The streaming data platform from Hitachi Data Systems and JDSU PacketPortal™ help mobile backhaul providers enable new business models. Mobile backhaul operators are in a unique position to better monetize their role in the mobile ecosystem. By tapping the rich data traversing their networks they can deliver a better backhaul service and create new recurring revenue streams. Backhaul networks are critical components of an end-to-end mobile service, significant cost contributors, and partial indicators of service quality and experience. Today, many mobile operators lease backhauls from 3rd-party providers and have no visibility into network and service performance through these networks. Without this correlated insight, mobile operators are left with an incomplete picture. Real-time dashboards that provide metrics and granular packet analysis that both highlight network bottlenecks delineating dynamic thresholds (against low and high watermarks) provide increased visibility into the customer-user experience. Together, Hitachi Data Systems and JDSU have created a solution to address these issues and allow mobile backhaul providers to move to new business models.

Today’s mobile subscribers demand the highest quality of experience from the vast array of applications they use on their devices. Operators typically discover problems only when they are reported but a significant part of a user’s negative experience depends on quality degradation over time. Operators need solutions that can measure key performance indicators (KPIs) in real time and predict service failures before they happen. Furthermore, when a service problem is discovered, it is critical that service is restored as fast as possible. The time to resolve the issue depends on multiple components, including the time to detect, the time to measure, the time to diagnose and the time to repair. The streaming data platform from Hitachi Data Systems and JDSU PacketPortal bring the following benefits and features to mobile backhaul providers:

Benefits
Differentiate and Monetize a Better Mobile Backhaul Experience
- Increase recurring revenues with superior mobile backhaul services.
- Empower mobile operators to proactively detect and resolve subscriber issues.
SOLUTION PROFILE

- Monetize network assets by providing visibility into potential revenue loss or available savings.
- Provide mobile operators and content providers with a platform to access network data for applications, including assurance, service level agreements, policy and new revenue services.
- Save mobile operators time and money by reducing incident management time.
- Deliver mobile operators granular visibility into service and network utilization.
- Enable mobile operators to deliver an excellent customer experience.

Features

- Hosted, real-time, granular, data collection, correlation, analysis and visualization.
- Analyze "network big data" with a complete platform including data capture, storage and computing.
- Unparalleled visibility and real-time metrics into Layer 1-7 performance, all the way to the RAN.
- Simultaneous statistical analysis of millions of metrics and billions of packets per second.
- On-demand or dynamic trigger-based capture for packet analysis and/or troubleshooting.
- Self-optimizing dynamic thresholds based on real-time trend analysis.
- Proactive alerts to drive user actions or perform adaptive monitoring; detect trends in seconds.

Eliminate Performance Visibility Blind Spots

With the streaming data platform from Hitachi Data Systems and JDSU PacketPortal, backhaul providers can create a platform for data monetization that provides differentiated services to their operator customers. Mobile operators and their content providers get a revolutionary platform for collecting, correlating, capturing and analyzing granular data and customizable key performance indicators from thousands of points in the network, in real time (see Figure 1).

JDSU PacketPortal provides immediate visibility and insight into network and service performance, throughout a backhaul network all the way to the RAN. PacketPortal intelligent visibility can be embedded anywhere in the network. PacketPortal performs line-rate content inspection and delivers critical performance metrics and data feeds to centralized software systems such as, the streaming data platform from Hitachi Data Systems. This Hitachi platform delivers the advanced computational power required to process this network big data, providing real-time intelligent data analysis and performance monitoring. It leverages Hitachi Content Platform, which provides a custom, metadata-rich platform for information correlation and analytics applications.

The HDS and JDSU joint solution provides a platform for selective, on-demand, and autonomous drill-down capabilities that thresholds trigger. The solution allows mobile operators to capture and store data of interest for deeper analysis, correlation and trend analysis.

Self-Service Dashboard for Network Performance

As shown in Figure 2, the streaming data platform from Hitachi Data Systems and JDSU PacketPortal solution provide an easy-to-assess dashboard.

- Obtain detailed metrics and KPIs of backhaul network performance.
- Measure, report and view, packet loss, latency and/or jitter in real time.
- Detect outliers and predict failure.
Innovation is the engine of change, and information is its fuel. Innovate intelligently to lead your market, grow your company, and change the world. Manage your information with Hitachi Data Systems.

A Platform for Data Monetization

The joint HDS and JDSU solution supports:

- Selective deep packet sampling.
- On-demand packet analysis for troubleshooting.
- Scalable storage and compute platform.
- Real-time or trend analysis of network and service performance.
- Implement metrics and KPIs based on custom application content.

Next Steps

For more information about this mobile backhaul provider solution, please contact your Hitachi Data Systems or JDSU representatives.

Figure 2. Self-Service Dashboard.