

The eG VDI Monitor™

Management Solution for Virtual Desktop Infrastructures

Benefits of the eG VDI Monitor

- **Monitor VDI as a service - not as silos:** Correlate the performance across all components supporting the VDI (including virtualization platforms, application delivery servers, connection brokers, licensing servers, etc) and identify performance bottlenecks.
- **Plan your VDI roll-outs efficiently:** Understand the performance and usage of every layer of every tier of your virtual desktop infrastructure to get automatic baselines for key metrics.
- **Monitor users, not VMs:** Know which users logged in, when, what applications they accessed, what resources they used, etc.
- **Diagnose down to the application:** With a few clicks drill down to the exact application processes a user is accessing that could be causing a problem.
- **Get Quick ROI:** One agent monitors the virtualization kernel, console, and all the hosted desktops.

Virtual desktop infrastructure (VDI), also known as hosted virtual desktops (HVD), has emerged as the next logical extension of virtualization technology, and may in fact surpass server-based virtualization in IT spending. Since virtual machines are used in both server virtualization and desktop virtualization, it is not surprising that administrators try to use the same tool to monitor the performance of both environments. However, there are clear and distinct differences between server virtualization and desktop virtualization.

Virtual Desktop Monitoring ≠ Virtual Server Monitoring

There are several reasons why virtual desktop monitoring is not the same as virtual server monitoring. First, virtual desktop infrastructures provide a service, and for the service to work, every part of the infrastructure must work – the terminal servers, the network links, firewall, connection brokers, virtualization platforms, the enterprise application servers, storage devices, Active Directory, and so on. On the other hand, server virtualization monitoring solutions focus on just one of these tiers and hence, cannot provide the end-to-end view that administrators require.

Second, to understand the usage of the infrastructure and to effectively troubleshoot user complaints, it is essential to monitor the virtual desktop infrastructure from a user perspective – i.e., Who is logged on? What physical servers and VMs are they are using? What resources is he/she taking up? What applications is he/she accessing? etc. Since server virtualization monitoring solutions track VMs and not users, they are not suited for VDI monitoring.

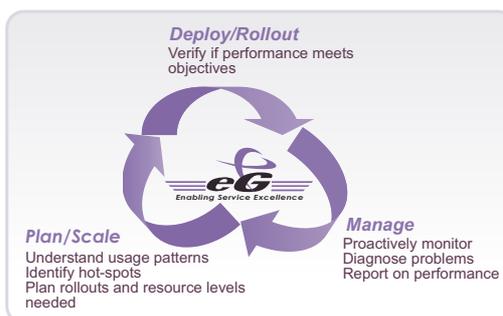
Yet another key difference is the scale of operations. While server virtualization typically has 5-10 VMs per physical server, desktop virtualization often supports 30-50 (sometimes more) VMs per physical server. To maintain the cost of ownership low and to minimize the overheads of the monitoring, it is not practical to require monitoring agents inside each and every desktop. Getting a perspective of usage inside a virtual desktop without deploying an agent inside the desktop is a key challenge.

A monitoring solution does not recognize and handle these differences between desktop and server virtualization is not suited for both forms of virtualization.

End-to-End Monitoring, Diagnosis, Reporting for VDI

The eG VDI Monitor™, part of the eG Enterprise Suite, addresses the above key needs of VDI. You can use the eG VDI Monitor during your initial deployments to identify and eliminate bottlenecks. Using a patented, automated root-cause diagnosis technology, the eG VDI Monitor analyzes performance across every tier of the infrastructure and correlates them over time. If a particular alert is a secondary effect of the root cause problem, it is downgraded in severity. So by focusing on the critical alerts administrators can avoid wasting time troubleshooting secondary effects.

As you start to scale your virtual desktop infrastructure, the eG VDI Monitor helps you with resource optimization and capacity planning. Using the wealth of metrics that it collects, you can determine where the hot spots in your infrastructure are, how you can balance load across your servers to maximize usage, and where you need to add resources to ensure that the quality of service does not suffer as you roll out additional virtual desktops.





Using custom models for the virtualization platform (VMware vSphere, Citrix XenServer, Microsoft virtualization, etc.) the eG VDI Monitor correlates performance across the host and guest VMs. Extensive pre-built reports enable rapid identification of bottlenecks and streamline capacity planning.

Central to the eG VDI Monitor is a patent-pending In-N-Out Monitoring architecture. Using a single monitoring agent, the eG VDI monitor monitors the performance of the virtualization platform (VMware vSphere, Citrix XenServer, Microsoft virtualization, etc.) and obtains an "outside view" of the virtual desktops, thereby determining what percent of the physical resources each desktop is taking up. Without requiring any additional agents inside the virtual desktops, the eG VDI monitor obtains an "inside view" of each virtual desktop that indicates what applications running inside the virtual desktop are responsible for the resource usage. This information is critical for problem diagnosis and compliance tracking in virtual desktop infrastructures.

The eG VDI Monitor goes well beyond managing virtualized desktops as discrete entities. End-to-end business service views show the real-time status of applications and network devices involved in virtual desktop service delivery, including firewalls, terminal servers, connection brokers, storage devices, profile servers, etc. Inter-dependencies between these applications and devices are used by the eG VDI monitor to correlate between the different infrastructure tiers and to pinpoint the root-cause of a problem.

Virtual Desktops or Server Based Computing? eG Enterprise Monitors Both!

Virtual desktops and server-based computing (SBC) technologies (such as Microsoft Terminal Services and Citrix XenApp) have different use cases and are often used in parallel. Often, the same set of administrators are responsible for both environments. eG Enterprise is the only solution in the industry that offers unified monitoring, diagnostics and reporting for VDI and SBC infrastructures. A common look and feel, short learning curve and correlated reports and alerts are some of the benefits you can get when you use eG Enterprise for monitoring all your remote access services.

Capabilities of the eG VDI Monitor

Availability & Performance

- Monitor service performance as seen by the user
- Monitor every tier of the VDI infrastructure
- Auto-baseline metrics and identify the ones that are out of range
- Diagnose the root-cause of problems in real time – Network? Server? VM? Connection Broker? Application?

Provisioning, Capacity Planning and Optimization

- Identify peak usage times
- Know where the bottlenecks are
- Know what additional resources are needed to increase capacity
- Identify how load can be balanced to make optimal use of current resources

Usage Analysis, Compliance Tracking and Billing

- Report on top users
- Identify top resource-consuming applications

Delivering Rapid ROI for VDI

The eG Single Agent solution does not care what virtualization platform you have, what type or size of server (cores, sockets, CPUs), you use, or how many virtual desktops per server you plan to run. For monitoring the virtualization platform, the only question is "How many physical servers do you want to monitor"?

Because of this simple, single agent architecture, you get:

- One price for monitoring a physical server (regardless of the number of virtual desktops);
- One license to maintain regardless of the virtualization platform or the connection broker used;
- The ability to install and configure without the need for expensive consultants;
- The flexibility to change your infrastructure and continue to use the same monitoring solution without need to purchase additional plug-ins.

About eG Innovations

eG Innovations, Inc. (www.eginnovations.com) is a global provider of performance monitoring and triage solutions for both virtual and physical IT infrastructures. The company's patented technologies provide proactive monitoring of every layer of every tier in the infrastructure, thereby enabling rapid diagnosis and recovery in enterprise and service provider networks. By ensuring high availability and optimum performance of mission-critical business services, eG Innovations' solutions help enhance customers' competitive positioning, lower operational costs and optimize the performance of their infrastructures. The eG Enterprise suite was judged "Best of VMworld 2008" in the Application and Infrastructure Management category, beating out approximately 30 other products.

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