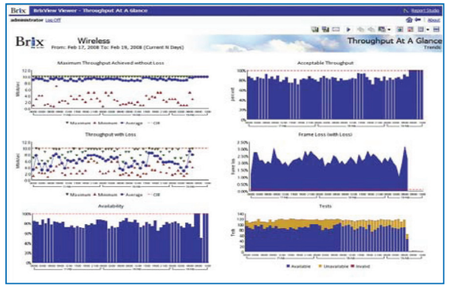
BrixWorx

The BrixWorx correlation and analysis software engine completely controls all aspects of the Brix System's operation–from the specification and verification of service level objectives, to scheduling of BrixNGN simulated tests and live network monitoring options, configuring settings of Brix Verifiers, and creating detailed, actionable information and performance reports.

For service providers, BrixWorx generates a host of reports and provides deep drill-down capabilities for all levels of their organizations to continually ensure service quality and performance. Example reports include the following:

Carrier Ethernet VoIP KPIs



Wireless Throughput Trends

Entire Network's KPI History

The actionable information generated by our converged service assurance solutions is valuable to all levels of a provider's organization to continually improve operational efficiencies, verify service performance and quality levels, and ensure the overall success of next-generation networks.

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BrixNGN.1AN

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EXFO Service Assurance

BrixNGN

Service Assurance for Next-Generation IP Networks

The future of business and residential communications and entertainment is based upon the convergence of IP-based voice, video and data services. Next-generation networks provide the foundation for converged services, such as voice-over-Internet protocol (VoIP) IP video, enterprise connectivity, mobile backhaul and metro Ethernet. Wireline and wireless service providers are in various stages of transitioning and leveraging their next-generation IP/MPLS networks.

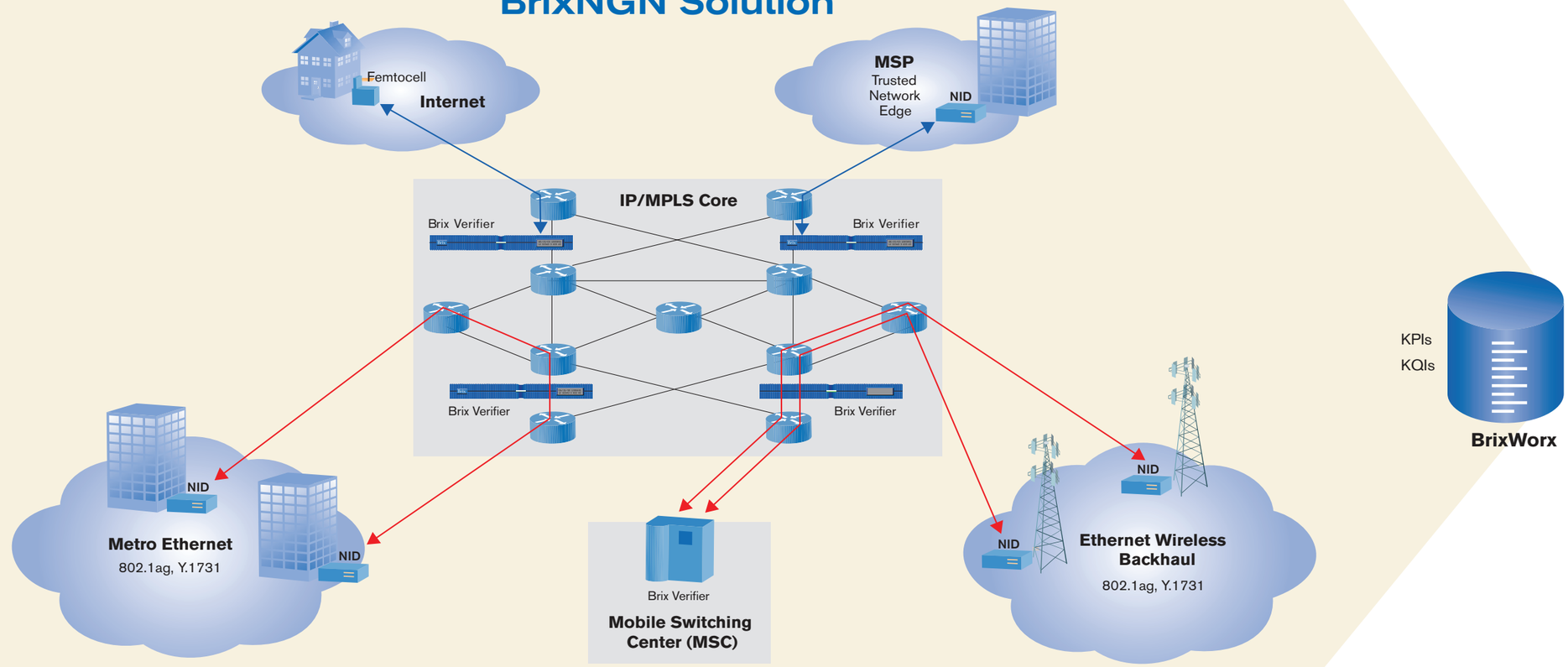
The network core is the heart of the service and content delivery network, and where successful providers' service assurance strategies start. To effectively guarantee end-to-end service level agreements (SLAs) and meet customers' requirements, providers must proactively implement a service assurance solution that provides visibility from the provider edge to end-users, while allowing segmented views of service quality for problem isolation. By continually monitoring the performance and quality of revenue-sensitive services and not just physical network devices, the BrixNGN application from EXFO Service Assurance provides the most effective service assurance solution available.

BrixNGN offers service providers the following benefits:

- Provides a measurable quality-driven advantage through a scalable, converged service assurance solution
- Monitors service quality, performance, and availability 24/7 from the network core to customers' endpoints
- Validates installation of services with turn-up tests and birth certificate reports
- Improves mean time to repair (MTTR) through flexible troubleshooting and by segmenting the network to quickly isolate problems
- Reports and monitors multiple service levels and manages SLAs
- Built on an open architecture to interface with other OSS/BSS systems through a series of open application programming interfaces (APIs)

EXFO Service Assurance

BrixNGN Solution



Metro Ethernet

As providers continue to deploy managed Ethernet services, EXFO Service Assurance delivers a solution that meets the needs for turn-up validation, 24/7 automated testing and troubleshooting of the layer 2 infrastructure. The central BrixWorx™ server provides the correlation, setup, reporting and analysis of all the information gathered about network performance, as well as administration of Brix Verifiers across the entire network. Leveraging the IEEE 802.1ag and ITU-T Y.1731 standard-compliant devices in the network, end-to-end statistics for SLA validation are provided in views relevant to all levels of the organization and through customer-facing portals.

IP/MPLS Core

Service assurance starts at the network core. By placing Brix Verifiers (passive and active test and measurement devices) at strategic router locations in the core and throughout the network to the provider edge, BrixNGN allows service providers to collect, correlate, analyze and visualize critical quality of service (QoS) and quality of experience (QoE) data from the network core to the customer endpoint for capacity planning, verifying service turn-ups, and identifying, diagnosing and quickly resolving network and service performance issues before the customers are impacted–thereby guaranteeing quality at any QoS level across any network segment.

IP SLA

Cisco router customers can analyze IP service levels using Cisco IOS IP SLAs on currently deployed network devices or shadow routers. BrixNGN allows carriers to initialize, monitor and report results of the continuous testing between Cisco devices using the IP SLA functionality in IOS. The Brix System provides full configuration capability through the BrixWorx GUI and reports on various levels of information from individual test results to summarized metrics. When deployed in conjunction with Brix Verifiers throughout key network locations, the overall BrixNGN solution gives correlated, consistent and comparable metrics that provide measures of network performance that alert providers to SLA violations and allow speedy resolution of issues.

Endpoint Monitoring

Visibility to the customer premise is always a challenge as quality is balanced between cost and ease of deployment. Devices in the network are becoming more intelligent and standards are being required by providers that allow premise-based equipment to be used for troubleshooting and quality monitoring. BrixNGN leverages standards, such as the IETF's two-way active measurement protocol (TWAMP), RFC 2925 remote ping and traceroute and remote loopback, to communicate with devices for 24/7 QoE monitoring and problem isolation to minimize truck rolls and provide valuable proof of revenue-enhancing SLAs.

Wireless Backhaul

Ethernet as a backhaul technology provides deployment flexibility to carriers and management challenges for operations. The BrixNGN solution leverages the IEEE 802.1ag and ITU-T Y.1731 standards to provide a scalable and easily managed solution for Ethernet backhaul from the mobile switching center (MSC) to the tower as well as extended towers in the network. Birth certificate reporting of turn-up testing, 24/7 monitoring of tight SLAs and simple-to-use BrixNGN troubleshooting tools allow visibility and quick action for this service-critical deployment.

Actionable Information and Reporting

One of the key strengths of BrixWorx is its ability to correlate large volumes of operational performance and quality metrics–including key performance indicators (KPIs) and key quality indicators (KQIs)–collected across a network, analyze the data and present it as actionable information in a number of easy-to-read, customized, or preformatted views (dashboards, executive reports, deep diagnostics). By providing both real-time and historical metrics and results, BrixWorx reliably delivers the information required to ensure success throughout the entire service life cycle of any IP-based service.