

PKI Services and Testing Laboratories

CygnaCom Solutions, an Entrust company, has been providing professional computer security services and cryptographic solutions to government and business since 1994. With a staff of highly qualified engineers, CygnaCom offers clients a complete package of customized solutions to support information security strategy and secure transactions. We have performed professional services for a wide range of clients including the U.S. government, healthcare, and banking industries. CygnaCom's team of security experts is skilled in helping clients meet their requirements for continuous IT innovation and development.

Public Key Infrastructure (PKI) Services

CygnaCom is an internationally recognized leader in specialized Public Key Infrastructure (PKI). PKI uses a sophisticated form of encryption to create a highly trusted infrastructure for issuing and managing digital certificates. These certificates ensure the security of transactions conducted within an internal network or across the Internet. CygnaCom delivers a full spectrum of system integration and consulting services to enable customers to implement highly secure PKI solutions including:

Specialized PKI Services

- PKI Architecture, Engineering and Integration — successes include developing a NIST (National Institute of Standards and Technology) PKI procurement, a U.S. Postal Service electronic postmark, and a digital signature study for the Department of Justice.
- Certificate Policy (CP) and Certification Practices Statement (CPS) — examples include creating the U.S. Postal Service ECS Policy Expert Panel, the NIST Baseline Security Policy and the National Security Agency (NSA) Policy Review.
- PKI Standards and Interoperability — effective solutions have been designed for NIST interoperability profiles, a NIST MISPC reference PKI and MISPC automated test suite, and X.509 CRL (Certificate Revocation List) processing rules.
- Key Recovery — activities include creating a key recovery policy framework and a key recovery products evaluation criteria.
- PKI Certification and Accreditation — CygnaCom has a proven track record of compliance testing for the U.S. government and the private sector.

Information Security Consulting and Professional Services

- Security consulting — maximize the return on investment for your PKI.
- Entrust/PKI™ software deployment — planning and implementation services.
- Systems integration — software integration and custom development.
- InSource program — operational assistance for the Entrust Certificate Authority.
- Entrust getAccess™ software — specialized services for portal and personalization.

Cryptographic Standards and Consulting

- Standards Development — ANSI X9F1 chair, algorithm testing requirements, and key establishment and management.
- Design Consulting — random number generation, cryptographic module design, key management, and cryptographic applications.

In order to proliferate safer and cost-effective use of cryptography in government and business, CygnaCom is actively involved in the development and implementation of all elements of PKI through our on-site support and integration facilities.



Cygnacom Testing Laboratories

Cygnacom operates two security testing laboratories that are accredited by NVLAP (National Voluntary Laboratory Accreditation Program) — a program of NIST (National Institute of Standards and Technology). The Cygnacom laboratories perform compliance testing to verify that product design, implementation, and documentation meet certain security requirements recognized by the U.S. government. Typically, commercial products submitted for validation include operating systems, firewalls, and cryptographic modules. Cygnacom Solutions is a one-stop provider of comprehensive U.S. standards-based security testing and evaluation of both computer and cryptographic products.

Security Evaluation Laboratory (SEL)

The Security Evaluation Laboratory (SEL) is a certified National Information Assurance Partnership (NIAP) Common Criteria Testing Laboratory (CCTL) authorized to conduct product evaluations according to the Common Criteria (CC) (ISO/IEC 15408) and the Common Evaluation Methodology (CEM) under the U.S. scheme. The SEL is accredited to conduct evaluations up to Evaluation Assurance Level 4 (EAL4). NIAP is a collaboration of the NIST and the National Security Agency.

The SEL was previously certified to perform both Common Criteria and Trusted Computer System Evaluation Criteria (TCSEC), or Orange Book, evaluations under the Trust Technology Assessment Program (TTAP). The National Security Agency (NSA) has since replaced the TTAP with the CCTL.

Cygnacom's SEL offers a full range of services to help clients navigate computer security standards and evaluation requirements including:

- An accredited Common Criteria (CC) product evaluation laboratory
- Product architecture, design, implementation, and documentation review
- Training for security product design and development teams
- Security product design and engineering-related consulting services

For more information, visit: www.cygnacom.com/labs/sel.htm

Cryptographic Equipment Assessment Laboratory (CEAL)

Cygnacom's CEAL is accredited to test hardware and software products for compliance with the U.S. Government's FIPS 140-1/2, and with FIPS algorithms such as Data Encryption Standard (DES), Triple DES, Skipjack, Secure Hash Standard, and Digital Signature Standard. FIPS PUB 140-1/2 is the Federal Information Processing Standards Publication number for "Security Requirements for Cryptographic Modules", published by NIST. This standard specifies the security requirements that are to be satisfied before a product can be utilized within a security system protecting unclassified information within computer and telecommunication systems.

The CEAL offers consulting services to identify compliance problems and suggest corrective actions for meeting FIPS 140-1/2 requirements. The CEAL also offers lectures and training sessions to prepare vendor teams for design, production, and documentation of FIPS 140-1/2 compliant devices.

Cygnacom's CEAL has been designed to work with vendors, users, and the accrediting agency to verify that standards are being met without placing undue constraints upon product design or implementation.

For more information, visit: www.cygnacom.com/labs/ceal.htm

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Cygnacom Solutions Inc. was acquired by Entrust Technologies in March 2000. Entrust Technologies Inc. is the leading global provider of Trust Relationship Management™ software and managed services that enable organizations to optimize their business relationships by providing the confidence and convenience to exchange information and conduct transactions via the Internet. For more information, please visit www.entrust.com.

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