CORNET
SWITCHING SYSTEMS

IPGate-NED

Network Edge Gateway

Non-IP to IP Gateway in a Compact Chassis

FIPS 140-2 Encryption (Planned Option)

Features

- Encapsulation
    - CESoIP, TDMoIP, SAToP, PWE3
- IP Protocol
- IPv4 and IPv6
- Any to Any Connectivity
- Interfaces Modules - Today
    - Low-Speed WAN (EIA-449, EIA-422, EIA-232, EIA-530, X.21, V.35)
    - High-Speed WAN (EIA-530)
    - T1/E1
    - 2-wire (FXO/FXS) Audio
    - 4-wire E&M
    - Long Haul Secure Communications
- Interface Modules - Planned
    - DS3/E3
    - CDI
- Network Interfaces
    - 10/100/1000 Mbps Ethernet (Copper)
    - GigE Single or Multi-mode (Fiber)
    - -- Option
- DTE/DCE Selectable
- Multiple Clocking Options
- Dual Clock Sources and Stratum 3 Hold Over Accuracy
- IP DSCP Marking Support
- IEEE1588v2 Precision Time Protocol Support
- Management via IntelView, basic commands available via Craft port
- AC and DC power Inputs - Failover
- SNMP V3 - Traps and Status (Planned)

- Software Encryption Option (Planned)
    - Designed to Support FIPS140-2 Security Requirements for Cryptographic

Advantages

- Extends the life of legacy end-point devices
- Enables legacy devices to communicate over IP
- Delivers capital and recurring cost savings
- Provides robust WAN connectivity to non-network devices
- Fast Return on Investment (ROI) architecture in the IPGate AC unit allows any-to-any connectivity between ports and devices enabling a user to create a "Virtual Matrix".

Applications

- Migration of TDM and voice circuits to converged IP backbone
- Virtual matrix switching for a large number of local and dispersed endpoints
- Optimal separation of serially connected equipment
- Connecting serial sensor data streams to IP-connected computer software
- Remote Radio-over-IP applications
- SCADA device migration to IP network

Interface Configurability

The IPGate-NED main board accepts up to four modules to support a variety of interface types. The unit provides up to eight ports in two-port increments. Since the user can select any available two-port module type listed in the data sheet, the unit can be configured with low speed serial, low speed voice, E&M, and T1 interfaces all in the same compact unit. These modules are installed at the factory and are not field changeable.

Overview

The IPGate-NED is a feature-rich, network edge gateway that gives circuit/serial-based applications access to IP networks. The IPGate-NED serial-to-packet (STP) platform accommodates from two to eight interfaces of circuit emulation traffic in a 1 RU high chassis. Basic unit port interface options include T1/E1, Serial (EIA-449, EIA-422, EIA-232, EIA-530, X.21, and V.35), 2-wire FXO/FXS 4-wire E&M. The IPGate-NED will interoperate with any IPGate-AC series product. The IPGate-NED is capable of collecting sensor data and passing it through IP networks to monitoring centers making it ideal for sensor-data and non-IP voice applications.

Like other IPGate family members, the IPGate-NED offers advanced features that reliably transport legacy Time Division Multiplexing (TDM) and serial-based applications across converged IP networks. Through the use of circuit emulation services standards (CESoIP, TDMoIP, SAToIP, PWE3), the IPGate-NED supports a wide variety of legacy analog and digital interfaces at configuration data rates ranging from 50 bps to 15.536 Mbps. It lets customers easily and reliably take advantage of converged IP networks to connect legacy serial devices.

Specifications

Main Board
10/100/1000Base-T Ethernet (Copper) - RJ-45 (Standard)
1000Base-FX Ethernet (Fiber) SM or MM SFP (Optional)
Accepts Four Modules

Modules (2 DB25 connectors per module)
Low Speed WAN
> Two ports per module
> EIA-232, EIA 449, EIA-422, EIA-530, X.21, V.35
> DTE/DCE - Software Selectable
> 50 bps-2.048 MHz (Internal, Recovered, Station or External Timing)
> Control Leads (Sourced, Forced or Passed)

High Speed WAN
> One port per module, 2 ports with no BUS
> EIA-530
> DTE/DCE
> 50 bps-15.536 Mbps (Internal, Recovered, Station or External timing)
> Control Leads (Sourced, Forced or Passed)

T1/E1
> Four ports per module
> T1/E1 Software Selectable
> Coding (AMI, B8ZS, HDB3)
> 2.048 Mbps +50 Hz
> Framing (D4, ESF)
> Internal, Recovered, Looped or Station Timing
> Channel Associated Signaling (CAS)
> Loops (manual and in-band)
> BERT Testing
> Statistics
> Alarms
> SF Signaling ITU-T Q.310

T3/E3
> One port per card
> DS3 or E3
> Coding (B3ZS, HDB3)
> Framing (M13, C-Bit)
> Internal, Recovered, Looped or Station timing
> Loops
> BERT Testing
> Statistics
> Alarm