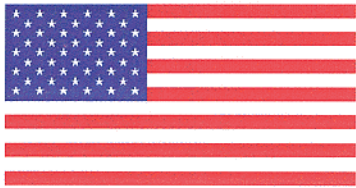# FIPS 140-2 Validation Certificate

The National Institute of Standards and Technology of the United States of America

The Communications Security Establishment of the Government of Canada

Certificate No. 505

The National Institute of Standards and Technology, as the United States FIPS 140-2 Cryptographic Module Validation Authority; and the Communications Security Establishment, as the Canadian FIPS 140-2 Cryptographic Module Validation Authority; hereby validate the FIPS 140-2 testing results of the Cryptographic Module identified as:

VME Crypto Engine *by* Meganet Corporation

(When operated with the Microsoft® Base Crytographic Provider validated to FIPS 140-2 under Certificate #238 operating in FIPS mode for the operating systems specified)

in accordance with the Derived Test Requirements for FIPS 140-2, Security Requirements for Cryptographic Modules. FIPS 140-2 specifies the security requirements that are to be satisfied by a cryptographic module utilized within a security system protecting Sensitive Information (United States) or Protected Information (Canada) within computer and telecommunications systems (including voice systems).

Products which use the above identified cryptographic module may be labeled as complying with the requirements of FIPS 140-2 so long as the product, throughout its life cycle, continues to use the validated version of the cryptographic module as specified in this certificate. The validation report contains additional details concerning test results. No reliability test has been performed and no warranty of the products by both agencies is either expressed or implied.

This certificate includes details on the scope of conformance and validation authority signatures on the reverse.

TM: A Certification Mark of NIST, which does not imply product endorsement by NIST, the U.S., or Canadian Governments.

FIPS 140-2 provides four increasing, qualitative levels of security: Level 1, Level 2, Level 3, and Level 4. These levels are intended to cover the wide range and potential applications and environments in which cryptographic modules may be employed. The security requirements cover eleven areas related to the secure design and implementation of a cryptographic module. The scope of conformance achieved by the cryptographic modules as tested in the product identified as:

VME Crypto Engine *by* Meganet Corporation
(*Version 4.4.0.0/M145;* Software)

and tested by the Cryptographic Module Testing accredited laboratory: *InfoGard Laboratories, Inc., NVLAP Lab Code 100432-0*
CRYPTIK Version 4.5

is as follows:

Cryptographic Module Specification:	Level 1	Cryptographic Module Ports and Interfaces:	Level 1
Roles, Services, and Authentication:	Level 2	Finite State Model:	Level 1
Physical Security: (Multi-Chip Standalone)	Level N/A	Cryptographic Key Management:	Level 1
EMI/EMC:	Level 3	Self Tests:	Level 1
Design Assurance:	Level 1	Mitigation of Other Attacks:	Level N/A

Operational Environment: Level 1   tested in the following configuration(s): Windows XP Professional Version 2002 SP1. The following operating systems must use the Microsoft® Base Cryptographic Provider validated to FIPS 140-2 under Certificate #238 operating in FIPS mode: Windows 98, Second Edition, Windows ME Build 4.90.3000, Windows NT 4.0 Workstation SP 6, Windows NT 4.0 Server SP 6, Windows 2000 Professional SP4, Windows 2000 Server SP 4, Windows 2000 Advanced Server SP 4, Windows XP Home Edition SP 1, Windows Server 2003 Enterprise Edition (all in single-user mode)

The following FIPS approved Cryptographic Algorithms are used: **AES (Cert. #77); Triple-DES (Cert. #188); SHA-1 (Cert. #83); RSA (PKCS #1, vendor affirmed)**

The Cryptographic module also contains the following non-FIPS approved algorithms: **VME**

Overall Level Achieved: 1

Signed on behalf of the Government of the United States

Signature: _____

Dated: _____

Chief, Computer Security Division
National Institute of Standards and Technology

Signed on behalf of the Government of Canada

Signature: _____

Dated: _____

Director, Industry Program Group
Communications Security Establishment