

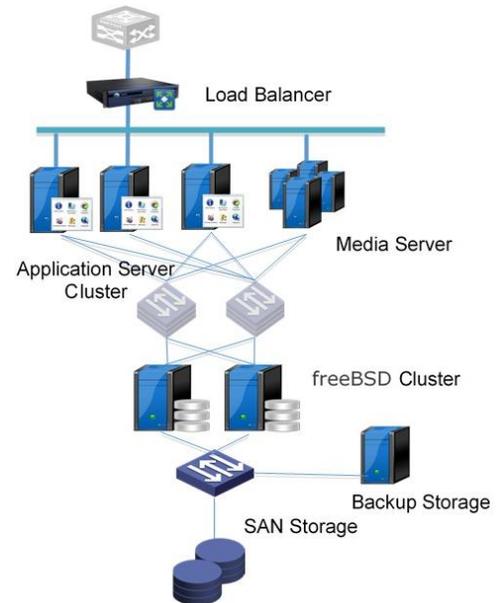
Customer Background

Universiti Sultan Zainal Abidin (abbreviated as UniSZA) is considered the biggest "comprehensive university" in the east coast of Peninsular Malaysia and to be one of the most respected Islamic-based institution of higher learning in Malaysia. It has produced thousands of graduates in any fields, since its establishment in 1980.

Customer Demand

There are 13 Racks in DC, which take too much electricity and space. And the air conditioning could not provide enough cooling. Some servers are outdated and storage becomes an bottleneck for the performance. Open Source freeBSD 11.0 was used for DR and Backup, it need specialized skill for the IT team, and it could hardly work with the online Veritas Backup system. The total IT system is urgent to be renewed.

- Reduce the number of racks
- Release the pressure of the cooling system
- DR and Backup solution should be integrated
- Open source systems should be supported
- Operation and maintenance need to be simplified



Executive Summary

- Customer: UNISZA
- Industry: Education
- Location: Malaysia



Challenges

- Too many traditional servers in DC dissipating too much heat
- Old servers face performance bottleneck
- DR & backup system too difficult to use



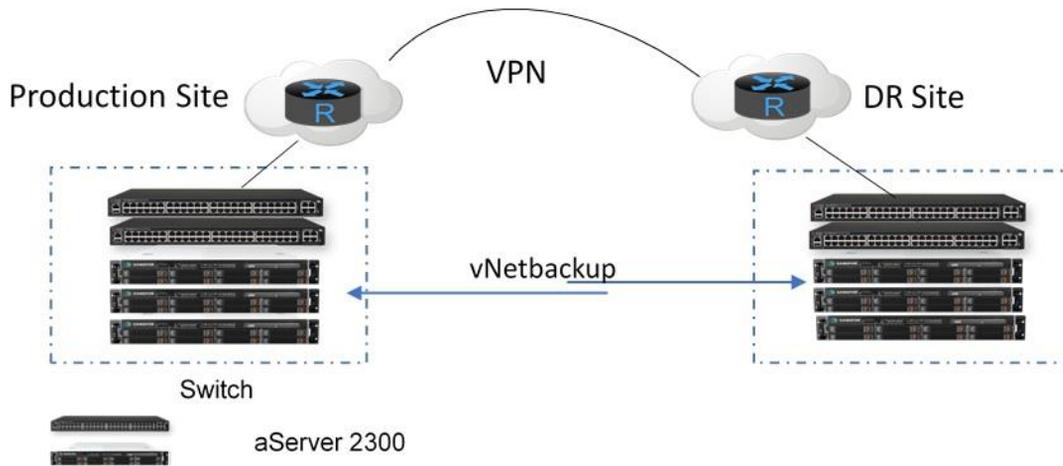
Sangfor Solutions

- Sangfor HCI including aServer, aSV, aSAN, vNet, NFV – (vAF, vWAF, vAV), vNetbackup (Backup &DR) & Centralized Management GUI.

Customer Success Story

Sangfor Education Cloud DC Solution

Sangfor Education cloud DC solution provides an overall hyper converged solution, integrated DR and Security to support all mission critical applications. Total 6 node deployment, each production and DR site deployed 3 nodes. Two sites are connected with IPVPN. VMs and Storage could be able to be backup locally or remotely. It also has scheduling policies on moving virtual machines between both locations. If production server is down, DR server will resume the operation within an hour. Software defined architecture allows educational institutions to modify and upgrade their existing facilities into more location-independent, flexible and collaborative learning environments with low TCO.



Specifications of Sangfor Cloud DC Solution

Sangfor HCI (Hyperconverged Infrastructure) Solution was provided, including aServer (specification as below), aSV (Server Virtualization), aSAN (Storage Virtualization), vNet (Network Virtualization), NFV – (vAF, vWAF, vAV), vNetbackup (Backup & DR) and Centralized Management GUI.

Model: aServer 2300	Per Server	3 Servers, Production Site/DR Site
CPU Cores	28	84
RAM (GB)	512	1536
SSD (GB)	1200	3600
HDD (TB)	70	210
IOPS Performance	14,000	42,000

Customer Success Story

Customer Benefits After deploying Sangfor Solution

- ✓ 13 Racks are reduced to 3 Racks to save 80% electricity cost.
- ✓ Operation and management is easier, and more than 60% maintenance workload is released because centralized management portal is provided.
- ✓ More than 100 applications are supported, including web app, exam system, learning system, email and development system.
- ✓ IT infrastructure becomes much more reliable, because DR and backup solution is integrated.
- ✓ The system becomes much securer, because vNGAF is provided for internal and external protection.
- ✓ All is provided with low TCO.

Why Choose Sangfor Solution

- ✓ Sangfor is the trusted provider of education platform for more than 100 outstanding universities globally.
- ✓ Sangfor provides Overall Solution to support and protect all mission critical apps.
- ✓ Sangfor provide build in DR and continuous data protection solution.
- ✓ Vendor V was considered as virtualization provider. But the solution could not work with open source system, and the customer need to spend a lot of money and effort to comply with this.
- ✓ Vendor M was trying to expand the windows server, but it could not work well with the online open source system, the migration took long time, some apps needed to be rewritten.