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Virtual CTO Helps Ensure Fourstar Connections Continuously Meets Customer Needs

The Company: Fourstar Connections

Since 1986, Fourstar Connections has offered comprehensive solutions to tackle a wide range of manufacturing needs. The company partners with leading companies to find better ways for designing and producing products—from cable assemblies to complex box builds—and then quickly ramps up to meet target dates and volume requirements. The Fourstar 28,000-square-foot corporate headquarters—with a state-of-the-art manufacturing facility— is located in Massachusetts. The company also operates affiliate manufacturing plants in Mexico and China.

The Challenges: Prevent System Downtime and Forecast Future Technology Needs

The server running the Fourstar Connections primary operations software—the Sage 100 ERP manufacturing module—nearly crashed one day due to reaching its computing capacity. Realizing how close the company came to shutting down operations, President and Owner Phil Holman knew the time had arrived to advance the relationship with its IT solution provider, Bryley Systems.

Bryley had provided general IT consulting, solution deployment and troubleshooting services to Fourstar for many years. But Holman wanted to elevate the partnership to the level where Bryley would proactively monitor the health of IT systems and help plan the company's technology future.

"We needed a mechanism to recognize in advance when our IT systems will reach capacity, and we wanted to forecast which technologies we will need down the road to support anticipated future growth," Holman says. "Up until that point, we played 'hot potato' with our internal personnel as the senior management team took turns managing IT over the years. But given their primary job responsibilities, they did not have sufficient time to dedicate to the task. And while we are experts in our core operations, we are not experts in IT."

The Solution: Virtual CTO Enables a Proactive Approach

To enable Holman to proactively plan for future growth, Bryley recommended its Virtual CTO (Chief Technology Officer) service, which provides expertise in applying technology to achieve business strategy and goals. Virtual CTO also ensures Fourstar gains as much value as possible from its current technology investment while defining and setting the standards for future requirements.



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Bryley then assigned Michael Carlson, Chief Technology Officer at Bryley Systems, as the Virtual CTO for Fourstar. He serves as a trusted adviser on technology issues and designs solutions based on the technologies that cost-effectively ensure that Fourstar IT investments support the strategic business direction.

“We receive tremendous value with Mike as our Virtual CTO,” Holman emphasizes. “After our near server crash, we realized we did not know when trouble was heading our way. But Mike prevents such occurrences by proactively monitoring the health of our IT systems.”

Through the Virtual CTO service, Fourstar and Bryley have established a high level of trust. Fourstar provides confidential projections on company growth and the technology expectations of its customers. Armed with this information, Carlson then plans which technologies the company needs to deploy in order to scale to the correct level of IT resources. As a result, Fourstar has come to rely on Carlson to inform them in advance when to upgrade existing IT systems.

“When it comes to IT computing power, we don’t want to be left short, but we also don’t want to overspend,” Holman says. “Mike advises us just as though he’s our internal CTO. He presents the options and the costs to make sure we have the right technology balance in order to keep providing a high level of service to our customers.”

The Deployment: Virtualization Reduces Server Count, Enables Software Upgrade, and Permits Failover

Under the guidance of the Virtual CTO program, Fourstar turned to Bryley Systems to virtualize its server infrastructure. In addition to reducing, by 50 percent, the number of servers Fourstar requires to support its 75 employees, the new infrastructure allowed Fourstar to deploy a Sage 100 ERP upgrade, a software package that the previous server infrastructure could not handle.

Bryley—with project management and system engineering resources to support Carlson’s virtual CTO services—also deployed a disaster-recovery failover server for Fourstar in the Bryley data center. In the unlikely event the onsite server at Fourstar should crash, Bryley can quickly restore operations via the failover server.

“When presenting the virtualized server and disaster recovery proposal, Bryley gave us three options,” Holman says. “Each option came at a different price level, and Bryley clearly explained the benefits of each approach. We felt comfortable knowing what we were paying for as well as the differences in the capabilities that each option offered.”



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The Benefits: Cost Savings with Assurance IT Systems Will Perform as Required

Bryley Systems' Virtual CTO service empowers Fourstar Connections to allocate their IT budget more efficiently. For example, under Carlson's guidance, Fourstar has improved the way they configure employee workstations, reducing IT costs. "We previously spent \$1,200 per workstation when factoring in the hardware, software and deployment time," Holman says. "But we lowered that number down to \$800 per workstation thanks to a recommendation from Mike."

By analyzing the business processes within the Fourstar manufacturing facility, Carlson determined that some workstations did not require the standard Microsoft Office suite. End users needed to view business documents, but they did not need to edit documents. Carlson thus created a configuration that uses Microsoft Viewer software, which reduces the cost per workstation by approximately \$400. Fourstar expects to add about 80 such workstations as the company grows over the next three years, so the new configuration will save the company \$32K.

"This is another example of how Bryley always strives to reduce our IT costs as much as possible," Holman says. "As another example, we estimate that the options they gave us for our virtualized server with failover capability saved us about \$40K."

From a cost standpoint, Virtual CTO eliminates the need for Fourstar to hire a CTO-level employee, which would add significantly to payroll costs. The company would likely also incur on-going training costs, and someone who is technically talented might eventually leave to find an opportunity offering a greater variety of technical challenges.

Holman also emphasizes how it's difficult to find someone who is a good fit and has the necessary skills. "Anyone we hire would also likely have less experience and fewer skills than Mike," Holman notes. "And in addition to his services, it's beneficial that Bryley provides access to any additional resources when we need them for project management, technical support and deployments. As we grow and our needs change, Mike will identify what we need, and Bryley will always have the resources to meet those needs."

But the greatest value Fourstar derives from Bryley is the assurance that IT resources will continue running at peak levels, and the company no longer has to fear whether any unknown IT disasters may be lurking. "Bryley ensures we stay up and running and also provides a way to recover should a disaster beyond our control strike," Holman says. "They also look ahead so that as we grow and change, we know the technology will adapt and we can continue to function efficiently in servicing our customers."



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Side Bar

Major Benefits—Virtual CTO Provided by Bryley Systems:

- Enables advanced planning of required technologies to support future company growth.
- Identifies when existing IT systems approach capacity to prevent system failures.
- Prevents over-spending on IT resources.
- Ensures sufficient computing power to meet operational and customer needs.
- Aligns long-term technology and business plans.
- Minimizes IT spending by presenting multiple options for resolving IT challenges.
- Eliminates need to hire internal CTO and the cost of salary and benefits.