

**STONESOFT**



**Case Study – Grace Church School**

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## **StoneGate Ensures Always-on Network Connectivity**

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# StoneGate delivers improved network manageability and significant cost savings

Grace Church School was challenged to find a superior security solution to ensure network uptime and increase manageability over its existing Cisco environment. As a school with a strong technology education program, network reliability is core to Grace Church School's ability to provide students with an engaging learning process. After evaluating several alternatives, the school chose to cluster two StoneGate™ firewall/VPN appliances with its Multi-Link™ technology, featuring failover capabilities for Internet redundancy. The StoneGate Management Center also provided detailed monitoring tools to improve network management. The organization experienced immediate benefits after the deployment, including uninterrupted Internet connecting, in-depth network visibility and secure network redundancy. Additionally, the school worked closely with Stonesoft to redesign its network to replace its router with StoneGate, producing immediate cost savings by combining the functions.

## Network security's role in education

Grace Church School is a private school in Manhattan for students between the ages of 4 and 14. The school has a strong emphasis on the overall process of learning, incorporating concepts and applications into curriculums that foster a student's commitment to life-long learning.

For Grace Church School an important part of this learning discovery is technology education. In fact, the school starts introducing technology as early as junior kindergarten with learning games and keyboard familiarization. Structured computer classes begin in second grade. By the end of eighth grade, students will have programmed an animation, created and edited a video and built a website. With technology as an integrated part of the school's learning process, Grace Church School relies on 24x7 network uptime to ensure that students and teachers can access the Internet to participate in classroom lessons and assignments.

In addition to network accessibility for classroom purposes, Grace Church School requires a strong perimeter defense to keep its payroll, fundraising and admission offices records secure. As one of New York's high profile independent schools, security is vitally important to Grace Church School's ability to ensure that confidential data is not compromised.

## Internet outages create a catalyst for change

Each year Grace Church School holds a computer fair where parents are invited to join faculty and fellow students to view class projects, representing students from the second through eighth grades. This is an important annual event where the students look forward to showcasing their technical development and understanding. When the school experienced significant Internet outages during the computer fair, due to a local ISP issue, the school's IT staff knew they had a problem impacting many levels of its operations.

"When the school's Internet is down it undermines all of our major communications since we depend on e-mail for communication among teachers, students, parents and administrators," said Dr. Akbar Herndon, Director of Technology. "However, not having an Internet connection for several days during the computer fair was absolutely unacceptable."

The Internet provider the school used had several switching stations that were down, which caused a spotty connection on the day preceding the event and no connection on the opening evening and day of the computer fair. This created immediate concerns with the eighth grade students who felt they would not have enough time to finalize the websites they had created or demo the links as they were designed. Web-based projects had to be recreated to work around the lack of Internet access.

"Because of the outage one fourth grade team had to present a static version of their wiki, which totally goes against what a wiki is," said Dr. Herndon. "This was not the experience we wanted for our students and their parents and we knew this couldn't happen again."

## Best-of-breed Multi-Link solution delivers complete network redundancy

After the annual computer fair, Grace Church School's IT team set out to find a network security solution that could support 24x7 availability. Even though recent events created urgency, the IT team searched widely to find the most appropriate multiple line solution to choose. They needed a product for redundancy that would easily integrate with their Cisco infrastructure, providing greater network visibility and support for their virtual LAN setup.

Grace Church School learned about Stonesoft through a partner that highly recommended the reliability of the StoneGate VPN solution. Stonesoft

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**Dr. Akbar Herndon - Director of Technology - Grace Church School**



showcased the capability of its integrated solution, the StoneGate Firewall/VPN with Multi-Link technology, to support network uptime via multiple ISP failover connections. In addition to its redundancy strength, Stonesoft demonstrated how StoneGate's rich and comprehensive feature set is built to handle unique network needs, such as security for unlimited virtual networks.

After the evaluation, Grace Church School chose to deploy a cluster of two StoneGate Firewall/VPN 1020 appliances. The implementation of the devices was seamless and the Multi-Link technology was configured to work with two separate ISPs – one regular T1 and one cable provider – for network redundancy. The devices are not using BGP (Border Gateway Protocol) connections. By using this dual ISP setup, Grace Church School was able to increase its bandwidth since StoneGate shares ISP capacity rather than using one over the other.

### **StoneGate Management Center delivers full visibility into network**

Grace Church School was looking for help with improving its network monitoring. With the StoneGate Management Center capabilities and easy-to-use graphical interface, Grace Church School has full visibility into what was happening throughout its network.

“The possibilities we saw with the StoneGate Management Center were key influences in selecting the solution,” said Dr. Herndon. “We can now see the traffic on each part of our network and are alerted to inappropriate use of our systems.”

### **Expert technical support resolves network management issues and reduces IT costs**

In addition to the improvements resulting from the implementation, Stonesoft's onsite solutions architect evaluated the school's network and discovered several security bottlenecks with the existing Cisco environment, stemming from the VLAN configuration that needed to be addressed.

Stonesoft devised a plan and redesigned Grace Church School's network by replacing the core Cisco router with the StoneGate Firewall/VPN. By re-routing traffic through StoneGate, the school's IT staff was able to access and query all of the network's activity in a consolidated view as well as to reduce overall IT costs by combining functions. In addition to improved connectivity, the StoneGate Firewall/VPN ensured router redundancy, so in the event that routing ever went down, the school would have a physical backup available.

“We couldn't be happier with our selection of the integrated StoneGate Firewall/VPN cluster,” said Dr. Herndon. “The level of security, monitoring and redundancy offered by this platform has enabled us to rethink our entire network setup and deploy a solution that has improved efficiencies and secured the school's overall infrastructure.”

Grace Church School is also evaluating Stonesoft's SSL VPN solution to augment its current network functionally to provide secure Web access to teachers and students connecting to the network remotely.

## Grace Church School Challenges

- Unreliable Internet connections
- Limited view of internal and external network activity
- Complex VLAN infrastructure with minimal security between network segments
- Security bottlenecks impeding overall network performance

## Results with Stonesoft

- Full network redundancy with seamless failover for multiple ISPs
- Increased network visibility with detailed monitoring
- Improved efficiencies and security of network infrastructure
- Expert technical support redesigns infrastructure to improve network efficiencies

## About Grace Church School

Grace Church School was founded in 1894 by Grace Church as the first choir boarding school in New York City. In 1947 Grace became a co-educational school and was admitted to the Guild of Independent Schools of New York City. In the following decade the school began to expand its facilities to accommodate a growing student body. From the original sixteen choristers, Grace has grown to its current enrollment of over 400 boys and girls drawn from a wide variety of ethnic, economic, and religious backgrounds. While the school has continued its close relationship with Grace Church, since 1972 it has been governed by an independent Board of Trustees, and it is a fully accredited member of the New York State Association of Independent Schools and the National Association of Independent Schools.

## About Stonesoft

Stonesoft Corporation (OMX: SFT1V) is an innovative provider of integrated network security solutions to secure the information flow of distributed organizations. Stonesoft customers include enterprises with growing business needs requiring advanced network security and always-on business connectivity.

StoneGate™ Secure Connectivity Solution unifies firewall, VPN, IPS and SSL VPN blending network security, end-to-end availability and award-winning load balancing into a centrally managed system. The key benefits of StoneGate Secure Connectivity Solution include low TCO, excellent price-performance ratio and high ROI.

StoneGate Management Center provides unified management for StoneGate Firewall with VPN, IPS and SSL VPN. StoneGate Firewall and IPS work together to provide intelligent defense throughout the enterprise network while StoneGate SSL VPN provides enhanced security for mobile and remote use.

Founded in 1990, Stonesoft Corporation is a global company with corporate headquarters in Helsinki, Finland and Americas headquarters in Atlanta, Georgia. For more information, visit [www.stonesoft.com](http://www.stonesoft.com).

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