Desktop and Hosting Service Provider Chooses Cisco HyperFlex for Performance and Efficiency

Missing Piece · Industry: Managed Service Provider · Size: 35 employees · Location: Wijk bij Duurstede, The Netherlands

Missing Piece specializes in IT outsourcing and hosted services for small and medium-sized businesses in the Netherlands, with a focus on insurance advisory companies and other financial services firms. Active since 2004, Missing Piece offers its customers a high level of service, delivering up-to-date technology solutions with optimum performance, cost control, and a user-friendly approach.

For more information, visit missingpiece.nl.

**Challenges**
- Deliver cost-effective hosted services
- Reduce system install and management time
- Meet stringent security requirements

**Solutions**
- Cisco HyperFlex™ system
- Cisco Unified Computing System™ (Cisco® UCS)
- Cisco AMP for Endpoints
- Cisco Email Security Appliance

**Results**
- Increased desktop and application performance up to 90 percent
- Simplified and accelerated installs and upgrades
- Integrated network, endpoint, and email security

**For more information**
- Cisco HyperFlex
- Cisco Unified Computing System (UCS)
- Cisco Advanced Malware Protection (AMP) for Endpoints
- Cisco Email Security Appliance
- Cisco Capital®
Keeping up with 40 percent annual growth

Missing Piece delivers virtual desktops, application hosting, networking, and other services for over 300 customer locations across the Netherlands. A small technical team must take care of all customer requests, keep infrastructure and software up to date, deliver new and expanded services, and scale to accommodate growth. With the company expanding at 40 percent annually, continued success requires solutions that are simple and standardized while also being scalable and easy to automate.

“Our customers face all the same regulatory requirements for GDPR, backup, security, and reporting as larger financial services companies,” says Wouter Hindriks, technical team lead at Missing Piece. “If they try to do IT on their own—or rely on the IT shop around the corner—they simply won’t get the capabilities they need. Missing Piece delivers cost-effective, enterprise-level solutions to address these requirements.”

Migrating to Cisco HyperFlex for efficiency and performance

For the past nine years, Missing Piece has used Cisco UCS coupled with third-party SAN storage systems.

“We really like the scalability of Cisco UCS. Cisco templates make it very simple to configure new servers. However, we ended up with separate silos of storage in our SAN environment, making storage management challenging and time consuming,” explains Hindriks. “When Cisco HyperFlex came out, we asked the question, does this make storage as flexible and scalable as Cisco UCS does for computing? The answer is yes.”

Cisco HyperFlex is an innovative hyperconverged infrastructure (HCI) solution engineered on the Cisco UCS platform. It delivers the ease of management and flexibility the Missing Piece team needs to operate efficiently.

“With Cisco HyperFlex, everything is managed from a familiar interface, and we can add compute or storage as we need it to adapt to changing customer demands,” says Hindriks. “We don’t have to add both at the same time like some other HCI solutions.”

Missing Piece is currently completing the process of migrating its operations to Cisco HyperFlex and has configured three separate HyperFlex clusters. One cluster supports desktops, another supports application services, and a third supports Microsoft SQL Server. The desktop cluster is configured with the fastest CPUs and all-flash storage, with ultra-fast NVMe drives serving as a cache. This configuration ensures fast interactive performance for virtual desktop users. Having a dedicated cluster for SQL Server reduces software licensing costs since the SQL software is licensed on a per-core basis.

“Compared to our old environment, we’re seeing between 40 percent and 90 percent faster performance,” says Hindriks. “Part of that gain is due to faster CPUs, but it’s definitely also due to all-flash storage, NVMe cache, and the way data is managed in Cisco HyperFlex.”
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Wouter Hindriks
Technical Team Lead, Missing Piece

Simplifying installation, updates, and management
Unifying the management of compute and storage has been a big benefit, and Cisco HyperFlex has also greatly simplified installation and ongoing management for the Missing Piece team.

“Cisco HyperFlex provides a guided installation. Once you tell it what you want, it does all the work for you. I don’t have to log in to every node or manually re-configure the network. When I open VMware afterward, everything is there and correct,” explains Hindriks. “The same goes for VMware, Cisco HyperFlex operating software, and Cisco UCS firmware updates. The system verifies that versions are correct and does the update without disruption. It’s been great for our peace of mind.”

With Cisco HyperFlex Connect, Missing Piece can see at a glance what’s going on in each cluster, and the team also receives alerts via email and the VMware console. The system also includes a full REST-based Application Programming Interface (API) for managing and monitoring clusters. The team has used these APIs to integrate Cisco HyperFlex with its third-party network monitoring software.
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Enabling security and compliance
To help protect the security of its customers, Missing Piece recently added two Cisco security technologies. Cisco Advanced Malware Protection (AMP) for Endpoints blocks malware at point of entry, then detects, contains, and remediates advanced threats quickly. Cisco Email Security Appliance works in conjunction with AMP to increase security for both incoming and outgoing email.

“We were using classic anti-virus software before. That stops known viruses, but it doesn’t give you much visibility,” says Hindriks. “AMP for Endpoints lets us pinpoint where the threat started, and everything the malware did in our environment. Cisco Email Security gives us similar visibility and control over email, and these products integrate directly with our Cisco firewalls, providing full integration of network, email, and endpoint security.”

Partnering for success
Missing Piece thinks of Cisco more like a strategic partner than an IT vendor. Meetings with the local Cisco team have been critical in helping the company keep up with the latest advances.

“Cisco takes the time to understand our business and our challenges and then helps us identify the most appropriate solutions. That started us on our journey with Cisco HyperFlex and AMP,” says Hindriks. “Then at Cisco Live, we were able to talk with some of the people responsible for these products. That really increased our confidence in the decisions we made.”

Cisco Capital has also been a critical element for Missing Piece, helping to finance the new technologies that are fueling the company’s continued success and growth. Established to support projects based on Cisco technology, Cisco Capital operates in more than 100 countries worldwide.

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