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Webco turns to Sigma and Cisco UCS to increase capacity and simplify management of its virtualized environment

Few data centers have kept pace with the virtualized environment. While virtual machines can be provisioned in minutes, the infrastructure needed to support them often takes days to configure. And as the number of virtual machines (VMs) increases, management of the underlying infrastructure becomes increasingly complex.

Webco, a manufacturer and supplier of specialty tubing and pressure tubing products based in Sand Springs, Okla., uses server virtualization to roll out new services quickly and support productivity-enhancing collaboration tools. But while Webco enjoyed the benefits of virtualization, the company began facing a new set of challenges within the data center, including capacity and bandwidth bottlenecks and infrastructure management headaches.

"When you're not limited to buying a new physical server every time you want to roll out new functionality or software, the cycle speeds up — you tend to do that more and more. The needs of the environment grow, and Webco as a company is growing as well," said David Reed, CIO, Webco Industries. "We found new servers reaching the limits of their capacity within a couple of years. And then you start running into issues with the core network, the SAN infrastructure and how it's all plumbed together. It becomes a chore to manage as the size of your environment grows. You shift from managing racks full of servers to managing the back end."

Reed began exploring the possibility of using the Cisco Unified Computing System (UCS) to increase capacity and simplify management. He turned to Sigma Solutions for help in designing and implementing a new environment based on Cisco UCS.

"We liked what we saw on the UCS platform — it seemed like a really good fit for what we were trying to do," Reed said. "Sigma helped us put it all together, and our engagement with them went extremely well."

Greater Capacity – and Simplicity

Sigma helped Webco consolidate several older VMware ESX servers into two Cisco UCS chassis. This enabled Webco to free up rack space in the data center, cut the number of network connections per server from seven to one, and increase network bandwidth.

“It simplified the wiring in our data center and gave us more capacity than we would have gotten any other way,” said Reed. “As we’ve migrated servers into that environment, we’ve seen our backup times decrease because we have the bandwidth to let things go full throttle. And everything goes over one network now, further simplifying the cabling on the back end.”

Webco is taking advantage of Service Profile Templates to speed deployment of new ESX servers within the Cisco UCS chassis. Replacing a server is as simple as installing a new blade and deploying the template to it.

All of these advantages came at a price that was comparable to conventional rack-mount servers — and eliminated the need for costly network upgrades.

“I had explored using 10 Gigabit Ethernet to increase capacity but we would have paid a lot more. And when you look at having to do seven network connections for every server you deploy, you start having to buy additional switches. That can add up in a hurry,” Reed said. “From an initial investment point of view, Cisco UCS compared very well to what we had been doing and we got much more capacity. Investing in the chassis and the back end today is going to be cheaper to grow the environment than going another way.”

Expert Help

Working with Sigma proved to be the right choice as well. The Sigma team brought extensive, hands-on experience, from presales engineering through deployment and handoff to the Webco team. For Reed, this was a refreshing change.

“I’ve done a lot of engagements with vendors who would send people who had been trained but didn’t understand what they were doing. Invariably they would spend a lot of time talking to the expert back at their headquarters. It seemed we were paying for their on-the-job training,” said Reed. “The Sigma project manager, the person who handled the networking, the person who did the actual UCS installation and configuration — they all knew exactly what they were doing and understood our requirements.”

Reed also appreciated Sigma’s flexibility. Sigma was willing to do a “knowledge transfer” so that the Webco IT team can properly manage the environment using best practices appropriate for a midsize organization.

“I’ve run into cases where the vendor would not customize the professional services engagement to our size company and what we want to do. They didn’t want to do the knowledge transfer. And to be honest, when the vendor sends in someone who is barely trained on the product, we just want get the engagement over with so we can move on with things. The service part of a project is so important and if a vendor can’t deliver in this area it has a serious impact on the project.” Reed said.

“We didn’t get that with the people from Sigma. The engagement was tailored to our needs. They worked with us, they showed us, they educated us, they did the knowledge transfer. Their people clearly knew what they were doing and meshed well with our team. It was probably the best professional services engagement that I’ve ever been involved with.”

Experts estimate that half of all servers are now virtualized — but other data center components remain locked in a pre-VM state. By moving to Cisco UCS, Webco now has the capacity and scalability to support its virtualized environment. Sigma has helped Webco optimize its data center for virtualization and provide a foundation for future growth.