

Supporting critical national infrastructure in Pakistan with reliable all-flash storage



CUSTOMER STORY



Challenge

Process billions of financial transactions quickly and efficiently by improving the performance and availability of national payment systems.



Solution

Work with Hitachi Vantara and Synergy Computers (Pvt) Ltd. to deploy an all-flash infrastructure that delivers the highest levels of resilience and scalability.



Outcome

Increases performance and keeps critical payment systems available round the clock with zero downtime and improves cost-efficiency in the data center.

Challenge

1LINK plays a central role in strengthening Pakistan's economy. The company operates the payment networks that connects every bank in the country. They enable interbank funds transfers, ATM withdrawals, online banking, bill collection and much more. As the owner and manager of Pakistan's first and only domestic payment scheme – PayPak, 1LINK is a driving force behind the rapid growth of e-commerce in the country.

Azimullah Khan, Chief Information Officer at 1LINK, states: "Following the pandemic and a government-backed scheme to increase digitalization in the financial sector, we are seeing much higher demand for our payment services and much higher transaction volumes. In 2017, we processed around 420 million transactions; in 2023 we forecast that figure will rise to 3.5 billion, worth almost 42.1 trillion Pakistani rupees (USD 149 billion)."

The exponential rise in transactions places much greater pressure on the storage infrastructure supporting 1LINK's payment and billing systems. To process fast-growing volumes of transactions efficiently, the company requires the highest levels of reliability, availability, and performance from its storage. Even a microsecond delay can potentially cause significant disruption for businesses, banks and their end-customers.



1LINK (Pvt.) Limited

INDUSTRY

Financial Services

SOLUTIONS

Infrastructure Modernization

HARDWARE

Hitachi Virtual Storage Platform F900

Hitachi Virtual Storage Platform E590

SOFTWARE

Hitachi Ops Center Administrator

Hitachi Ops Center Analyzer

SERVICES

Implementation, Support, Optimization from Synergy Computers (Pvt) Ltd

PARTNER

Synergy Computers (Pvt) Ltd



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Azeem Ahmad Siddiqui, Chief Customer Experience Officer at 1LINK, adds: "Any outages in our storage environment translate into failed payments, or people being unable to access cash. That not only damages the reputation of 1LINK, but also impacts the stability of the financial system of Pakistan. So, when we encountered performance and resilience issues with our older storage, we knew it was time to refresh our environment."

Solution

To support its mission-critical payments systems, 1LINK searched for a new storage solution that would deliver improved performance, scalability and resilience and simplify management and provisioning tasks. After assessing various infrastructure vendors, the company decided to work with Hitachi Vantara business partner Synergy Computers (Pvt) Ltd to deploy an all-flash solution based on Hitachi Virtual Storage Platform (VSP) F900 arrays.

Azimullah Khan elaborates: "The Flash Module Drives from Hitachi Vantara was the solution we selected that meets our demanding performance requirements. We also wanted to work with a provider that could offer responsive support, and Synergy Computers (Pvt) Ltd delivered excellent services to help optimize our server and backup environment for many years. What's more, the cost-per-TB for the Hitachi solution was very attractive. After consulting several other Hitachi Vantara users in the financial sector in Pakistan, we were ready to move forward."

Working with Synergy Computers (Pvt) Ltd, 1LINK deployed the Hitachi VSP F900 systems at its production and disaster recovery data centers, located in separate cities to maximize resilience. In total, the company uses around 1.4 PB of capacity, and is currently deploying Hitachi VSP E590 storage arrays, equipped with non-volatile memory express (NVMe) flash drives, to support its testing environment.

“

Partnering with Hitachi Vantara helps us to maintain the stability of the financial system in Pakistan, and increase prosperity across the nation.”

Azeem Ahmad Siddiqui
Chief Customer Experience Officer
1LINK

Scaling the Hitachi Vantara system has been very easy. It's simply a case of plugging in additional nodes to increase useable capacity, and there's no need to take 1LINK's existing systems offline.

In addition, 1LINK uses Hitachi Ops Center Administrator and Ops Center Analyzer to optimize the Hitachi VSP arrays. As well as providing a central portal to manage the entire storage environment, the Ops Center solutions enable 1LINK to monitor performance and identify potential issues on a 24/7/365 basis.

Azimullah Khan adds: "The quality of support from Synergy Computers (Pvt) Ltd has been excellent. The initial implementation of the Hitachi Vantara storage and the data migration process was almost seamless thanks to their excellent planning and execution. Following the initial deployment, Hitachi Vantara experts assessed the configuration and confirmed everything was set up perfectly."

3.5 Billion
Financial Transactions
Forecast for 2023

1LINK processes huge volumes of payments quickly and seamlessly.

100%
Data Availability Over
More Than Three Years

Zero downtime for 1LINK since switching to Hitachi Vantara.

400%
Increase in IOPS
with Hitachi Vantara.

1LINK improves performance for mission-critical national payment systems.

Outcome

With Synergy Computers (Pvt) Ltd and Hitachi Vantara, 1LINK has a rock-solid storage infrastructure built to ensure billions of financial transactions run smoothly. Where the company faced performance issues with the previous storage systems, the Hitachi Vantara solutions deliver ultra-low latency and faster application response times, keeping critical workloads running seamlessly. Since the move to the Hitachi VSP arrays, 1LINK has measured a 400 percent increase in IOPS.

In the three years since the deployment the Hitachi VSP F900 systems, 1LINK has achieved 100 percent data availability. Even as transaction volumes increase, the Hitachi Vantara storage has never let us down. That stability helps us to keep our payment networks online round-the-clock for the banks, businesses, electronic money institutions, and the millions of Pakistani citizens that rely on 1LINK.

Azimullah Khan adds: “Using Hitachi Vantara also provides peace of mind for our IT leadership and team. We aren’t worried about tackling performance or resilience challenges as we were with our previous arrays. Instead, we have a storage environment that we can depend on, with minimal risk of downtime.”

Furthermore, 1LINK has simplified storage management with Hitachi Ops Center, helping the IT team to save time on administration tasks. In particular, the visualizations and reporting tools in Hitachi Ops Center Analyzer give the team clearer insight into performance trends, enabling smarter capacity planning.

Hitachi Ops Center has been very useful for our storage administrators. Having a consolidated view of the storage environment on one dashboard makes potentially complex management tasks much easier and helps us operate more efficiently. And we can gain deeper visibility into our current capacity and IOPS levels.

Azeem Ahmad Siddiqui concludes: “One of the best things about working with Hitachi Vantara is that we are continuously receiving upgrades and access to enhanced functionality. As we roll out new payment solutions and manage growing transactions, we know that we are in safe hands. With Hitachi Vantara, we can keep the financial system stable in Pakistan and strengthen the nation’s prosperity.”

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Azeem Ahmad Siddiqui, Chief Customer Experience Officer, 1LINK

ABOUT 1LINK (PVT.) LIMITED

Incorporated in 2004, 1LINK (Pvt.) Limited is Pakistan’s first Payment Service Operator (PSO) and Payment Service Provider (PSP). Owned by a consortium of 11 banks, the company pioneered the development of interbank funds transfers, shared ATM networks, and connectivity to international payment schemes, such as Visa and MasterCard. In total, 1LINK processes transactions worth the equivalent of 38 percent of Pakistani gross domestic product.

ABOUT HITACHI VANTARA

Hitachi Vantara, a wholly-owned subsidiary of Hitachi Ltd., delivers the intelligent data platforms, infrastructure systems, and digital expertise that supports more than 80% of the Fortune 100. To learn how Hitachi Vantara turns businesses from data-rich to data-driven through agile digital processes, products, and experiences, visit hitachivantara.com.

ABOUT SYNERGY COMPUTERS (PVT) LTD

Headquartered in Karachi, Pakistan, Synergy Computers (Pvt) Ltd provides cutting-edge digital solutions that help enterprises to grow and thrive. With six offices and more than 200 employees, the company designs, installs and supports infrastructure, applications, and data availability, automation, and cybersecurity solutions. Operating for more than 40 years, Synergy Computers (Pvt) Ltd partners with leading technology providers, such as Hitachi Vantara and Oracle.



Corporate Headquarters
2535 Augustine Drive
Santa Clara, CA 95054 USA
hitachivantara.com | community.hitachivantara.com

Contact Information
USA: 1-800-446-0744
Global: 1-858-547-4526
hitachivantara.com/contact

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