

IPSec versus SSL

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Internet Security You've probably heard it all before!

This panel is your new best friend – we will share how IPSec and SSL coexist peacefully and provide significant benefits to you!

Internet Security Assumptions

- The Internet is very vulnerable
- There are no perfect schemes for protecting privacy, confidentiality and threats against our data
- Confidentiality is desired by all users
- Best Practices and Policies are embryonic but improving
- The two dominant security protocols to address these issues are:
 - IPSec IP Security
 - SSL Secure Sockets Layer
- Lets explore these leading protocols

The Drivers for Secure Networking?

- Internet increasingly used for mission critical applications
- Privacy, integrity and protection is required for all transactions, applications and all connections
- IPSec and SSL attack the problems in different ways, and at different levels of the ISO model:
 - SSL Transport Layer
 - IPSec Network Layer



IPSec

- Dominant security protocol for VPNs
 - Primary use is for site-to-site (tunneling) connections
 - Used for Machine-to-machine (transport) connections inside the corporate local area network
- Traditionally good for bulk data movement
- Interoperability has been evasive between multiple vendors
- Scalability is limited by implementation of key management, complexity, and lack of good access control

SSL

- Built into virtually every web browser and web server
 - Application-to-application in client-server architecture
 - End-to-end connections
- Extensive granularity of access control
- Ideal for extranets and e-Commerce applications
- Strong authentication techniques
- Scalability previously limited by technology
- Previously, had weaknesses in bulk data transfer, but this is also changing with emerging technology solutions

Virtual Private Networks



SSL vs. IPSec Comparison Summary

<u>IPSec</u>

- Site-to-site/machine-to machine/office-to-office
- Enables creation of secure tunnels within insecure channels – protection from outsiders!
- Encrypts all data once connected
- Complex configuration on each machine

<u>SSL</u>

- Ubiquitous secure access via web browsers and servers
- Protection from insiders
- Enables creation of secure sessions between any two people, applications, or combination anywhere
- Simple configuration

Conclusion – Each Fits in the Network!

