“Excellent testing results gave us great confidence that we could offload our storage burdens to Hitachi without hesitation. Now, all our mission-critical data, such as email, campus-wide database, portal information and private cloud services are managed by Hitachi Virtual Storage Platform.”

Jennifer S. Y. Lau
Director of Information Technology
Hong Kong Baptist University

### Hong Kong Baptist University

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Hong Kong Baptist University Selects Storage Technology and Services from Hitachi Data Systems for Storage Overhaul

After years of academic and operational expansion, and to address the storage challenge of “more is never enough,” Hong Kong Baptist University (HKBU) recently decided to overhaul its storage infrastructure. The object of the overhaul was to gain significant new capabilities and agility that could support the university’s growth while also reducing IT complexity and costs. With Hitachi storage virtualization solutions and professional services, the university built a robust storage architecture. It simplifies the management of disparate, multivendor storage resources to achieve optimal IT efficiency and reliability. It also creates a powerful storage platform that can support the delivery of new private cloud services and drive future innovations.

Background
Established in 1956, HKBU has been providing broad-based and inspirational education for local and global students for more than 50 years. To cope with the pressures of its continual growth, the university centralized its IT management and operations in an on-campus IT office in 2009. With more than 100 staff members, this IT office is now responsible for all the university’s key IT services and facilities. This includes the campus-wide enterprise resource planning (ERP) system, network infrastructure, unified communications, multimedia solutions and teaching support, as well as statistics and research information management.

Chaos Management
Like all large organizations, HKBU generates and consumes a huge volume of data and information every day. Keeping pace with continual growth in the number of students, staff members and the scale of the campus, with all of the data types these generate, proved challenging. Supporting structured and unstructured data generated from daily operations, email communications, institutional management, web-based activities and research was becoming exponentially more difficult year by year. On top of this rapid data growth, traditional IT practices were also making storage even more complex and costly.

“As all of our IT equipment was separately housed and managed in multivendor platforms and applications, we had to spend duplicated workloads and resources on administrating and backing up these dozens of isolated systems, platforms and software types. The tasks were dreadfully intricate and time consuming, particularly when we processed data migrations and capacity upgrades,” explained Director of Information Technology of HKBU, Jennifer Lau. “We needed a centralized storage system that could manage the chaos, unify our existing storage devices for easy management, and provide capacity and capabilities that would lay a solid foundation to support our expansion and new services in the future.”

The Key Criterion: The Best Price-to-performance Ratio
As the new storage system would be the core of the university’s IT infrastructure, selecting the right storage solution was

"Hitachi Data Systems helps us achieve our goal with the best of both worlds: advanced technology and wholehearted services. With its leading-edge Hitachi VSP storage solutions and professional GSS team, we can successfully enhance the overall SLAs of the university’s mission-critical applications and build a solid foundation for providing cost-effective, scalable and secure cloud services to departments’ users."

Jennifer S. Y. Lau
Director of Information Technology
Hong Kong Baptist University
a critical task for Lau and her team. They undertook a 3-month, in-depth study and evaluation of the various enterprise-level storage solutions available in the marketplace, mapping the university’s requirements and unique environment in relation to each vendor’s solutions. Finally, the university selected Hitachi Data Systems.

“It is proved that Hitachi’s storage virtualization technology provides the best price-to-performance ratio among the same-class storage solutions in the marketplace,” said Lau. “The excellent testing results gave us great confidence that we could offload our storage burdens to Hitachi without hesitation. Now, all our mission-critical data, such as email, campus-wide database, portal information and private cloud services are managed by Hitachi Virtual Storage Platform.” (See Figure 1.)

A Single Storage Platform Bolsters Manageability and Productivity

Hitachi Virtual Storage Platform (VSP) is the market’s only 3D scaling storage platform. It scales up to support increasing workloads, scales out to deliver the highest performance and capacity growth, and scales deep to extend the value of legacy and lower cost storage. Because VSP is designed to support all data types, including file, content and block storage, everything can be integrated on a single platform. It is also the only storage architecture that flexibly adapts data for performance and capacity, and extends to virtualize other brands of storage systems. By providing one platform for all data, VSP helps HKBU simplify its management and administration of the entire storage infrastructure with fewer resources.

“Hitachi VSP consolidated all our storage assets into a single pool of resources that can be managed via a single pane of glass, supporting our efforts to serve more than 15,000 users,” added Lau. “It makes our daily management not only simpler, but also more controllable, with greater efficiency. For instance, VSP can complete a data migration in just 10 minutes. Compared to the industry average of 3 to 4 hours, VSP provides remarkable performance at the top of its class. Its performance is really incredible, very fast and effortless.”

These results are possible because VSP provides a single management framework with the breadth to manage storage, servers and IT infrastructure for the highest level of operational efficiency, with time savings of up to 50% for essential storage management tasks. It can also enable the move to a new storage platform with up to 80% less effort and cost compared to the industry average.

Hitachi Dynamic Tiering Optimizes Cost-effectiveness

Hitachi Dynamic Tiering is another major reason why HKBU selected Hitachi. “Hitachi Dynamic Tiering enables us to enjoy high service levels with automated data movement and capacity utilization,” explained Lau. “We can flexibly plan our media acquisition strategy and minimize waste on underutilized storage capacity, which significantly improves the ROI (return on investment) on our storage.”

Hitachi Dynamic Tiering simplifies tiered storage management by automating fine-grain, page-based movement of data to the most appropriate storage media according to workload and usage patterns. This means HKBU’s administrators no longer need to micro-manage application storage allocations or perform complex, manual performance tuning. Hitachi Dynamic Tiering automatically places the right data in the right place at the right time with no performance degradation, maximizing service levels while minimizing storage costs.
University Enables Private Cloud Services with Pay-as-you-go Computing

Whether the new storage infrastructure was cloud-ready or not was imperative to the success of the university’s latest IT initiative: private cloud services. The goal of this new project is to enable all departments and offices on the campus to enjoy flexible, reliable, pay-as-you-go computing and storage services. By freeing up their workloads and investments from IT acquisition, administration and maintenance, the university’s departments and offices can easily scale IT services according to their demands and budgets.

“To ensure the successful implementation of these cloud services, the new storage system had to be cloud-ready,” said Lau. “It was vital for service quality and reliability that the new storage solution have proven performance in efficiency, security and availability to meet our demanding SLA (service level agreement) and compliance requirements. Hitachi VSP not only meets these stringent requirements, but also supports multitenancy storage with dynamic scaling and virtualization, enabling us to ensure seamless management of new capacity or the future addition of hardware in existing multivendor storage pools.”

Shortly after launching these cloud services, the university’s library and the HKBU School of Continuing Education began to use the new service. “We got an encouraging start,” Lau continued. “The cloud services enable effective control of the university’s overall IT investment and overheads that give IT services higher accountability and justifiability. It allows us to offer more IT services to subscribers.”

World-class, Single-vendor Solutions

Hitachi Data Systems Global Solution Services (GSS) incorporates the industry’s best people, products, tools and methodologies to provide all-inclusive, client-centric services, including planning, design, installation and implementation, transition, integration and management solutions. This integrated, end-to-end approach has been enthusiastically received by HKBU. “It’s very rare that storage vendors such as Hitachi Data Systems can provide one-stop services with a single point of responsibility and single point of management,” said Lau. “Most of them only take care of the hardware and then rely on solution partners for the other services. We really appreciate this comprehensive service offering. It protects our investment with reliable project delivery.”

She added, “In addition, we find the GSS consultants and engineers are very professional and competent. They have a separate workforce for hardware and software, and skillfully take up all our installation, implementation, transition and integration tasks. Their wholehearted commitment ensures a nondisruptive migration with low risks and costs.”

HKBU Achieves Maximum Value

Looking ahead, Lau and her team have already developed a precise blueprint to take their services to the next level. “By leveraging the massive scalability of Hitachi VSP, we have plenty of room to help the university achieve its goals and vision,” she said. “Now, we have an optimal framework to advance our IT services and further reduce our operational and capital costs with higher levels of service quality and reliability. For the time being, we are planning to extend unmatched benefits of Hitachi virtualization solutions in our disaster recovery plan. We will also enrich our cloud services with additional breadth and depth so as to take full advantage of our investment as well as maximize the value of our IT services.”

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