ISDN Security

ISDN Encryption for Video, Voice and Data

DICA's BlueCrypt deliver a high secure encryption solution for ISDN-based Video, Voice and Data communication and guarantee

- Powerful security for all ISDN-based applications
- Compatibility to all ISDN networks world-wide
- Safe videoconferencing and other multi-media applications
- Handy installation and administration
- Centralized and protected ISDN security management

BlueCrypt-2
BlueCrypt-8
BlueCrypt-30i
SecMan

DiCA technologies

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BlueCrypt

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ISDN is an international communications standard for sending voice, video, and data over digital telephone lines. ISDN-Encryption is a security feature that assures that only the parties who are supposed to be participating in a videoconference, data transmission, phone calls, fax communications are able to do so. This is an essential feature for companies who are exchanging confidential information via public information networks. Using state of the art in security and technology, BlueCrypt guaranteeing maximum protection for all ISDN-based communications.

Product Overview

Available in 2- , 8- , 24- or 30- B channel configurations, BlueCrypt enables customers to encrypt all dial-up and leased line calls worldwide, easily and reliably.

BlueCrypt-2

BlueCrypt-2 protects an ISDN basic rate connection (two B channels) independently and transparently to the application. This transparency makes it an ideal security solution for desktop video conferencing, remote access for mobile user and other important end user applications. In addition, phone calls and fax transmissions carried by ISDN, can be easily and safely encrypted with BlueCrypt.

BlueCrypt-8

BlueCrypt-8 is tailored to suit professional video-conferencing applications. It may also be employed as a costeffective solution in the central office of a small or medium-sized company to protect ISDN communications exchanged between different branch offices. A single device protects up to four ISDN basic rate interfaces (8 B channels).

BlueCrypt-30i (-24i US/Japan)

Designed for enterprise applications, the BlueCrypt-30i can encrypt up to 30 B-channels of a PRI connection or a 2 Mbit/s E1 leased line in real time. BlueCrypt-30i is ideally suited as an encryption application for telecommunication systems of medium-sized and large organisations, as well as for exchange systems of service providers (e.g., for switching multipoint videoconferences). BlueCrypt-30i is also an ideal solution for setting up a video-conferencing hub, with multiple sites dialling into the central device.

SecMan

SecMan® is the central SECurity MANagement system for DICA BlueCrypt applications. The SecMan device contains a security deposit, a security processor and special modules for DICA's security management. SecMan software offers a graphical user interface for management and diagnostic for all BlueCrypt devices including the DICA 7800 and DICA 9000. It is easy to use and –among other things – enables the administrator to change the keys of an unlimited number of BlueCrypt devices worldwide.

Solutions and Integration

All BlueCrypt applications are compatible with each other and can be installed within the same network to form a complete enterprise-wide security solution. In addition, all models are compatible with DICA's earlier ISDN encryptors, including the DICA 7800 and DICA 9000. For even further flexibility, phone calls and fax transmissions carried by ISDN can be easily and safely encrypted with BlueCrypt.

Encryption

All BlueCrypt applications encrypt and decrypt the B-channels of ISDN connections in real time, independently of transmission direction. Hardware-based symmetrical 3DES encryption is employed using a 168-bit key.

Key Management

BlueCrypt's multi-layered Key Management is based on Master Keys and Session Keys. The Keys are generated secretly and randomly and stored in a sealed security chip. For security reasons, keys are never exchanged online between the applications. The BlueCrypt security strategy is made complete by providing two Session-Keys for each transmission direction and each B-channel for the duration of a connection; a Device Key for each application, enabling remote security administration via encrypted ISDN connections with SecMan; and special conference keys.

User Groups

The unique security Key-Management uses special conference keys that permit administrators to create a one-time closed conference group for any given session.

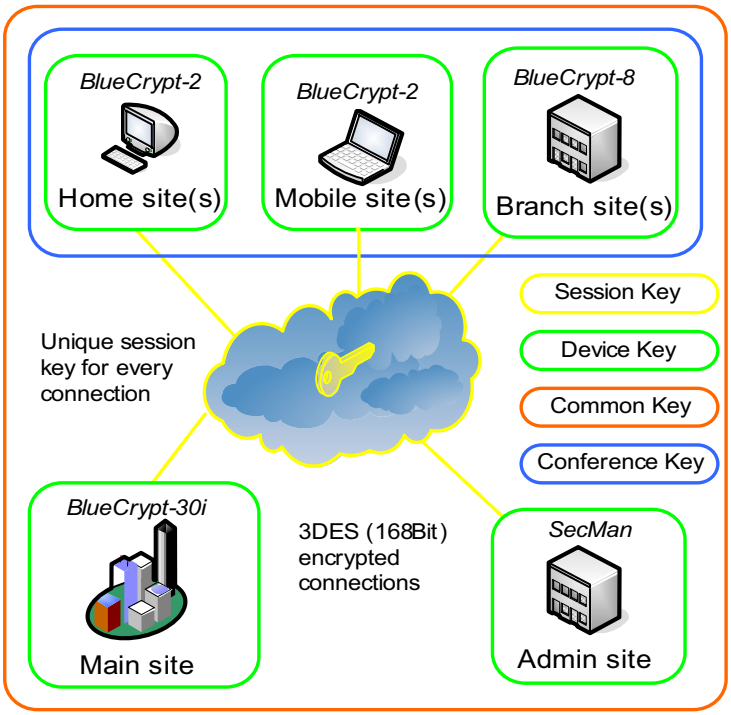
Security Architecture

All BlueCrypt devices can be managed centrally and decentrally. A central installation is always managed by a SecMan device. Decentral installations using the SCC software for local management. The customer communication network is not affected any time by using BlueCrypt and SecMan devices.

No certification by a third party is necessary for encryption.

Security Features

All DICA BlueCrypt devices can be administrated and managed by only one application - the Security Manangement. The SecMan Concept enables the administration of all BlueCrypt devices in a network via encrypted connections. Information exchange with a remote BlueCrypt device is based on a reversibly unambiguous Device Key. Another extremely important feature of BlueCrypt is it's perfect transparency for users, applications and the ISDN network. This means that the device do not require a call number, nor do they actively interfere with the D channel.



BlueCrypt devices are compatible to all ISDN standards world wide, additionally they also facilitates the common compression of ISDN-based calls.

Handy Installation

Although BlueCrypt applications provide maximum security, they can be installed and running within minutes. They are configured according to the customer's needs and delivered from the factory ready for operation. BlueCrypt is seamlessly installed between the ISDN connection and the end user terminal. Call requests are handled automatically and encrypted connections are established according to the operation mode of the device.

Product Applications

Banking
Business to Business
Host-Communication
Hosted Communication
Remote Access

Telecommuting
Telemedicine
Telebanking
Video Conferencing
Video Monitoring

Technical Specifications

Dimensions, Weight: W x H x D in inch (cm), weight in lbs (kg)
BlueCrypt-2, SecMan: 8.86 x 1.75 x 5.83 (225 x 45 x 148), 1,1lbs (0.5 kg)
BlueCrypt-8: 9.65 x 1.75 x 6.50 (245 x 45 x 165), 1,54lbs (0,7 kg)
BlueCrypt-30i: 19", 1 HU, 5,7lbs (2,6Kg)

Interfaces:

BlueCrypt-2	• 1 x S0/TE, Network, I.430, RJ45-connector
SecMan	• S0/NT, Application, I.430, RJ45-connector
	• Console RS 232/V.24, SUB-D9 male
BlueCrypt-8	• 4 x S0/TE, Network, I.430, RJ45-connector
	• 4 x S0/NT, Application, I.430, RJ45-connector,
	• Console RS232/V.24, SUB-D9 male
BlueCrypt-30i	• RRI T1/CSU, RJ48 • S2m/E1 ISO 10173
	• PR1 T1/DSX, RJ45 • Console RS232/RJ45

Power supply:

BlueCrypt-2 SecMan	• ext. power supply - AC (110..24, 0VAC, 50-60hz, 0,5A) DC (3,3Vdc, 1,6A)
BlueCrypt-8	• ext. power supply - AC (110..24, 0VAC, 50-60hz, 0,5A) DC (3,3Vdc, 1,6A)
BlueCrypt-30i	• int. power supply - (110-230VAC, 50-60hz)

Temperature range: operational: 50°F - 113°F, 10°C - 40°C for BC-2, BC-8, BC-30i, Sec.
storage: -13 °F to 185 °F (-25 °C - 85 °C) for BC-30i
storage: -4 °F to 140 °F (-20 °C - 60 °C) for BC-2, BC-8, SecMan

Humidity: 10 to 90 %, non condensing

System Management: SNMP: Ethernet IEEE 802.3, 10BaseT, RJ45-connector

Standards:

• Security:	UL 1950, CSA 22.2 No.950, EN 60950, IEC 950
• EMC:	EN 55022/8.94 Class, EN 50082-1, FCC Part 15 Class A
• Telecom:	ICTR 3 Ed. Dec. 1994, CCITT/ITU-T I.430, FCC Part 68 (USA), CTR4 (Euro ISDN), TSO38 (Australia)

DICA Technologies develope and produces in Germany only, for a secure communcation worldwide.

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