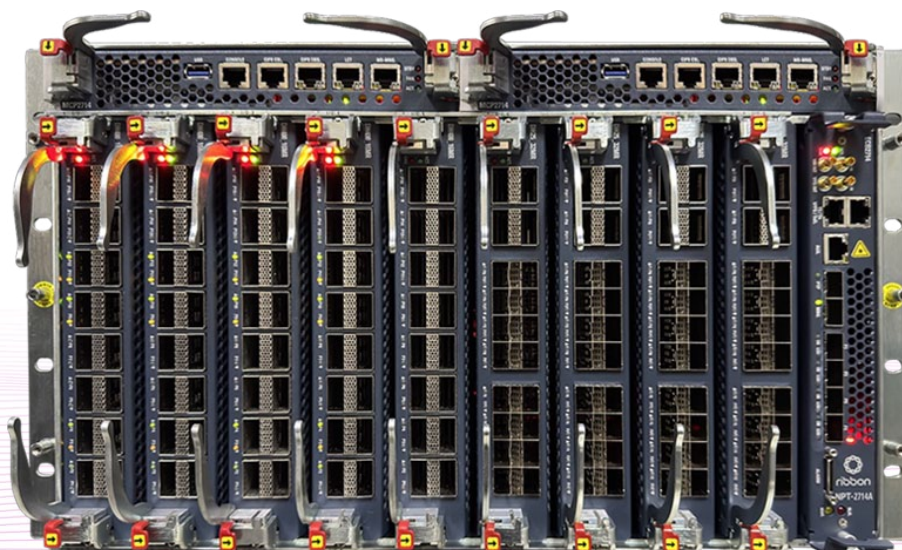


Ribbon's NPT 2714

Evolving the IP Aggregation Network

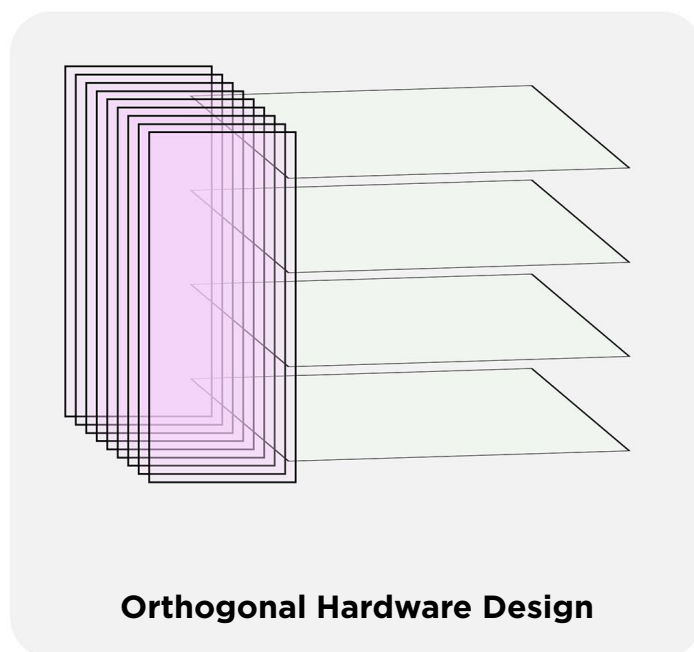
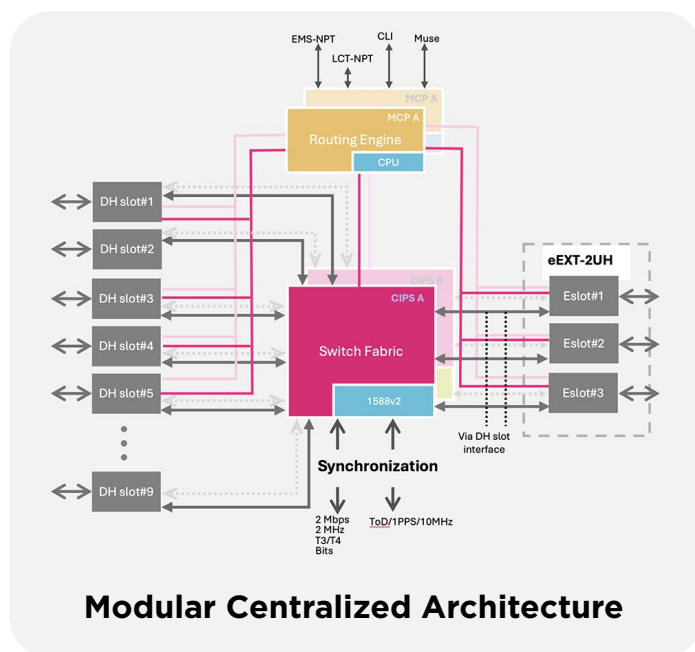


NPT 2714 front view



NPT 2714 rear view

NPT 2714 Innovative Hardware Architecture for Aggregation Routing



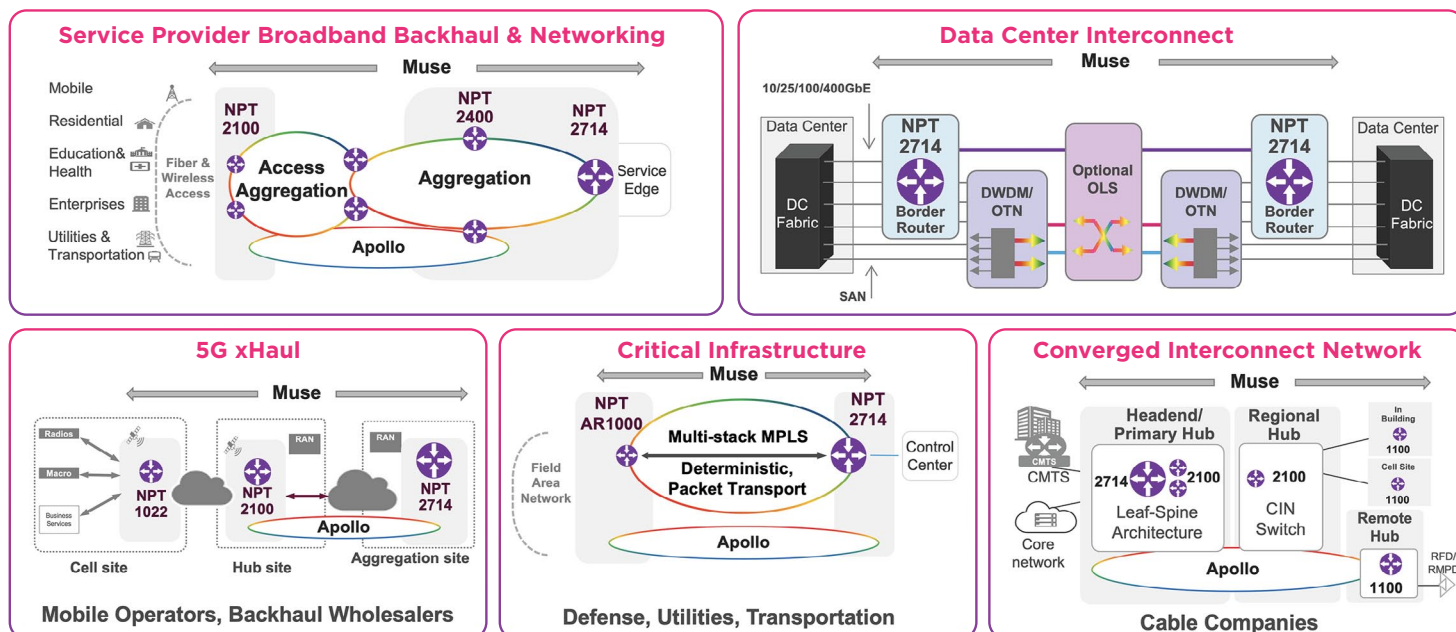
The NPT 2714 is the latest addition to Ribbon's NPT XDR2000 series of aggregation routers and brings capabilities previously reserved for high-cost service edge routers to the aggregation network. With an innovative orthogonal physical architecture combined with advanced cooling techniques, the NPT 2714 provides a modular centralized aggregation router which merges the best aspects of modular and fixed systems. It combines the redundancy and I/O diversity of modular systems with the simplicity and cost-efficiency of fixed systems. Consequently, the NPT 2714 delivers redundancy at an optimized cost while enabling flexibility and expandability through operational continuity.

Ribbon's innovative design has enabled the NPT 2714 to deliver unprecedented capacity in a very compact footprint without compromising forwarding performance. Additionally, the NPT 2714 supports true "Pay As You Grow", with "in service" upgrade from 7.2Tbs to 14.4Tbs switching capacity.

The high-power density of the ASIC, combined with high-performance IO transceivers (ZR+), presents challenging thermal conditions. These challenges are effectively addressed through advanced physical innovation and system design, including optimized fans and heat sinks.

NPT 2714 combines a modular centralized router architecture with state-of-the-art orthogonal hardware design, advanced cooling techniques, cost-efficient merchant silicon, and proven networking software to deliver a fully redundant, high-capacity aggregation router.

NPT 2714 In an Evolved Aggregation Network



The NPT 2714 uses two switching ASICs to provide 14.4Tbps of switching capacity, this provides true in-service upgrade from 7.2Tbps to 14.4Tbps and delivers far more power than a single 14.4Tbps ASIC-based solution. The NPT 2714 supports 36 ports of 400G including 400G ZR+ or 144 ports of 100G or 228 ports of low speed 10G/25G.

With this scalability and flexibility, the NPT2714 is exceptionally well-suited for a wide variety of applications and networking scenarios, including:

- Multiservice Backhaul Network**
 NPT 2714 offers the high capacity, high performance routing, and IP/MPLS capabilities, required to support voice, video, mobile and data services in a multiservice backhaul network.
- Dual-Homed Service Provider Architectures**
 NPT 2714 delivers the high-capacity switching required in the metro core in dual-homed architectures
- CIN Architectures used by MSOs**
 NPT 2714 delivers the high-capacity switching required from the spine node as defined by MSOs for their spine-leaf CIN architectures
- Border Router for DCI applications**
 NPT 2714 provides flexible optical I/O options, including pluggable coherent interfaces (ZR+) allowing it used with or without Ribbon's Apollo optical layer in DCI applications. A pluggable amplifier allows NPT 2714 to support up to 3.2T per wavelength with a reach of over 130km.
- Critical Infrastructure**
 NPT 2714 is architected to provide the high-availability and security requirements, mandatory for mission critical networks. High availability is ensured through a fully redundancy architecture while security is provided with MACsec on all ports.

Innovation in the NPT 2714:

- **True “Pay As You Grow”**
NPT 2714 offers the unique capability to start at 7.2Tbs non-blocking switching capacity then by adding, in-service, another 7.2Tbs switching card become a non-blocking 14.4Tbps router.
- **Investment Protection:**
NPT 2714 allows all major components to be upgraded, as required. This enables it to cost effectively evolve as network architectures and technology advance.
- **Redundancy:**
NPT 2714 introduces redundant control and data planes in 7.2Tbps and 14.4Tbps configurations. The platform can also be configured to operate as non-redundant router.
- **Flexibility:**
The NPT 2714 provides flexibility via I/O scalability and interface diversity. It natively supports port speeds from 10 GbE up to 400 GbE hosted in 9 slots with just two I/O card variants. A wide range of optics provides support for multiple customer use cases.
- **Security:**
MACsec is available for interfaces and is software driven with no hardware dependency
- **Coherent Routing (IPoDWDM):**
Supports 36 x 400G ZR+ coherent interfaces including plugin amplifiers to extend reach



Watch the NPT 2714 Hardware Overview on YouTube

Contact Us

Contact us to learn more about Ribbon solutions.