

HP ProCurve Networking Case Study

Lake Washington School District



"In a public school system, every penny not spent on teachers, books, or classrooms is considered overhead. Our new HP ProCurve solution has the features and flexibility we need, with an overall value and support package we can afford. Also, with the powerful, flexible, user-friendly network, we can maintain a growing infrastructure that supports new traffic types and applications."

– Hugh Mobley
Information Systems Administrator
Lake Washington School District

Customer at a Glance

The Lake Washington School district serves the Redmond, Kirkland, and Sammamish, Washington areas. The district educates 23,500 students in 48 schools. Lake Washington was recently named one of the top 10 technology school districts in the U.S. by Scholastic Administrator Magazine.

Highlights

The Lake Washington School District, located in Redmond, Washington, was recently named one of the top 10 technology school districts in the U.S. by Scholastic Administrator Magazine. In an area heavily populated with technology companies, the district has access to leading-class technology, which it incorporates into the daily curriculum. According to district leaders, "to participate in our technological age effectively, students must be information navigators, critical thinkers and analyzers, creators of knowledge and communicators using a variety of technologies." Therefore, the district strives to ensure its students have daily access to the very latest in technology innovations.

The school system recently faced a networking challenge with aging LAN equipment and saturated T-1 lines that could not keep up with demand. The district needed a high-performance, multi-service network that would provide enhanced functionality, increased flexibility, and a high degree of reliability - at an affordable price.

Lake Washington School District selected the HP ProCurve Networking Adaptive EDGE™ architecture based on performance, reliability, ease-of-management, future flexibility, and incredible value. The HP ProCurve convergence-ready solution provides Lake Washington with a powerful, standards-based multi-service network that efficiently handles a variety of traffic types simultaneously.

Lake Washington Uses HP ProCurve to Support Voice, Video, and Advanced Applications

Access to technology is a priority at Lake Washington. The school district has one computer for every four students, and hopes to increase accessibility to one computer for every three students in the near future. In the wake of a network infrastructure overhaul, the Lake Washington school district replaced their old LAN equipment with 300 (and counting) HP ProCurve networking switches.

"In addition to updating its infrastructure, the Lake Washington School District was intent on simplifying and streamlining its communications systems by selecting a network solution that would permit the integrating of voice, video, and data over a single network. HP ProCurve's convergence-ready architecture was a key factor in Lake

Washington's decision, enabling the district to incorporate multiple traffic types and preparing the infrastructure for future enhancements.

HP ProCurve Networking tools offer unparalleled range of traffic prioritization features to provide traffic type coexistence and quality of service (QoS) functions - virtually eliminating the need for custom network design architectures and ensuring support of current and future voice, video, and content delivery applications. The ProCurve network architecture has adaptability built-in, providing the ability to predict and assure the timely delivery of specific types of communication traffic across the district's network.

HP ProCurve convergence solutions are developed to deliver connectivity at the edge of the network over an easy-to-manage, standards-based infrastructure. Only control to the edge provides the secure and robust functionality needed to support all current and future application types according to the district's specific needs.

Today, Lake Washington is using the network for basic school operations such as voice, email, a system-wide online library, and administrative functions (attendance, grading, and contact databases). Tomorrow, it will utilize the network for district transportation, GPS-type student demographics applications, and streaming video to the classroom.

Wherever their technology visions may lead, Lake Washington can expand with confidence that the HP ProCurve solution will quickly adapt to their communications needs and lay the foundation for integration of voice, data, and video solutions on a single IP network.

HP ProCurve Forms a Flexible Foundation for a Large Campus Network

The Lake Washington district network serves 1,200 classrooms, each with 12 ports. There are also multiple administrative sites and computing laboratories. The network topology is hub-and-spoke, with the central district hub office connecting to the Internet. The school district is steadily converting all connections from T-1 to fiber for higher speed and capacity.

Hardware

- HP ProCurve Switch 4108
- HP ProCurve Switch 2650
- HP ProCurve Switch 2524
- HP ProCurve Switch 2512

Software

- Lifetime software upgrades included in purchase price of most products
- Network management software

HP Services & Support

- Lifetime warranty with next-business-day advance replacement (available in most countries) on most products for as long as the customer owns it*
- Telephone support available during normal business hours
- Technical product support available via e-mail
- Comprehensive network design and configuration services offered at no extra charge

* The HP ProCurve Routing Switch 9300m series and Secure Access 700wl series have a one-year warranty with extensions available.

Lake Washington has deployed HP ProCurve Switch 4108gls, each with 72-ports and wire-speed, convergence-ready technology. There are also HP ProCurve Switch 2650s, which feature the highest port density in the industry for their size, ideal for a rapidly growing network. These switches are cost-effective and stackable, with multi-layer functionality. Layer 3 static routes enable VLAN-to-VLAN communications and Rapid Convergence Spanning Tree Protocol (802.1w) that increases network uptime through faster recovery from any failed links.

In the classroom networking closets, Lake Washington installed HP ProCurve Switch 2524 and 2512s, which offer 10/100 managed switching capability and uplinks. "We've had a positive response from our classrooms," said Hugh Mobley, information systems administrator, Lake Washington School District. "The 10/100 auto-sensing capability of the HP ProCurve switches allow us to take advantage of the entire network capacity, which is essential to support the simultaneous network activity which is common in a classroom environment."

Since student information and records are confidential, a high degree of network security is paramount. HP ProCurve products have advanced security features, such as port security which prevents unauthorized access, and SSH (Secure Shell) and SSL (Secure Socket Layer) encryption standards.

Business Results

- The HP ProCurve networking solution consistently delivers on the value propositions of availability, affordability, security, ease-of-use, and interoperability.
- Students, teachers, and staff in 1,200 classrooms, each with 12 ports use computers on the network simultaneously with confidence that they will have a high-speed, secure, and reliable connection.
- The HP ProCurve solution provides performance and value for a technologically advanced network and budget-conscious school district.
- Although the network is growing rapidly, HP ProCurve's powerful and user-friendly network management features enable Lake Washington to keep IT staff to a minimum.

For more information

When you are ready to explore the benefits an HP ProCurve Networking solution can offer you, call HP at 1-800-975-7683. To learn more about HP ProCurve Networking's Adaptive EDGE Architecture™ solutions, visit us at www.hp.com/go/hpprocurve.

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