

Service Provider Standardizes Data Center to Deliver Custom Cloud Services



Executive Summary

- **Customer Name:** Peak 10
- **Industry:** Information Technology
- **Location:** Charlotte, North Carolina
- **Number of Employees:** 315

- **Customer Name:** Pure Fishing
- **Industry:** Consumer products
- **Location:** 33 international locations, headquartered in Columbia, South Carolina
- **Number of Employees:** 1500

Challenge

- Unify cloud delivery of subscription-based, customized, fully managed, enterprise applications
- Create scalable, flexible, multitenant environment to meet growing demand for cloud services
- Provide high availability and strong resilience of shared resources with backend operability

Solution

- Centralized 22 regional data centers built on virtualized blade server environment using Cisco UCS, VMware, and EMC storage to pool shared resources for hundreds of client IT solutions running in production environment

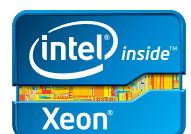
Cisco UCS solution helps enable Peak 10 to manage enterprise-class applications for customers worldwide.

Business Challenge

Founded more than a decade ago, Peak 10 has evolved from a more limited provider of IT services into a comprehensive provider of cloud-based, fully managed IT and data center solutions designed to improve application performance and availability, lower costs, and maximize resources for thousands of customers worldwide. Peak 10 combines private network and enterprise-class data centers with engineering and support into its subscription-based service model.

Faced with skyrocketing demand for cloud-based services, Peak 10 needed to scale its operation to keep pace with the company's rapid growth. The firm was constrained by previous physical and administrative difficulties of procuring, installing, racking, and provisioning servers, as well as by having skilled IT staff spend too much time on lower-level, time-intensive tasks. The goal was to refocus that energy to create a more scalable, flexible, and reliable data center environment. Previously, large clusters of HP servers were sprawled across floor space and required extensive cabling. Integration was poor among disparate rack-mount servers, networks, and storage arrays.

Peak 10 wanted to transform its data center with a more agile platform that would enable faster deployment and provisioning, ease the physical aspects of cabling, reduce use of copper, and keep services from being location-dependent.



Executive Summary (continued)

Results

- Decreased provisioning time from days to an hour
- Realized nearly 100 percent application uptime for clients
- Helped enable IT customers to save money, maintain lean staffing levels, increase productivity, and streamline business processes

“The prospect of deploying Cisco UCS solutions with an integrated fiber infrastructure presented us with the ideal opportunity to deliver on the promise to our customers to be infinitely scalable, support a wide array of business applications, and deliver rock-solid performance.”

– **Brian Elias**
Services Infrastructure,
Manager
Peak 10

The company made the decision to move from physical standalone servers to a virtualized environment running on blade servers. For the firm, which had long standardized on Cisco network infrastructure, the move to adopt Cisco Unified Computing System™ (UCS®) solutions nicely aligned with its long-term goals. “The prospect of deploying Cisco UCS solutions with an integrated fiber infrastructure presented us with the ideal opportunity to deliver on the promise to our customers to be infinitely scalable, support a wide array of business applications, and deliver rock-solid performance,” says Brian Elias, manager of services infrastructure at Peak 10.

Network Solution

Peak 10 has 22 data centers in ten U.S. cities across three regions to help ensure service remains location-independent. Core components used inside the company’s virtualized VMware, multitenant environment include 24 Cisco® B230 M2 Blade Servers and Cisco UCS 6120XP 20-Port Fabric Interconnects, as well as EMC storage solutions. For switching, Peak 10 uses Cisco Nexus® 7000, 5000, and 1000v Series Switches.

In 2011, Peak 10 moved its customers onto the company’s Cisco UCS environment at its Charlotte, North Carolina facility, which mirrors its Atlanta facility. That infrastructure also serves as a separate data center and disaster recovery center for select Peak 10 customers.

Business Results

Savings and efficiencies for customers

Nearly 100 percent of Peak 10’s environment is dedicated to production workloads, as opposed to testing, development, and quality assurance, delivering web applications that serve many lines of businesses across customer enterprises running in the cloud. Peak 10 helps enable its customers to increase productivity and save money by eliminating the need for proprietary backend infrastructures and onsite application hosting. Case in point: Pure Fishing, a global provider of high-quality fishing equipment enjoyed by anglers everywhere.

To facilitate its rapidly growing business, Pure Fishing deployed a hybrid, cloud-based, virtualized data center and switching solution that leverages the power of Peak 10’s Cisco UCS environment. The deployment allowed Pure Fishing to virtualize its Microsoft SharePoint servers and SAP applications in the Peak 10 system, gain greater overall visibility into worldwide operations, keep IT staffing levels lean, and outsource everyday data center operations to a trusted service provider.

Currently, the network switching, routing, and wireless environment at Pure Fishing is built on Cisco solutions that smoothly integrate 40 sites in 17 countries. Pure Fishing also maintains a fusion point to its parent company’s cloud, which serves an additional 200 sites under a unified SAP enterprise resource planning (ERP) platform that helps ensure regulatory compliance. The switching and routing environment consists of Cisco Catalyst 6500 Series Switches and Cisco Catalyst® 4500 Series Switches as distribution points at its headquarters. In one data center, Cisco Catalyst 3570 Series Switches and Cisco Catalyst 5000 Series Switches are also in place.



In its wireless infrastructure, Pure Fishing uses Cisco equipment to support global voice and data LANs and WANs, including Cisco Aironet® 1242 Wireless Mesh Access Points at manufacturing facilities where humidity runs high, and Cisco Aironet 1131 Access Points in all other production, sales, and distribution spaces. Three locations have Cisco Series 4402 Wireless Controllers, and two others have Cisco Series 5508 Wireless Controllers.

Using Cisco wireless technology, Pure Fishing has discovered multiple ways to streamline manufacturing and core business processes. For instance, the company uses a wireless-enabled mobile device to more efficiently track products in real time and move inventory around factories, reducing cycle times. Additionally, the integration of the mobile scanners with SAP ERP applications has significantly accelerated product shipping, receiving, accounting, and other vital inventory control processes.

“Based on our success using Cisco borderless networks solutions, and Peak 10’s experience with UCS, we’re now looking at expanding our use of Cisco solutions across all areas, including our primary data center and disaster recovery sites,” says Dana Smith, director of global technology services at Pure Fishing.

Maximum multitenant potential

When evaluating options, Peak 10 team saw definite advantages to Cisco UCS, a solution that would provide integration and backend interoperability among server, network, and storage connections. Because Peak 10 is a top-tier provider of ESX VMware in terms of volume and usage, the team was also drawn to Cisco UCS because it “was designed with VMware in mind,” according to Ken Seitz, manager of product strategy at Peak 10.

Staying true to its entrepreneurial roots, Peak 10 focuses its technology investments on reasonably priced devices that will “earn their keep,” a key factor for choosing a scalable, modular, pay-as-you-go Cisco UCS implementation. Standardizing IT solutions on a single vendor such as Cisco also stretches Peak 10’s purchasing power, as well as streamlines procurement, support, and the firmware upgrade processes as servers are added monthly.

Peak 10 sees Cisco blade servers as “blank slates” on which the IT teams can securely and efficiently share resource pools behind a common firewall for the company’s customers, with Cisco UCS delivering high availability, excellent resilience, and more flexibility than other solutions. “Cisco blade servers offer a definite advantage in a multitenant virtual environment,” says Elias. “If we have a host failure, we simply pull out a blade, and the controller pushes the right configuration and associated network filters into place onto the new one, eliminating risk of downtime.” Elias also notes that when a blade is pulled, Cisco controllers can automatically balance remaining loads.

Rapid provisioning, increased productivity

Accelerated server installation and provisioning at Peak 10 has had a dramatic impact on its business. “Previously, it would take a business day, at best, for technicians to set up and cable a new physical server. Now, I can pick up a blade, walk it over to the chassis and plug it in,” says Seitz, adding that it only has to be done once for every 16 servers, versus the previous one-to-one ratio. Also, with its new, dedicated 10 GB density links, the number of cables required for each chassis compared to individual servers has drastically decreased.

Product List

Cisco Unified Computing System servers

- Cisco UCS B230 Blade Servers M2

Routing and Switching

- Cisco Nexus 7000, 5000, and 1000v Switches
- Cisco Catalyst 6500, 5000, 4500, and 3500 Series Switches

Fabric Interconnects

- Cisco UCS 6120XP and 6140 Fabric Interconnects

Network Management

- Cisco Unified Computing System Manager
- Cisco Wireless Access Control Server
- Cisco 5500 Series Wireless Controller

Wireless

- Cisco Aironet 1242 and 1131 Access Points
- Cisco Series 5508 and 4402 Wireless Controllers

VM Management

- VMware vCenter

Security and VPN

- Cisco ASA 5520 Adaptive Security Appliances

Applications

- SAP ERP
- Moodle LMS and VLE
- Microsoft SharePoint and SQL Server

Storage

- EMC

Peak 10 leveraged its staff's deep knowledge of Cisco products during the transition and as part of daily responsibilities. Managing the servers from a single pane of glass using the robust management tools in Cisco UCS greatly reduces the number of times that a post-install engineer has to walk down to the data center to try to fix a server.

"We can certainly quantify the impact Cisco UCS has had on our operations: the benefits are clearly there. But for us, it's also about the qualitative transformation that Cisco has brought to our business, providing great tools to strengthen our services and the relationships we have with customers. That's what helps keep moving our business forward," says Monty Blight, vice president of product management at Peak 10.

For More Information

To find out more about Cisco Unified Computing, visit: www.cisco.com/go/ucs.

To find out more about Cisco Unified Data Center, visit: www.cisco.com/go/unifieddatacenter.

To find out more about Cisco Nexus Switches, visit: www.cisco.com/go/nexus.

To see how Cisco integrates with Microsoft technologies, visit: www.cisco.com/go/microsoft.



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