Case study
President Chain Store Corporation (PCSC)

» PCSC operates Uni-President Enterprise Corp.(UPEC)'s chain store business in Taiwan, and effectively controls the retail businesses of Uni-President Group. Working with PCSC, Fujitsu fully understood their requirements and successfully deployed a cloud infrastructure.«

The customer

Country: Taiwan, Republic of China (R.O.C)
Industry: Retailing
Founded: 1978
Employees: 6,300
Website:
http://www.uni-president.com.tw/04business/departments02-2.asp

The challenge

PCSC faced a costly and complicated ICT integration encompassing various business groups, across a wide range of business functions. To accommodate the changing business environment and to plan for the future, PCSC required a platform that was flexible and could expand with growing needs. Furthermore the environment needed to be highly available and provide business continuity by avoiding interruptions to the system.

The solution

Based on PCSC'S existing PRIMERGY server, the cloud infrastructure could be easily deployed on additional Fujitsu PRIMERGY BX400 servers and Fujitsu's ServerView Resource Orchestrator (ROR). ROR was also able to support the necessary High Availability (HA) requirement, while overall the solution reduced total cost of ownership and provided a platform for future expansion.

The customer

Uni-President Group is the largest food production company in Taiwan, as well as the largest drink manufacturer and third largest instant noodles supplier to China. Now it has become one of the largest international food conglomerates in Asia with more than 230 enterprises and a total revenue of NTD 388 billion (USD 13 billion) in 2011.
Uni-President Enterprises Corp. (UPEC) established the President Chain Store Corporation (PCSC) in 1978 to introduce 7-ELEVEN convenience stores into Taiwan. Following which, PCSC was able to successfully introduce other well recognized global brands, including Starbucks, Cold Stone, Mister Donut, MUJI, Yamato home delivery/collection services and more. PCSC runs more than 5100 retailing shops, with revenue of more than NTD 120 billion (USD 4 billion). At the same time, PCSC also successfully expanded its retail business models to other Asian markets like China and the Philippines.

The challenge

PCSC is the leading retail business under the Uni-President Group. Other businesses within the PCSC group include Taiwan Business Group, Food & Beverage Business Group, Retail Business Group, and China Business Group, as well as other subsidiaries within each group. Under this complicated structure, PCSC was tasked with integrating ICT resources of each business within their group. This involved integrating up-stream and down-stream business processes within, and outside of, the company, across a range of functions including real and virtual shops, logistics, manufacturing, and other various backend services. PCSC immediately realized that this task would involve significant resources to manage the diversified ICT assets.
Another difficult challenge PCSC identified was that due to the dynamically changing business environment, each business group would need to be able to deploy IT resources flexibly and rapidly. PCSC wanted a reliable ICT architecture at a reasonable cost that would accommodate plans for future expansion.
High Availability (HA) architecture, that included a clustering function, was recognized by PCSC as one aspect that would be necessary to ensure business continuity and avoid business loss from interruptions to ICT systems. PCSC were determined to take a more strategic approach to this challenge rather than simply deploying a few spare servers in each business group.

The benefit

- TCO saving leveraging existing ICT assets, space and energy saving
- Easy and faster management of physical and virtual resources through ROR cloud management system.
- High availability with N + 1 auto-recovery
- Established a scalable cloud infrastructure for the IaaS platform offering dynamic resources management in the future.
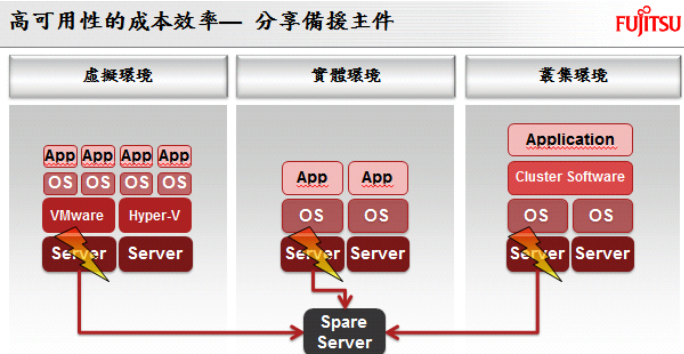
Products and services

- Fujitsu PRIMERGY BX400 blade servers with ServerView Suite
- Fujitsu ETERNUS DX60 Storage system
- Fujitsu ServerView Resource Orchestrator (ROR) for cloud management
- Fujitsu's professional service capability to deploy virtualization and cloud environments

The solution

Fujitsu recommended that PCSC build an IaaS private cloud solution. PCSC had already deployed the high performance, reliable PRIMERGY BX400 blade servers as part of their application and database server infrastructure in 2011. As such, Fujitsu proposed adding another 4 blade servers to maximize the performance and consolidate the existing servers at the same time. Plus with the implementation of Resource Orchestration (ROR) PCSC could successfully establish a dynamic cloud infrastructure. This not only met the HA requirements, but also provided foundations for a private cloud environment in the future.

The benefit

Reduced Total Cost of Ownership (TCO)

Based on existing PRIMERGY assets, this project consolidated all Intel-based x86 servers into 7 standardized PRIMERGY BX400 blade servers, including 1 spare server, within a single chassis. As a result of using a high-density server structure, Fujitsu's unique green IT design and ServerView Software Suite, have saved space and energy. Coupled with a centralized and easy to manage environment, PCSC is seeing significant reductions in the Total Cost of Ownership (TCO).

High Availability

The installation of Resource Orchestrator (ROR) enables PCSC to integrate physical servers underlying the IT infrastructure. ROR manages the complicated physical and virtual resources via a unified user interface. This feature quickly solves hardware failover problems in the physical, virtual and clustering environments with the auto recovery support function.

For instance, WWn and MAC is transferred to the shared spare server during a hardware failure.

Automation and scalability for the future

This deployment also established a foundation for dynamic and automatic future resources to be assigned via the IaaS cloud infrastructure. For instance, the dynamic resource management of the physical server pool, virtual server pool, storage pool, network pool and OS image pool can all be supported by ROR. Auto provision is a key feature of Fujitsu's cloud management tool, enabling it to deliver a logical server from the resource pool within 30 minutes. Additionally, this resource can be automatically returned to the pool for reuse when the job is complete.
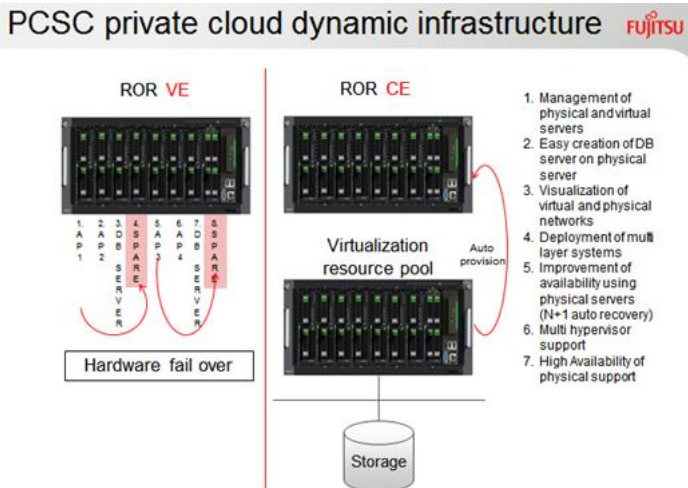
Conclusion

Fujitsu has constructed an infrastructure which not only meets PCSC's requirements for High Availability but also provides steps to the cloud: standardization, virtualization, and automation. Now PCSC uses the same IaaS technology used in Fujitsu Global Could Platform (FGCP) centers worldwide. Furthermore, based on professional support from our experienced teams, Fujitsu confidently works with PCSC to reshape their ICT as they begin the journey into the cloud.