Telin Singapore
by Telkom Indonesia

Telin Singapore accelerated time-to-market, enhanced performance with VMware Validated Designs and VMware Horizon® 7

Industry
• Technology

Location
• Singapore

Key Challenges
• Need to remain competitive and reduce time-to-market for its data center solutions
• Need to enhance operational efficiency and data security
• Minimize energy consumption to meet green data center standards

Solutions
• VMware Validated Design for SDDC
• VMware vSphere®
• VMware vSAN™
• VMware NSX®
• VMware vRealize® Suite
• VMware Horizon® 7

VMware Validated Designs has helped Telin Singapore to speed up its SDDC deployment and time-to-market, while better managing operations to serve its customers faster. With the designs continuously validated and updated, its data centers are always compatible and robust to support customers' needs. Telin Singapore also deployed VMware Horizon® 7 to virtualize desktops for improved security and manageability.

Telin Singapore, a subsidiary of Indonesia's PT Telkom Group, manages flexible, modular and scalable data center facilities in Singapore, enhanced by proprietary-owned, submarine-cable connectivity from Indonesia and Singapore and the rest of the world. Telin-3 facility is Singapore's first and only data center to receive Uptime Institute's Tier-IV design certification, enabling it to meet the most stringent risk, safety and data security guidelines required by financial institutions, governments and other industry verticals.

The Challenge
In order to effectively manage its third data center, Telin Singapore had to ramp up its IT and facility management operations quickly within 18 months. Telin Singapore would need to virtualize 30 to 50 desktops and servers across the organization to improve security and operational efficiency, and minimize downtime through centralized IT management and automation.

As part of its commitment to green data center standards, Telin Singapore also wanted to virtualize and monitor data center infrastructure assets, such as cooling and lighting systems, to optimize power consumption. At the same time, Telin Singapore was looking to deliver a range of private cloud solutions powered by software-defined infrastructures for large enterprises that require seamless orchestration of workloads in a secure manner across their infrastructures.

To address its IT and customer challenges, Telin Singapore decided to implement a SDDC from scratch. However, doing so would be time-consuming as its engineers would need to engage in research and development, before putting together different pieces of a software-defined architecture – compute, storage, networking and management. It also had to contend with diverse customer demands, such as supporting various technology standards and security solutions. While Telin Singapore could seek outside help to accelerate this process, there were limitations in finding suitable experts in the market.

Together, these challenges had hampered its goal to accelerate time-to-market and stay ahead of the competition. In addition, Telin Singapore also wanted to enhance its mobility and employees' productivity to better serve customers.

The Solution
To accelerate the journey to a SDDC, Telin Singapore deployed VMware solutions based on the VMware Validated Designs for SDDC which delivers holistic data center designs that span across compute, storage, networking and management. Working with experts from VMWare, SDDC solutions deployed included VMware vSphere®, VMware vSAN™, VMware NSX® and VMware vRealize® Suite.

The blueprint has enabled Telin Singapore engineers to deploy, automate and monitor its data center and IT infrastructure through a validated and proven VMware platform. In addition, it has virtualized employee desktops using VMware Horizon® 7, a virtual desktop infrastructure (VDI) solution that transforms static desktops into secure, digital workspaces that can be delivered on demand to Telin Singapore employees. With Horizon 7, Telin Singapore can provision virtual or remote desktops and applications through a single VDI and application virtualization platform to streamline management.

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"The data center is developed to address the growing demand for premium data center services in support of Singapore's Smart Nation vision, and better enable our customers from both regional and global markets. As such, we wanted to build a data center that can offer our customers the highest levels of flexibility and agility. Working with VMware's architecture experts, we were able to reduce deployment risks, realize value sooner and better manage operations to serve our customers four times faster from a typical three months to three weeks. With the designs continuously validated and updated, our data centers are always compatible and robust to support customers' needs."

Freddi Huang, Head of Engineering and Operations, Telin Singapore

Business Benefits
• Sped up data center infrastructure deployment and time-to-market
• Reduced total costs of ownership
• Improved security and operational efficiency

VMware Footprint
• VMware vSphere®
• VMware vSAN™
• VMware NSX®
• VMware vRealize® Suite
• VMware Horizon® 7

Applications Virtualized
• Microsoft SQL Server
• Video surveillance systems
• Data Center Management Software

Platforms
• Dell PowerEdge Servers (vSAN ready node)
• Dell Wyse thin client
• Cisco Catalyst Switch

"The decision to go with VMware Validated Designs and Horizon 7 was clear from the onset. As one of the leading players in the software defined data center (SDDC) and hybrid cloud market, VMware offers Telin Singapore and our customers a robust and reliable technology stack that has been validated through stringent quality engineering processes. This will empower our customers and partners to realize the full potential of an increasingly software-defined world," said Freddi Huang, Head of Engineering and Operations, Telin Singapore.

Business Results & Benefits
The choice of VMware was clear for Telin Singapore. Its base of enterprise customers, especially those from large organizations like governments, financial services and multinational firms, are likely to be familiar with and confident of VMware's solutions' abilities to ensure workloads are well-managed with high levels of performance, security and reliability, with minimal downtime. The wide variety of well-documented APIs available across the VMware stack also ensures interoperability with customers' existing IT infrastructure.

By deploying VMware Validated Designs, Telin Singapore was able to speed up its IT infrastructure buildout to between four and five months – a process that could have taken more than a year. It also reduced its total cost of ownership (TCO) by between 20 - 30 percent, partly by minimizing man-hour costs that would have been charged by a deployment vendor.

Implementing VMware technologies has given Telin Singapore an edge over its rivals. Besides having the ability to respond faster to market needs with a lean, agile and efficient IT infrastructure that can meet its service level agreements with customers, Telin Singapore's VMware-powered SDDC has strengthened its position as a one-stop shop for enterprises looking for data center services, complete with carrier-neutral connectivity that allows the use of multiple carriers for network redundancy. This means that Telin Singapore will also be able to extend their premium data center and cloud services to global businesses looking to expand in Asia using Singapore as a springboard and contributing to the country's status as a leading economic hub.

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With Telin Singapore's move to VDI, its employees now work on virtual desktops accessed via thin-client terminals that are more energy efficient than full-fledged desktop computers. Through centralized management of virtual desktops, Telin Singapore has been able to apply changes in user policies across the board, improving IT productivity. Finally, the virtual desktops have enabled administrators to control and monitor the flow of data across the organization to ensure security.

Looking Ahead
With the deployment of Telin Singapore's SDDC well underway, the data center service provider will next focus on network function virtualization (NFV) to enhance network security. To achieve that, we will work with partners to deploy, for example, virtual application firewalls that will help to secure virtual machines. A VMware-based SDDC paves the way for Telin Singapore to partner with other service providers around the world that share a similar SDDC infrastructure, providing customers access to a global network of data centers.

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