ISDN and GSM telephone encryption for protection against industrial espionage

Secure office and mobile communication

SYSTEMS 2001, Munich — Rohde & Schwarz SIT now presents the TopSec703 for secure office and mobile communication. This encryption unit – simply connected between telephone/PC and ISDN interface – allows tap-proof telephone communication, data transmission and video conferences. The TopSec703+ model also allows encrypted calls between ISDN and the TopSec GSM crypto mobile phone. Business enterprises and public authorities can thus reliably protect their entire office and mobile telecommunication environment against industrial espionage.

Increased networking of communication provides more and more targets for eavesdroppers and spies. As a result, there has been a dramatic increase in illegal attacks on telephone and data networks. To enable business enterprises, public authorities, banks, administrative bodies and governments to communicate securely and confidentially, Rohde & Schwarz SIT has developed the TopSec703/703+. After a code has been predialled, these encryption units for ISDN determine the crypto key according to a hybrid method and encrypt the transmitted information, making it extremely secure and tap-proof. The TopSec703+ model can even establish encrypted connections to and from the TopSec GSM crypto mobile phone. Mobile communication with the office thus remains confidential, too.

With the TopSec703, encryption is carried out separately for the two B channels. A combination of an asymmetrical 1024-bit algorithm (Diffie-Hellman) and a Rohde & Schwarz-specific symmetrical 128-bit block code algorithm is used. The hybrid method provides maximum security. Even in 10 million years, 1000 Pentium PCs could test only a small part of the vast number of possible keys. The session key randomly selected from 10³⁸ (10 to the power of 38) possibilities is erased as soon as the call is terminated.

The unit, which is about 17 cm x 18 cm in size, is simply connected between the ISDN interface and telephone/PC. The encryption mode is activated by dialling the appropriate prefix code before the call number. LEDs on the device indicate that communication is confidential. Simple operation facilitates the use of this device especially in daily office work.

The TopSec703 encryption unit is available now from Rohde & Schwarz.

Rohde & Schwarz

The Rohde & Schwarz group of companies with headquarters in Munich develops, produces and markets communications and T&M instruments and systems with the emphasis on mobile radio, broadcasting, EMC measurements, general-purpose and RF test equipment, radiomonitoring and radiolocation, radiocommunications as well as communication security. Rohde & Schwarz has subsidiaries and representatives in over 70 countries. The group with its 5.000 employees achieves an annual turnover in excess of 800 million Euro worldwide.

Rohde & Schwarz SIT GmbH

Rohde & Schwarz SIT GmbH, a subsidiary of Rohde & Schwarz GmbH & Co. KG, offers solutions to security problems in information technology. Key activities are the development of crypto products for the protection of data in modern information and communication systems as well as consulting and IT security analyses for industry and government authorities.

All press releases are available on Internet at http://www.press.rohde-schwarz.com.