An International School System Uses FatPipe to Create a Reliable and Flexible Connection for its Students

An international school system has over 500 schools within its boundaries. There are thousands of students on the network that has 7Gig WAN connections for internet access. Each school connects to the datacenter with 100Meg to 1Gig connectivity. The challenges that the IT department faces are to create more reliable and efficient usage of the available bandwidth and create a solution that is better able to cope with surges in demand and provide reliability.

SOLUTION OVERVIEW

SITUATION
The school system runs programs for students, parents and staff over the Internet. It required increased bandwidth and a higher level of reliability using its existing lines.

SOLUTION
The school system aggregated the dissimilar lines though a FatPipe SD-WAN networking appliance, utilizing the combined speed of the connections while achieving a high level of WAN redundancy.

BENEFITS
Using a FatPipe SD-WAN solution, the school system can be confident that the network is more able to cope with additional workload and benefits from increased availability. It is also a solution that is fully upgradeable in the future.

All of the students have access to the network and the internet 24/7. There is external access to the system’s secure Intranet for students to ensure that coursework is completed and for parents and teachers to check on the progress of the students. The surges in demand can often come in the evenings as well as during the day when various allowable websites are accessed which creates additional strain on the available resources.

The current connections comprise of 7 x 1Gig fiber connections which are separate connections so they are not load balanced nor offer any redundancy should a line fail. FatPipe provides load balancing and automatic failover through its SD-WAN product to address this flaw. This is important for students taking online examinations where they require a reliable network and automatic failover to prevent losing their progress and receive up-to-date materials. Students also access school files remotely, which would normally overload lines if FatPipe load balancing weren’t used to manage multiple connections.

The addition of a FatPipe SD-WAN solution enables the school system to eliminate expensive and inconvenient downtime by introducing automatic failover which reroutes traffic to the available lines in the event of a failure. The device also enables the school system to load balance all of the available connections and create a more available network that is better able to cope with increases in overall demand at any time of the day.

The solution also makes it easy for the school system to add further connections such as more fiber connections without the need for major changes to the infrastructure. The "set it and forget it” nature of the FatPipe solution means that the focus of attention for the IT department can shift away from connections and onto more important strategic issues.