

“BOE Technology Group needed to transform its work and operations by implementing a new, more agile virtual desktop cloud environment. With Hitachi solutions and services, we were able to achieve this.”

SONG Jian, Deputy Director, Information Management Department, BOE Technology Group Co., Ltd.



CASE STUDY

BOE Technology Group Transforms Operations, Implements a Virtual Desktop Cloud With Hitachi Solutions

Challenge: To increase availability and performance for end users.

Solution: Build a fast, robust underlying infrastructure to support a new virtual desktop infrastructure (VDI) cloud.

Outcome: A simplified, secure, cost-effective, high-performance environment, ensuring uninterrupted operations 24/7.

Challenge

Support Transformation to Cloud

BOE Technology Group Company Limited (BOE) was founded in April 1993, and is now one of the World's Biggest Public Companies (Forbes Global 2000, 2017 ranking). BOE is a supplier of internet of things (IoT) technologies, products and services with three core businesses: Display Device, Smart System and Healthcare Service. BOE's products are widely used in a broad spectrum of applications, such as mobile phone, tablet, notebook, monitor, TV, vehicle display, digital information display, healthcare, finance and wearable devices.

BOE was using traditional PCs for daily office and design work for its workers, whose numbers grew into the thousands. Maintaining these systems was a huge task for the systems administrators, not to mention expensive. This “traditional” system also meant users were storing data on personal laptops, which meant data could not always be secured.

With the increasing number of users, BOE staff were looking to transform their environment and, after careful consideration, they decided to move to a virtual desktop cloud. Initially, the project would include 2,200 desktops, and later scale to 4,000 desktops. The new system needed high performance and availability to avoid a boot storm issue when 4,000 users start up at the same time each morning.

With data growing at a rapid rate, the solution also needed to be easily scalable to meet future business growth requirements. In addition, the desktop cloud project also creates much higher requirements for data protection, and availability for 24/7 business operations.

In short, the BOE new virtual desktop cloud needed fast, robust underlying infrastructure to support a high number of users, simultaneously accessing more than 4,000 desktops, and ensure 100% data reliability and data protection. To achieve all this, BOE chose Hitachi technology

BOE

BOE Technology Group

INDUSTRY

Manufacturing: Semiconductor

SOLUTIONS

Hybrid Flash, File, Storage, Data Protection, Data Management

HARDWARE

Hitachi NAS Platform 4060 (4 nodes)
Hitachi Virtual Storage Platform G600 (2)

SOFTWARE

Hitachi Storage Virtualization Operating System with global-active device feature, Hitachi NAS Platform entry cluster software bundle

SERVICES

Implementation services provided by Hitachi Vantara Global Services Solutions

Outcomes

- Improved performance.
- Improved end-user experience.
- Reduced total cost of ownership (TCO).
- Increased security.
- Reduced complexity.

The Solution

Desktop Cloud System

With the desktop cloud system, there are higher requirements on system performance to meet its specific demands of production. Hitachi Vantara recommended using two enterprise-level Hitachi Virtual Storage Platform (VSP) G600 systems with flash modules (FMDs) for high-speed, low-latency data access.

VSP G600 systems support all of BOE's virtual desktop users. So, if any storage downtime incidents were to occur, the operations of all those end users would be impacted. Therefore, BOE implemented the global-active device feature of the VSP's Hitachi Storage Virtualization Operating System (SVOS), in an active-active cluster design, to provide continuous application availability.

The desktop cloud system also contains both structured data and unstructured data, such as user buffer data, virtual desktop users' personal data, and so on. Therefore, along with the clustered VSP G600 centralized storage, BOE also implemented high-performance and highly scalable Hitachi NAS Platform (HNAS) 4060. These work with VSP G600 and the global-active device feature to provide continuous availability for unstructured data.

Hitachi Vantara Global Services Solutions team implemented the infrastructure to ensure smooth migration to the new systems.

Outcomes

Fast, Secure, Available and Scalable

High availability for critical systems:

Keeping all critical systems running is key for BOE success. The virtual desktop infrastructure (VDI) supports BOE's office area users and product line design users. If VDI applications go down, all product lines throughout BOE become



unavailable. Since implementing the Hitachi solutions, BOE can ensure that operations are undisrupted and available 24/7. With the global-active device and HNAS continuous replication between the systems, BOE was able to achieve zero recovery point and time objectives (RPO and RTO).

Increased security: The VDI solution ensures that none of BOE's core data is stored on individual user devices. Now data is managed centrally in the data center, increasing the security of the data and preventing sensitive information from being leaked.

Reduced complexity: With data from multiple PCs and individual devices now stored in one centralized system and easier to maintain, the demands on IT team are greatly reduced. In addition, the new simplified environment will be easier to scale in the future.

Reduced total cost of ownership:

Simplified infrastructure also meant maintenance and energy costs fell significantly, reducing the overall TCO.

Flash speed: The customized FMDs combined with flash-optimized SVOS increased speed and resilience, providing the performance needed to avoid issues caused by boot storm in the VDI architecture. The start-up speed of the virtual desktop system has increased by a factor of 10 and, along with the general improvement in performance and speed, has greatly improved the end-user experience of the VDI.

About Hitachi Vantara

Your data is the key to new revenue, better customer experiences and lower costs. With technology and expertise, Hitachi Vantara drives data to meaningful outcomes.

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