

Leading Manufacturer Accelerates Virtual Desktops and Graphics-Intensive Applications by 75 percent

Höganäs · Industry: Manufacturing · Size: 2500 employees · Location: Hollsopple, Pennsylvania

Founded in 1797, Höganäs is the world leader in iron and metal powders. With 3000 customers in 75 countries and a yearly capacity of 500,000 tons, the company provides innovative solutions for automotive components, brazing, electrical motors, additive manufacturing, and water treatment. For more information, visit hoganas.com.

Höganäs 

Challenges

- Support a diversity of remote users and applications across dispersed geographies
- Improve the performance of virtual desktop infrastructure (VDI)
- Simplify systems administration and scaling

Solutions

- Cisco HyperFlex™ system
- Cisco Intersight™ SaaS Systems Management Platform
- Cisco® Identity Services Engine (ISE)
- Cisco UCS® Mini

Results

- Attained a full data center infrastructure for less cost than a SAN
- Accelerated GPU performance by 75 percent
- Increased read/write speeds by 10x
- Streamlined IT operations with unified, cloud-based systems management

For more information

- [Cisco HyperFlex](#)
- [Cisco Intersight](#)
- [Cisco Identity Services Engine \(ISE\)](#)
- [Cisco UCS Mini](#)

Challenge: Improve virtual desktop performance, administration

As the IT manager for North American Höganäs Co., Michael Rhoades has a lot on his plate.

His four-person IT department has to support the technology needs of four production sites—which rely heavily on IoT-based monitoring, automation, and control systems—and one R&D facility in the U.S. They need to enable a diversity of users, including factory workers, engineers, executives, and salespeople. And they must protect more than two centuries of intellectual property and trade secrets.

“All of our people, products, and processes are integrated with and enabled by IT,” Rhoades says. “From pervasive Wi-Fi, PoE cameras, and IoT devices to connected cranes, trucks, and inventory, we have a lot to manage.”

To ease the administrative burden, the team deployed two virtual desktop infrastructure (VDI) environments several years ago—one for factory automation systems using Cisco UCS Mini and another for the company’s U.S.-based office, factory, and remote workers leveraging Cisco UCS blade servers.

“We had a third-party storage array that was reaching end-of-life,” Rhoades says of the user-focused VDI environment. “And when we went to refresh it, we said, ‘you know what, we’re going to look at some different options.’”

After evaluating several traditional infrastructure solutions, the team decided to take a closer look at Cisco HyperFlex.

“Hyperconvergence was so new when we put in the initial arrays, we just weren’t ready to make that leap,” Rhoades says. “But the second time around, it was hard to ignore.”

Höganäs deployed a four-node Cisco HyperFlex All Flash cluster soon thereafter to deliver VMware Horizon desktops to the company’s 400-plus users in the U.S.

Cisco Intersight was a key factor in the decision, Rhoades explains. The cloud-based tool provides intelligent management for Cisco HyperFlex and Cisco UCS systems from anywhere, helping reduce the complexity of systems management and enabling compute, storage, and network resources to be administered from a single window. The team also liked the redundancy that could be established with a multi-node cluster, providing better reliability and failover. And the ability to quickly and easily scale the infrastructure was important for a team that continues to support additional users and workloads.

“The cost of our four-node Cisco HyperFlex cluster with memory, CPU, compute, storage, and VMware license was essentially the same as two boxes of storage. So instead of getting a new SAN, we got a whole new data center. It was a real home run—for us and our VP of Finance.”

Michael Rhoades, IT Manager,
North American Höganäs Co.

Supporting a diversity of users, applications

The power and flexibility of Cisco HyperFlex and the tight integration with VMware Horizon have enabled Höganäs to support a variety of users, applications, and devices. The company's corporate staff has access to ERP, collaboration, finance, and other virtualized business software through zero clients. And the company's North American sales team, as part of an "ultramobility" strategy, utilizes zero clients in the office and cellular-connected iPads when traveling.

"We give the salespeople an iPad, keyboard, and mouse, and they get a full desktop experience anywhere in the world," Rhoades says, noting the use of Veeam software for backup and recovery. "And if those iPads are ever stolen from a hotel room or ransacked in some way—I mean, you hear horror stories—we don't have to worry because all of the data is tucked safely away in our data center."

While factory workers get standard productivity applications through rugged zero clients that can withstand harsh production environments, the company's engineers and programmers get additional computing power for their high-performance CAD and 3D rendering applications.

"We have four NVIDIA Tesla GPUs and are delivering dedicated graphics acceleration over VDI. That's cool," Rhoades says, noting a 75 percent boost in GPU performance and 10x increase in read/write speed compared to the company's former VDI environment.



“Cisco Intersight is a game-changing management tool. It brings all of our data center resources together in a single pane of glass. It’s cloud-based, so I can monitor and manage the health of our data center from anywhere. It’s just really well designed and makes everything super easy. I’m a big fan.”

Michael Rhoades, IT Manager,
North American Höganäs Co.



Less expensive, easier to manage and scale

Rhoades wasn’t surprised by the superior performance of Cisco HyperFlex All Flash compared to the other options Höganäs considered. But he was not expecting the hyperconverged package of compute, storage, and network infrastructure to be slightly less expensive than a standalone storage array.

“The cost of our four-node Cisco HyperFlex cluster with memory, CPU, compute, storage, and VMware license was essentially the same as two boxes of storage,” he says. “So instead of getting a new SAN, we got a whole new data center. It was a real home run—for us and our VP of finance.”

Network segmentation and Cisco ISE provide critical security and access control. And the entire environment is monitored and managed from the cloud with Cisco Intersight.

“Cisco Intersight is a game-changing management tool,” Rhoades claims. “It brings all of our data center resources together in a single pane of glass. It’s cloud-based, so I can monitor and manage the health of our data center from anywhere. It’s just really well designed and makes everything super easy. I’m a big fan.”

In addition to administrative simplicity, the ability to quickly and easily scale the environment is essential for a lean IT staff that continues to deliver newer and better technology to enhance Höganäs’ North American operations.

“We’ve done all of this with essentially two people. I handle the network and my colleague does the VMs and Microsoft workloads,” Rhoades says, noting Windows Server, Microsoft Internet Information Services, and Microsoft SQL Server workloads are all delivered over VDI. “And Cisco HyperFlex is dramatically easier to scale than traditional systems. Instead of buying and managing more blades and boxes, we can just add more memory and CPU to the existing nodes.”

Explore more Cisco Data Center Compute customer success stories at cs.co/dccstories.