



Success Story

BankIslami Pakistan Builds Private Cloud on FlexPod to Gain Future Readiness and Save Operational Costs



Another NetApp solution provided by:



KEY HIGHLIGHTS

Industry

Islamic finance and banking

The Challenge

Streamline the IT infrastructure to manage growth and step into a new IT era.

The Solution

Implement the FlexPod® platform from NetApp and Cisco to run VMware and Oracle virtualization in a private cloud.

Benefits

- Eased capacity planning for a growing environment
- Reduced power costs by US\$70,000 per year
- Cut operational costs at the production and DR site by 50%
- Saved 22 blade servers and reused them for other purposes
- Leveraged existing NetApp know-how
- Gained the opportunity to integrate all NetApp® systems under FlexPod
- Stepped into the cloud service era

Customer Profile

BankIslami Pakistan Ltd. (www.bankislami.com.pk) was the first bank to receive the Islamic Banking license under the Islamic Banking policy of 2003 on March 31, 2005. With headquarters in Karachi, Pakistan, the bank was founded in 2005 and has been operating since April 2006. In addition to providing Shariah-compliant retail banking and integrated services for financial planning, BankIslami focuses primarily on wealth management.

The company has grown rapidly and is today the second largest Islamic bank in Pakistan. Its nationwide presence includes more than 200 branches in 80 cities throughout the country.

The Challenge

Manage growth by consolidation and virtualization

Managing a growing branch network efficiently and in a user-friendly manner has been a challenge for BankIslami. In line with the bank's improved long-distance network quality, the IT organization has streamlined the IT infrastructure step by step. Server consolidation had become a major issue. The bank was running thin client environments—one at each branch to serve users with office applications

and remotely with the core banking data. The plan was to centralize the local thin client servers. Additionally the team wanted to reduce the number of servers, the management overhead, and the rack space by applying virtualization. However, this required more powerful servers and more storage, which again caused space problems.

“Our rapidly growing business always seemed to be a step ahead of IT,” says Syed Ata Hussain, head of IT at BankIslami. “Consolidation and centralization helped to handle more than 200 branch environments, but at the end, the data center kept filling up.” The bank's IT experts looked for a new infrastructure design with greater consolidation—and came across the FlexPod architecture.

FlexPod integrates NetApp FAS systems and data management with Cisco compute and networking in a fully virtualized platform. To accelerate deployments and deliver top service quality right away, all components are prevalidated, pretested, and preconfigured. BankIslami's Oracle Sunray servers over Linux, Oracle virtual desktop infrastructure (VDI), and VMware virtualization fit the solution perfectly.

The Solution

Be the first to deploy FlexPod in Pakistan

“The FlexPod concept was appealing. We were already using some of the components, such as virtualization, and we were familiar with NetApp storage,” says Arbab Wadood, section head of technology infrastructure operations and support at BankIslami. The team explored both technical and financial opportunities—and finally the bank became the first FlexPod customer in Pakistan.

BankIslami partnered with Innovative Integration, a leading system integrator in Pakistan, to support the project. The company implemented the solution, including the networking and security infrastructure, and migrated the thin client environments of 150 branches as well as the core banking application and VDI services to the FlexPod platform. Though the solution was planned for 100 branches, the company was able to overachieve this objective by 50% through effective consolidation.

“Innovative Integration is a great advisor and a valuable extension of our team,” says Hussain. “We can rely on them for whatever topic might come up.” The FlexPod stack was set up in a short time, worked right away, and delivered soon on BankIslami’s expectations—including serverless operations for 80 branches.

Rely on NetApp systems and experience

“BankIslami has been a NetApp customer since 2009. In fact, all our data resides on NetApp storage systems,” says Hussain. “The robustness of the systems is very good, and they are very easy to manage and run just fine. The overall experience and competitive pricing spoke as well for the FlexPod platform. And NetApp is continuously enhancing the Data ONTAP operating system, which brings us additional options.”

The primary FlexPod platform was installed at BankIslami’s Karachi site. Another FlexPod platform

was implemented at a remote disaster recovery (DR) site. Thus, BankIslami gained an additional level of protection by geographical distance and regular data replication with NetApp SnapMirror® software. All other NetApp systems now in place follow this basic setup, with secondary systems for backup and DR. This includes production storage for the core banking database and other databases and for e-mail, file services, and other application data.

Business Benefits

Impressive cost savings

The FlexPod architecture greatly helped to reduce costs and increase the consolidation impact. Built-in storage efficiency enables capacity planning and provisioning on demand and helps to deploy thousands of virtual machines rapidly. Rolling out a new virtual environment for a new branch office can now be done in a few minutes. NetApp Snapshot® technology and NetApp Flash Cache™ intelligent caching enable 75% fewer disk drives without compromising performance. Because it needs less rack space, FlexPod also helped to cut operational costs at the production and DR site by 50%.

The FlexPod unified fabric architecture requires less cabling and rack space than traditional platform designs. The result: BankIslami was able to take out more than 20 blade servers and reuse them for other purposes. In terms of power costs, the bank saved about US\$40,000 in the first year and expects to save about US\$70,000 more when additional branches are served from the FlexPod platform.

Future readiness

BankIslami’s IT infrastructure currently serves about 2,600 IT users. It spans the central data center in Karachi, regional DR sites, a colocation facility 1,000 kilometers northeast of Karachi, and more than 200 branches, with 36 more to come soon.

With FlexPod as the core data platform, BankIslami wants to migrate more workloads, such as the user file

services, onto it. Thus, the bank could run them as a service and improve the IT organization’s agility and flexibility. Furthermore, the data could be easily protected within the existing DR concept for FlexPod. The final objective is to integrate all NetApp systems under the FlexPod umbrella within a single domain.

“We feel very well equipped for the future,” says Hussain. “The move to a private cloud on FlexPod gives us a great deal of agility to support our growing business. And I am sure there is even more potential to save on operational costs.”

SOLUTION COMPONENTS

FlexPod Components

NetApp FAS2200HA series system (primary)

NetApp FAS2500HA series system (secondary)

Cisco UCS B200 blade servers

Cisco UCS Manager

Cisco Nexus 5548 switches

Virtualization

Oracle VDI

VMware vSphere

NetApp Products

NetApp FAS8040HA (database production)

NetApp FAS2200HA series systems (e-mail, files, backup)

NetApp Data ONTAP® 8

Flash Cache

SnapMirror

NetApp SnapRestore®

Snapshot

Protocols

CIFS, NFS, FC, iSCSI

Third-Party Products

Linux, Microsoft file services, Path Solutions iMAL banking applications on SAP Sybase, Oracle Database

Partner

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