ioPLEX
IP Access Gateway

KRATOS | RT LOGIC
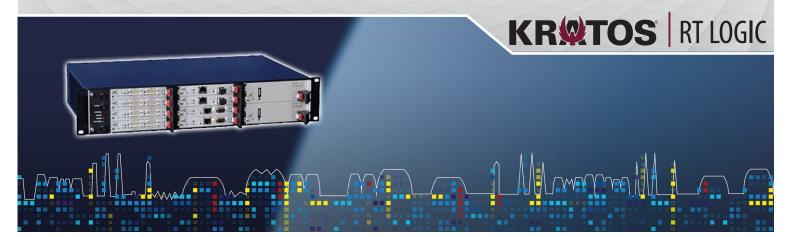
Overview

The ioPLEX™ is an affordable, high-performance IPv4/v6 access gateway that offers support for more data types, higher aggregate throughput, and better operational reliability than other circuit emulation devices on the market today.

Featuring Assured Delivery™, in which diverse-path routing, packet reordering, and intelligent reconstruction technologies are employed to guarantee data delivery, ioPLEX is ideal for applications in which data loss during network transit is simply unacceptable. Designed to move up to 2 Gbps of data across the network and generally introducing less than a millisecond of added latency into multiplexed streams, ioPLEX is also appropriate for very high rate and/or high-priority data circuits.

In typical configurations, two or more ioPLEX units are deployed as edge devices on either side of a packet-switched network, such as an ATM, IP, VLAN, or MPLS WAN. Using pseudo-wire protocols (as defined by the IETF and IRIG-218 TMoIP) the ioPLEX encapsulates the native services for delivery over a meshed packet switched network.

Applications

- High-port-density IP gateway for point-to-point, point-to-multipoint, and multicast with near real-time performance
- Replaces legacy TDM/ATM multiplexers, enabling migration to packet switched core
- Low-latency telemetry for mission operations center and range applications (IRIG-218 TMoIP)
- Video multicast and distribution
- Support for encrypted serial data multiplexing and distribution
- Space lift launch services for gathering telemetry and video of space craft launch
- Data communications networking of ATM network islands over an IP routed or Ethernet switched VLAN network
- Terrestrial networking of ISR terminal sensor information
- Time data correlation and critical commanding for satellite control

Key Features

- High reliability: 1 to 1 redundancy, hot-swap for all modules
- Dual GigE network interfaces (optical or copper) with IPv4 and IPv6 support
- I/O module T1/E1, serial (EIA-530, EIA/TIA-449, EIA/TIA-232, V.35, X.21, ECL, LVDS, Optical, and TTL), NTSC video, IRIG analog, wideband analog, 2-wire Voice, IP Forwarding, IP Multicast, and Ethernet bridging
- Dual ATM network interfaces (optical or copper) OC-12c/OC-3c 1+1APS and Serial RS-530
- Assured Delivery for critical data via diverse IP path routing, packet reordering, and intelligent reconstruction Packet FEC
- Supports serial synchronous and isochronous with automatic rate tracking and auto packet delay
- High-quality, low-latency, robust video compression using JPEG2000
- T1 multiplexing and grooming, and voice transport with compression
- Interoperability tested with network equipment, satellite modems, and DoD Encryptors

DISA/JITC APL CERTIFIED TN# 1029101 CA# 12D-APC-11-059-4

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