

Service and Asset Management

Authentication with mySAP



Described Version: mySAP Business Suite

Target platforms: Windows Vista/XP/2000, Linux

MARX hardware: CrypToken M2048 / MX2048 JCOP



Critical business process management!

SAP offers various methods for authentication, Single Sign-On, and authorization management that allow leveraging security mechanisms with any desired strength. In addition to their built-in security features, SAP solutions are further secured through SAP software partners, and the security of SAP solutions is verified through partner testing.

- Mobile and secure certificate storage
- Enhanced security with two-factor authentication
- Authentication with X.509 certificates
- Safe against phishing and password theft
- Single Sign-On

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1. SAP Overview

SAP® (<http://www.sap.com/index.epx>) is the world's largest business software company serving more than 36,000 customers worldwide. It provides a comprehensive range of world known enterprise software applications and business solutions for all types of industries and for every major market. One of the most popular of these solutions is **mySAP® Business Suite** based on **SAP NetWeaver** platform and including **mySAP CRM**, **mySAP ERP** (formely known as SAP R/3) and other products.

SAP offers various methods for authentication, Single Sign-On, and authorization management that allow leveraging security mechanisms with any desired strength. In addition to their built-in security features, SAP solutions are further secured through SAP software partners, and the security of SAP solutions is verified through partner testing.

What's more, SAP has formed the **Global Security Alliance**, a special platform for information and knowledge exchange that comprises leading providers of security and risk management offerings. Members must demonstrate a high level of security knowledge, best practices, and the ability to integrate their technologies and collaborate to provide customers with a complete, long-term security solution.

Among SAP certified security partners are such well-known companies as Entrust, IBM, Novell, Siemens Communications, and Sun Microsystems. Their strong authentication solutions are based on deliberate PKI / X.509 industry standards like PKCS and provide full support for smart card authentication, digital signature, and data encryption.

2. SAP and authentication

SAP systems are commonly accessed in one of two ways:

- **Using Internet browser through SAP Web Application Server**
- **Via standard rich GUI client (SAPGUI)**

Web access can utilize standard X.509 based authentication and encryption.

See the following list for more details:

http://help.sap.com/saphelp_470/helpdata/en/43/58923aae57d244e1000000a114084/frameset.htm

In case when SAP system is accessed via SAPGUI things become more complicated. Original SAP based solution does not support smart cards/tokens or similar devices. Still there is a standard possibility to extend the existing solution with third-party security modules.

Custom Secure Store and Forward (SSF) and Custom Secure Network Communications (SNC) providers for SAP can be implemented for data encryption and digital signing. At the moment there are several certified third-party SSF and SNC providers using PKCS#11 and/or MS CAPI, allowing usage of various hardware security tokens. Some of them are:

- **AdNovum SecStack** (<http://www.adnovum.ch>)
- **SafeGuard Sign&Crypt for SAP R/3** (http://www.ediport.hu/_sgscsapr3.html)
- **KOBIL eSecure SAP R/3** (<http://www.kobil.de>)

3. CrypToken: cryptographic hardware for SAP-based security solutions

MARX® CryptoTech LP provides comprehensive support for PKI / X.509 industry standards in its CrypToken product series. The CrypToken supports both Microsoft Windows Cryptographic Services and RSA Labs' Public Key Cryptographic Standards; the two most widely adopted cryptographic interfaces.

It allows direct usage of CrypTokens for X.509 certificates secure storage and manipulation, strong authentication, digital signatures and data encryption in Oracl Advanced Security and Identity Management solutions.

MARX offers two models of CrypToken: CrypToken M2048 (with MULTOS operating system) and CrypToken MX2048 (for JavaCard) 2000. Due to Microsoft CryptoAPI comprehensive support both of them can be straightforwardly used in Active Directory-based security solutions.

The CrypToken is equipped with SafeSign middleware. SafeSign is a powerful and cost effective Public Key middleware solution for USB Tokens and Smart Cards.

It's our business to protect yours

The CrypToken is ideal for...

- Online Banking: Secure Internet banking and financial transactions.
- VPN: Virtual Private Network control from remote locations.
- eGovernment: Access control to confidential information.
- Email: Encryption and digital signature of confidential emails.
- eCommerce: Secure B2B/B2C authentication.
- RAS and network logon: Access for authorized users only.
- WebSecurity: Secure web portal and internet and intranet identification.
- DataSecurity: Encryption of sensitive information.



Get your CrypToken Evaluation Kit:

www.cryptoken.com/eval
+49(0)8403 9295-14

Comparison table CrypToken M2048 and CrypToken MX2048

Features	M2048	MX2048
Token operating system	MULTOS	JavaCard
Operation	Driverless, if CCID OS used	
Certification smart card chip	EAL 5+ EMV, ISO7816	EAL 4+, EMV, ISO7816, JavaCard 2.3.1, GlobalPlatform 2.1.1
Controller chip certification	WHQL (Microsoft), HBCI (Home Banking Computer Interface), EMV, ISO7816	
Smart card chip	Infineon SLE66xx series	SmartMX/JCOP21
Cryptographic standards supported	PKCS#11v2.01, MS-CAPI	
Operating systems supported	Windows Vista/XP/2000, Linux, MacOS X	Windows Vista/XP/2000, Linux, MacOS X
Memory (total)	64 KByte	72 KByte
Casing & LED	Metal Designer Case, LED (duo color green/red, for „stand by/activity“), eye for key ring/lanyard	
Electrical certifications	FCC, CE, RWTUEV	FCC, CE, RWTUEV
Dimensions	0.51" x 0.32" x 1.38" (13 x 8 x 35 mm)	0.51" x 0.32" x 1.38" (13 x 8 x 35 mm)
Weight	0.326 oz (9,25g)	0.326 oz (9,25g)

CrypToken certifications



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