Redefining Transport Networks for Hypergrowth & Dynamic Cloud Connectivity

EXPERIENCE, EXPERTISE AND FOCUS
A fundamental transformation of transport networks is underway. At the root of this transformation is an unprecedented era of hypergrowth driven by concurrent demand for mobile, video and cloud-based services and applications. Recent industry analyst reports underscore the formidable challenges service providers face in the hypergrowth era – especially increased data growth, unpredictable traffic patterns, elastic compute/storage connectivity, and heightened end-user expectations for uninterrupted broadband service quality and assured SLAs. Traditional multi-layer (IP, Ethernet, Optical) transport architectures and conventional service deployment models are simply incapable of addressing these challenges or harnessing the opportunities that hypergrowth represents. As service providers around the world face an unprecedented tipping point, the industry is ripe for an innovative market leader with the experience, expertise, and focus required to redefine transport networks for hypergrowth and on-demand, cloud-centric connectivity.

CUSTOMER-FIRST VALUES BACKED BY INNOVATION AND SERVICE EXCELLENCE
With a distinguished heritage of technology innovation and service excellence, forged by over 35 years of experience and expertise in IP/data and packet optical networking, Coriant is a newly formed, independent company with unwavering focus on helping our customers maximize the value of their transport networks as bandwidth demands explode and end-user needs evolve. Our innovative solutions are widely deployed in the largest and most demanding Tier 1 networks around the world. We are consistently chosen as the preferred supplier by leading mobile and fixed line service providers worldwide based on an unmatched track record of delivering high-quality products backed by proven customer-first values and best-in-class service and support.

END-TO-END SOLUTIONS OPTIMIZED FOR THE CHALLENGES AND OPPORTUNITIES OF HYPERGROWTH
The Coriant end-to-end portfolio of intelligent multi-layer transport solutions enables network operators to reduce network complexity, increase service velocity, and improve resource utilization as transport networks scale in response to a new generation of dynamic services and applications. Coriant solutions include smart edge routers, and multiservice aggregation (SDH/SONET, OTN, IP/Ethernet, MPLS-TP, PTN), switching and transport solutions powered by Software-Defined Networking (SDN) intelligence, automation and control. We enable network operators to build resilient, flexible and scalable (100G and beyond) transport networks optimized for the challenges and opportunities of the hypergrowth era.

YOUR STRATEGIC PARTNER
A proven culture of innovation and forward-looking vision for converged transport networks, combined with demonstrated technology leadership and unmatched financial strength, put Coriant in a unique position to extend our market lead and continue to be the preferred long-term commercial partner for network operators in the hypergrowth era.

Coriant FAST FACTS
- Founded by Marlin Equity Partners following the acquisitions of Nokia Siemens Networks Optical Networks Business, Sycamore Networks Solutions, Inc. and Tellabs
- 3,500+ employees worldwide, with R&D centers of excellence in Europe, Asia and the U.S.
- Our markets include mobile and fixed line service providers, large enterprises, electric utilities, government agencies, submarine network operators, and content providers
- World-class service excellence with global reach and local expertise
- Distinguished heritage of networking expertise with over 1,800 patents
- More than 35 years of experience delivering Tier 1 networking products and services
- More than 500 customers worldwide across six continents and in more than 100 countries

Coriant’s global operations include our in-house manufacturing and operations center in Germany, R&D centers of excellence in Germany, United States, Portugal and China, and sales and support offices throughout the world.
INTELLIGENT MULTI-LAYER TRANSPORT – SIMPLE, FLEXIBLE, SCALABLE

The Coriant solutions portfolio leverages industry-recognized leadership in metro packet optical networking, proven expertise in coherent optical transmission (LH/ULH), and innovative edge routing technology optimized for LTE and LTE-advanced networks. Our end-to-end multi-layer transport solutions span access, backhaul, metro, regional and core transport applications, and enable fixed line and mobile service providers to improve network efficiencies and maximize service value with flat, multiservice architectures and highly automated operations. With a high-performance end-to-end product portfolio and proven software-defined intelligence, automation and control, Coriant is redefining multi-layer transport infrastructure for a new networked world.

CORIANT DYNAMIC OPTICAL CLOUD™

As business and consumer demand for cloud-based connectivity increases and traffic loads in wide area networks become more and more unpredictable, service providers require an elastic end-to-end infrastructure that mirrors the flexibility, scalability and programmability of compute and storage resources in the data center – for all services. To unleash this capability, Coriant has introduced Dynamic Optical Cloud™, an innovative SDN solution and open framework that helps service providers reduce OPEX and CAPEX, while creating new revenue opportunities. This end-to-end and highly programmable infrastructure solution enables service providers to cost-effectively address a rapidly changing world of dynamic, virtualized, high-bandwidth applications and services.

Coriant’s end-to-end, SDN-enabled product portfolio includes:

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CORIANT GLOBAL SERVICES

With a proven track record of delivering best-in-class support and service excellence to Tier 1 service providers around the world, Coriant offers a comprehensive range of high-value service and support solutions covering all phases of the network life cycle – planning, designing, implementing, training, maintaining and optimizing. Coriant Global Services combine unmatched expertise in end-to-end optical networking and network management, extensive in-house service capabilities, and an established network of global partners to help our customers meet their business objectives and maximize the value of their service infrastructure.

BENEFITS OF SDN-ENABLED END-TO-END MULTI-LAYER TRANSPORT

Coriant solutions meet a broad range of application needs in different market segments, from mobile backhaul and transport SDN to long distance data center interconnect and submarine network optimization. Powered by software-defined intelligence, our end-to-end solutions portfolio enables fixed line and mobile network operators to:

- **Simplify** network evolution and reduce network cost and complexity
- **Accelerate** time-to-deployment and time-to-revenue
- **Create** and sustain service differentiation and assure end-user service quality and SLAs
- **Enable** new revenue streams and protect network investments throughout the network life cycle
THE VALUE OF CORIANT SOLUTIONS

In a wide variety of applications, Coriant’s IP/data and packet-optical aggregation, switching and transport solutions help network operators maximize the value of their transport infrastructure, simplify network operations, and ensure the highest level of service quality for end-user customers.

- **Mobile Backhaul** - maximize cost and performance with tailored solutions to meet specific backhaul requirements, including edge routing for LTE/LTE-A evolution and MPLS-TP-based full packet backhaul (PTN) for voice and data convergence

- **Transport SDN** - simplify service planning, management, and control with Coriant Dynamic Optical Cloud™, including innovative extensions to the SDN framework and enhanced multi-layer interworking and service management

- **Multiservice Carriers** - ease network and service migration with a proven implementation of a full range of packet and optical technologies – SDH/SONET, MSPP, OTN, MPLS, IP/Ethernet, ASON/ GMPLS, ROADM, WDM, photonic mesh

- **Data Center Interconnect** - ensure flexible, low latency transport and future-proof scalability to meet the demanding requirements of cloud computing applications and data center interconnect services

- **Carrier’s Carrier** - cost-effectively scale wholesale bandwidth services and ensure SLA performance requirements with field-proven network availability and service assurance

- **Submarine Networks** - simplify network design and reduce OPEX in hybrid subsea and terrestrial network applications with a single, future-proof transport platform managed under a single NMS

- **Integrated Packet Transport Network** - fully optimize multi-layer efficiencies with an integrated solution from Coriant and Juniper Networks that combines simplicity and resiliency to dramatically reduce TCO for transport networks

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**Coriant hiT 7300 Optical Transport Platform**

The Coriant hiT 7300 is a high-capacity, high-performance optical/DWDM transport platform optimized for flexible and efficient transport in regional, long haul and ultra-long haul networks. Widely deployed in the most demanding Tier 1 networks, the hiT 7300 delivers superior density and reach, photonic mesh resiliency and agility, and scalability to 100G and beyond. With unmatched spectral efficiency, the hiT 7300 enables service providers to maximize utilization of their fiber infrastructure, while creating the resilient foundation for flexible high-capacity, low latency services. The hiT 7300 solution maximizes network flexibility and service agility with the industry’s largest portfolio of ROADM offerings (up to CDC), proven FlexiGrid technology, and flexible super-channel capabilities that can be optimized for longest reach, largest capacity, or pragmatic compromise between reach and capacity.

**Coriant mTera Universal Transport Platform**

As a key component of Coriant’s Dynamic Optical Cloud™ networking solution, the recently launched mTera Universal Transport Platform transforms traditional transport networks from static and fixed resources to dynamic and software-defined service-enabling engines. The mTera is an extremely flexible multi-terabit, multiservice switching platform with a hybrid packet fabric and integrated multi-haul optical transport capabilities. Designed for efficient OTN/packet grooming as well as advanced ROADM-based optical networking flexibility on a single shelf, the mTera supports a broad range of converged network and service applications, including metro core traffic aggregation and distribution and long haul traffic grooming. In addition, the mTera can serve as an efficient gateway between traditionally lower speed aggregation networks and dynamic, multi-service, all-coherent core networks, and can be leveraged by Coriant’s SDN controller to deliver the full benefits of a truly programmable and agile transport network.
PACKET OPTICAL TRANSPORT SOLUTIONS CONTINUED

Coriant 7100 Packet Optical Transport Platform
The Coriant 7100 Packet Optical Transport Platform is an integrated transport and multiservice delivery solution for wireless, fixed-line and business services networks. Dynamic optical networking not only supports the needs of the current network, but also has the ability to effortlessly deploy additional nodes for future expansion via a multi-degree Reconfigurable Optical ADM (ROADM) and optical switching technologies. The 7100 is faster and more efficient at a lower cost, offering enterprises a better solution to cope with user demand for mobile Internet. The 7100 series platform includes the 7100 Nano, a highly compact solution with best-in-class 10G/ROADM density optimized for flexible, high-value end-user applications.

Coriant 7090 Metro Edge Packet Transport Platform
The Coriant 7090 is an efficient and scalable MPLS-TP-based Packet Transport Network (PTN) solution optimized for the explosive growth of IP traffic impacting carrier access and aggregation networks. Combining the best of TDM (SDH, OTN) and packet transport (IP/MPLS, MPLS-TP, Ethernet), the 7090 enables fixed line and mobile network operators to achieve significant efficiencies with packet-based multiservice support, while ensuring connection-oriented Quality of Service (QoS) for a mix of TDM and packet services.

INTELLIGENT NETWORK MANAGEMENT

Coriant TNMS Network Management
The Coriant Transport Network Management System (TNMS) is an end-to-end management platform (FCAPS) that enables operators to easily and cost-effectively manage multi-layer (PDH, SDH, IP/Ethernet, MPLS-TP, DWDM), multi-domain (access, metro, core), and multi-vendor networks. Coriant TNMS easily integrates into existing OSS environments and empowers a holistic approach to network and service management. TNMS supports network and service management across a broad range of Coriant’s LH/ULH optical transport, metro packet optical transport, and access and aggregation products.

Coriant 8000 Intelligent Network Manager
The Coriant 8000 Intelligent Network Manager (INM) offers service providers full, end-to-end support for commissioning and monitoring services, making service changes, and performing troubleshooting. This single overarching management solution for Coriant data and metro packet optical products simplifies network management and can improve profitability and competitiveness through operational efficiency. Its advanced graphical user interface (GUI), automated wizards and plug-and-play features guide users through tasks and shorten service provisioning time. The results are faster time to revenue and a reduction in expenses.

CONTROL ANALYTICS SOLUTIONS

Coriant InSight Analytics℠
Coriant InSight Analytics is a cloud-based solution that offers a powerful set of network analytics to identify and address performance and capacity issues in mobile backhaul networks before they become user-affecting problems. This unique, purpose-built analytics tool enables operators to get to the root cause of issues quickly with the assistance of automated analysis and a dashboard tool that provides an instant summary of key issues requiring attention. Analytics tools, including cross-filtering capabilities, make it easy to interpret complex data and resolve problems faster. The benefits of improved network performance and immediate data are a direct result of InSight Analytics.
**MSPP SOLUTIONS**

Coriant multiservice provisioning platform (MSPP) product offerings provide efficient aggregation, switching and transport of a broad range of circuit and packet services. Designed for seamless evolution, Coriant MSPP solutions enable fixed line and mobile operators to cost-efficiently support legacy PDH/SDH services while providing a flexible migration path to packet-centric services (IP/ Ethernet), including Metro Ethernet Forum (MEF) certified carrier-class Ethernet services. Coriant MSPP solutions include:

- hiT 70xx MSPP Platform
- 6300 Managed MSPP/Transport Platform
- SN 9000 Multiservice Switch

**DIGITAL CROSS-CONNECT SOLUTIONS**

Coriant also offers a range of digital cross-connect (DCS) and broadband DCS solutions proven in Tier 1 fixed line and mobile networks around the world, as well as government, enterprise, transport and utility networks. Addressing both core and access applications, these field-proven cross-connect solutions combine efficient aggregation, grooming and switching with intelligent bandwidth management to help network operators reduce costs, simplify provisioning, and seamlessly migrate from circuit to packet-based service infrastructure. The Coriant portfolio of DCS/BB-DCS solutions includes:

- 5000 Digital Cross-Connect Series
- SN 16000 BB-DCS/Optical Switch
- 8100 Managed Access System
- DNX Cross-Connect Solutions

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**Coriant 8800 Smart Router Series**

The Coriant 8800 Smart Router solution delivers mobile and fixed mobile convergence services using any combination of technologies on a single platform. Widely deployed in leading service provider networks, the 8800 supports legacy Frame Relay, ATM, and TDM/private leased-line services on a single platform. Whether it is business-class IP and carrier Ethernet services on one system or 2G, 3G and 4G mobile services on a converged platform, the 8800 delivers new services to an existing network easily and cost-efficiently.

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**Coriant 8600 Smart Router Series**

The Coriant 8600 Smart Router Series enables mobile operators to efficiently and cost-effectively meet the skyrocketing end-user demand for reliable broadband service connectivity. Designed for optimal efficiencies in mobile backhaul networks and multi-generation network evolution, Coriant edge router solutions boost network performance, reduce network costs, and empower new mobile services. The Coriant 8600 series of scalable, edge routers support fast-growing data services, low-latency voice and a wide range of applications – consumer, enterprise, machine-to-machine connectivity, cloud networking and more. The 8600 series includes:

- **8665 Smart Router**: A compact, full duplex IP/MPLS router, the 8665 provides seamless evolution for Smart Routers managed by the Coriant 8000 Intelligent Network Manager. The 8665’s IP routing and Ethernet switching capabilities, aligned with other 8600 Smart Routers, support mobile operators as they build and scale LTE and LTE-Advanced networks.

- **8615 Smart Router**: A compact 1RU node optimized for mobile and fixed-mobile converged networks, the 8615 delivers cost-efficient Ethernet aggregation (1G/10G) for mobile and fixed services with 44G throughput for full line rate transmission on all ports.

- **8602 Smart Router**: Environmentally hardened for reliable operation in the most challenging deployment locations, the 8602 is a full-featured 6-port IP/MPLS router that’s only one-third the size of competing products. The 8602 router enables plug-and-play autoconfiguration through SON (Self Organizing Network) capabilities, speeding deployment of small cells and macrocells.
INTEGRATED OPTICAL PLANNING SOLUTIONS

Coriant Intelligent Optical Control (IOC)
Coriant Intelligent Optical Control (IOC) leverages SDN technology to realize the full potential of the optical transport network and enable service providers to ensure stability and control under rapidly changing network conditions and demands. Coriant IOC is an online network management, provisioning and planning tool that enables network operators to manage their optical network assets and capacity in a more efficient, automated and real-time manner. With full control over all planned and installed network resources, IOC dramatically shortens reaction time to end-user demand by reducing operational complexity, improving network efficiency and utilization, and increasing service agility.

Coriant TransNet/TransConnect Design and Planning Tools
As hypergrowth traffic demands drive the need for increased operational simplicity across the network, TransNet and TransConnect solutions from Coriant deliver a new level of software-defined automation and intelligence for ease of DWDM network design, planning, ordering, configuration, deployment, equipment management, and maintenance.

Coriant 7196 Optical Planning Tool
The Coriant 7196 Optical Planning Tool (OPT) enables network planners to take new service requests and plan routes between the source and destination sites for the bandwidth required. The Coriant OPT simplifies the design of a Metro DWDM network using the Coriant 7100 Optical Transport System (OTS). The engineering rules that are specific to the 7100 OTS are embedded in the OPT so the network planner can accurately place a minimum number of regenerating transponders with adequate margin to extend over the life of the product. In short, the network planner now has the ability to plan and track large networks with heavy traffic demands.

ABOUT CORIANT
Coriant, founded as an independent company in 2013, is an industry-leading supplier of dynamic metro-to-core transport solutions. We serve over 500 customers globally, including 90% of the world's top 50 service providers. Our end-to-end product portfolio and software-defined networking solutions enable mobile and fixed line operators to reduce network complexity, increase service velocity, and improve resource utilization as transport networks scale in response to a new generation of high-bandwidth services and applications. Following the recent merger with Tellabs, the company operates worldwide in more than 48 countries, with R&D centers in Asia, Germany, Portugal and the United States, as well as a state-of-the-art manufacturing and operations center in Berlin, Germany. Learn more at www.coriant.com.

For more information about our products and solutions, please contact your Coriant Sales Representative.