

## Engineering Services Company achieves efficiency with VDI

Cisco VDI solutions help enhance productivity, ensure business continuity and improve customer response times

### EXECUTIVE SUMMARY

- ♦ **Customer Name:** Geometric Limited
- ♦ **Industry:** Engineering Services
- ♦ **Location:** Mumbai, India
- ♦ **Number of Employees:** Over 3900 globally

#### BUSINESS CHALLENGE:

- ♦ Reduce network complexity
- ♦ Improve end user response and resolution time
- ♦ Improve IT efficiencies and data security
- ♦ Provide secure remote working and support for consumer IT devices
- ♦ Cost reduction
- ♦ Ensure business continuity

#### NETWORK SOLUTION:

- ♦ Cisco UCS with Cisco 6120 Fabric interconnect
- ♦ Nexus 5000
- ♦ Network technologies: VSS, FCOE, NFS, iSCSI, 802.1x VLAN security

#### BUSINESS RESULTS:

- ♦ Reduction in networking components and complexity
  - Ethernet cabling reduced by more than 60%, FC cabling and switching eliminated, storage and network cabling consolidated
- ♦ Easy, integrated manageability
  - Single UCS manager interface for managing both servers and network
  - Easy to handle intuitive interface
  - IT efforts reduced by 62%, IT fulfillment time for end user

### Business Challenge

Geometric's portfolio of Global Engineering services and Digital Technology solutions for Product Lifecycle Management (PLM) helps companies formulate, implement, execute global engineering and manufacturing strategies to achieve efficiency in the product realization lifecycle. Headquartered in Mumbai, Geometric was incorporated in 1994 and is listed on the Bombay and National Stock Exchanges. The company recorded consolidated revenues of INR 6.21 billion (USD 136.47 million) for the year ended March 2011 and employs over 3900 people across 10 global delivery locations in the US, Romania, India, and China.

Geometric was grappling with issues pertaining to conventional desktop deployment. Individual personalization done on PCs prevented standardization, increased support requirements and software related errors. This affected security, and manual scrutiny was needed to ensure data protection. Timely software and antivirus patching demanded lot of time and effort from the IT support team causing significant downtime for end users. To overcome these issues, Geometric decided to implement desktop virtualization and was looking for a hardware platform to further those plans. However, the company's technical team had serious reservations regarding security, performance, cost and feasibility of implementing the technology.

Given the apprehensions, Geometric had to build a robust virtualized infrastructure and ensure cost reduction - IT support, electrical and cooling costs; improve end user response/resolution times, and reduce end-user downtime/lead-times for provisioning new computing resources. The solution had to be scalable, easily manageable, ensure business continuity, provision for secure remote working and support consumer IT devices. The entire project had to be completed within three months.

## EXECUTIVE SUMMARY

tickets and requests improved by 76% for new desktop allocations, reinstallations and restorations

- ♦ Improvement in cost and performance
  - o Anticipated power savings of up to INR 12 lacs (USD 27000) per year for 600 desktops which improves with scale
  - o Quicker response time to end user requests
- ♦ Faster deployment, lesser fault resolution time
  - o Deployment time for new machines improved by 75%
  - o Fault resolution times for software issues and OS crashes improved by 54%
  - o Downtime due to hardware issues eliminated completely
- ♦ Secure remote working options and ability to connect to a variety of consumer IT devices

While looking for a solution, Geometric had to bear in mind that acquisition costs for virtualization technology was significantly higher than that of individual PCs, the solution would be unsuitable or expensive for graphics intensive requirements and server or network failure in the data center could jeopardize work. While all of these could be mitigated, the bigger concern was that users who would no longer have physical PCs could initially be very disconcerting leading to a pushback.

### Network Solution

In their previous experience of a limited server virtualization deployment, Geometric faced several issues related to VLANs and network separation besides server and network management challenges. The challenges would be far greater with desktop virtualization. As a user of network technologies, Geometric was clear that the implementation needed to bind closely with the networking layer to be successful and manageable.

Based on their need and previous experience, Geometric chose a

Cisco solution. Other competitor platforms that were being evaluated already had variants in use within Geometric. The solution from Cisco was based on its Virtualization Experience Infrastructure (VXI) architecture. VXI delivers a superior collaboration and rich media user experience with best in class ROI in a fully integrated, open and validated desktop virtualization solution. It enables all categories of workers to enjoy access to any application on any device in any workplace environment, liberated to be more connected, more collaborative and more productive.

The solution design was created by Cisco, Citrix, Netapp and partner teams along with engineers from Geometric. The implementation included hardware from Cisco, Netapp and Wyse along with Citrix software. Cisco provided the entire UCS platform and network components which were installed at the Geometric data center at Pune for a POC. The entire Cisco platform was evaluated for almost three weeks in the Geometric data center prior to the final decision. Installation and integration with existing components was performed. Significant amount of co-ordination was required for delivery and implementation with different teams.

“This solution allows our employees to use the internet and be productive from anywhere, at any time, using any device of their choice, without affecting security or performance. It also cuts the time that business is waiting on IT for computing resources by 76%”

- Prashanta Ghoshal, Director ITES.

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The POC enabled Geometric to validate the performance of the entire solution, do a better sizing and demonstrate the same to their applications teams who had strong reservations about virtualization. After the POC installation where the internal application teams tested their applications, the satisfaction levels were very high. Follow-up meetings helped to finalize the optimal architecture and reduce unnecessary components and costs.

The Cisco solution enabled Geometric to understand first hand, the benefits of a virtualized infrastructure. The 10GBE/FCOE based solution reduced the overall cost of deployment by nearly INR 27 lacs (USD 60,000) as opposed to a pure FC based solution.

## Business Results

In a virtualized environment, actual PCs are virtual machines running within the data centers, all data resides within the data center and not on end user machines. This ensures greater control over critical data and IP, effectively reducing the possibility of data leakage. Virtual machines have no hardware dependencies which eliminates support tickets and downtime due to hardware issues. Since virtual machines can be standardized and cloned effectively in a short time, Geometric has been able to reduce deployment time for new requirements and IT support efforts. Also observed is a significant reduction in IT, power and cooling costs.

Implementation of the Cisco solution has helped Geometric to reduce the number of networking components and their complexity—signified by a reduction in the number of cables to be managed. The Cisco networking platform can be easily integrated and managed with Geometric's existing VLAN structure, modular investments help to add components and step up the performance gradually rather than through massive initial investment.

“This solution allows our employees to use the internet and be productive from anywhere, at any time, using any device of their choice, without affecting security or performance,” said Prashanta Ghoshal, Director ITES at Geometric. “It also cuts the time that business is waiting on IT for computing resources by 76%,” he indicated.

After completing the initial deployment of 250 desktops, Geometric obtained significant benefits in TCO which will improve with scale.

- Cost reduction - Around INR 12 lac (USD 27000) in power costs anticipated in a years' time for 600 desktops
- Customer satisfaction - Reduction in end user downtime and overall IT resolution times (nearly 76%), More opportunities for secure remote working, telecommuting and use of consumer computing devices
- Improved staff productivity - Reduction in IT effort (62%) required for tasks like installations restoration (OS and application). Reduction in provisioning time for new computing resources and improvement in data security

## PRODUCT LIST

- OCS, Cisco Softphones
- Cisco UCS
- Nexus 5000
- Cisco 6509 Switch
- Citrix XenDesktop
- Netapp FAS 3140

## Next steps

Currently 250 Virtual Desktops are in use at Geometric, and 350 more are in the process of being deployed. The present deployment is over LAN, but has been successfully tested over WAN from other locations. The next phase includes 50 seats to be deployed at other locations over WAN.

Since the deployment was for an internal requirement, Geometric is not providing any services to external parties at this time. Geometric is looking to provide end users access to their Virtual Desktops from their own devices or from their homes in future and working to deploy VDI for 3D Graphics applications.

## For More Information

To find out more about Cisco VDI solutions, visit: [www.cisco.com/go/vdi](http://www.cisco.com/go/vdi)

To find out more about Cisco UCS, visit: [www.cisco.com/go/ucs](http://www.cisco.com/go/ucs)

To learn more about Geometric visit: [www.geometricglobal.com](http://www.geometricglobal.com)

This customer story is based on information provided by Geometric Limited and describes how that particular organization benefits from the deployment of Cisco products. Many factors may have contributed to the results and benefits described; Cisco does not guarantee comparable results elsewhere.

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