

Technical Specification: ESL-1000

eToken - Securing E-Business Applications



The Internet has become a necessary part of doing business. But with the growth of the Internet have come threats to businesses from hackers, network snooping devices, viruses and other sources that are now part-and-parcel of the public Internet -these threats have become a cost of doing business. The PKI model was developed to enable secure transactions and communications over the Internet, primarily through providing services for authentication, identification and encryption of sensitive information. The ESL 1000 is a cost effective and important enhancement to the PKI model, it is the ideal solution for PKI applications.

The ESL-1000 is a USB token, compact and portable. ESL-1000 was designed to offer authentication, verification and information encryption services, and support E-mail encryption, digital signatures and SSL using Internet Explorer, Outlook, Outlook Express, Netscape Communicator or any software product based on the MS CAPI or PKCS #11 standards. In addition, ESL-1000 is remarkably versatile and we also offer an SDK for creating many other user defined applications.

ESL-1000 supports Windows 98/2000/ME/XP, MAC OS 8/9 and Linux.

ESL-1000 Features:

- On-board MD5-HMAC challenge-response authentication
- Standard support for Microsoft CAPI applications
- CE and FCC certified
- 64-bit unique serial number
- Standard USB interface
- Application Controlled LED
- Browser-based access to ESL-1000 via ActiveX Control and Java Applets
- Three security levels for access to files and administrative rights
- Two level file directory structure
- Tamper evident hard plastic casing

- Multiple color options and third party branding available

ESL-1000 Applications:

- Workstation security through Windows 2000 smart card logon.
- Standard E-mail signing and encryption with Microsoft Outlook, Outlook Express, Internet Explorer and Netscape Messenger.
- SSL secure Web access through Microsoft Internet Explorer and Netscape Navigator.
- PKI compatibility with Windows 98 and above, Microsoft Internet Explorer and Netscape Communicator.
- Secure Network Logon.
- Secure E-mail Communications.
- Secure Remote Access Server (RAS) Authentication.
- Secure VPN Access.
- Secure Access for Extranets & Intranets.
- Secure PC.

ESL-1000 Benefits:

- **Secured** – The on board MD5 hash algorithm insures that personal security credentials are kept safe inside ESL-1000, isolated from hackers, viruses and other threats.
- **Portable** – The ESL-1000 is hot pluggable and may be attached to a keychain; simply remove it from the USB port and lets carry your sensitive security credentials with you.
- **Low Cost** – The ESL-1000 may be used to replace smart cards in existing applications, and the advantage here is that the ESL-1000 does not require any special reader.
- **Easy to use** – No special development or integration work needed for Internet Explorer, Outlook, Outlook Express and Netscape Communicator.
- **Multi Use** – The ESL-1000 may be configured to support multiple keys and applications.
- **Two Factor Authentication** – security may be enhanced by requiring the user to enter a password when using the ESL-1000.
- **Password Management** – The ESL-1000 may be made to store many passwords; however, users need only remember the ESL-1000 PIN.
- **Integration** – 3rd party developers may use our modular SDK (Software Developer's Kit) to integrate the ESL-1000 into other PKI applications.

ESL-1000 SDK:

ESL-1000 SDK was designed with flexibility in mind. E-SECURE provides a rich Software Developer's Kit for integrating the ESL-1000 into your client/server and browser enabled applications. The ESL-1000's drivers and support software are modular in design allowing for efficient development of end user identification and secure storage applications.

ESL-1000 SDK Specifications:

- Supports Windows 98/2000/ME/XP; MAC OS 8/9; Linux
- Released as Win32 DLL and ActiveX Control and Java Applet
- Software distribution package included
- PCKS# 11 compliant and MS-CAPI compliant
- ESL-1000 Proprietary API

ESL-1000 Specifications:

Supported Operating Systems:	Windows 98/2000/ME/XP, MAC OS 8/9, Linux
Certifications and Standards:	PKCS#11 v2.01, MS CAPI, PC/SC, X.509 v3 Certificate Storage, SSL v3, IPSec/IKE
Processor:	8 bit
Memory Size (by Model):	8k/32k
On-Board Security Algorithms:	MD5
Chip Security Level:	Secured and Encrypted Data Storage
Dimensions (by Model):	58x14x7mm(standard) or 50x17x7mm(smart)
Weight (by Model):	8g(standard) or 6g(smart)
Power Dissipation:	< 250 mW
Operating Temperature:	0 to 70 °C
Storage Temperature:	-40 to 85 °C
Humidity Rating:	0 to 100% without condensation
Connector Type:	USB type A (Universal Serial Bus)
Casing:	Hard Molded Plastic, Tamper Evident
Memory Data Retention:	At least 10 years
Memory Cell Rewrites:	At least 100,000 times