

## PROJECT PROFILE

### Worldwide Survey of Cryptographic Products

#### Summary

Cryptography plays an essential role in protecting information systems throughout the world. The availability of cryptographic products within and outside the United States impacts global deployment, interoperability, and export controls.

In order to determine how widespread cryptography is throughout the world, NAI Labs, The Security Research Division of Network Associates (formerly Trusted Information Systems (TIS)) has been conducting a survey of domestic and foreign products that employ cryptography. We have assembled a unique, comprehensive database with, where possible, verification of product availability.

Originally commissioned by the Software Publisher's Association (SPA) in May 1993 and conducted in cooperation with Dr. Lance Hoffman and students at the George Washington University, we have been conducting the survey for over eight years. We continue to gather information about cryptographic products on a daily basis, and we periodically release summary information.

As of June 2001, we have identified a worldwide total of 1521 cryptographic products. On average, the quality of foreign and U.S. products appears to be comparable. Both foreign and U.S. manufacturers vie to have products that meet accepted worldwide standards, including IPsec, SSL/TLS, SSH, S/MIME, and OpenPGP. A number of the top foreign products are quite competitive in strength, standards compliance, and functionality.

U.S. export controls have been modified to allow export of strong commercial cryptography. International customers who need cryptographic security for their sensitive information can now turn to both U.S. sources as well as foreign sources to fulfil that need.

Our survey results show continued growth and expanded development of strong, standards-compliant cryptographic products throughout the world. Internet communications-related cryptographic products are experiencing high growth, especially IPsec, VPN, and secure e-mail products.

#### Sources of Information

The survey makes substantial use of the Web to find information on cryptographic products. We also use a number of other sources, including: computer security product guides, such as SCMagazine/Infosecurity News Buyer's Guide, Information Security Magazine Buyers' Guide, Computer Security Institute (CSI) Computer Security Products Buyers Guide, Elsevier PC Security Guide,

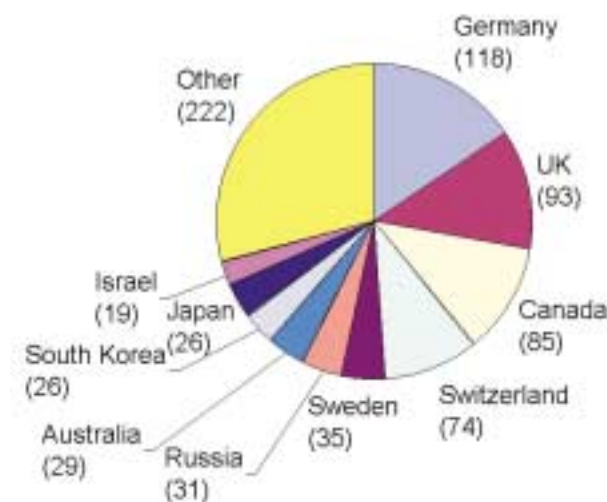
#### Crypto Survey Results

(As of June 2001)

**FOREIGN PRODUCTS:** We identified 758 cryptographic products developed in 43 countries outside the United States:

Australia	Austria	Belgium
Canada	China	Costa Rica
Czech Republic	Denmark	Egypt
Estonia	Finland	France
Germany	Greece	Hong Kong
Iceland	India	Iran
Ireland	Isle of Man	Israel
Italy	Japan	Mexico
Netherlands	New Zealand	Norway
Paraguay	Poland	Portugal
Romania	Russia	Singapore
South Africa	South Korea	Spain
Sweden	Switzerland	Taiwan
Turkey	United Kingdom	Ukraine
Uzbekistan		

The most foreign cryptographic products are produced in Germany, followed by the United Kingdom, Canada, Switzerland, Sweden, Russia, Australia, South Korea, Japan, and Israel.



At least 343 of these foreign cryptographic products implement "strong" cryptographic algorithms, including Triple DES, IDEA, BLOWFISH, RC5, CAST, and others.

**DOMESTIC PRODUCTS:** We identified 763 cryptographic products developed in the United States, 298 that implement "strong" cryptographic algorithms.

**TOTAL PRODUCTS:** Worldwide total of 1521 cryptographic products produced and distributed by 945 companies (532 foreign, 413 domestic) in at least 76 countries.

## Sources of Information (Cont'd)

and Datapro reports; various trade press and journal articles; product literature; Internet electronic mailing lists and news groups; and foreign embassies and trade associations.

## Confirmation of Products

Information about cryptographic products is organized in a comprehensive database, with, where possible, verification of product availability through direct inquiries of product manufacturers and distributors. **NAI Labs assumes no responsibility for the accuracy or completeness of the information.**

## Types of Products

The survey includes many types of cryptographic-based security products:

- Hardware, firmware, software, or combinations thereof;
- General-purpose products (e.g., word processors, spreadsheets, telephones, or modems), as well as explicit cryptographic products (e.g., a PC file encryption utility);
- Commercial mass-market products, as well as shareware and other products freely available over the Internet via the Web or anonymous FTP;
- End-user products and development toolkits; and
- Products providing confidentiality, integrity, and/or authentication service using cryptographic mechanisms.

## Additional Information

To obtain further information about the worldwide survey of cryptographic products, or to provide any information you may have about cryptographic products, visit the Crypto Survey Web page at <http://www.pgp.com/research/nailabs/cryptographic/cryptographic-products.asp>, or contact us via email at [crypto-survey@tislabs.com](mailto:crypto-survey@tislabs.com) or via surface mail at Crypto Survey, NAI Labs, The Security Research Division, Network Associates, Inc., 3060 Washington Road (Rt. 97), Glenwood, Maryland 21738 USA.

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Who's watching your network

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