><td>initiated and the IP address.</td></tr>
<tr><td>Disconnected applications</td><td>Indicates the number of applications in this farm that are in active sessions but are disconnected from the View client.</td><td>Number</td><td>A non-zero value warrants close scrutiny.
The detailed diagnosis of this measure lists the name of the user who accessed the application, the RDS farm to which the user is associated to, the start time of the session through which the application was accessed, the DNS name, the status of the session, the protocol through which the session was initiated and the IP address.</td></tr>
<tr><td>Is enabled?</td><td>Indicates whether/not this farm is enabled.</td><td></td><td>This measure reports a value Yes if the farm is enabled and No, if otherwise. The numeric values that correspond to the above-mentioned states are as follows:
<table><tr><th>State</th><th>Numeric Value</th></tr><tr><td>Yes</td><td>1</td></tr><tr><td>No</td><td>0</td></tr></table>Note:
By default, this measure reports the above-mentioned states while indicating the status of this farm. However, the graph of this measure will be represented using the corresponding numeric equivalents of the states as mentioned in the table above.</td></tr>
<tr><td>PCoIP connected sessions</td><td>Indicates the number of PCoIP sessions to the desktops/applications in this farm.</td><td>Number</td><td>The details of the PCoIP sessions can be viewed in the detailed diagnosis.</td></tr>
</table>

Measurement	Description	Measurement Unit	Interpretation
Blast connected sessions	Indicates the number of Blast sessions to the desktops/applications in this farm.	Number	The details of the Blast sessions can be viewed in the detailed diagnosis.
RDP connected sessions	Indicates the number of RDP sessions to the desktops/applications in this farm.	Number	The details of the RDP sessions can be viewed in the detailed diagnosis.
Maximum connections	Indicates the maximum number of connections that can be provided to the desktops/applications on this farm.	Number	

3.2.4 RDS Hosts Test

RDS hosts are server computers that have Windows Remote Desktop Services and View Agent installed. These servers host applications and desktop sessions that users can access remotely. To know the status of each RDS host on the target VMware Horizon Cloud Pod, what type of sessions are active on each RDS host in a farm and to determine the status of desktops/applications on each host, use this test.

Target of the test : A VMware Horizon Cloud Pod

Agent deploying the test : A remote agent

Outputs of the test : One set of results for each *Farm:host* configured on the target VMware Horizon Cloud Pod 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 used by the target VMware Horizon Cloud Pod. By default, this is set to NULL.

Parameter	Description
Connection Server Name	By default, this test connects to every VMware Horizon Connection Server configured in the VMware Horizon Cloud Pod remotely and collects the required metrics. For this, it is necessary to specify valid credentials of the VMware Horizon Connection Servers. To help administrators provide these credentials quickly and easily, the eG administrative interface embeds a special configuration page. To access this page, simply click on the encircled '+' icon that appears alongside this parameter in the test configuration page. To know how to use this special page, refer to Section **3.2.4**.
Total Session DD	By default, this flag is set to **No**, indicating that this test will not report detailed diagnostics for the **Total Sessions** measure. This means that the test, by default, will not capture and store the details of every session initiated using the RDS host, in the eG database. This default setting is ideal for RDS hosts characterized by the initiation of thousands of sessions simultaneously, as it helps conserve space in the eG database and reduce the strain on the database. However, if your eG database is well-sized and you want to view the complete list of sessions initiated using the RDS hosts in a farm, enable the detailed diagnosis capability of the **Total Sessions** measure by setting this flag to **Yes**.
DD Frequency	Refers to the frequency with which detailed diagnosis measures are to be generated for this test. The default is *1:1*. This indicates that, by default, detailed measures will be generated every time this test runs, and also every time the test detects a problem. You can modify this frequency, if you so desire. Also, if you intend to disable the detailed diagnosis capability for this test, you can do so by specifying *none* against DD Frequency.
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
Total sessions	Indicates the number of remote sessions to desktops /applications on this host.	Number	
PCoIP connected sessions	Indicates the number of PCoIP sessions to the desktops/applications in this host.	Number	The details of the PCoIP sessions can be viewed in the detailed diagnosis.
Blast connected sessions	Indicates the number of Blast sessions to the desktops/applications in this host.	Number	The details of the Blast sessions can be viewed in the detailed diagnosis.
Connected desktop sessions	Indicates the number of desktops on this host that are in active sessions and have active remote connections to a View client.	Number	
Disconnected desktop sessions	Indicates the number of desktops on this host that are in active sessions but are disconnected from the View client.	Number	A non-zero value is a cause for concern.
Connected applications	Indicates the number of applications on this host that are in active sessions and have active remote connections to a View client.	Number	
Disconnected applications	Indicates the number of applications on this host that are in active sessions but are disconnected from the View client.	Number	A non-zero value warrants close scrutiny.
Status	Indicates the current status		The values that this measure can take

<table>
<tr><th>Measurement</th><th>Description</th><th>Measurement Unit</th><th>Interpretation</th></tr>
<tr><td></td><td>of this host.</td><td></td><td>and its corresponding numeric values are discussed in the table below:
<table>
<tr><th>Measure Value</th><th>Numeric Value</th></tr>
<tr><td>Unknown</td><td>1</td></tr>
<tr><td>Unassigned user disconnected</td><td>2</td></tr>
<tr><td>Unassigned user connected</td><td>3</td></tr>
<tr><td>Error</td><td>4</td></tr>
<tr><td>Provisioning error</td><td>5</td></tr>
<tr><td>Configuratioin error</td><td>6</td></tr>
<tr><td>Already used</td><td>7</td></tr>
<tr><td>Domain failure</td><td>8</td></tr>
<tr><td>Protocol failure</td><td>9</td></tr>
<tr><td>Agent needs reboot</td><td>10</td></tr>
<tr><td>Invalid ip</td><td>11</td></tr>
<tr><td>Agent unreachable</td><td>12</td></tr>
<tr><td>Agent disabled</td><td>13</td></tr>
<tr><td>Startup</td><td>14</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>Measurement</th><th>Description</th><th>Measurement Unit</th><th>Interpretation</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><th>Measure Value</th><th>Numeric Value</th></tr>
<tr><td>Maintenance</td><td>15</td></tr>
<tr><td>Deleting</td><td>16</td></tr>
<tr><td>Waiting for agent</td><td>17</td></tr>
<tr><td>Customising</td><td>18</td></tr>
<tr><td>Provisioning</td><td>19</td></tr>
<tr><td>Disconnected</td><td>20</td></tr>
<tr><td>Connected</td><td>21</td></tr>
<tr><td>Available</td><td>22</td></tr>
<tr><td>Provisioned</td><td>23</td></tr>
</table>
Note:
By default, this measure reports the above-mentioned Measure Values to indicate the current status of this host. However, the graph of this measure will represent the same using the numeric equivalents only.
</td></tr>
<tr><td>Maximum connections</td><td>Indicates the maximum connections that can be provided to the desktops/applications on this host.</td><td>Number</td><td></td></tr>
<tr><td>RDP connected sessions</td><td>Indicates the number of RDP sessions to the desktops/applications in this host.</td><td>Number</td><td>The details of the RDP sessions can be viewed in the detailed diagnosis.</td></tr>
</table>

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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