CORIANT IS NOW PART OF INFINERA

Coriant Solutions for Cable MSOs

Scalable, Future-proof Solutions that Minimize TCO

Cable MSOs are evolving their networks to support ultra-high-definition video, to grow revenues with new IoT and cloud-based services, and to head off threats including over-the-top (OTT) video and cord-cutters. To address these challenges, they are leveraging industry initiatives including DOCSIS 3.1 Full Duplex, Distributed Access Architecture (DAA), Remote PHY, Head End Re-architected as a Data Center (HERD), and Fiber Deep. However, successfully implementing these initiatives requires a new approach to the network, incorporating openness, disaggregation, virtualization, and SDN-enabled automation.

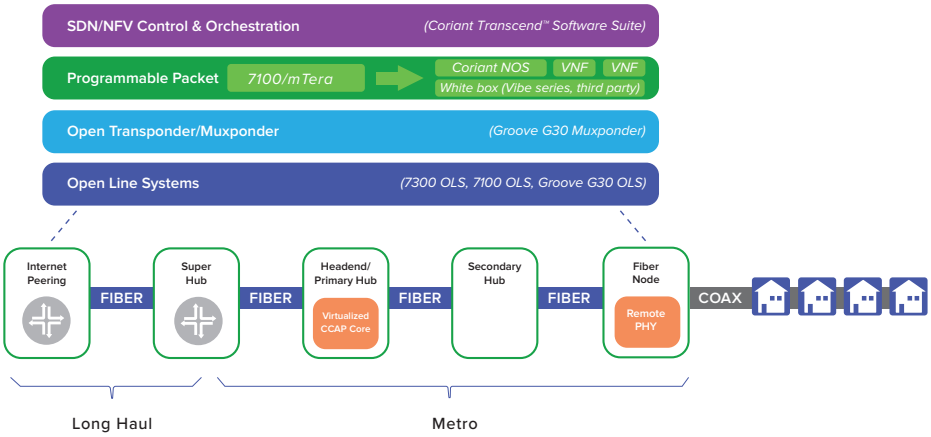

Figure 1: Coriant Solutions for Cable MSOs

LEVERAGING THE HCA PRINCIPLES OF OPENNESS, DISAGGREGATION, AND AUTOMATION

Coriant solutions for evolving cable MSO networks leverage the key principles of Coriant Hyperscale Carrier Architecture (HCA). These principles include openness and disaggregation with the separation of hardware and software into best-in-class functional blocks with open APIs, providing the ability to replace each functional block independently, reducing vendor lock-in, and enabling faster innovation. The optical layer is disaggregated into Open Line Systems including the Coriant Groove™ G30 Open Line System (OLS), the Coriant® 7100 Packet Optical Transport OLS, the Coriant® hiT 7300 Multi-Haul Transport OLS, and the Coriant Groove™ G30 Muxponder (MUX). The packet function becomes programmable with options including SDN control of converged packet optical platforms such as the 7100 Series and Coriant® mTera® Universal Transport Platform, and white boxes, including the carrier-class Coriant® Vibe Series, together with the hardware-independent Coriant Network Operating System (NOS) enabling applications including disaggregated routing. The Coriant Transcend™ Software Suite provides management, control, and orchestration while addressing the need for automation and speeding the introduction of new services.

BENEFITS OF CORIANT SOLUTIONS FOR CABLE MSOs

- **Evolve** your network with DOCSIS 3.1 Full Duplex, HERD, Remote PHY, and Fiber Deep
- **Maximize** internet service speeds leveraging cost-effective 100G+ optics, optical express, and disaggregated routing
- **Enhance** the customer experience with low latency enabled by optical express and NFV edge compute
- **Grow** revenues from enterprise customers with MEF Ethernet services, cloud connect services, and dedicated 100G+ leased line services
- **Accelerate** innovation with open, disaggregated platforms and with advanced technology from Coriant Multi-Sided Platform (MSP) program partners
- **Minimize** total cost of ownership with SDN-enabled automation, and with minimized footprint and power consumption

TURBOCHARGING INTERNET SERVICE SPEEDS WITH FIBER DEEP

By pushing the fiber node, where fiber meets coax, closer to the end-user, Fiber Deep significantly reduces the number of homes that must share the coax portion of the HFC network, enabling gigabit internet services while simultaneously reducing power consumption and maximizing service availability by eliminating the need for RF amplifiers. Leveraging cost-effective coherent optics technology with speeds from 100 Gbps to 600 Gbps, optical express, and disaggregated routing, Coriant can provide a scalable and future-proof solution for Fiber Deep that minimizes total cost of ownership (TCO).

ENHANCING CUSTOMER QUALITY OF EXPERIENCE WITH MINIMIZED LATENCY

Low latency is becoming a key success factor for communications service providers. Residential customers will consider switching providers if video streaming quality suffers or web response times appear slow. Gamers will actively seek out providers with the lowest latency. New applications such as VR streaming and the tactile internet will make latency even more critical. Enterprise verticals requiring low latency include healthcare (telemedicine), transportation (traffic management), and manufacturing (automation, remote control with AR). In addition to the reduced latency of optical express, Coriant provides options for edge compute with VNFs hosted on x86 servers or, to save space and power, on the white boxes themselves, all managed by Coriant Transcend™ MANO.

GROWING REVENUES WITH DIFFERENTIATED ENTERPRISE AND WHOLESALE SERVICES

Coriant cable MSO solutions enable a wide range of enterprise services including MEF E-Line, E-LAN, E-Tree, and E-Access Ethernet services and cloud connect services delivered by the programmable packet infrastructure. Differentiators include hard QoS, low latency, portal-based self-provisioning, and MEF LSO APIs. Services that include both connectivity services and enterprise NFVs, such as firewalls and WAN optimization, can be orchestrated end-to-end by the Transcend Software Suite with the option to host VNFs on the white boxes. In addition, the Groove G30 MUX provides a compact option for dedicated 100G+ leased line services.

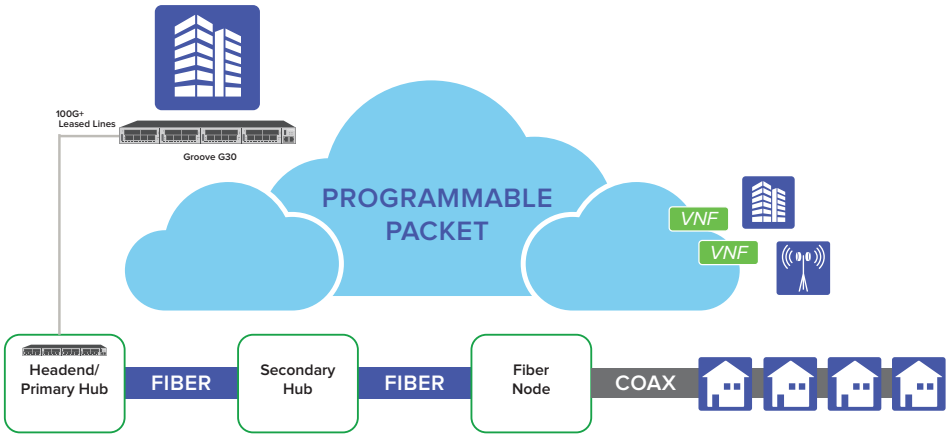

Figure 2: Enterprise and Wholesale Services

HARNESSING ECOSYSTEM-POWERED INNOVATION

The reduced vendor lock-in of disaggregation enables cable MSOs to leverage the innovation capabilities of the entire ecosystem rather than be tied to the innovation capabilities of a single vendor, and to align the upgrade of each functional block based on its own technology renewal cycle. In addition, SDN speeds innovation by greatly simplifying the integration of new technologies into the IT/OSS environment. Furthermore, Coriant's solutions include disruptive technologies from best-in-class companies in the Coriant Multi-Sided Platform (MSP) partner program.

MINIMIZING TOTAL COST OF OWNERSHIP

Coriant cable MSO solutions minimize both CapEx and OpEx. CapEx savings result from reduced vendor lock-in, faster innovation, photonic innovation, and programmable packet. OpEx savings result from minimized power consumption, reduced footprint, and SDN-enabled automation. Power consumption examples include the Groove G30 industry-leading 0.16 Watts per Gbps powered by Coriant CloudWave™ T Optics technology, optical express that minimizes OEO conversions, white box VNF hosting, and a revolutionary liquid immersion cooling solution that cuts power by as much as 60 percent.

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