

# Vancouver Public Schools Gains 10G Infrastructure, Increased Capacity, and Better Performance



## VPS CLIENT PROFILE

### ENVIRONMENT

- Network users: 23,500 students/3,300 staff
- 42 district locations
- 30,000+ devices

### TECHNOLOGY NEEDS

- e-Learning
- Wired Infrastructure
- 1:1 Device Management

### EXTREME SOLUTION COMPONENTS

- ExtremeSwitching
- ExtremeControl

Located in Southwest Washington, Vancouver Public Schools (VPS) provides an innovative and engaging learning environment for 23,500 students. More than 3,300 dedicated professionals work together, helping students become successful throughout 21 elementary schools, six middle schools, five high schools, an arts school, a STEM school, and three additional programs. Students in VPS develop the knowledge and essential skills to become competent, responsible, and compassionate citizens.

To provide students with personalized access to devices and digital resources in support of their learning, Vancouver Public Schools has implemented one-to-one technology throughout the district.

## Providing a Reliable 1:1 Digital Learning Experience

Tasked with connecting 42 district locations, Vancouver Public Schools' switching and routing infrastructure had always been able to keep up with the network demands of their large student population. When VPS implemented a 1:1 program that provided all staff with two devices and all students with one device, the number of devices on the network grew to over 30,000. While their network was still able to provide more bandwidth capacity than demanded, the ability of the switches to keep track of all devices began to limit some of the options for services like streaming video.

To prepare for future initiatives, including the expansion of their 1:1 digital program by providing iPads for primary level students, upgrade to a VoIP phone system, and a desired move to online streaming video for their broadcast TV, it became apparent that VPS needed to upgrade their network capacity from 1G to 10G.

## Staying at the Head of the Class

The impact of the network on the quality of education was the main concern as VPS looked to upgrade their wired infrastructure. Extreme Networks has provided VPS with a high-performance network for 10-plus years, enabling them to provide 1:1 to their students without any bandwidth constraints. VPS therefore looked to Extreme Networks when upgrading their switching infrastructure to accommodate more devices and keep them ahead of the curve because of their already-successful partnership.

According to Steve Bratt, Director of Technology Infrastructure and Operations at VPS, "The reliability and availability of our network has always been very high with the Extreme Networks switches and there have been no complaints — even with

*“Our Extreme network has never constrained our ability to deliver a 1:1 digital learning experience to our students. Upgrading our network to 10G will keep us ahead of the curve and enable our educators to do whatever they imagine without having to worry if the network can handle it.”*

**STEVE BRATT,  
DIRECTOR, TECHNOLOGY  
INFRASTRUCTURE AND  
OPERATIONS, VANCOUVER  
PUBLIC SCHOOLS**

the 1G network. As we planned for more devices and services, we knew without a doubt we would look to Extreme for the upgrade to 10G.” As VPS made the move to current generation hardware, they worked with Extreme to provide a stackable switching solution that would meet their current and future needs for coverage, capacity, speed and reliability.

Faced with budget constraints, cost is always a big concern for K-12 school districts that are constantly challenged to do more with less. VPS is confident that they are not paying more than they need to for their infrastructure. They credit this to the very low operational cost needed to keep the network up and running, E-rate funding and the discounts that Extreme gives to educators to make the solution very affordable. “Thanks to Extreme’s generous discount off list price for educators and our anticipated E-rate funding, we were able to install a network with a list price nearing \$2 million dollars for around \$150,000,” said Bratt.

The new network will enable VPS to cost-effectively provide a 10G infrastructure that gives them the increased capacity and performance to provide all users at every site with the educational, web and video content they need. The end result is a seamless 21st century learning experience.

## Unlimited Learning Potential

With their upgraded Extreme infrastructure in place, the sky’s the limit to what educators can do with their technology. From allowing students to use their iPads for online testing, to delivering personalized learning content, to streaming video content in the classrooms – it’s all made possible by the new high-performance switches and the increased network bandwidth. “The move to current generation hardware was essential in building an online video distribution system for broadcast TV that allows channels to stream into the classrooms. This would not have been possible without the network upgrade; there was simply not enough multicast memory in the old switches to handle it,” said Bratt.

Bratt is equally impressed with the service and support he receives from Extreme as he is with the speed and high-capacity backplane of Extreme’s switches. He appreciates the fact that the sales and support staff give him what he needs, when he needs it, without trying to upsell him before a need exists.

The upgraded infrastructure will facilitate the IT staff in the continuing improvement of their 1:1 device deployment and allow for increased data, more educational apps, broadcast data and VoIP phones to deliver a superb quality learning experience in the classroom.



<http://www.extremenetworks.com/contact> / Phone +1-408-579-2800

©2016 Extreme Networks, Inc. All rights reserved. Extreme Networks and the Extreme Networks logo are trademarks or registered trademarks of Extreme Networks, Inc. in the United States and/or other countries. All other names are the property of their respective owners. For additional information on Extreme Networks Trademarks please see <http://www.extremenetworks.com/company/legal/trademarks>. Specifications and product availability are subject to change without notice. 10982-0916-26