



Research Abstract

Deploying and Managing VMware vSAN™ Clusters Can Be Simple with Lenovo® ThinkAgile™ VX HCI Solutions

Evaluating what it takes to deploy and manage a hyperconverged infrastructure (HCI) vSAN cluster using Lenovo ThinkAgile VX.

Companies are attracted to hyperconverged infrastructure (HCI) offerings such as VMware® HCI, but the difficulty of setting up and maintaining such systems can be off-putting. Creating clusters and adding nodes to them can be complex and time-consuming. Keeping infrastructure up to date while maintaining compliance has historically been a highly manual task, often requiring separate specialized tools to update each tier of the infrastructure.

Lenovo partners with VMware to address these challenges and make it easier to deploy and maintain VMware HCI clusters on Lenovo® ThinkAgile™ VX integrated systems. The Lenovo ThinkAgile VX Deployer tool aims to let users deploy and expand clusters quickly and easily using a single tool. It also aims to simplify cluster updates and to enhance hardware lifecycle management within the VMware vCenter® management console via Lenovo® XClarity® Integrator.

Prowess Labs tested the ThinkAgile VX Deployer tool to evaluate how well it works, how easy it is to use, and how long it takes to perform the key operations of creating a new cluster and extending a new cluster with an additional node. We also tested to validate that VMware vCenter was able to perform a successful remediation—including the firmware-update process—of a cluster created with ThinkAgile VX Deployer.

The results of our testing validated that ThinkAgile VX Deployer performed as expected and was straightforward to use. Our test results provide insights into how long different operations can require to complete, and where the bulk of time is spent.

Key findings

1. The Lenovo® ThinkAgile™ VX Deployer tool was **easy to use** with an intuitive process flow.
2. Time to **deployment was fast**, and for most of that time, no user action was needed.
3. The configuration file feature **reduced repetitive input** and made for a repeatable deployment.
4. Integration into VMware vCenter® was **seamless for viewing** topology and remediating the cluster in a single interface.

Evaluating the Lenovo ThinkAgile VX Deployer Tool

ThinkAgile VX Deployer uses a web-based user interface (UI) to simplify and automate the deployment of Lenovo ThinkAgile VX systems within VMware vSAN™ clusters. We tested and evaluated four different scenarios using ThinkAgile VX Deployer:

1. Install a new cluster of three nodes from scratch using the ThinkAgile VX Deployer wizard interface.
2. Repeat the installation of a new cluster using a configuration file created during the first scenario.
3. Extend the cluster to include a fourth node using the ThinkAgile VX Deployer wizard interface.
4. Repeat the cluster extension using a configuration file created during the third scenario.

Our test methodology included recording the amount of time spent on each screen in the ThinkAgile VX Deployer wizard prior to clicking the **Deploy** button, in addition to how long that deployment took to complete after it was started.

Validating ThinkAgile VX Deployer in VMware vCenter®

As part of deploying a new cluster, the ThinkAgile VX Deployer installs Lenovo XClarity Integrator as the hardware support manager used by vCenter for firmware upgrades. We tested vCenter to verify the integration was complete, and VMware vCenter® Lifecycle Manager™ was able to perform a remediation of the cluster—that is, upgrading the firmware in each of the nodes in the cluster. We found that all the pieces were in place for the remediation to be completed as expected.

Learn More

Get the full story by reading our research report, "[Deployment, Operations, and Management of VMware® HCI with Lenovo® ThinkAgile™ VX Deployer HCI Solutions.](#)"

To learn more please visit: www.lenovo.com/us/en/servers-storage/vmware-hci/.