

## Features

- Secure Enterprise Access Points
- Security At Any Public Hotspot
- Use Any Access Point
- Use Any Network Interface Card
- Network Edge Protection
- Remote Access
- Two-Factor Authentication
- User, Not Device, Authentication
- Users Cannot be Spoofed or Cloned
- Layer 2 Data Encryption
- 256-Bit AES Encryption

## KoolSpan Secure Wi-Fi

### Secure Wi-Fi... Inside and Outside the Enterprise

*KoolSpan delivers strong security, at any Wi-Fi location, in a remarkably easy-to-use solution. Until now Wi-Fi security has been more complex than the problem itself, forcing the Enterprise into expensive and complex infrastructure. These infrastructures are further inadequate, providing protection only where they have been deployed and not at the many public hotspots where Wi-Fi equipped employees often connect.*

KoolSpan safeguards all Wi-Fi communications, whether the user is connecting from the office or the field. This revolutionary solution is based on trusted Smart Cards contained within the KoolSpan Lock and Key that together deliver secure communications. Simply plug-in a KoolSpan Key, enter a user-defined PIN, and a secure connection is established. The connection process is identical whether initiated from an employee's desk, hotel, client site, airport or any public hotspot.

### Your Existing Wi-Fi Equipment Instantly AES Enabled

*KoolSpan works seamlessly with any existing infrastructure, is network agnostic, and can be deployed in minutes. KoolSpan operates independently of the Wi-Fi access points (APs) and network interface cards (NICs) in current or future deployments. This capability delivers powerful ROI, as chip embedded Wi-Fi security methods are frequently changed and firmware upgrades are limited or unavailable. Absent a 'forklift' upgrade to 802.11i equipment for instance, organization-wide security is often reduced to the lowest common denominator or the weakest link.*

By abstracting the authentication and security from Wi-Fi gear itself, KoolSpan enables all users to run AES, including the already deployed fleet of Centrino (WEP security) laptops. As new APs and NICs are added to the network, the Enterprise will continue to benefit from the same AES 256-bit, Layer 2 security. In addition, KoolSpan supports existing 802.11a/b/g implementations, and will work with all future implementations (802.11n/WiMax) as well.

Trusted guests can safely and simply connect to the Enterprise as well, regardless of their Wi-Fi card, by using a valid KoolSpan Key and PIN.

### Central Management, Edge Enforcement

*The KoolSpan Manager is an application that manages Keys and Locks. Using a Master Key containing a Smart Card, the administrator registers, sets, and changes access permissions for network users. The Manager program securely uploads the user database to the KoolSpan Lock(s), and is subsequently run by the administrator only when changes to user permissions are necessary.*

Placed as a "bump-in-the-line" between any access point and the network, the KoolSpan Lock provides security at the network edge. This prevents unauthorized users from entrance to the network at the access point, unlike 802.11i systems, which carry authentication traffic deep into the network before providing security. In addition, KoolSpan does not rely on central servers or heavy network infrastructure.

KoolSpan's centrally managed and edge enforced architecture eliminates scaling issues by maintaining all authentication and security in the network Lock(s).

- Optimized Encryption
- Proven Smart Card Based Solution
- Identical User Experience Inside & Outside The Network
- One Key, Many Networks
- Edge Architecture Provides No Limits of Scale
- Hardware-Based Encryption

## World Class Authentication & Encryption with Smart Cards

KoolSpan makes use of Smart Cards, a proven technology for robust and secure authentication. Smart Cards are currently used in a half-billion mobile phones world-wide. KoolSpan enabled Smart Cards are in both the KoolSpan Key and KoolSpan Lock, and when paired across the communication link they are used as trusted components that can independently and securely compute AES session keys. This design enables KoolSpan to operate without a server infrastructure while delivering trusted, bi-directional authentication.



**KoolSpan Lock**

The result of KoolSpan's robust authentication is a 256-bit AES session key, used to protect all communications. KoolSpan provides Layer 2, on-chip Ethernet Encryption, and the session key is changed with every packet. Layer 2 implementation results in transparent operation to all higher layer protocols such as IP or applications. The AES algorithm encrypts without expanding the size of the source data, resulting in no impact on performance or speed.



**KoolSpan Key**

Overall Solution	Management Software
<ul style="list-style-type: none"> <li>• 802.3, 802.11a, 802.11b &amp; 802.11g supported</li> <li>• 256-bit AES Encryption</li> <li>• Encryption of all Layer-2 data</li> <li>• Two-Factor authentication</li> <li>• Authentication is completed in only 2 packets</li> <li>• Keyless exchange</li> </ul>	<ul style="list-style-type: none"> <li>• Maximum Client Keys per Manager: 50 in SE Kit, unlimited in LE Kit</li> <li>• Number of Master Keys, 1 per logical network, clones available</li> <li>• Manager OS Compatibility: Windows 2000, XP, Server 2003</li> </ul>
Lock	Client Driver and Keys
<ul style="list-style-type: none"> <li>• Hardware-based, 256-bit AES Encryption</li> <li>• 64 Concurrent AES Sessions</li> <li>• 500 Client Keys per Lock</li> <li>• 512kb Flash Memory / 512kb DRAM</li> <li>• Compatibility with virtually all Access Points</li> <li>• Two 802.3 10/100 Ethernet ports (one "Trusted" and one "Un-secure" network)</li> <li>• 6vdc, 800ma (supplied via 110vac adapter) or 802.3af Power over Ethernet</li> <li>• Dimensions: 18.57 cm (7.31") x 10.62 cm (4.18") x 3.45 cm (1.36")</li> <li>• FCC Part 15 Class A Certified</li> </ul>	<ul style="list-style-type: none"> <li>• Strong Cryptography: 256-bit AES, 3DES &amp; RNG on Smart Card</li> <li>• 16 Concurrent Profiles per Key</li> <li>• Automatic Lock-out for invalid 2-factor attempts</li> <li>• Client Driver OS Compatibility: Windows XP</li> <li>• 32kb Smart Card Memory</li> <li>• Power supplied via reader—no battery required</li> <li>• Dimensions 1.27 cm (0.5") x 3.18 cm (1.25") x 0.95 cm (0.38")</li> <li>• Cryptographic Certification: NIST FIPS 140-1 Level 2 certified Smart Cards</li> </ul>

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