TCC’s Advanced Cipher X 7100 Frame Relay Encryption System protects the privacy of information sent over public frame relay networks. By switching from private leased line to public networks, significant cost savings are achieved. At the same time, however, the risk of data compromise increases. For many mission-critical networks, such as those used in financial institutions, large corporations and governments, this risk is unacceptable. TCC’s Cipher X 7100 has been fully engineered to protect demanding mission-critical network communications and enable organizations to take advantage of frame relay’s cost savings.

The Cipher X is network transparent. Since it encrypts only the data in a frame relay packet, no changes to the network are required. Additionally, it secures data at the frame relay layer so it can also protect SNA, BSC, IP or other protocols encapsulated in frame relay.

A security policy is also easily enforced by the Cipher X system. Each frame relay virtual circuit is designated as cipher (secure), clear, or blocked. This is transparent to the user thereby eliminating training, user acceptance, and enforcement issues. A single Cipher X system can control access for all 1,024 virtual circuits in a frame relay connection making it a very cost effective solution.

**key benefits**

> Proven DES encryption optimally protects the privacy of sensitive information

> Provides significant cost savings by enabling the use of public frame relay networks, while maintaining data security

> Clear and secure support saves money since only one frame relay circuit is required

> Compliance to ANSI X9 security standards enables banks to certify that they are following ‘Prudent Business Practice’ in the protection of transmitted data

> KEYNET™ secure management application lowers installation and maintenance costs, monitors security compromises, and automates key management
Secure network monitoring, configuration, and diagnostics of a large, global network of Cipher X units can be easily, centrally and securely managed by TCC’s KEYNET secure management application. An intuitive drag and drop user-interface enables network managers to easily create secure networks. Additional units can be quickly added or, more importantly, removed if the unit is stolen or physically compromised. Centralized reporting of errors and alarms, combined with remote troubleshooting at the KEYNET system, reduces the time and cost of maintenance. It also seamlessly integrates with an enterprise network management system.

**Cipher X 7100 specifications**

**Application**
- Frame relay security
- Data rates up to 2.048 Mbps

**Encryption**
- NIST-approved DES algorithm
- Triple DES for key exchange

**Key Management**
- ANSI X9.17
- Locally using Cipher Site Manager
- Centrally from KEYNET

**Security Standards Support**
- ANSI X9.17, ISO 8732, FIPS 46, FIPS 140-1, FIPS 170

**Network Protocol Support**
- FRF.1
- ITU-T: Q.922, Q.933
- ANSI: T1.606, T1.617, T1.618

**Frame Relay Parameters**
- Frame size up to 4096 bytes
- Up to 976 encrypted virtual circuits

**Physical Interface**
- Software selectable

**Power Requirements**
- 85-265 VAC, 50/60 Hz
- 20 watts typical

**Operating Environment**
- Temperature: 0°C to 50°C
- Humidity: 0 to 90%, non-condensing

**Dimensions and Weight**
- Height: 1.75 inches (4.4 cm)
- Width: 16.5 inches (41.0 cm)
- Depth: 10.5 inches (26.7 cm)
- Weight: 15 lbs (6.8 kg)

**Agency Approvals**
- FCC Part 15, Subpart B, Class B
- UL 1950
- EN55022 89/336/EEC
- IEC 801-2, 801-3, 801-4
- EN 60950

TCC secures mission-critical networks for governments, corporations, and financial institutions around the world. With over 35 years experience, TCC is the trusted supplier for organizations that place a high value on their data and its successful transmission.

Cipher X and KEYNET are trademarks of Technical Communications Corporation. Other brand and product names may be trademarks or registered trademarks of their respective owners.

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