



Delhi International Airport takes off with VDI

India's number-one airport scores another first by adopting virtual desktops, improving availability and boosting employee efficiency

INDUSTRY

Transportation Services

LOCATION

India

KEY CHALLENGES

- Reduce time to provision desktops
- Increase IT management efficiency
- Cut operational and capital costs
- Lower power consumption

SOLUTION

To improve back-office productivity, DIAL deployed a robust virtual desktop infrastructure through VMware® Horizon View™, delivering a highly responsive level of service and support to users.

BUSINESS BENEFITS

- Applications provisioned in 2 hours not 2 days
- Help-desk support calls are halved
- Total cost of ownership cut 50 percent

Customer Profile

Delhi International Airport Limited (DIAL) is a joint venture consortium of GMR Group, Airports Authority of India, Fraport and Malaysia Airports Holdings Berhad (MAHB). In January 2006, the consortium was awarded the concession to operate, manage and develop the Indira Gandhi International Airport (IGIA) in Delhi. IGIA is the busiest airport in India and looks set to maintain its position thanks to ongoing development projects.

The Challenge

DIAL employs around 1,500 people, nearly half of whom use desktop computers—of these, the majority are permanent members of staff working in areas such as finance, human resources (HR), airport security, baggage handling and air traffic control. A small number are employed on short-term contracts, working mainly on specific projects, often involving airport construction.

Regardless of the role, each employee relies on the firm's IT infrastructure to provide stable access to key applications. The applications that support airport processes such as check-in, baggage handling and traffic control are managed by the DIAL IT team. However, DIAL parent company GMR Group is responsible for business solutions such as SAP and Microsoft Dynamics NAV, as well as the DIAL Microsoft Exchange email environment. In the case of GMR Group, it virtualized the servers at its main datacenter with VMware vSphere® to improve IT performance. The transformation was a complete success delivering better IT services to employees and paving the way for further virtualization projects across all business units.

Following the virtualization of the main datacenter, the GMR Group asked DIAL to study virtualization as a way to tackle inefficiencies around its desktop environment. As a flagship company of the GMR group, DIAL took on the challenge to

roll out a desktop virtualization initiative for the group. Mr IP Rao, Chief Executive Officer, DIAL, considering it a matter of prestige says "We were excited to be entrusted with the responsibility of rolling out the virtual desktop initiative at DIAL. The success of the project was a matter of prestige as well as challenge for DIAL, as it would pave the way for similar replication of technology across the group."

At DIAL, it could take up to two days to provision desktops for a DIAL employee, and GMR Group considered this too long to support new recruits or employees moving between teams. Furthermore, the turnaround time could be an additional two days if the request included deployment of a legacy application. Mr Daves Shukla, Chief Information Officer for DIAL says, "These applications were outsourced to a service provider and we had to contact the company to complete the installation. It often meant more time was required because the service provider had to schedule an engineer to come onsite and do the work."

DIAL had other concerns. They saw that critical project data was stored locally on desktops. There was a constant risk that work could be delayed if a file was accidentally wiped or a local hard drive failed. Mr. Daves Shukla, Chief Information Office for DIAL adds, "It was crucial to establish backup policies for our desktops to eliminate the risk of data loss. I wanted us to have greater control over the data that's driving the expansion of the airport."

Indeed, airport expansion was a major concern for DIAL. He could see that the existing infrastructure of 655 desktops was already consuming significant amounts of electricity, and the figure would continue to rise as the environment expanded. What's more, a larger desktop infrastructure would mean even more time spent on desk-side support visits. Mr Shukla comments, "Energy consumption was a big worry. But I was equally worried about supporting an expanded desktop infrastructure with our current resources.

VMWARE CASE STUDY

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Mr IP Rao, Chief Executive Officer, DIAL

VMWARE FOOTPRINT

- VMware Horizon View
- VMware Thin App
- VMware View Composer
- VMware vSphere
- VMware Professional Services

APPLICATIONS VIRTUALIZED

- SAP Financial Accounting module
- Microsoft Dynamics NAV
- Microsoft Exchange
- Microsoft Office

PLATFORM

- Dell PowerEdge 12th generation servers
- Brocade Networking
- Dell Wyse P25 zero clients

IT administrators already spent a large proportion of their time responding to tickets for desktop support.”

The Solution

DIAL team talked to VMware and subsequently began working with VMware® Professional Services to design a virtual desktop infrastructure (VDI) pilot for 25 IT administrators based on VMware Horizon View™. After the success of the pilot, DIAL extended the infrastructure to support its entire desktop estate. The VMware team worked with Dell on building back-end platform of Dell PowerEdge coupled with Dell Wyse P25 zero clients, complete with monitors and keyboards.

With the VDI, DIAL has addressed all the issues it faced with the previous desktops. The risk of delaying projects has been significantly reduced because data is no longer stored locally—it’s held centrally on the servers dedicated to the VDI and backed up on a daily basis to ensure business continuity.

Business Results & Benefits

Provisioning desktops is now a simple task for the DIAL IT team. By virtualizing the company’s standard software image and deploying it to the Dell Wyse clients using Horizon View, the IT team can quickly and easily install and maintain the image. “Previously, we needed around two days to update desktops. With Horizon View, it’s completed in no more than two hours. As a result, we’ve drastically reduced disruption to operations because users gain faster access to our back-office applications,” Mr. Vivek Chandra, AGM of IT says.

“Users often change roles during projects and it used to be challenging to accommodate these changes. Today, it’s simple. The enhanced image management tools of Horizon allow access to software and applications instantly. We can rapidly deploy the standard VDI image across the client infrastructure and we’ve minimised the storage required for maintaining software images. In turn, this has significantly reduced our costs of buying and managing physical storage hardware.”

The VDI infrastructure not only lowers costs, but it also helps the IT team work proactively. Mr. Shukla says, “The IT team uses an evaluation version of VMware

vCenter Operations Manager for View to monitor performance across the infrastructure, allowing us to react before the IT service is affected. We’ve gained a deep insight into the operations of our desktop environment, which will help us maximise the value of our VDI.”

The results are clear to see, with the number of help-desk calls falling fast. In fact, Mr Chandra estimates that the number of support calls will have halved by the first 12 months of deployment. He says that DIAL is getting better performance at a lower cost through the VDI now in place. For example, spend on desktops will drop because the zero-client infrastructure has a longer life cycle. In addition, centrally storing data has made it easier to manage software inventory and eliminate unnecessary licenses.

Along with these savings, Mr Shukla also predicts that the total cost of ownership for the desktop infrastructure will drop by 50 percent over 5 years. This figure takes into account the benefits of centralizing data and simplifying day-to-day management on clients. He believes maintenance costs will be lower for the virtualized infrastructure because the thin clients are more reliable. He also factors in cost savings from simplified administration. “Provisioning desktops in two hours rather than two days represents a time and cost saving,” he says. Furthermore, DIAL is expecting to see a drop in energy consumption. “In terms of energy efficiency, our VMware-based VDI will perform much better than our previous PC infrastructure. We’re certain that power consumption will go down,” he says.

Looking Ahead

Ultimately, DIAL expects to see a rapid return on investment. “We’re proud to be the first airport in India to adopt a virtual desktop infrastructure, which delivers improved operational efficiencies to our users as well as significant savings to the company’s bottom line. Our VDI project is seen as a major achievement at the GMR Group level. VMware was able to meet all of our goals and we now have a best-practice VDI to roll out to other organizations in the group,” concludes Mr IP Rao, CEO, DIAL.

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