CYBERGUARD
CORPORATION

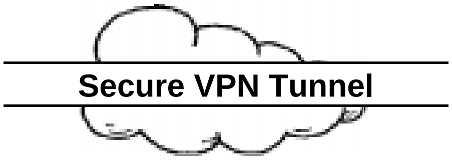
FINANCIAL SERVICES & PUBLIC NETWORKS

Data security and accuracy are in jeopardy as financial services applications are linked with public networks – electronically accessible to anyone. To regain control, the Secure Virtual Private Network was developed. The CyberGuard Firewall, together with RedCreek Communications' Ravlin, offers an ideal solution for financial services users that demand ease of operation, transparency, standards compliance, and scalability.

The Internet is a fact of life in today's financial services industry. Branches and remote offices need it, customers demand it, and competitors leverage it.

The challenge is to make the Internet secure. When passwords or other financial data are stolen on the Internet, losses have been in the millions. Of equal concern, consumer confidence evaporates. Every new Internet financial service – from online banking to credit card purchases and securities transactions – is jeopardized with the combined threat of government regulation and consumer distrust.

Many financial services businesses until recently have relied on firewalls to secure access into a facility. The idea was that if access to systems were denied, the data would be safe. With the new generation of financial services, however, financial data often travels between offices on public networks where a secure firewall, like CyberGuard, is needed to protect transmission data. Adding to the concerns some of that data, such as passwords, may provide a key to unlock access back into the corporate computing center.



The answer to the problem is the Secure Virtual Private Network (SVPN). SVPNs authenticate people and locations on the network and encrypt transmissions so they can't be changed or read. Effectively, SVPNs build steel-like tunnels among authorized recipients and locations across public networks.

Choosing a Solution

The popularity of SVPNs has resulted in many products and SVPN designs. Some familiar, fundamental criteria can help in choosing the right solution. Standards are essential to today's computing environment. IP security protocol (IPSec), developed by the Internet Engineering Task Force (IETF) has emerged as the standard for SVPNs. IPSec defines how well known, trusted standards are applied to building secure tunnels through the Internet. IPSec endorses the Data Encryption Standard (DES) and triple DES (3DES) as traffic ciphers. International Key Exchange (IKE), a component of IPSec, defines the use of digital certificates for key management and authentication. IPSec supports 2nd level authentication systems, such as RADIUS, and widely used token generators, such as Security Dynamics' SmartCard and CryptoCard.

SVPN Guidelines

- · ***Stick to the Standards***
- · ***Make it Easy to Use and Manage***
- · ***Use Hardware-Based Encryption***
- · ***Keep the System Transparent***

Ease of use takes on special importance in the new financial services marketplace. Branches, remote offices, and consumer homes that are now part of the financial network don't have on-site technical support; Internet security systems need to be easy to install and maintain.

Speed is crucial to today's applications. If the system is slow, productivity sinks along with user satisfaction. The fastest, most efficient, and least expensive solution is hardware-based encryption. Encryption is a compute-intensive operation that runs best in finely tuned firmware with a dedicated processor. Software-based encryption products must share the host processor, which slows the entire system and uses expensive host resources.

Transparency is another important consideration. Application-level security, for example, is often responsible for degraded security as users mishandle passwords and bypass other inconvenient security systems. Ideally, SVPNs should be implemented and maintained without user intervention.

CyberGuard Firewalls and RedCreek Ravlin

The proven security of CyberGuard, combined with the Ravlin technology, brings you a breakthrough product line to meet these SVPN criteria. Ravlin is based on unique technology, CryptoCore™ (patent pending).

High Security. The CyberGuard Firewall with SVPN offers the highest level of security available today in a firewall.

Ease of installation. Installation takes seconds with the Ravlin Manager, which supports the CyberGuard Firewall and Ravlin stand alone devices.

Ease of use. New SVPNs are created with point-and-click simplicity using Ravlin Manager.

High performance. the on-board processor for the Ravlin 45 delivers 45mbps.

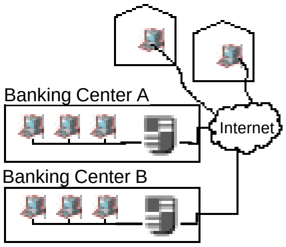
Scalability. Users select the right price-performance components to meet their needs from single users to enterprise.

Standards. Supports the IETF, IP Security (IPSec) standard for SVPNs, and the requirement for NIST validation according to FIPS-140-1.

Applications in Financial Services

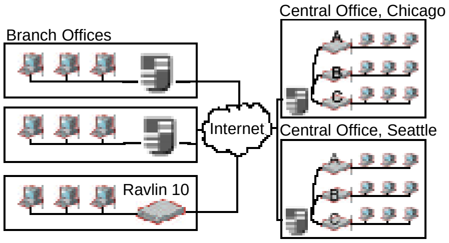
Financial services applications demand unique levels of reliability, scalability, and flexibility. The following are some examples of the CyberGuard Firewall with SVPN applications in financial networks.

HOME BANKING



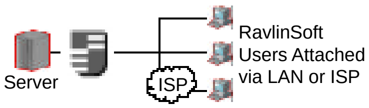
In many home banking systems, the connection between the home and the banking center is protected on Web browsers using the SET standard with Secure Sockets. Ravlin units are used to encrypt account information flowing between banking centers and hosts.

BRANCH OFFICE NETWORK



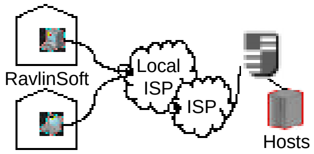
In a branch office network, the CyberGuard Firewall and Ravlin 10 protect financial information traveling between branches and central facilities. Cental Offices would require the full protection of a CyberGuard Firewall and SVPN, while Branch Administrators can choose between a CyberGuard Firewall or the Ravlin 10, depending on the amount of users in each office.

SERVER PROTECT



A CyberGuard Firewall placed just outside the server protects information across internal networks without requiring the server to perform encryption and prohibits unauthorized devices accessing servers.

MOBILE SERVICES



For mobile loan officers, brokers, and other finance professionals, RavlinSoft Client allows encrypted communications using low cost local ISPs. RavlinSoft also works with hardware tokens that encrypt disk, CD-ROMs and floppies to further protect these mobile assets.

CyberGuard Solutions
for Banking and Finance
For more information on meeting your
Secure VPN requirements,
contact CyberGuard Corporation at
800-666-4273 or 954-958-3900.