SecureMetric Technology

# SecureToken

Resilient Cryptographic Device.

Excellencing Public Key Infrastructure (PKI) Security

# About SecureToken

SecureToken is an advanced secure microprocessor smart chip based USB token that works as a miniature cryptography computer designed for strong 2-Factor Authentication (2FA).

Cryptography keys can now be generated onboard and safeguard inside the secure element of SecureToken to support qualified PKI certificate implementation.

It enables secure 2FA which combines "What you have (SecureToken) and "What you know (User PIN)" during the authentication process.

Users are required to plug in the SecureToken and key in their respective User PINs in order to gain access into sensitive data/ information/ system and/or authorize any crucial transaction.

## WHAT is 2-Factor Authentication?

you need to **HAVE** something

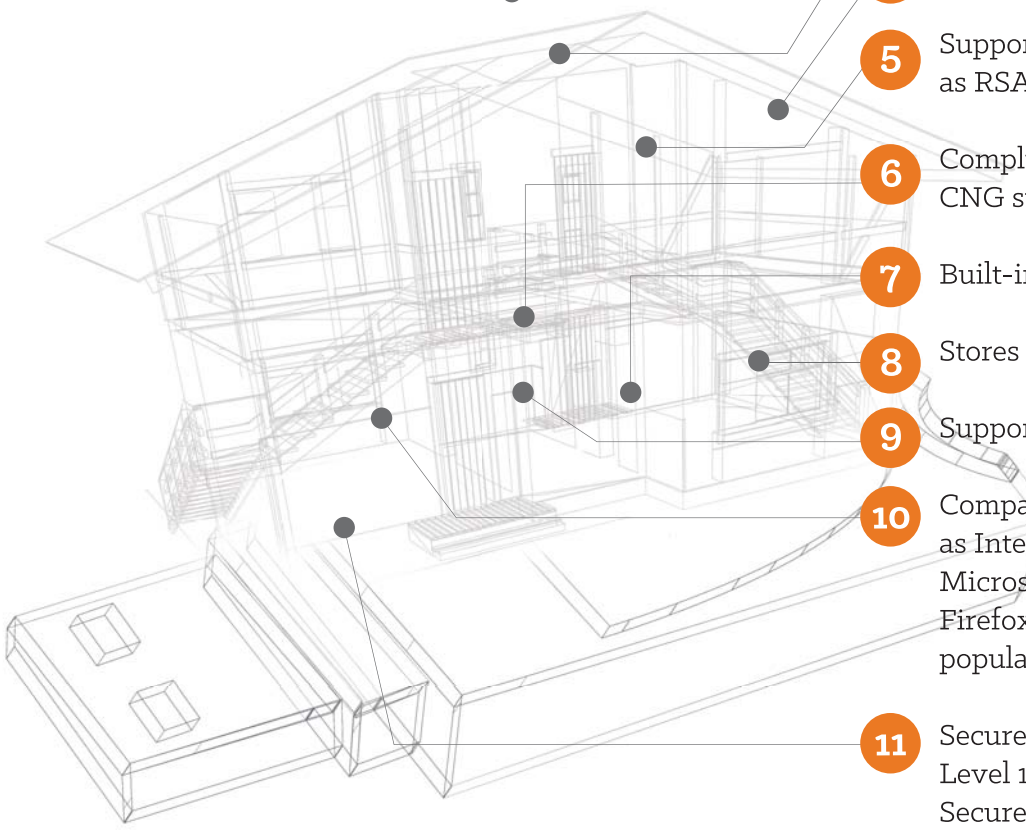
you need to **KNOW** something

to access **WHAT** you want

## WHY use 2-Factor Authentication?

| Added Layer of Protection | Future of Information Security | Compliant with Industry Standards |
|---|---|---|
| Identity Theft<br>Security Breaches | Government<br>Healthcare Financial | Security<br>Approved Safe |

# SecureToken
# Architecture



1. 16/ 32-bit microprocessor smart chip.
2. Support onboard RSA key pair generation.
3. Built-in advanced cryptographic functions.
4. Support onboard digital signing.
5. Supports many popular security algorithms such as RSA, DES, 3DES, AES, SHA.
6. Comply with PKCS#11 and Microsoft CAPI/ CNG standards.
7. Built-in secure and encrypted smart card storage.
8. Stores up to 16 X.509 v3 digital certificates.
9. Supports multiple cross applications usage.
10. Compatible with many popular applications such as Internet Explorer, Windows Smart Card Logon Microsoft Outlook, Outlook Express, Mozilla Firefox, Remote Terminal Services and other popular VPNs.
11. SecureToken ST3 MYCC Common Criteria Level 1 Certified,
SecureToken ST3 ACE MYCC Common Criteria Level 2 Certified & FIPS Level 3 Certified.

# COMMON 2FA APPLICATIONS

### Web or Network based Application Security

SSL Secure Web Sign On, Single Sign On, Secure Application Sign On, Secure VPN Sign On, eGov or eBanking Transaction Authorization, etc.

### PKI Implementation

Digital Signing, PKI Authentication, Encryption/Decryption, etc.

### Enterprise IT Security

Data/File/Drive Encryption, Email Signing and Encryption, Workstation or Network Access Security, etc.

## STRENGTHS AGAINST COMPETITORS

- Highly Competitive Pricing
- Dedicated Local Support
- Product Localization
- Proven Track Records
- Security Certified Products
- Qualified PKI/ Cryptography Experts
- Complete PKI Turnkey Solution

# ADVANTAGES

Secure

Cost Effective

Portable

Versatile

Simple

# SECURITY FEATURE HIGHLIGHTS

## 1 Onboard Hardware Cryptography

RSA key pairs can be generated and stored onboard with digital signing on hardware to support issuance of Qualified Certificates. Supports various powerful security algorithms onboard to ensure cryptography activities are performed in and within the protected secure elements.

## 2 True Random Generator

Hardware based true random number generator for strong challenge response authentication.

## 3 Smart Card Security

SecureToken are built based on rigidly selected secure smart card platform to achieve highest level of hardware security architecture.

## 4 Security Certifications

ST3 comes with Common Criteria EAL2 Certified and FIPS 140-2 Level 3 Certified models. The products have gone through very rigid security validation by independent lab to officially prove the security strengths are at international levels.

## 5 Secured and Encrypted Storage

Smart card memory provides highly secure and encrypted storage to keep all the security credentials out-of-reach by unauthorized personnel.

PRODUCT

# ST3 ACE

## Simplify PKI token deployment as to achieve excellent user experiences.

ST3 ACE is aimed to be bundled with SecureMetric's patterned advanced SecureTMS client components that in order to simplify PKI token deployment as to achieve excellent user experiences.

The key challenge for most PKI implementation is user experience management, this usually considered as one of the key success factor. If the user needs to go through all the tedious PKI processes without proper, the chances to encounter strong user resistant will be very likely. A great PKI implementation should come with well designed user friendly approach to simplify PKI processes as much as possible while still complying to the set security policies.

### Software Development Kit

- One unit ST3 ACE DEMO Token
- One unit software/utilities CD-ROM
- Contents inside the CD-ROM:
  - Installation Guide - Developer Guide - Comprehensive User Manual - API Samples for Java and Active X - API Samples for PKCS#11 Interface, Microsoft CryptoAPI - Middleware Installation - DLLs and Header Files - Runtime Installation Package - Token Manager for Admin and User - Token Initialization Tool - User Guide for Online DEMO Token Management System Software Development

# ST3 Ace

ST3 Ace the latest innovation by SecureMetric Technology is designed to integrate all critical token management functionalities and certificate lifecycle to the middleware level without interaction with web browsers. In addition to that, almost every PKI processes can now be automated without heavily involving end users.

Implementation of ST3 Ace will only require backend integration to existing Registration Authority (RA) software with internet/ intranet connectivity between end users and the RA software.

## Typical PKI problems can now be solved with ST3 Ace:

Supporting

**• Difficulty on supporting multiple platform**
The ST3 Ace online installer can now cross-platform supporting Windows, Linux & Mac without breaking a sweat.

Unblocking

**• Forgetting Token User PIN after long holiday which resulted a tedious unblocking process or even sending the physical token back to the provider**
Secure Token User PIN Unblocking mechanism from ST3 Ace not only simplifies the PIN Unblocking process, but also allowing end users to perform such function remotely.

Enrollment

**• Tedious Certificate Enrollment Process via Online Enrollment Portal**
Certificate Enrollment via ST3 Ace eliminates the need of data entry from end user side with the end user only needs to verify necessary information before certificate enrollment take place.

Renewal

**• Tedious Certificate Renewal Process via Online Renewal Portal**
Auto Renewal is supported by ST3 Ace with even the possibility of using pre-configured renewal policy. Fully automated renewal is also possible.

Troubleshooting

**• Technical Troubleshooting especially for non-IT background users**
Diagnostic tool in the ST3 Ace is ready to provide revolutionary way of troubleshooting where most common problems can be resolved by the tool without even dialing the technical support number. In the event where further technical support is needed, this tool can produce a report which can be very useful for technical support to analyze the problem

Operate

**• Annoying ActiveX/ Java Applet Components**
Forget these web application components. The ST3 Ace can operate with full token and certificate functions without using any of these annoying components that requires client side installation and difficult to support.

PRODUCT

# SECURETMS

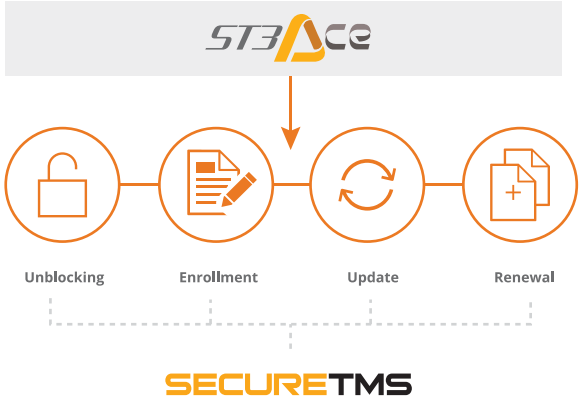
## Token Management System

*Manage tokens without hassles*

SecureTMS is a comprehensive Token Management System. It is an out-of-the-box solution for Certificate Authorities (CA) and enterprises to ease the administration of SecureMetric Public Key Infrastructure (PKI) devices which includes SecureToken and SecureCOS PKI smart cards. SecureTMS is designed and developed based on the best practices of managing PKI devices in common PKI implementation. It offers robust yet easy to customize frameworks that meets different organizations' PKI devices management workflows and policies.

SecureTMS is designed and built based on Open Standards by a team of highly experience PKI engineers. The objective: to offer a single system for complete PKI devices and digital certificates lifecycle management. SecureTMS is a well tested system that has been successfully deployed and proven by numerous high profile PKI projects both locally and internationally.

Contact our sales team at 03-8996 8225, sales@securemetric.com or visit www.securemetric.com for more information.




Combination of SecureTMS & ST3Ace simplifies user experience & maintaining PKI Best Practices

## FEATURE HIGHLIGHTS

- Plug & Play Support
- Innovative User Self-Service Facilities
- Complete Lifecycle Management
- Flexible to Support CA
- Ease on Bulk Processing
- Ready for Customization
- Strong Security
- Powerful Web-based Administration
- High Availability
- Open Standard Architecture

PRODUCT

# SECURETOKEN ST3

Best selling model with more than 20 Certificate Authorities across ASEAN are bundling it with their PKI services.

ST3 is a Common Criteria EAL 2 Certified state-of-the-art Auto-Install model which comes with onboard 2MB/ 4MB thin flash memory to facilitate the Auto Installer for token middleware and token manager. This model eliminates the common hassle on implementing USB token where external media such as CD-ROM is required during token middleware and token manger installation.

ST3 is a truly Auto Install model – device driver, middleware and token manager will be installed automatically after user first plug in the token onto the computer. Best selling model with more than 20 Certificate Authorities across ASEAN are bundling it with their PKI services.

## Options Available:

- ST3 2MB USB Token
- ST3 2MB Card Token
- ST3 4MB USB Token
- ST3 4MB Card Token

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PRODUCT

# ST3 Store

ST3 Store is a new variance from ST3 with a different PCB board designed to support 8GB big flash memory onboard.

ST3 Store is a new variance from ST3 with a different PCB board designed to support 8GB big flash memory onboard. All the features remain except bigger flash memory will allow 3rd party client software to be integrated into the Auto Installer.

## Options Available:

- ST3 8GB USB Token

## Software Development Kit

- One unit ST3 STORE DEMO Token
- One unit software/utilities CD-ROM
- Contents inside the CD-ROM:
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# TECHNICAL SPECIFICATION

| Model | ST3 ACE | SecureToken ST3 | ST3 STORE |
|---|---|---|---|
| Chip Security Level | Secure Microprocessor Smart Chip based with PBOC, CFCA, certified CCEALS+ | Secure Microprocessor Smart Chip based with PBOC, CFCA, compliant to EAL4+ | |
| Processor | 16-bit | 32-bit | |
| Interface | CCID | HID driverless with CSP and Middleware Auto Install | |
| Card Operating System | 128k (64K for User) on Smart Chip 2MB for Flash | 128k (64K for User) on Smart Chip 2MB for Flash | 128k (64K for User) on Smart Chip Up to 8 GB Flash Storage |
| Memory Size | SecureCOS | SecureCOS | |
| Middleware | Microsoft, MiniDriver, middleware for Windows CSP Direct-called library for PKCS#11 | Comply to PKCS#11 and MS CAPI, hot-pluggable to Internet Explorer, Microsoft Outlook, Outlook Express, Mozilla Firefox and many more | |
| Windows Smart Card Logon | YES | NO | |
| Certificate Storage | Up to 16 (X.509 v3 Digital Certificate) | Up to 16 (X.509 v3 Digital Certificate) | |
| On-Board Security Algorithms | RSA, DES, 3DES, SHA-1, Hardware generated 2048-Bit RSA Key Pairs. Optional to support 3rd party algorithmsSHA 256, SHA 384, ECDSA 192/256 , AES | RSA, DES, 3DES, SHA-1, Hardware generated 2048-Bit RSA Key Pairs. Optional to support 3rd party algorithms | |
| Dimension | 59mm x 18mm x 9mm | 59mm x 18mm x 9mm | 69mm x 57mm x 8mm |
| Certification | CE, FCC, MYCC Level 2 & FIPS Level 3 | CE, FCC, MYCC Level 1 | CE, FCC |
| Weight | 5g | 5g | 8g |
| Power Dissipation | < 250 mW | < 250 mW | |
| Operating Temperature | 0 °C ~ 70 °C (32 °F ~ 158 °F) | 0 °C to 70 °C (32 °F to 156 °F) | |
| Storage Temperature | -20 °C ~ 85 °C (-4 °F ~ 185 °F) | -40 °C to 85 °C (-40 °F to 185 °F) | |
| Humidity Rating | 0 to 100% without condensation | 0 to 100% without condensation | |
| Connector Type | USB 2.0 full speed, Connector type A | Standard USB 1.1 and support USB 2.0 connection | |
| Casing | Hard Molded Plastic, Tamper Prove (Optional), RoHS compliance | Hard Molded Plastic, Tamper Prove (Optional), RoHS compliance | |
| Memory Cell Rewrites | At least 500,000 write/ erase cycles | More than 100,000 times | |
| Memory Data Retention | At least 10 years | At least 10 years | |
| Standards | X.509 v3 Certificate Storage, SSL v3, IPSec, ISO 7816 1-4 8 9 12, CCID | X.509 v3 Certificate Storage, SSL v3, IPSec, ISO 7816 compliant | |
| Supported Operating Systems | Windows, LINUX and Mac | Windows, LINUX and Mac | |

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