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CASE STUDY: University of Virginia, Blandy

In Brief

Industry
- Education

Challenge
- Improving Internet connectivity speeds cost effectively
- Adding high 9s reliability to the WAN connectivity

Solution
- Mushroom Networks Truffle Internet bonding appliance

Benefits
- Return on Investment (ROI) was fully realized in several weeks
- Internet speed is 13 times faster
- Diversified connections enable proactive, unattended failover when extreme slow-downs or outages occur
- Simplified scalability that enabled easy future growth

Department Blandy At The University Of Virginia Deploys Truffle To Add Bandwidth Cost Effectively

Department Blandy is part of the University of Virginia, a distinctive higher education institute founded by Thomas Jefferson in 1819. The University of Virgina was ranked number 2 best public university in the 2013 edition of U.S. News and World Report rankings. The University of Virginia is made up of eleven schools with 51 bachelor's degrees in 47 fields, 81 master's degrees in 65 fields and 57 doctoral degrees in 55 fields. Blandy (blandy.virginia.edu) has its own facility and field station for the University including the famous experimental farm and botanic garden where researchers, biologists and students work over the 700 acres. Blandy at University of Virginia focuses on research, education and public outreach programs.

Challenge: Adding Bandwidth And Improving WAN Uptime Within a Limited Budget

Judith Masi from the University of Virgina, lead the project at Blandy to overhaul the departments Internet connectivity while staying within the budgetary limitations. All of the services that the department uses including various University of Virginia web based services such as the internal financial systems, relied on the Internet connectivity. None of the single Internet connectivity options provided the required reliability at an affordable price point. The legacy T1 based network did not provide the required high availability, as the T1 outages were not uncommon.

Beyond the required reliability, one of the other challenges that Judith faced was the limited options for cost effective bandwidth. T1 and cable connectivity options were either not cost effective or did not provide enough bandwidth.

During schools season, the demand on the Internet connectivity was further stressed. As Judith puts it, "Young people need their bandwidth".

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"... T1 is not 100% reliable, used to go out several days a year, but now we still function during T1 outages, thanks to the 100% seamless failover capabilities of the Mushroom device"

Judity Masi
Project Lead, UVA Blandy

"...intuitive, easy to install, it [Truffle] just works. I don't know what makes it work, I just know it does, I love it!"

Judity Masi
Project Lead, UVA Blandy

Solution:

The team at Blandy, University of Virginia decided to deploy Mushroom Networks' Broadband Bonding® appliance that leverage a technique that melds various number of Internet lines into a single faster and more reliable WAN connection. The Truffle™ by Mushroom Networks was used to bond together T1 and DSL lines for very fast and highly reliable connectivity.

The T1 outages used to bring down the department's Internet connectivity, but now, thanks to Musroom Networks' packet level Internet bonding router with dynamic Internet failover, Internet outages are a thing of the past.

Benefits:

With the installation of Truffle, the monthly savings on the bandwidth cost was significant and resulted in a return on investment (ROI) of only several weeks.

The installation was done seamlessly by Judith Masi herself in a matter of minutes without requiring any changes in their existing network. This passthrough install capability minimized downtime during installation.

The ability to diversify connections across multiple providers and multiple paths assures automated failover and ISP diversification in the event a connection goes down. According to Judith Masi, "... T1 is not 100% reliable, used to go out several days a year, but now we still function during T1 outages, thanks to the 100% seamless failover capabilities of the Mushroom device".

Added benefits included 3G/4G wireless failover, advanced QoS, , layer7 deep packet inspection, traffic monitoring, bandwidth reservations, traffic shaping, traffic filtering, dynamic DNS, firewall and other advanced routing features.

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"For anyone who has the challenge of getting enough bandwidth or limited availability, this [Truffle] is a great way to skin that cat."

Judity Masi
Project Lead, UVA Blandy

Summary

University of Virginia's department Blandy was looking to add bandwidth and redundancy to their Internet connectivity that enabled all of their web based services and also provided Internet connectivity to students, researchers and biologists. They installed Truffle Internet bonding appliance to enhance their existing T1 based connectivity and added cost effective DSL lines to boost their Internet speed up to 13 times and practically eliminated WAN down-time. The project was completed in a very short period of time with minimal downtime during installation.

About Mushroom Networks, Inc

Mushroom Networks is a San Diego, California-based company with the mission to provide innovative networking solutions. Our products and services are focused on a range of networking solutions for enterprises and small/ medium sized businesses in various industries. Our solutions bridge the technology gap to the future by enabling applications today, that are otherwise not possible. Mushroom Networks was founded in 2004 as a spin-off from the University of California at San Diego. Mushroom Networks' products are based on the unique and patented Broadband Bonding® technology developed by our engineering team through extensive research & development.

Mushroom Networks Product & Technology Awards:

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