Arena Provides Great Guest Experience and Maximizes Revenues

Minnesota Wild built resilient infrastructure with Unified Computing System, MDS 9124 Switch, and Compellent SAN.

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• St. Paul, Minnesota USA
• 200 Full-Time and 1100+ Part-Time Employees</td></tr>
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• Provide excellent guest experience
• Simplify IT</td></tr>
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• Cisco MDS 9124 Multilayer Fabric Switches connecting to Compellent Storage Center</td></tr>
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• Simplified addition of compute and storage capacity
• Gained competitive advantage for attracting conventions</td></tr>
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Challenge

Founded in 2000, the Minnesota Wild is a professional ice hockey team and a member of the National Hockey League (NHL). The team plays at the Xcel Energy Center in St. Paul, Minnesota.

Information technology (IT) plays an important role in the Minnesota Wild's finances, because the team earns much of its revenue from sales of food and beverages, souvenirs, parking, and other guest services at the Xcel Energy Center. "A network or computing outage that prevents us from processing payments has a huge impact on the business," says David Weisbrod, director of IT for Minnesota Wild.

The Minnesota Wild also earns revenues from other events held at the Xcel Energy Center and nearby Saint Paul RiverCentre, ranging from wrestling and volleyball tournaments to conventions. Organizations that rent the facilities typically bring their own servers, workstations, and point-of-sale (POS) devices, and are given a virtual LAN (VLAN) that keeps their traffic separate.

Today's event organizers consider the reliability of the IT environment when they choose a venue. The Xcel Energy Center and Saint Paul RiverCentre already had reliable Cisco networks. However, the previous server and storage solutions sometimes faltered under demanding conditions, preventing teams or event organizers from processing payment transactions. The systems were also expensive to scale.

"To provide a great guest experience and attract more convention business, we need computing and storage systems that are very reliable, easy to manage, and easy to expand," says Weisbrod. Scalability would also be important to the team itself, because coaches wanted to capture and analyze high-definition video during games and practices.

Solution

Minnesota Wild found its solution in a Cisco Unified Computing System™, Compellent Storage Center, and a pair of Cisco® MDS 9124 Multilayer Fabric Switches. The Cisco Unified Computing System combines compute, networking, storage access, and virtualization in a cohesive system managed as a single entity. "The Cisco Unified Computing System provides more memory and higher performance in the same space as our previous system, and also gives us more flexibility," says Weisbrod.

All Cisco UCS Blade Servers in all chassis connect to the core network and to the Compellent SAN through a single pair of Cisco UCS 6100 Series Fabric Interconnects. This arrangement saves the IT team the considerable time to individually cable each server. The fabric interconnects connect to the core network through a pair of Cisco Catalyst® 6506-E Switches, and to the Compellent SAN through a pair of Cisco MDS 9124 Multilayer Fabric Switches, over 4

Gbps Fibre Channel connections. In the future the IT team will connect the Cisco Unified Computing System directly to the Compellent SAN using Fiber Channel over Ethernet (FCoE).

Some of the applications hosted on the Cisco Unified Computing System are Microsoft Exchange, Microsoft SQL Server, Microsoft System Center Operations Manager, an enterprise resource planning (ERP) application, and an application that the team's coaches use to analyze game video in conjunction with NHL statistics.

Midwave, a Cisco Gold Certified Partner, provided planning and design services, and the Minnesota Wild IT team implemented the Cisco Unified Computing System.

> "We're selling fun. Part of showing people a good time at events is making sure we can process their payment transaction for food and beverages."
> —David Weisbrod, Director of IT, Minnesota Wild

Results

Maximized Sales Revenue During Events

The ease of moving applications between Cisco UCS Blade Servers helps ensure that guests can make purchases during events, a benefit to guests as well as the team. "We're selling fun," Weisbrod says. "Part of showing people a good time at events is making sure we can process their payment transaction for food and beverages."

The Wild saw the value of Cisco UCS Manager firsthand when a server developed a memory issue. "Cisco UCS Manager let us limit the outage to about five minutes by quickly moving the application to another server," says Paul Jess, system administrator. "With any other system, we would have had to find and install new parts, and could not have gotten back online until the customers had left and the revenue opportunity was lost."

The reliable, high-performance IT infrastructure also provides a competitive advantage for attracting convention business. For example, the Wild was approached by a company that sells software to higher education institutions about hosting a large user conference. The conference organizers were nervous, because the previous venue had IT problems that disrupted the conference. Reassured by the Wild's state-of-the-art IT infrastructure, the company decided to hold its conference at the Saint Paul RiverCentre. The event proceeded flawlessly. "The credit goes to our Cisco and Compellent solutions," Weisbrod says. The company has indicated it will host future conferences at the Saint Paul RiverCentre.

Excellent Experience for Employees and Event Guests

The high RAM capacity in the Cisco Unified Computing System also makes internal applications operate noticeably faster. On the previous platform, Microsoft Exchange 2007 in a virtual environment utilized 95 percent of processor capacity all day long. On the Cisco Unified Computing System, processor utilization is only 3 to 10 percent. This utilization level means the Minnesota Wild can support more virtual servers on the same physical server, minimizing capital expense.

This high performance has directly reduced payroll costs. "End-of-game processes that used to take hours now take 15 minutes," says Weisbrod. "Saving one hour of payroll for 120 people at every event is a significant savings."

Simplified Management

The Wild has a small IT staff, so simple management is important. Now one system administrator can manage servers, storage, and applications part-time, leaving time to also work with customers who rent the arena or convention center for their own events. "Both the Cisco Unified Computing System and Compellent SAN hide

complexity," Jess says. "Our help desk manager easily learned how to move applications to other servers in the system in case a server should fail when I'm unavailable."

Cable management is also easier. The Wild consolidated from 60 copper cables to just two, which connect the Cisco Unified Computing System to the data and storage networks. "We have fewer cables to manage, less bulk to impede airflow, and less to go wrong," Jess says.

Simple, Low-Cost Growth

Finally, the Cisco Unified Computing System and Compellent SAN both make it simple to add compute and storage capacity as needed. "Adding a server simply requires inserting it in the chassis, not additional cabling or switch ports," says Weisbrod. "And to add storage capacity, we can just add shelves to the Compellent SAN."

PRODUCT LIST

Data Center
- Cisco Unified Computing System
  - Cisco UCS B250 M1 Blade Servers (Full-Width)
  - Cisco UCS B200 M1 Blade Servers (Half-Width)
  - Cisco UCS 6100 Series Fabric Interconnects
- Cisco MDS 9124 Multilayer Fabric Switches
- Compellent Storage Center

Networking Systems
- Cisco Catalyst 6500 Series Switches

To learn more about Cisco Unified Computing System, go to www.cisco.com/go/ucs.

To learn more about Cisco MDS 9100 Series Multilayer Fabric Switches, go to www.cisco.com/go/mds.

To learn more about Compellent SAN solutions, go to www.compellent.com.

Next Steps

Now the Wild is planning to use business video to enhance the guest experience. Guests will enjoy IPTV in suites and learn about events from attention-getting digital signage throughout the property. To acquire the necessary bandwidth, the IT team is considering using Cisco Nexus® Switches to create a 10 Gigabit Ethernet backbone.

To further simplify the data center, the Wild plans to connect the Cisco Unified Computing System directly to the Compellent SAN over Fibre Channel over Ethernet (FCoE). The few application servers not on the Cisco Unified Computing System will continue to connect to storage by way of the Cisco MDS 9124 Switches.

Technical Implementation

The Cisco Unified Computing System currently contains three chassis with 13 blade servers that host 80 servers, both virtual and physical. Some of the servers have 192 GB of RAM, and the others have 32 GB of RAM. Minnesota Wild continues to virtualize its applications, and plans to use the six full-width blades for VMware and Microsoft Hyper-V and the half-width blades for utility servers.