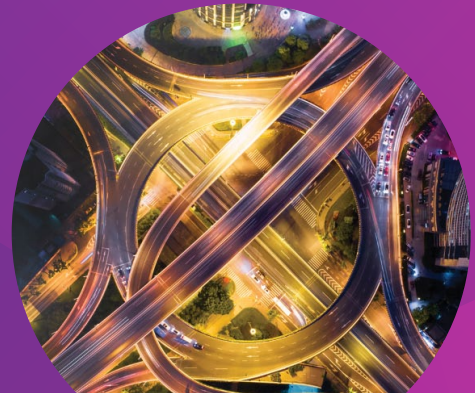# Converged Access Aggregation

Converged Multiservice Transport for Packet Services

Network operators need to support more service types than ever before, covering a wide range of residential, business, mobile, and mission-critical networks. As a result, there is a massive escalation in the amount of copper, fiber, cellular, and non-cellular-wireless technologies that must be supported by the access networks. It is no longer viable to build a separate network for each service type. Instead, a single converged network is required to connect all of these access networks to the services and applications at the core of the network.
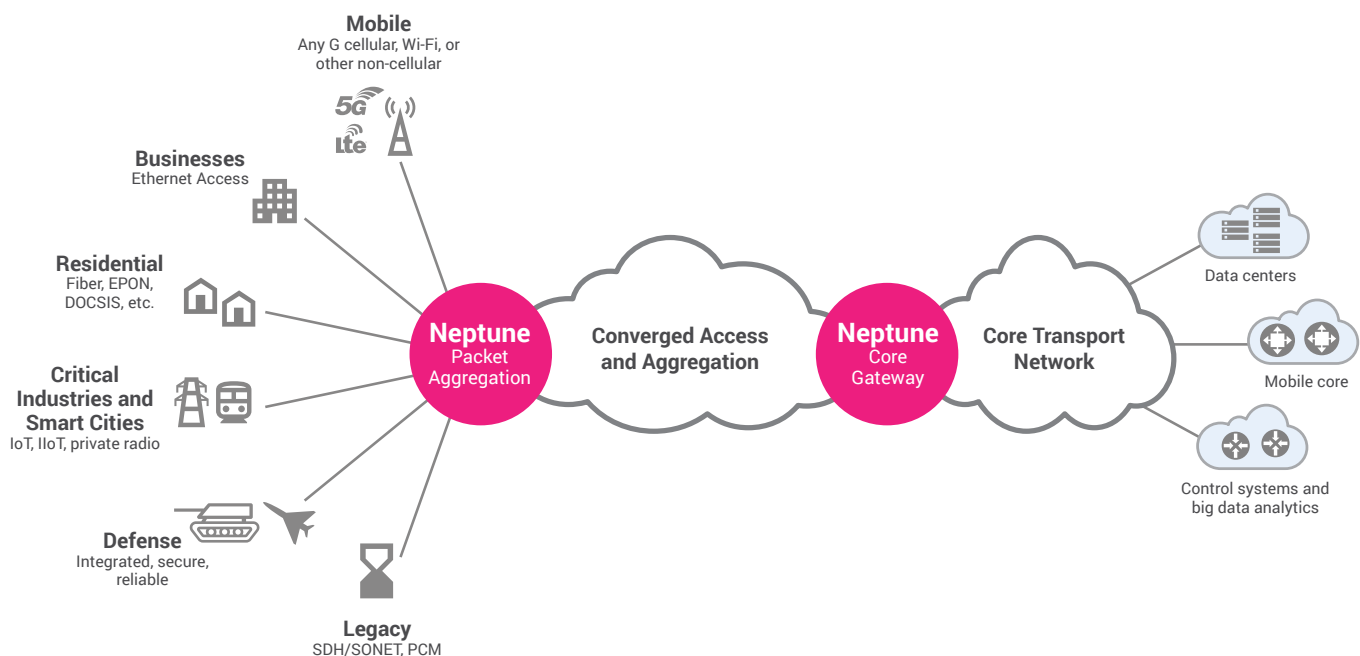
Ribbon uses its Neptune portfolio and advanced Muse software suite to provide operators with this converged access aggregation solution. Unique Elastic MPLS functionality ensures the best transport technology for each service type. Integration of legacy services is simple with proven processes and technologies. In addition, agile programmable hardware controlled by advanced software makes it easy to evolve the solution to provide the next generation transport required for 5G.

Multiservice and Multi-technology	Dynamic and Deterministic	Flexible Deployment	Programmable 5G Support

Mobile
Any G cellular, Wi-Fi, or other non-cellular

Businesses
Ethernet Access

Residential
Fiber, EPON, DOCSIS, etc.

Critical Industries and Smart Cities
IoT, IIoT, private radio

Defense
Integrated, secure, reliable

Legacy
SDH/SONET, PCM

Neptune Packet Aggregation

Converged Access and Aggregation

Neptune Core Gateway

Core Transport Network

Data centers

Mobile core

Control systems and big data analytics

ribbon

Ribbon's Converged Access Aggregation Solution

Your Challenges	Our Solutions
Transport solution to aggregate services delivered from multiple-access networks	**Multiservice, multi-technology solution** Ribbon's Neptune product line provides a true multiservice platform, offering a unified packet aggregation network able to support business, residential, and mobile services, including: • Elastic MPLS capabilities to support IP/MPLS, MPLS-TP, and Ethernet, all from a single platform and to stitch between each of these domains, as required. • Simple, flexible, high-capacity (n x100G), long-range interfaces provide the opportunity to reduce the number of core nodes and sites. • Optimized functionality for services having specialized transport needs, such as backhaul, video, and synchronization. • MPLS-TP for deterministic service delivery.
Support all service types	**Dynamic and deterministic** Neptune's Elastic MPLS provides the agility to support: • Dynamic business and residential IP/MPLS-supported services. • Deterministic business-critical, mission-critical, and legacy TDM services with MPLS-TP used to provide deterministic packet transport and advanced OAM. • Evolution to next generation transport features, such as segment routing and FlexE. • The Muse software suite provides: • Comprehensive, unified user operations for all services. • Point-and-click operation for right-first-time service provisioning. • Advanced software tools for rapid fault isolation.
Allow equipment migration from expensive central buildings to low-cost locations	**Flexible deployment** Ribbon's solution is designed to be equally well-matched for use in the street cabinet, small equipment room, or the Central Office: • Compact architecture with high-density pluggable cards maximize the use of Central Office and equipment-room rack space. • Low-power consumption reduces operation expenses. • Less than 300mm deep, with all-front access. • Compact, low-power, reduced-noise architecture. • Hardened design with extended temperature range.
Support 5G and beyond	**5G ready with programmable agility** • Elastic MPLS, SDN, and NFV provide a future-proof architecture that allows support of new service types and technologies as they are introduced. • 5G mobile backhaul is provided with advanced timing, hybrid slicing, and programmable software-enabled features already built into the solution.

Contact Us Contact us to learn more about Ribbon solutions.

ribbon