



Banking

Delivering financial inclusion through fast, reliable in-branch and mobile banking

Leading Indian bank

How a leading Indian bank used Lenovo ThinkAgile HX Series running Nutanix software to boost performance and reliability for its fast-growing customer base.

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Lenovo

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Who is this leading Indian bank?

This Indian bank offers in-branch, internet, and mobile banking alongside debit cards, ATMs, foreign exchange, and money transfer services. The bank plays a significant role in supporting the national objective of financial inclusion for the whole population of India.

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The Challenge

Building on its mission to increase financial inclusion, the bank is going from strength to strength, developing new services and opening new branches. All this growth, combined with increasing activity from existing customers, creates constant pressure on the bank's IT resources.

Alongside core banking databases running on proprietary hardware, the bank had many x86 servers running the core banking applications and a wide array of important ancillary services such as the ATM network and mobile banking. The proliferation of these physical servers in the data center was pushing up costs not only for hardware but also for electricity and cooling. Equally, the data center was increasingly difficult to manage and scale, and there were significant demands around monitoring and maintenance for the sprawling x86 infrastructure.

A spokesperson comments: "Our rapid growth was putting pressure on the existing server infrastructure. We needed a much more flexible and efficient scale-out architecture that could meet our dynamic requirements as we extend mobile banking to a larger number of customers."

The existing x86 infrastructure required three separate types of hardware: the x86 servers themselves, plus the networking elements and the data storage elements. Each physical system had its own physical management console, requiring technicians to go to the data center and access each separately for maintenance and upgrades. Equally, many of the servers were lacking processing and memory capacity for peak workloads, and it was difficult to ensure that high-priority applications had access to the fastest available data storage.



“In-branch performance was beginning to suffer at peak times, occasionally impacting customers during the busiest periods.”

Spokesperson

Leading Indian bank

Why **Lenovo**?

Following a visit to a Nutanix event, the bank determined that a hyperconverged solution would be best for its needs, providing the required flexibility while minimizing the diversity of skills and the maintenance work: important considerations given that it has a relatively small IT team.

"Once we decided on the hyperconverged route with Nutanix, we evaluated the different options available," says the spokesperson. "As a bank, reliability is one of our top considerations. Based on our experience with Lenovo hardware and support, we felt very comfortable in choosing Lenovo ThinkAgile HX technology for our new hyperconverged landscape. The Lenovo servers also offer superior price-performance compared with the other vendor offerings we considered."



Flexible power with Lenovo HCI solutions

The bank worked with a local Lenovo partner to size, configure, and help deploy its new Lenovo and Nutanix hyperconverged landscape.

In its main data center, the bank deployed four Lenovo ThinkAgile HX5520 servers with Nutanix AHV Pro hypervisor technology to run its new virtualized x86 landscape. The bank also deployed three HX5520 servers in a second location as a disaster recovery option. Lenovo technical services provided installation services in both cases, completing the base deployment of the hardware and creating the Nutanix clusters.

The spokesperson comments: "With Nutanix AHV the virtualization process was fast and easy. We performed the first few migrations hand-in-hand with the Lenovo partner, and quickly picked up the required skills, so that we now handle most of the daily operations ourselves."

Hardware

Lenovo ThinkAgile HX5520

Software

Nutanix Cloud Infrastructure:
Nutanix AHV
Nutanix Prism

Services

Lenovo Installation Services

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Results

Migrating to the Lenovo and Nutanix hyperconverged infrastructure has delivered on the bank's objectives for enhanced performance, flexibility, and scalability with reduced IT maintenance effort. The bank can now easily assign different levels of storage on an application-by-application basis, ensuring that customer-facing systems benefit from increased I/O performance while background systems use lower-cost storage.

"Our performance issues at peak times have disappeared thanks to the Lenovo ThinkAgile HX solution and Nutanix," says the spokesperson. "We can now allocate our compute, network, and storage resources flexibly between different systems, so we can manage peaks in demand much more effectively. Ultimately that means more responsive services for customers in branches, online, and on mobile. As an example, of the improvements in performance, our monthly interest processing jobs now take just two hours, versus up to eight hours previously."



75% reduction in time required for monthly interest computation



Increased flexibility in allocating compute, network, and storage resources to applications



Enhanced availability and resilience; reduced IT maintenance

Whereas compute, network, and storage capacity were previously fixed for each physical server—leaving some applications under-provisioned while others had costly resources sitting idle—the bank can now assign the centralized resources to its virtualized systems precisely according to their needs. The bank can also upgrade and expand each of the elements (compute, network, storage) separately as demands change.

Server management is now far easier and more efficient with the Lenovo ThinkAgile HX solution. Nutanix Prism provides a single remote point of control for all parts of the infrastructure, significantly reducing the need for IT technicians to physically visit the data center.

"We can now handle routine administration during normal operations without needing to shut down any systems," says the spokesperson. "If a physical component needs to be replaced or upgraded, we can temporarily move live services to a different node, perform the necessary work, and then move the workload back—so that there is no interruption to service."

Finally, the adoption of a hyperconverged infrastructure has made it far easier to set up and manage a full disaster recovery environment. Live services can be seamlessly failed over to the secondary data center in the event of an unexpected outage in the primary data center, further improving availability and resilience. "Our end-to-end service availability has improved from 99% to 99.8%," says the spokesperson.



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“With excellent support from both Lenovo, we are very confident in our ability to provide uninterrupted support for our customers’ increasingly demanding financial lives.”

Spokesperson

Leading Indian bank

How do you deliver banking services that customers can rely on?

Going from strength to strength with
Lenovo and Nutanix technology.

[Explore Lenovo ThinkAgile HX Series](#)

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