Cipher X ®

7 1 0 0

frame relay encryption for mission-critical networks

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.
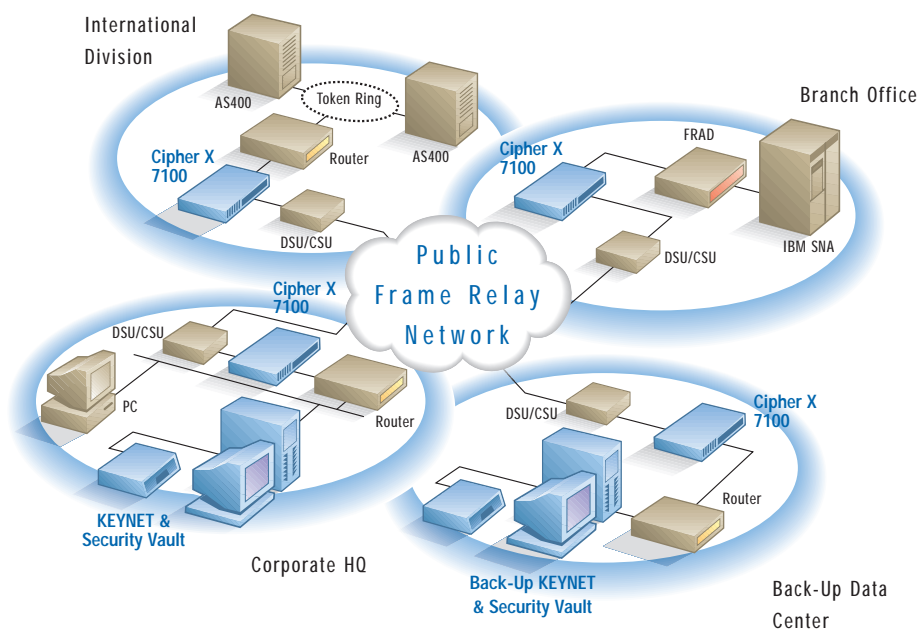
A security policy is also easily enforced by the Cipher X system. Each frame relay virtual circuit is designated as cipher (secure), clear, or blocked. This is transparent to the user thereby eliminating training, user acceptance, and enforcement issues. A single Cipher X system can control access for 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

Virtual Private Network

International Division

AS400 Token Ring AS400

Cipher X 7100 Router

DSU/CSU

Branch Office

Cipher X 7100 FRAD

DSU/CSU IBM SNA

Cipher X 7100

Public Frame Relay Network

DSU/CSU

PC

Router

Cipher X 7100

DSU/CSU

Router

KEYNET & Security Vault

Corporate HQ

Back-Up KEYNET & Security Vault

Back-Up Data Center

Cipher X 7100

s p e c i f i c a t i o n s

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.

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
V.35, X.21, RS-232, RS-422, RS-449,
RS-485, RS-530

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