



**Certeon's S-Series™ Application Acceleration Appliance** — the industry's first solution that can securely accelerate Web applications over a WAN.

## THE CHALLENGE

Enterprises are moving toward a more centralized collaboration environment and increasing the use of Web portal-based technology to enable application access to remote users. Unfortunately, the inherent wide area network (WAN) issues of limited bandwidth, high latency, and lack of end-to-end security generally deliver only a fraction of the performance required by the remote user.

Furthermore, enterprises face pressures to protect mission-critical data between clients and servers with end-to-end security and are forced to make unacceptable trade-offs between maintaining application speed and delivering secure data.

## THE SOLUTION

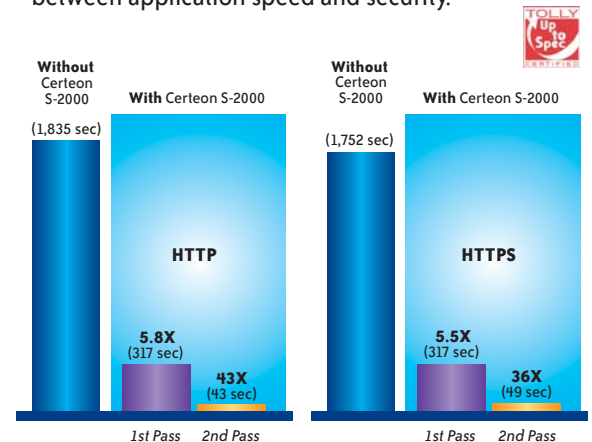
The S-Series™, built upon Certeon's Secure Acceleration Technology™, is the industry's **first** solution capable of dramatically improving application performance while maintaining security from the desktop to the data center. Certeon's S-Series™ Application Acceleration Appliances deliver the following:

**Speed** — The S-Series™ accelerates all application traffic and, through the use of Certeon Application Acceleration Blueprints™, is able to provide exceptional acceleration gains for specific HTTP/S-based applications such as 2007 Microsoft® Office™ System, Microsoft® SharePoint® Services, and UGS® Solid Edge™ and Common Internet File Services (CIFS). Certeon's Application Acceleration Blueprints™ understand the object models and messaging semantics of specific applications and use this knowledge to dramatically reduce application response times and minimize the amount of traffic and chatter over a WAN.

**Security** — The S-Series™, with Application Intelligent Networking™, is the first solution to securely accelerate both un-encrypted (HTTP) and encrypted (HTTPS) traffic over a WAN from the desktop to the data center. Now traffic can be encrypted at the corporate data center and remain that way until the SSL session is terminated at the desktop. All HTTP and HTTPS data is protected and accelerated, private keys never leave the data center, and the data remains encrypted on the S-Series™. For the first time, customers do not have to choose between application speed and security.

*“Certeon's S-Series appliances saved us from having to invest in additional network bandwidth by greatly accelerating the performance of accessing large files over our existing network infrastructure.”*

— Joel Brown,  
IT Coordinator,  
Ideal Aerosmith



*Independent testing by the Tolly Group clearly demonstrates the dramatic acceleration (reduction in response time) delivered by Certeon's S-Series™ for both HTTP and HTTPS data over a congested WAN.*

**Scalability** — As the number of branch office users expands and the applications they access become more complex, WAN utilization increases dramatically. In addition, globally located branches are susceptible to greater packet loss and latency. The results are significantly increased application response times and reduction in the ability for additional users to remotely access applications. The S-Series™ reduces network traffic and chatter, allowing more users (up to 20 times) and applications to be supported without increasing bandwidth. By optimizing application traffic and eliminating the need for additional bandwidth, Certeon can cost-effectively provide access to more business applications to more workers — domestically and around the world.

# S-Series™ Application Acceleration Appliance

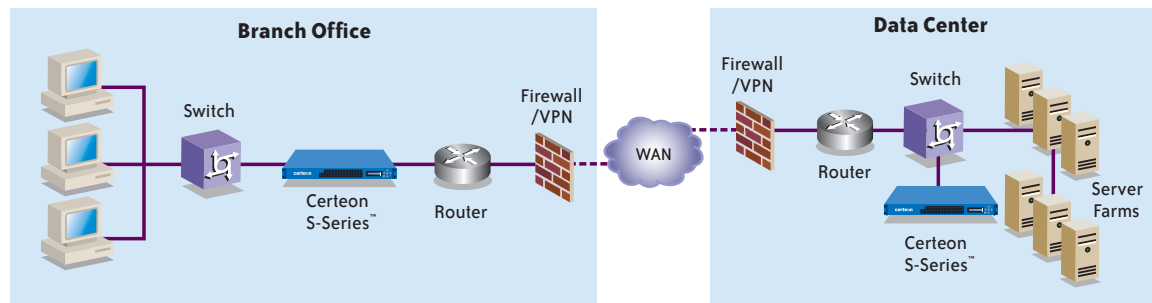
## ABOUT CERTEON

Certeon S-Series™ is the only solution providing Application Intelligent Networking™ from the desktop to the data center. Certeon's Secure Acceleration Technology™ increases the speed, security, and scalability of mission-critical WAN-based applications. The result is a significant reduction in application response times, improvement in user productivity, and enhancement in corporate data security for branch office workers. For more information about the Certeon S-Series™ Acceleration Appliances, visit [www.certeon.com](http://www.certeon.com).



4 Van de Graaff Drive  
Burlington, MA 01803  
E-mail: [info@certeon.com](mailto:info@certeon.com)  
Tel: 781-425-5200  
[www.certeon.com](http://www.certeon.com)

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## THE VALUE OF SECURE APPLICATION NETWORKING™

### Accelerate Your Business

- **Application Acceleration Blueprints™** — Turbochanges applications by accurately identifying application objects for fast differencing, including renamed or changed files and files that multiple clients download at the same time.
- **Web Application Optimization** — Optimizes and accelerates all HTTP, HTTPS, WebDAV, and underlying TCP connections.
- **Object Differencing Engine** — Dramatically reduces the data flow over the WAN.
- **Generic Traffic Acceleration** — 2-way history-based differencing accelerates even non-TCP traffic.
- **Wide Area File Services (WAFS) Acceleration** — Speeds access to WAFS over the WAN by accelerating the Common Internet File System (CIFS) protocol.
- **Network Optimization** — Window resizing, forward-error correction, persistent connections, and small packet aggregation maximize throughput across the network; optimizes current bandwidth to support more users/applications.
- **Business Traffic Prioritization** — Application-level QoS combined with standards-based packet marking ensures that business traffic is prioritized while ensuring VoIP and video interoperability.

### Improve Your Security

- **HTTPS Acceleration** — Secures and accelerates all encrypted (SSL) and non-encrypted HTTP traffic from the desktop to the data center.
- **Distributed SSL** — Secures HTTPS acceleration via Certeon's patent-pending key management — private keys never leave the data center.

- **Strong Encryption** — Disk encryption and IPsec tunnels secure all data. Supports multiple configurable algorithms, including HMAC-SHA-256 and AES or 3DES.
- **Authentication Integrity** — All requests are transparently authenticated by the server.
- **Data Integrity** — Data is always fresh and correct.
- **Hardened Platform** — Hardened against intrusion, management access, and spoofing attacks.
- **Distributed HTTPS** — Reduces server load and improves application scalability by off-loading SSL processing to S-Series™ devices.

### Reduce Your Costs

- **Easy Deployment & Management** — Installs in minutes and can be deployed in-line or out-of-line via WCCPV2, policy-based routing, or layer-4 switching.
- **Transparent** — No changes need to be made to client computers, servers, applications, or security. The S-Series™ may be symmetrically deployed over any WAN topology, including mesh, hub and spoke, and point to point.
- **Availability** — N+1 failover and Fail-to-Wire provide resiliency in the event of an S-Series™ failure.
- **Advanced Monitoring** — Extensive performance monitoring provides real-time feedback on application and network performance as well as S-Series™ health; CLI via SSH, telnet, or console; and RADIUS authentication.



S-Series™ Model S-2000

**EASY DEPLOYMENT**

- No client, server, or application re-configuration required
- Origin server always accessed for authentication and to ensure refreshed data
- Upstream and downstream (saving and opening) data acceleration
- Flexible deployment, in-line or out-of-line
- N+1 redundancy

**SUPPORTED APPLICATION ACCELERATION BLUEPRINTS™**

- Generic HTTP/HTTPS
- Microsoft® Office™ System Applications (2007 Ready)
- Microsoft® SharePoint® Services
- Oracle® E-Business Suite
- UGS® Solid Edge™
- Common Internet File System (CIFS)

**S-SERIES™ MODELS**

	<b>S-1000</b>	<b>S-2000</b>	<b>S-3000</b>
<b>Usage</b>	Small Branch	Large Branch	Data Center
<b>Profile</b>	1U	1U	1U
<b>Historical Data Capacity</b>	80 GB	160-500 GB	2 TB
<b>Effective Throughput</b>	10 Mbps	30 Mbps	155 Mbps
<b>External Branch Connections</b>	5	10	50
<b>Fail-to-Wire</b>	Yes	Yes	Yes
<b>Network Interfaces</b>	10/100/1000	10/100/1000	10/100/1000
<b>HTTPS Acceleration</b>	Yes	Yes	Yes
<b>Disk Encryption</b>	Yes	Yes	Yes
<b>IPsec</b>	Yes	Yes	Yes

**S-SERIES™ TECHNICAL SPECIFICATIONS**

<b>Deployment</b>	In-line, out-of-line via WCCPv2, policy-based route, Layer 4 redirect
<b>Power</b>	100-240 VAC, 50-60 Hz, 200W
<b>Topologies</b>	Symmetric operation across mesh, hub, and spoke, and point to point
<b>Environment</b>	Operating Temperature: 0 to 35° C
<b>Management</b>	SNMPv2 MIB-II and Enterprise, CLI via SSH, Telnet;
<b>Console</b>	RS-232 DB9 9600 bps
<b>Certifications</b>	FCC, UL, CE
<b>Encryption</b>	IPSEC Tunnel: 3DES, AES, Disk Encryption: 3DES, AES
<b>Fail-to-Wire</b>	When powered off or device fails
<b>Dimensions</b>	S-1000/2000: 1U x 15" deep, front or mid mounts, 15.5 lb S-3000: 1U x 27" deep, 45 lb

Certeon is the only company providing Secure Application Networking™ from the data center to the desktop. Certeon's Secure Acceleration Technology™ increases the speed, security, and scalability of mission-critical WAN-based applications. The result is a significant reduction in application response times, improvement in user productivity, and enhancement in corporate data security for branch office workers. For more information about the Certeon S-Series™ Acceleration Appliances, visit [www.certeon.com](http://www.certeon.com) or call **781-425-5200**.



4 Van de Graaff Drive  
 Burlington, MA 01803  
 E-mail: [info@certeon.com](mailto:info@certeon.com)  
 Tel: 781-425-5200  
[www.certeon.com](http://www.certeon.com)