

# Swan Solutions helps a Government Entity Ensure Scalability with Hardware Upgrade

*A leading government enterprise in the BFSI space accommodated a surge in the number of users with a hardware upgrade, making its network a scalable and manageable one.*

## Background

The BFSI government enterprise, known to be forward in their IT practices, had already implemented virtualization a few years ago in its rack environment. It ran about 200 virtual machines. Recently, the need went up to 320 virtual machines but the existing hardware could not handle the hike in the number of users.

## Challenges

**1. Outdated Servers :** Servers were outdated, and each server had to be managed individually. The memory capacity on the servers was low and limited.

**2. Incompatibility :** An upgrade for hardware of rack server, memory and CPU was required, but each server had a different CPU core and the old servers did not support new CPUs available today. Secondly, they used a different-generation 14 rack server and upgrading the rack server with CPU and memory posed issues.

**3. Managing Physical Servers and Multiple VLAN**

**Management :** Managing multiple physical servers was always a tedious task as it requires to connect multiple Ethernet cables for redundancy. Every time a new server was added, there was a need to connect it with multiple cables all over again. Thus, making life more difficult for an administrator.

To meet upgrade its hardware in a scalable manner, the BFSI enterprise turned to Swan Solutions, a leading provider of end-to-end Information Technology solutions for medium and large business enterprises. “We were the preferred vendor because we have been working with them for over 10 years providing support for our current hardware infrastructure,” comments Altaf Hussain, Solutions Head at Swan. The company proposed a blade technology solution with 10 blade servers, where each server is connected to a physical CPU with 10 cores each.

## Overview of Solutions

**1. HP Blade System c7000:** Replaced the existing rack servers by installing and configuring HP BladeSystem c7000 enclosure with 10 HP Blade servers. All the hardware inventory utilization, network and storage usage fit into these 10 servers –including the applications and database.

**2. VMware's Hypervisor 5.5 (1) Update 1:** Installed on each blade server, allowing the enterprise to run multiple operating systems and applications on one server.

**3. Multiple VLANs :** Configured multiple VLANs through 12 data cables, which brings in the functionality of multiple parallel physical networks without spending on parallel hardware.

**4. Uplink Ports :** Uplink ports used for shared Internet access and each uplink has been allotted a speed of 10 Gbps.

**5. HP VC Flex-10 :** Flex-10 technology lets data centers implement 10 Gb Ethernet architecture and minimize in-frastructure. It gives more NICs, yet minimises the number of physical NIC and interconnect modules required to support multi-network configurations.

## Business Benefits

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With a single management console, employees are able to manage all 10 blade servers and 270 virtual machines from one screen. Besides, the number of people required to manage the server set up has come down as the administrator can control issues at the data center remotely - shut down, power on, or manage firmware. Moreover, the new virtualized environment can run up to 500 virtual machines. Swan Solutions created about 270 virtual machines that run on 10 Blade servers. As the requirement for virtual machines scales, a new virtual machine can be set up in less than five minutes by the IT personnel.

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## Contact Information

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