

# Performance Monitoring for Citrix Provisioning Services



## Importance of Monitoring Citrix Provisioning Services

Citrix Provisioning Services (PVS) helps administrators to maintain consistency across hundreds of thousands of virtual desktops. Administrators can make sure that on all the virtual desktops the right patches are deployed, the latest versions of applications are installed, and the OS and application configurations are the same. Using PVS, administrators can maintain one (or a few) master images of the desktop operating system. When a target device (i.e., desktop) boots, the PVS server ensures that the image is streamed to the target device. PVS also plays a key role for Citrix XenApp services. A large environment may have hundreds of XenApp server instances running. Version control, patch management and software distribution for the XenApp server instances is also a challenge and PVS helps here as well.

Monitoring Citrix Provisioning Services is critical to the success of Citrix XenApp or XenDesktop Services. A slow-down or failure of PVS reflects as a failure of the virtual desktop / virtualized application access. Since it is not directly accessed by end users, a failure or slowdown in the PVS infrastructure is often difficult to diagnose. Such problems often manifest as slow boot times for desktops, or slow access to applications. Because the underlying infrastructure has several inter-dependent application tiers, when slowness is detected, a Citrix administrator often has to spend a lot of time determining where the cause of the problem lies – i.e., could it be the network? Or the storefront web server? Or the XenApp instance? Or the storage tier? Or the virtual platform on which XenApp is hosted? Or the PVS infrastructure that XenApp relies on? This is where eG Enterprise for PVS comes in.

## Monitoring of Citrix Provisioning Services Performance using eG Enterprise

eG Enterprise has in-depth visibility into the performance of the Citrix Provisioning Services infrastructure and the other interdependent components of the Citrix XenApp or XenDesktop infrastructure. Using a 100% web-based architecture, eG Enterprise monitors every layer of every tier of the Citrix infrastructure to get end-to-end visibility into the Citrix farm.

eG Enterprise's service topology shows the automatic end-to-end correlated interdependencies between the tiers that affect user experience. Intuitive, rich, service-oriented topology views of the infrastructure with simple color cues help IT administrators to quickly identify the tier where the root cause of the performance issue lies. If the root cause lies with a PVS server, eG Enterprise provides deeper diagnosis to help the administrator identify what caused the performance issue with the PVS server.

## Benefits at a Glance

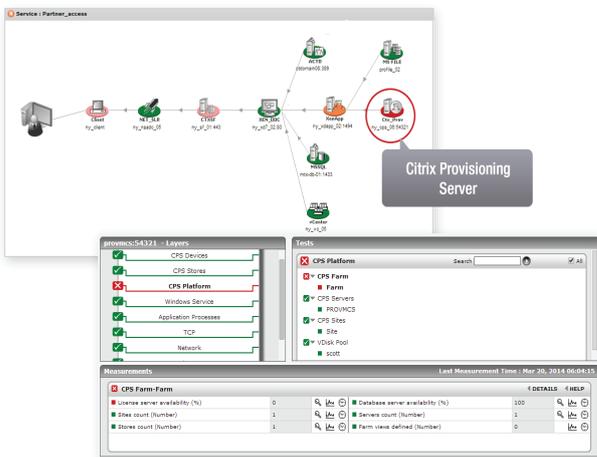
- Keep your Citrix Provisioning Services farm operating well;
- Pin-point times when Citrix Provisioning Services performance is impacting the user experience for virtual desktop or Citrix application access;
- Diagnose rapidly where the problem lies-in the provisioning server's memory configuration, in the utilization of the write cache, network utilization, vDisk failures, etc.
- Obtain comprehensive reports that highlight areas in which you can optimize your Citrix infrastructure, so you get more out of your current investments in Citrix technologies.



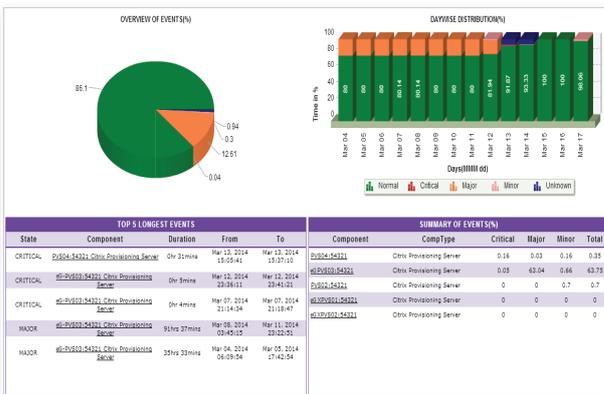
**Andrew Gowlett**  
Senior Consultant  
C5 Alliance

“The eG Innovations Citrix Monitors have been invaluable to us; The Citrix XenApp Monitor has allowed us to identify and provide evidence to our clients where their performance issues have been caused by their underlying network infrastructure rather than their Citrix XenApp platform.”





Monitoring Citrix Provisioning Services and other tiers of the Citrix service



Executive report offering high level overview of the performance of the Citrix Provisioning Services

## Key Capabilities for Monitoring Citrix Provisioning Services

### Provisioning Services Farm

- Are the License Server and the Microsoft SQL database server in the farm available?
- How many sites, servers, stores, and farm views does the Citrix Provisioning Services farm comprise of?

### Provisioning Servers

- How many provisioning servers are configured in a site?
- Are there any inactive provisioning servers in a site?
- Are all the provisioning servers in a site available and responding to target device requests?
- How many target devices are connected to a provisioning server?
- Is the target device load balanced across all the provisioning servers in a site?
- Are there any inactive vDisks in a site? Which ones?

### Provisioning Server Operating System

- Is there a CPU, memory, network, or I/O bottleneck on any of the Provisioning servers?
- If there is a CPU, memory, or I/O bottleneck, which process(es) on the server is responsible for the resource usage?
- Are there any errors reported in a Provisioning server's event logs (e.g., hung threads)?
- Are the key services supporting Provisioning server (e.g., DHCP, TFTP, Preboot Execution Environment (PXE) service, SOAP service, Stream service, etc.) working fine?
- How much disk space is available on the vDisk stores?
- How much I/O is the PVS server's Stream process generating? (the lower this value, the better)
- Is the PVS server's RAM sufficiently sized?
- What percent of the read I/O is being served from the server's system cache, not the disk? (the higher this value, the better)

### vDisks

- How many vDisks are there in the vDisk pool?
- Which vDisks in the vDisk pool are not connected to any target device?
- Are any vDisks locked for a long time?
- What is the size of a vDisk?
- How many target devices are connected to each vDisk?

### Write Cache

- What is the size of a Write Cache?
- What percentage of the write cache is currently utilized?
- What is the location of the Write Cache file?

### Target Devices

- How many target devices are not connected to a vDisk?
- How many target devices are managed by a site?
- Are any target devices mapped to a locked vDisk?
- What Device Collection has the maximum number of Target Devices not connected to a vDisk?
- What is the number of times a target device had to retry an I/O transaction?

## Aspects of Citrix Provisioning Services you can monitor

- A provisioning server's status
- Availability of provisioning server's key Windows services
- Availability of a provisioning server's database and license servers
- Provisioning server's log files for errors
- Event logs on the provisioning servers for errors and warnings
- Status of each of the vDisks
- Write cache utilization in RAM
- Status of Target device and Target device activity on vDisks and device

## About eG Innovations

eG Innovations provides intelligent performance monitoring solutions to dramatically accelerate the discovery, diagnosis and resolution of service performance issues in virtual, cloud, and physical service infrastructures. Only eG Innovations offers 360-degree service visibility with automated, virtualization-aware performance correlation across every layer and every service tier. This unique approach delivers deep, actionable insights into the true causes of cross-domain service performance issues and enables administrators to pre-emptively detect and fix root-cause issues - before end users notice.

eG Innovations award-winning performance monitoring and management solutions are trusted by the world's most demanding companies to enable superior user experience, keep mission-critical business services at peak performance and deliver on the ROI promise of transformational IT investments. Customers include: JP Morgan Chase, Citigroup, Depository Trust and Clearing Corporation, Allscripts, Samsung, Marathon Oil, OfficeMax and many more.

CONTACT US: [sales@eginnovations.com](mailto:sales@eginnovations.com) | [www.eginnovations.com](http://www.eginnovations.com)

USA +1 866-526-6700 | UK +44 (0)20-7935-6721 | NETHERLANDS +31 702055210 | INDIA +91 44-4263-9553 | SINGAPORE +65 6423-0928  
LATIN AMERICA +52 55 5533 3395 | HONGKONG + 852 3972 2415