



# Circuit/Packet eXchange (CPX) Module Set

## Integrated IP Technology for DNX-11/88 Platforms

### Simplifying the Work of Network Migration

Migrating from TDM to IP technology is easy to talk about, hard to do. Network operators need practical, cost-efficient ways to accommodate traffic growth, streamline provisioning of voice and data services, and move non-disruptively toward next-generation network architectures.

The Circuit/Packet eXchange (CPX) module set adds a unique IP forwarding engine to DNX-11/88 Multiservice Cross-Connect platforms, simplifying the work of network migration with Sycamore's trademark combination of innovation and reliability. This industry-first integration of circuit/packet functionality on a carrier-class cross-connect supports a seamless transition from TDM to IP technology in both fixed line and mobile networks. CPX also solves many operational challenges of signaling network migration, enabling circuit-expert SS7 engineers to maintain control of packet-based Sigtran diagnostics and troubleshooting.

### Cost-Efficient IP Technology Integration

The DNX-11/88 with a CPX IP interface provides single chassis support for circuit or packet traffic, up to 1024 DS0 or 32 T1/E1 virtual WAN connections, and is fully interoperable with Ethernet/PPP-compliant routers and signaling elements (STP and SCP). Network operators can consolidate network management traffic, user data traffic, and TDM circuit data onto a single transport medium, leveraging the DNX cross-connect fabric to segregate or integrate circuit and packet streams on a per-DS0 basis. This level of performance and scalability reduces CapEx and OpEx, simplifies network management, and increases configuration flexibility.

CPX aggregates circuit traffic onto higher-speed uplinks in traditional DCS grooming fashion; it also routes downstream traffic from multiple networks into a statistically multiplexed packet-switched uplink to optimize bandwidth in the packet network. Since both circuit and packet functions are located in the same network element, network operators can mix and match traffic for maximum efficiency, control, and robustness.

The CPX channelized IP forwarding engine directly interconnects with the DNX cross-connect fabric, distinguishing the Sycamore solution from standalone-DCS-plus-router alternatives that consume more space and power. Using a shared I/O commons, a menu-based user interface (UI), and a single managed device that supports IP/Ethernet SplitE and SplitF provisioning enables faster, more cost-effective delivery of mixed voice and data services. A rich set of IP LAN filters further optimizes performance.

CPX also ensures carrier-class reliability. Innovative IP/Ethernet test access features bring all the circuit-based, carrier-grade diagnostics and test facilities of DNX platforms to packet-switched networks. The DNX/CPX solution extends traditional MonE/F testing to IP/Ethernet, and simplifies Sigtran testing and troubleshooting, with support for simultaneous remote monitoring of up to seven Ethernet ports.

### Features and Benefits

- Consolidates Circuit/Packet Processing Functions
- Enables Cost-Efficient Migration from TDM to IP
- Supports Industry-Unique Test Access for IP
- Maximizes Network Reliability and Scalability
- Increases Provisioning Velocity and Flexibility



