

Coriant Transcend™ Portal

SDN Enabled Management Tool for Streamlined Network Operations

MAXIMIZING OPERATIONAL EFFICIENCY WITH SDN APPLICATIONS

Configuring L2 and L3 VPN services over IP/MPLS traffic engineered networks has traditionally required significant expertise. Network engineers needed a deep understanding of router command line interface (CLI) or the ability to correctly configure routers using complex network management systems. In either case, a solid foundation in network technology and protocols was necessary and network deployment was slow with service activation often stretching over weeks. It is now possible to dramatically simplify network operations while simultaneously enabling a new generation of carrier services through the introduction of the Coriant Transcend™ SDN Solution for centralized SDN control.

Operating at the highest levels of speed and precision is enabled by introducing network automation through SDN controllers that can accept machine level requests from software applications and deliver connectivity services to meet the performance requirements of individual application flows. Such a network achieves the speed and scale required for future-looking, always-available, on-demand user services and per-application or per-customer network slicing.

BROADENING DIRECT NETWORK ACCESS

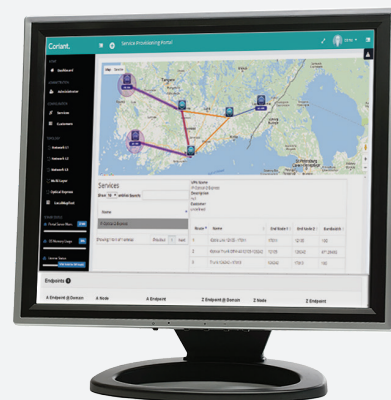
The Coriant Transcend™ Portal is designed to bring efficiency and simplicity to service provider networks for both customers and internal operations staff. The Coriant Transcend Portal is the first Transcend application to utilize the Coriant Transcend™ SDN Controller architecture. The portal can enable customers or service provider technicians to easily add, modify, or disconnect network services. The portal presents a streamlined interface to the network that directly interfaces Transcend SDN Controllers using open programming APIs. Through the Coriant Transcend Portal application, carriers can broaden the set of users with direct access to the network through a fully automated multi-layer, multi-vendor network configuration.

DELIVERING SIMPLIFIED, CUSTOMIZED OPERATION

SDN enabled networks bring the promise of network automation, but in order to take advantage of these benefits, end-users must be able to facilitate network control with an intuitive interface. The Coriant Transcend Portal supports a number of applications where service provisioning and visibility is extended to users with limited knowledge of networking or restricted access to the network – such as an enterprise or wholesale customer user who is only allowed access to a subset of services on the network. The portal provides a customized interface for each user group to work with the individual network slice allocated to their application.

BENEFITS OF THE CORIANT TRANSCEND™ PORTAL FOR IP/MPLS NETWORKS

- **Easy-to-navigate user interface** for service provider network staff or enterprise customers to manage services
- **No network protocol knowledge required** to configure, modify, and view IP/MPLS and multi-layer carrier networks
- **Multi-domain network slicing** for visibility and control over per-application or per-customer network services
- **Simplified point-and-click provisioning** for Ethernet and IP-VPN services
- **Multi-layer network visualization** and automated multi-layer infrastructure activation
- **Advanced configuration options** for performance-aware connectivity and high reliability services
- **On-demand SLA verification** to monitor compliance with carrier KPIs



Key Use Cases

- Self-service portal for enterprise or wholesale customers
- Self-service portal for internal departments to manage their own connectivity
- Tool for employees with limited knowledge of MPLS networking or Tier 1 support to add/modify/delete services
- Portal for field technicians to activate and test newly installed hardware on their own
- Activation of performance-aware services based on actual network latency/loss/load
- Reduce provisioning errors through template-driven standardization

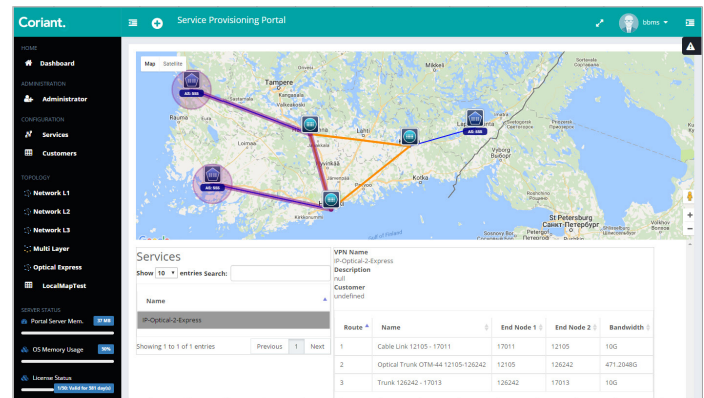


Figure 1: IP-VPN provisioning with IP-Optical network view

Features of the Coriant Transcend Portal for IP/MPLS Networks

- Per-customer or per-application network visualization
- Multi-layer network view to track IP/MPLS and optical transport infrastructure
- Retrieval of multi-layer (L0-3) network topology and services
- Point-and-click configuration of services: IP-VPN, L2 VPN, L2 PWE
- Optical, Ethernet, and LSP infrastructure configured on demand based on service requirements
- Service configuration based on customizable template-driven policy
- Monitoring of service state and configuration of OAM probes and tests
- Advanced service options including disjoint routing and performance-aware services
- Portal services maintained in data repository that may be jointly used by NMS for consistent network view
- Support for both Coriant and third-party network elements

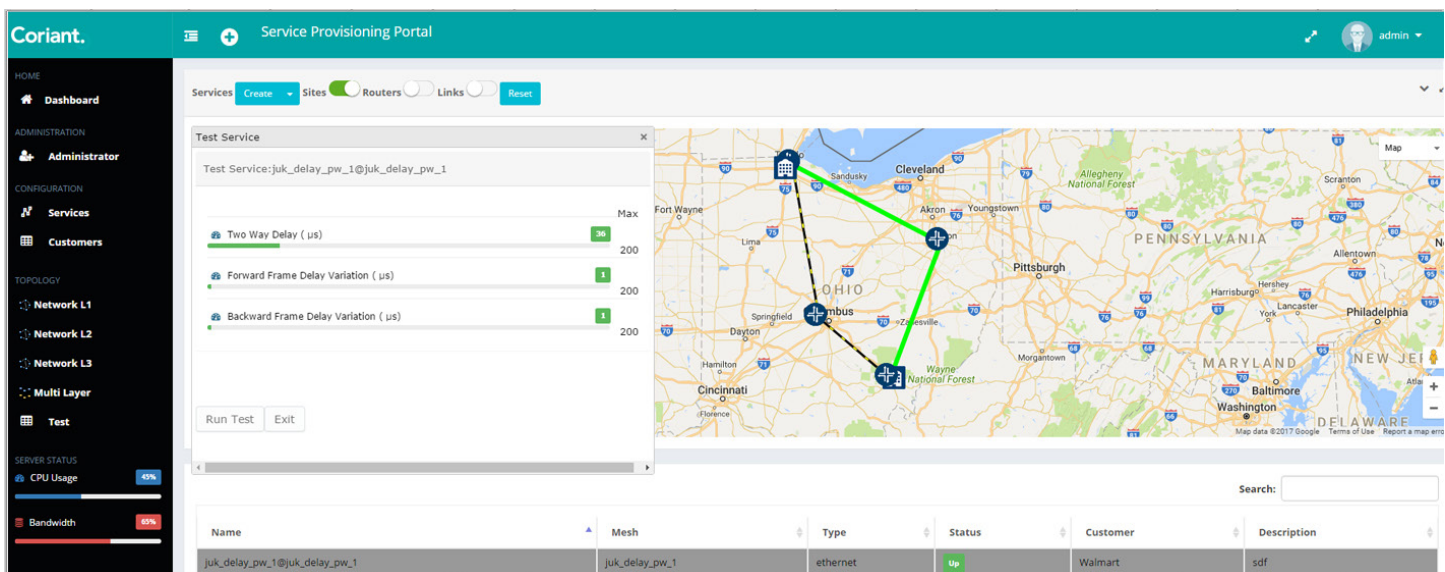


Figure 2: SLA verification screen

TRANSFORMING NETWORKS WITH CORIANT TRANSCEND™ SDN

The Coriant Transcend Portal is an integral component of the Coriant Transcend™ SDN Solution suite. Coriant offers a modular SDN software suite that combines the benefits of an open, programmable, and automated SDN architecture and a proven portfolio of IP/MPLS edge routing and packet optical transport solutions to enable dynamic, end-to-end network control as well as network management and network planning and optimization tools. Within this framework, the Coriant Transcend Portal serves as a ready-to-use interface to the network that enables simplified network discovery, provisioning, and maintenance.

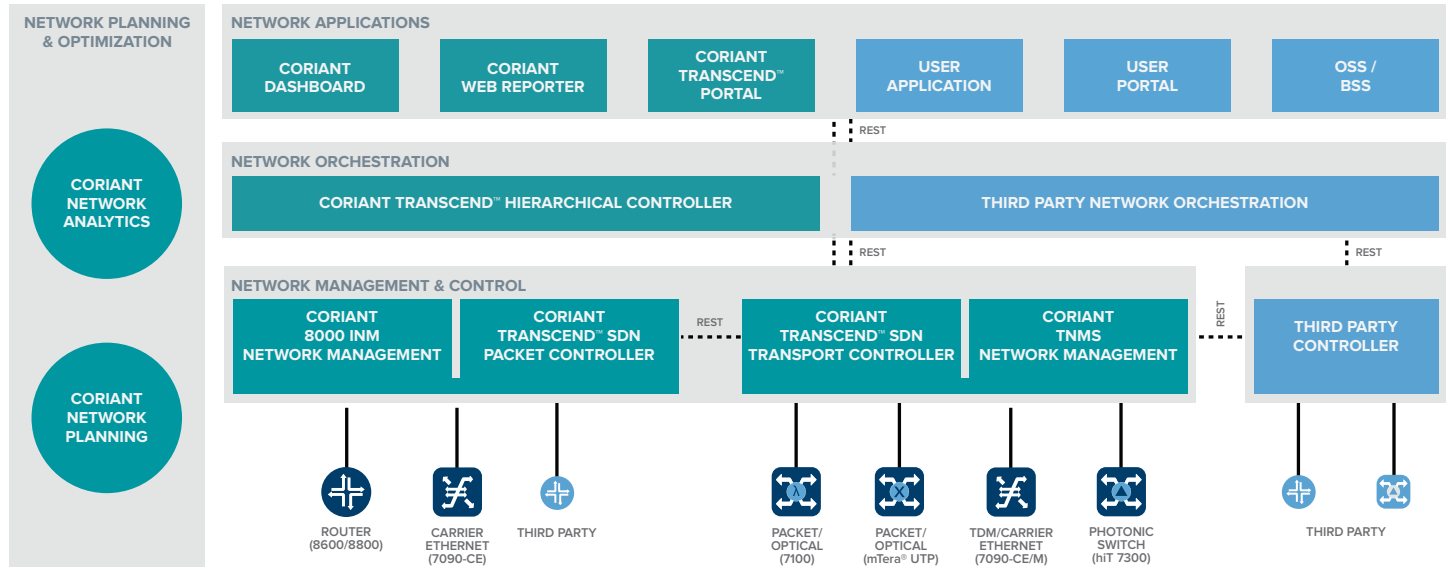


Figure 3: Coriant Transcend™ SDN Solution Architecture

TECHNICAL SPECIFICATIONS

Network Technologies

- IP/MPLS
- Ethernet
- Optical

Network APIs

- RESTCONF/YANG
- SNMP

Operating Platforms

- x86/x64 servers
- CentOS Linux & Red Hat Enterprise Linux
- Windows 2012
- Virtualization environments with VMware or KVM virtualization

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