Accelerated Service Activation for Ethernet Mobile Backhaul Applications

Mobile providers are continually in a state of urgency when it comes to expanding their coverage area to meet end-user demand and to capture greater market share. Expansion of coverage depends heavily upon the construction and installation of the cell tower sites as well as the network activation process used to validate communication. Cell tower activation is costly because it requires dispatching equipment and manpower, which leads to travel and living expenses as well as the time to coordinate the activation with a central technician.

Solution

ADVA Optical Networking and JDSU together provide a turnkey centralized automated testing solution for Ethernet-based Mobile Backhaul applications. This joint solution significantly decreases costly remote dispatches to multiple customer sites for turn-up testing and troubleshooting. The OAM/PM system combines the JDSU NetComplete® Service Assurance Solution using the QT-600 Ethernet centralized probe with the ADVA FSP 150 customer premises Ethernet access devices with Etherjack™ technology.

Key Benefits of the Solution

- Accelerates cell-tower activation for quicker revenue flow.

- Cut cost by reducing on-site dispatches to resolve problems

- Centralizes performance monitoring for service level agreement (SLA) validation and reporting
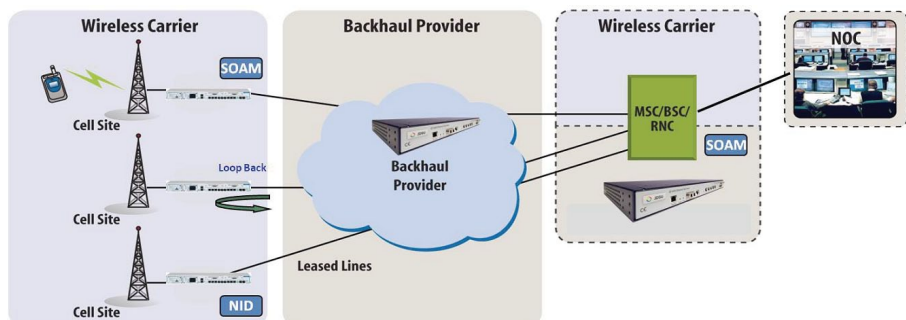
Deploying this combined offering enables mobile service providers to lower their operational costs, maximize revenue, and reduce churn while increasing their subscriber base.

Components of the ADVA and JDSU test solution include Operations Support System (OSS) software; powerful, cost-effective probes for on-demand test and troubleshooting; and network interface devices (NIDs) for end-to-end performance monitoring. Mobile service providers can verify that circuits are performing in accordance with SLAs at turn-up, can isolate quality issues within their domain, and can monitor both service and network performance.

How It Works

Having JDSU NetComplete Service Assurance applications in the Network Operation Center (NOC), the QT-600 Ethernet probe in the switching office, and ADVA Etherjack demarcation devices deployed at each cell tower location enables wireless service providers to remotely and automatically loopback the Etherjack device. The JDSU QT-600 then performs throughput, frame loss, latency, and other tests as defined by RFC 2544 or Y.1564 specifications, to validate the SLA being purchased. Additionally, the ADVA Etherjack demarcation device provides remote SLA monitoring and test capabilities via Y.1731/802.1ag and RMON to provide additional visibility into performance and faults.

The ADVA FSP 150

- Ranked as the industry's #1 Ethernet NID (based on revenue)

- Provides Etherjack OAM support for remote testing and SLA monitoring

- Includes MEF-certified UNI and E-NNI capability

- Offers optimized configurations for Mobile Backhaul, Business Ethernet, and Wholesale service applications

ADVA Optical Networking FSP 150 demarcation devices support Ethernet applications for rates of 1M up to 10GbE. These NIDs provide the intelligent ADVA Etherjack technology, incorporating operations, administration, and maintenance (OA&M)capabilities together with an Ethernet user-to-network interface (UNI). The NID enables service providers to remotely monitor, test, loopback, and manage services on both sides of the demarcation point (network interface and customer). In addition, the service UNI, which is aligned with the Metro Ethernet Forum recommendations for Ethernet service definition, ensures consistent quality of service (QoS) and prioritization when the services are rate-limited at the customer premises.

The JDSU NetComplete

JDSU NetComplete provides an integrated, comprehensive centralized system for active traffic generation, troubleshooting, and performance monitoring. It offers scalable statistic collection, SLA-monitoring using Y.1731, and customizable reporting capabilities to efficiently verify Ethernet service characteristics and provide maximum revenue protection.

The JDSU QT-600 is a Carrier-grade 1 to 10 Gigabit Ethernet probe that delivers the test and troubleshooting capabilities required to deploy Ethernet with confidence. An integral component of the JDSU NetComplete Service Assurance Solution, the QT-600 reduces operations costs with its streamlined service turn-up process based on RFC 2544 and Y.1564 specifications and rapid segmentation abilities that quickly identify the source of a problem.

Conclusion

The combined solution offered by ADVA and JDSU enables mobile service providers to quickly meet their strategic objectives with reduced cost for service activation and geographical coverage while quickly isolating and rectifying problems in the backhaul network without having to dispatch technicians.
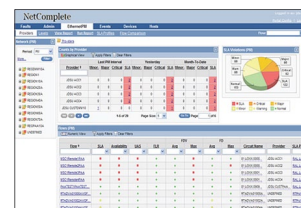
About ADVA Optical Networking

ADVA Optical Networking is a leader in the intelligent Ethernet demarcation space for Ethernet wide area network (WAN) applications and provides products that enable service providers to offer intelligent Ethernet services profitably over any facility (fiber, SONET/SDH, DS3/E3/DS1/E1, and copper). The unique ADVA Etherjack demarcation technology enables service providers to offer Carrier-grade service definition, monitoring, and diagnostics for Ethernet-based services.

For additional information, visit www.advaoptical.com.

About JDSU

JDSU offers customers worldwide the confidence to successfully build, deploy, and manage Ethernet Backhaul networks in all network layers from legacy Time Division Multiplexing (TDM) to next-generation long-term evolution (LTE). The technical knowledge, innovation leadership, and experience in TDM, Carrier Ethernet, and LTE test and measurement that JDSU has is unmatched in the marketplace. As a result, our customers are confident that they see more and know more about their systems, their business, their customers, and their options.

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