Leaders in Information Security Testing

CYGNACOM SOLUTIONS

CygnaCom Solutions has been providing professional information security services and cryptographic solutions to government and business clients since 1994. With a staff of highly qualified engineers at its accredited laboratories, CygnaCom is also a one-stop provider of comprehensive U.S. standards-based security testing and evaluation services for IT and cryptographic products. CygnaCom also provides a wide range of information security consulting services and customized solutions.

CygnaCom Testing Laboratories

CygnaCom operates two security testing laboratories accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology (NIST). The CygnaCom laboratories perform compliance testing to verify that product design, implementation, and documentation meet certain security requirements recognized by the U.S. government.

Security Evaluation Laboratory (SEL)

The Security Evaluation Laboratory is a certified National Information Assurance Partnership (NIAP) Common Criteria Testing Laboratory (CCTL) authorized to conduct product evaluations according to the Common Criteria (ISO/IEC 15408) and the Common Evaluation Methodology under the U.S. scheme. The SEL is accredited to conduct evaluations up to Evaluation Assurance Level 4 (EAL4) and can work with the NSA to evaluate products up to EAL7.

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

- Accredited Common Criteria (CC) evaluation laboratory
- Development of evaluation evidence
- Consulting on meeting CC requirements
- Training for security product design & development teams

One-Stop Security Testing

CygnaCom offers a full range of services to help clients navigate IT security standards and evaluation requirements including:

- An accredited Common Criteria (CC) product evaluation laboratory
- Product architecture, design, implementation, and documentation review
- Security product design and engineering-related consulting services
- An accredited FIPS 140-1 and FIPS 140-2 cryptographic module evaluation laboratory
- An accredited FIPS 201 Personal Identity Verification (PIV) evaluation laboratory

SEL Services

The SEL offers a full range of NIAP-accredited services including evaluation of Protection Profiles, Security Targets and IT products (Targets of Evaluation) at EAL1 through EAL7. Protection Profiles and Security Targets are the security requirement specifications required by the CC for evaluations. In addition to NIAP-accredited services, the SEL offers guidance and assistance in preparing for a CC evaluation, including help in meeting the criteria and preparation of documentation. As an accredited CCTL, the SEL can also perform BITS testing in conjunction with a CC evaluation.

Extensive experience in writing and evaluating Protection Profiles and Security Targets enables SEL to produce these documents very efficiently. SEL staff can extract security-relevant product features from design documents, source code and engineering staff, and prepare evaluation evidence that can lead to significant savings for subsequent evaluations - allowing customers to continue developing products with minimal interruption and diversion.

Cryptographic Equipment Assessment Laboratory (CEAL)

CygnaCom's CEAL is a Cryptographic Module Testing (CMT) laboratory accredited to test hardware and software products for compliance with the U.S. Government's FIPS 140-1 and FIPS 140-2 cryptographic standards. Additionally, CEAL tests cryptographic algorithms for compliance with standards. FIPS PUB 140-2 is the Federal Information Processing Standards Publication 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.

CEAL is also accredited to test smart cards and the associated middleware for compliance with the U.S. Government's FIPS 201 Personal Identity Verification (PIV) standard. FIPS PUB 201 is the Federal Information Processing Standards Publication for "Personal Identity Verification of Federal Employees and Contractors", published by NIST. This standard specifies the authentication of an individual's identity requirements."

The CEAL has been a key provider since the beginning of NIST's cryptographic module testing and is one of the first original accredited Cryptographic Module Testing (CMT) laboratories. CEAL has tested more than 100 modules listed on the NIST module validation website since 1995.

CEAL Services

The CEAL offers consulting services to identify compliance problems and suggest corrective actions for meeting FIPS 140-2 and FIPS 201 requirements. The CEAL also offers lectures and training sessions to prepare vendor teams for design, production, and documentation of FIPS 140-2 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.

CEAL offers a full range of Professional Services to help clients navigate Federal validation requirements including:

- Cryptographic Module Design, Implementation, and Documentation Review
- Customized Training For Security Product Design And Development Teams
- Security Testing Related Consulting Services
- Cryptographic Module Validation Testing
- Independent Algorithm Testing - AES, DES, TDES, Skipjack, RNG, SHS, HMAC, DSA, ECDSA, and rDSA
- Documentation Development of FIPS 140-2 required documents
- Testing and consulting of IBIP requirements for postage-printing devices
- Testing and consulting of FIPS 201 requirements for PIV applications & smart cards

Protection of Proprietary Information

Due to the sensitive nature of product evaluation, CygnaCom is committed to protecting customer information. As accredited laboratories, SEL and CEAL are required by NVLAP to protect vendor proprietary information from disclosure; a breach could potentially terminate accreditation status.

CygnaCom Staff Experience and Expertise

CygnaCom's dedicated team of professionals has world-renowned expertise in third party assurance, cryptography, Public Key Infrastructure (PKI), operating systems, and database management systems. They possess a history of computer security evaluation that extends back to the early days of the NSA's efforts to evaluate the security of commercial computing equipment. Many were involved in the development and refinement of the criteria, in the evaluation and certification of computing products, in ensuring even application of the criteria (as part of the Technical Review Board), and more recently, in refining the Common Criteria specification and developing evaluation methods and establishing accreditation requirements.

For more information, visit: www.cygnacom.com or call (703) 848-0883

NVLAP®

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