

# A BPO DEPLOYS VDI SUCCESSFULLY WITH EG INNOVATIONS



## OVERVIEW

The BPO was engaged for data entry by multi-national companies operating in different market segments. To improve the efficiency of operations, the BPO decided to virtualize its user desktops.

## CHALLENGE

Post the VDI deployment, users experienced slowness when accessing and working with their virtual desktops. This hindered their productivity. The success of the VDI initiative relied heavily on determining what was causing this slowdown and in quickly resolving it.

## IMPLEMENTATION OF THE EG ENTERPRISE SOLUTION

The BPO infrastructure comprised 345 virtual hosts and 7500 virtual desktops spread across three locations and running on the VMware vSphere platform. The application mix included Exchange servers, database servers, file servers, print servers, and Active Directory servers.

## RESULTS OF THE IMPLEMENTATION

- Ensured the success of the BPO's VDI initiative.
- Increased user satisfaction with virtual desktops and improved user productivity.
- Helped BPO achieve significant ROI within days of deployment.
- Enabled end-to-end monitoring of the VDI infrastructure from a centralized interface.
- Enabled help-desk quickly detect problems and easily diagnose its root-cause, thus minimizing the mean time to repair problems.

## eG Innovations Helps a Leading BPO Succeed in its Transformational IT Initiative



### The Project: Virtualization of User Desktops

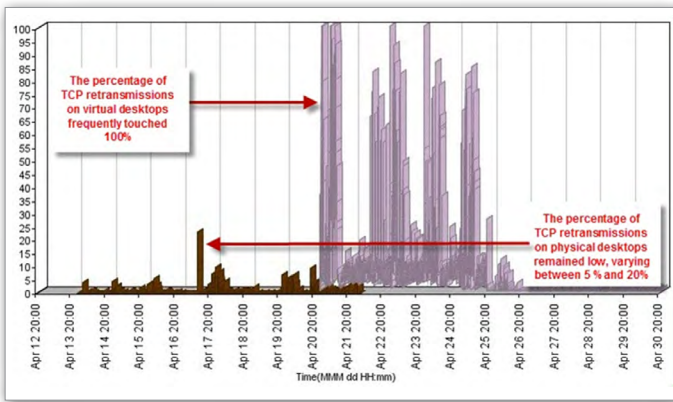
A Business Process Outsourcer (BPO) engaged in data entry activities for multi-national companies decided to virtualize user desktops to improve security, enhance operational efficiency, and reduce costs. VMware vSphere was chosen as the hypervisor and VMware Horizon View was the connection broker.

Users of VDI were data entry operators who connected to virtual desktops through Wyse thin clients. After the VDI deployment, users complained of slowness when accessing applications through the virtual desktops. Further analysis revealed that the performance of virtual desktop users, in terms of the number of records entered per minute, was much worse than that of users who were still using physical desktops. Moreover, since the users were paid based on the number of records they keyed in per minute, virtual desktop slowness left them very unhappy. Decrease in user productivity also translated into revenue losses for the BPO.

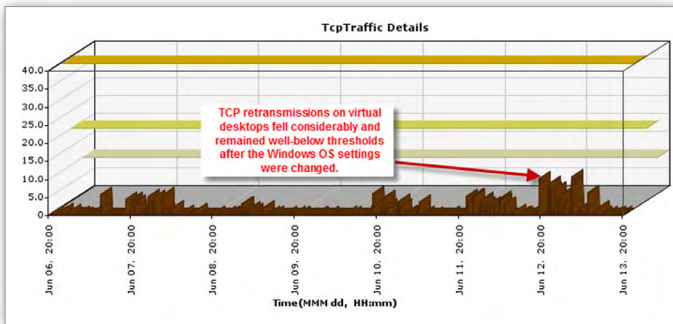
The monitoring toolset that the BPO used was mainly a set of silo tools for each tier of the infrastructure, such as network, storage, hypervisor, databases, etc. Administrators lacked end-to-end visibility of the infrastructure, and were not able to determine what was causing the slowness. Facing the possibility of a roll-back to physical desktops, the BPO approached eG Innovations for help in determining the root-cause of the poor virtual desktop performance.

### How eG Enterprise Helped

The eG Enterprise Suite was deployed at the BPO's data centers located in Chennai (India), Manila (Philippines), and Columbia (USA). To ensure end-to-end monitoring coverage of the distributed IT infrastructure, all critical infrastructure servers and applications across the geographies – for e.g., VMware vSphere servers, the VMware Horizon View connection brokers, Microsoft SQL servers, Exchange mail servers, and routers – were periodically monitored by eG Enterprise.



Comparison of TCP retransmissions of a physical and a virtual desktop, revealing a high percentage of retransmissions on the virtual desktop.



TCP retransmissions on a virtual desktop post problem detection by eG and prompt resolution.

Firstly, by emulating user accesses to desktops and applications, eG Enterprise compared the user experience on virtual desktops with that on physical desktops and confirmed that application access on the virtual desktops was slower, irrespective of whether the applications being accessed were within the BPO's Intranet or on the Internet.

Comparative analysis of the configuration of physical and virtual desktops revealed that virtual desktops were configured with lesser memory and processing power than their physical counterparts. The virtual desktops were then resized accordingly. This improved virtual desktop performance marginally, but intermittent slowness was still noticed by VDI users. Further analysis indicated that the ESX servers were sized correctly, and there were no resource bottlenecks on any servers. Network health checks also indicated no bottlenecks.

eG Enterprise's patented 'In-N-Out' monitoring technology not only measures hypervisor performance, but also deep dives into each desktop on the hypervisor and reports on the internal health of the desktops. Using this technology, eG Enterprise was able to figure out that a high rate of TCP retransmissions on the virtual desktops was causing the desktops to experience slowness. Based on the performance reports from eG, the Windows operating system settings were analyzed. These settings were then altered based on recommendations from Microsoft Corp. As a result, the TCP retransmissions fell drastically, thus bringing virtual desktop performance on par with that of physical desktops!

## BENEFITS

- **Ensured Rapid ROI:** The BPO could see value from eG within days of deployment, a thorny performance issue affecting business was resolved.
- **Increased User Productivity:** Quick and accurate problem diagnosis by eG Enterprise significantly improved the productivity of virtual desktop users.
- **Enabled Success of the Desktop Transformation Initiative:** By accurately revealing the source of the problem, eG enabled the BPO to successfully complete its VDI roll-out.
- **Provided End-to-end Monitoring from a Single Console:** The BPO was able to monitor the entire VDI from a single, central console, without having to shuttle between multiple consoles.
- **Reduced MTTR of Problems:** Using eG Enterprise, even first-level support staff of the BPO could easily identify root-cause of VDI performance problems and accelerate problem resolution.

## About eG Innovations

eG Innovations provides intelligent performance management solutions that automate and dramatically accelerate the discovery, diagnosis, and resolution of service performance issues in virtual, cloud, and physical service infrastructures. Only eG Innovations offers 360-degree visibility with virtualization-aware performance correlation across every layer and every tier – from desktops to applications, and from network to storage. This unique approach delivers deep, actionable insights into the true causes of cross-domain service performance issues.

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

US +1 866 526 6700 | SINGAPORE +65 6423 0928 | UK +44 (0)20 7935 6721 | NETHERLANDS +31 70 2055210 | INDIA +91 44 4263 9553  
LATIN AMERICA +55 303 92104 | HONG KONG: +852 3972 2415