

Azure Virtual Desktop

CASE STUDY

2021



MISMO SYSTEMS

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The Customer

PNB Housing Finance Limited (PNBHFL), having commenced its operations back in 1988 and being promoted by Punjab National Bank(PNB), is a registered housing finance company with National Housing Bank (NHB).

PNBHFL, with over three decades of specialized experience in housing finance, has a robust network of branches spread across the country which help its customers avail financial services seamlessly from any part of the world.

They are highly motivated to bring in technical advances in the field to serve their customer more efficiently and same is evident with their efforts of including modern features such as online home loan application, personalized doorstep service, instant home loan e-approval, customized eligibility programs and many more.

The Challenge

Accessing LOBs securely from home/anywhere.

As the Covid-19 hit India in mid of March 2020, the users were forced to stay at home without access to the work.

The Need

Since, most of the employees had a workstation in their offices that was used to access '**Line of Business Applications**', a solution was needed that would help employees access these resources from their homes, using their personal laptops, PCs, or cell phones without compromising the security of such highly confidential data.

A quick and reliable solution was required to solve this issue as having 500+ strong employee-base suddenly not being able to work was an alarming situation.

Customer wanted a setup that can quickly enable its employee base to start their Work from Home while keeping the cost in check.

Finding Mismo

Choosing a partner that could take up the global transformation.

To implement a solution that directly impacts your whole functioning you need partners who are capable and trustworthy with a proven track record.

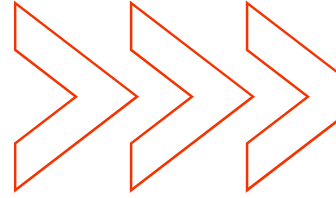
Building the Trust

PNBHFL entered the market in search of a partner who had experience delivering such solution and technical competency. A partner who could assess their existing infrastructure, understand their current and future requirements, and propose a solution.

They came to know about **Mismo Systems** via one of the biggest distributors of Microsoft. They relayed their confidence in Mismo Systems and the expertise we brought to the table, citing many a projects we had done together, earlier.

PNBHFL and Mismo Systems made the direct contact and discussed the potential solution that could be chosen as the way forward.

The Solutioning



Mismo Systems started the engagement with understanding the customer's business needs and underlying technical infrastructure.

After the first stage of assessment and requirement gathering, Mismo team presented the solution to the management, a solution which was already tested and working beautifully for similar cases.

"Azure Virtual Desktop"

The 5-Part Approach

Mismo Systems is known to follow a disciplined 5-part approach to make sure that every project is delivered in the smoothest of ways without any unanticipated hiccups or unpleasant surprises:

01 Assessment

A detailed assessment questionnaire was sent out to all the respective IT managers which helped the Mismo team with the required information. A Microsoft Teams meeting was also held with the respective IT managers to let them know of the project also answering any queries that they might have. It also served the purpose of letting the respective parties get acquainted with each other.

02 Design

This phase comprised of the Mismo team soaking in all the information and creating a design in accordance with the business requirements received from the client. A design document was created for the same which broke down the various aspects of Azure Virtual Desktop.

The 5-Part Approach

03 Pilot

To test out the virtual desktop environment, a group of users were selected, this was done to ensure that any challenges that the end-user might face were documented and accounted for, beforehand. This ensured that the project team took the required steps to make sure that there were no surprises once the migration moved into the deployment phase.

04 Deployment

Once the pilot was successfully undertaken, we moved on to deployment phase where we onboarded the complete user base on to the newly configured AVD.

At this stage, everyone could safely login to their virtual instances and access the business application without any issue whatsoever.

The 5-Part Approach

05 Transition

Once the users were on-boarded for all the user across globe, a user training workshop was conducted wherein the users were trained on new digital workplace.

Also, the day-to-day work were handed over to the IT managers. Mismo team was present during the transition phase to help the IT managers if anything came up.

The documentation for the project was created during the transition phase and shared with the project management team.

Notable Steps

A host of steps were done to efficiently implement the AVD.

- A. Since customer was already using Office 365 as their email service provider, they already had on-prem AD in sync with Azure AD.
- B. We setup networking in Azure with multiple Subnets, NSG and established a site-to-site connection with customer's datacentre.
- C. Azure Firewall was setup to make sure that only company mandated URLs were accessible from WVD hosts via internet. Traffic from all subnets was router to Firewall Subnet.
- D. Different WVD Host Pools were setup for different departments, with varying configuration. Copying of files to and from WVD hosts was turned off and a maximum user limit was configured for each Host.
- E. FSLogix was setup and configured for all WVD Host Pools to enable roaming profiles in order for the users to have a seamless experience.

Notable Steps

- F. Automation and Autoscaling was setup to achieve cost optimization.
- G. Dashboards were setup using Azure Monitor and Log Analytics to provide visibility of environment, usage, and alerts.
- H. Azure backup was setup to make sure that user roaming profiles were setup quickly in case of a disaster.
- I. Storage and Event Hubs were configured to store Logs for different Azure services and were linked with IBM's SIEM tools, QRADAR.

Customer's Experience

Over the period customer has seen numerous benefits, to note a few:

Scalable, Accessible and Secure

A key advantage of Azure Virtual Desktop is how well it pairs with the ability in Azure to immediately bring resources online and offline on demand. Staff can be onboarded and offboarded quickly without the need to configure or decommission laptops, desktops, or even mobile devices, and they don't even have to visit the office.

Cost savings

For added efficiency, PNBHFL uses Windows 10 Enterprise multi-session, a Remote Desktop Session Host that allows multiple concurrent interactive sessions.

Having multiple users on one virtual machine, means they can limit the number of VMs required in one pool, significantly. This becomes quite cost-efficient and far more scalable. Virtual machines (VMs) can end up with low utilization in 1:1 configurations, but with multi-session deployments, shared VMs with multiple users have higher utilizations, which lowers costs.

Technologies Used

Following technologies were actively utilized.

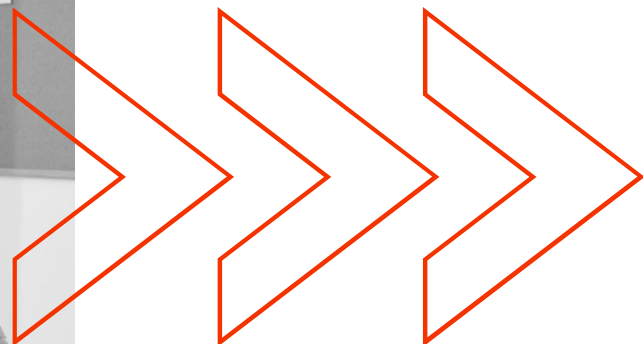
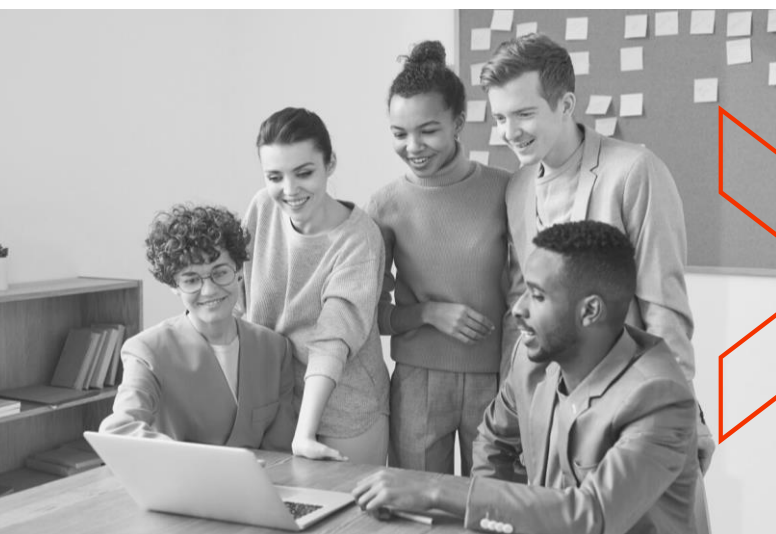
- A. Azure Virtual Desktop
- B. Azure VPN
- C. Azure AD
- D. Azure Firewall
- E. Azure Monitor
- F. Azure Log Analytics
- G. Azure Backup
- H. Azure Storage
- I. Azure Autoscaling
- J. Azure Automation
- K. Azure Event Hubs
- L. FSLogix

The Results and Beyond

Fluidity in complexity with sophisticated planned actions

As desired, the Mismo team carried a smooth deployment with minimal to no issues being reported. The proactive approach of Mismo team made sure that any issues that arose were nipped in the bud. The user feedbacks were fabulous.

A project that seemed to be a tough nut to crack was cracked with utter sophistication. Enabling 500 user to quickly get access to their work securely and reliably in a short span of 1 weeks is the challenge we at Mismo Systems long for.



Message to Reader

Mismo Systems would love to get an opportunity to sit and discuss your requirements and find the best suited solutions with nicely architected plan of implementation.

We thank you for your continued support in our efforts to bring **digitalization** at every organization's workplace.

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