SPEC SHEET

BrixNGN Carrier Ethernet Solution Overview

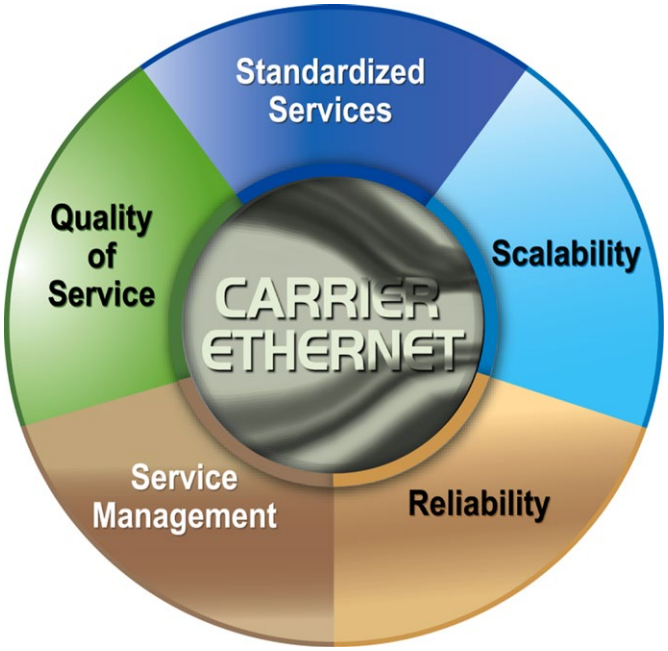
End-to-end solution for performance management of carrier Ethernet services.

KEY FEATURES

- Provides a complete solution for managing the turn-up, assurance, and troubleshooting of carrier Ethernet services
- Supports carrier Ethernet for mobile backhaul, Ethernet business services, and carrier Ethernet in access, metro, and core
- Assures service quality, performance, and availability 24X7
- Automates and validates installation of services with turn-up tests and birth certificate reports
- Quickly detects problems and improves mean time to repair (MTTR) by segmenting the network to quickly isolate, diagnose, and fix problems
- Supports enforcement of service level agreements (SLA)
- Provides a historical performance of the network to enable effective planning for effective troubleshooting and future planning

Carrier Ethernet is a ubiquitous, standardized, carrier-class Service and Network defined by five attributes – Quality of Service (QoS), reliability, scalability, service management, and standardized services. Carrier Ethernet brings the compelling business benefit of the Ethernet cost model to achieve significant savings and enables new distributed applications for enterprises and accelerates their deployment. Carrier Ethernet is increasingly used for implementing mobile backhaul networks, delivering Ethernet services for the enterprise and business user, as well as being deployed in the access, metro, and core networks. Carrier Ethernet is also being deployed to deliver mission critical applications in various verticals such as health care, finance, education, government, and media.

As with any new technology, rapid adoption of carrier Ethernet comes with its own set of unique challenges. Both providers and their customers are concerned about managing the service lifecycle effectively to reduce operational expenditures. They are also interested in understanding the performance of their carrier Ethernet services so that they can segment the network and isolate troublesome spots easily. They would like to fix as many problems as possible without having to do a truck roll, as truck rolls tend to be expensive. Further, they are all interested in understanding the historical performance of their networks and services so that they can more effectively plan for the future. This includes knowledge of changing trends of network quality over many dimensions including time, regions, customers, partners etc.



SERVICE LIFECYCLE

Service lifecycle can be divided into three broad phases: service turn-up, service assurance, and service troubleshooting. Service turn-up relates to validating that the Ethernet service has been installed and provisioned correctly. Service assurance relates to measuring the key performance indicators for the service 24x7x365, validating that service level agreements are being met, and any service problems are being detected. Service troubleshooting relates to isolating, diagnosing, and fixing service problems that are detected and validating that the fix actually solves the problem.

Both the providers and their customers are interested in all aspects of the service life cycle. For example, providers need to provide “birth certificates” to their customers to prove that they have turned up the service correctly and according to the service agreement. Both are interested in independently assuring the performance of the service – providers to ensure that they are living up to their service level agreements and customers to be assured that they are getting the service they have paid for.

BRIXNGN – CARRIER ETHERNET: END-TO-END SOLUTION FOR PERFORMANCE MANAGEMENT OF CARRIER ETHERNET SERVICES

EXFO’s BrixNGN solution provides both providers and their customers with the tools necessary for successfully managing all the phases of the Ethernet service lifecycle. It includes service turn-up, assurance, and troubleshooting as one integrated solution spanning the entire carrier Ethernet network. The solution consists of integrated software and hardware components, collectively called the Brix System that analyze and display performance data collected from the measurement sources (called Brix Verifiers) deployed throughout the carrier Ethernet network. In the Brix System, advanced performance management applications run on a central-site software engine called BrixWorx.

MANAGING THE SERVICE LIFECYCLE

Leveraging a comprehensive family of measurement sources (the Verifiers), as well as third-party devices and industry standards, the Brix System provides service turn-up, 24x7 network and service performance assurance, and service troubleshooting. The RTU-310 family of verifiers are used for service turn-up and troubleshooting. These verifiers are capable of running RFC 2544 tests to line rate speeds (up to 10G). The BV-2500 and 3000 family of verifiers are used for service assurance and troubleshooting. They provide the OAM capabilities (802.1ag and Y.1731) required for continuous assurance of service performance. The BrixView system provides the historical reporting engine that allows operators to generate birth certificates as well as trending and comparison reports.

With BrixNGN, providers have the required visibility into their network and service performance and quality to prove service level objectives. BrixNGN evolves network assurance and engineering functions from a break/fix reactionary method to a proactive approach, enabling early detection and quick resolution of service affecting issues.

Starting at the core and moving out to the edge and then to customers' endpoints, BrixNGN allows providers to establish strategic points of demarcation that can be used to quickly identify and isolate problems. By continually monitoring critical key performance indicators (KPIs) such as availability, latency, packet loss, and delay variation or jitter, providers can set thresholds and alarms to alert them of potential service degradations and where in the network they are occurring. BrixNGN collects this information from Brix Verifiers, other devices, and industry standards, such as 802.1ag, Y.1731, and TWAMP, to isolate problems through network segmentation and provide a cost-effective method of measuring service quality. With BrixNGN, providers have the information they need to significantly improve MTTR, reduce trouble tickets, and provide more effective and efficient customer care.

NETWORK CAPACITY PLANNING AND TURN-UP VERIFICATION

BrixNGN enables providers to proactively assure and baseline network traffic patterns, throughput, and link paths to ensure new services can be properly supported over next-gen networks. When the service goes live, providers can also use BrixNGN to conduct on-demand and scheduled tests to generate instant "birth certificate" reports for turn-up validation and detailed troubleshooting results when a problem is identified. This affords providers the assurance that the service(s) worked as promised from the onset and provides a benchmark for future potential service issues.

SERVICE LEVEL MANAGEMENT

When providers leverage best-effort data delivery systems such as Ethernet for their services, real-time SLAs are a requirement. The BrixNGN module feeds the BrixWorx™ correlation and analysis software engine with the performance and quality information to produce the advanced analytics and visualization (real-time dashboards, historical reports, and customer portals) to manage and continually prove SLAs. Brix reports address the needs of a broad audience from technical to executive levels to provide the business intelligence required for the organization to be successful. With Brix delivering high-level, at-a-glance, audience appropriate reports, deep diagnostic capabilities, and customer facing portals, providers can simplify SLA management, as well as provide customer visibility into their SLAs. The open architecture of the Brix System also allows providers to seamlessly integrate this award-winning converged service assurance solution with their existing operational support systems (OSS) and business support systems (BSS) to provide a complete unified view of network and service performance.

EXFO SERVICE ASSURANCE

EXFO Service Assurance is a global provider of converged service assurance solutions that allow the world's largest service providers and enterprises to offer reliable and high-quality experiences in voice, video, data and mobile services to their customers, partners and employees. The company brings a proven heritage of IP expertise unique to the service assurance marketplace and collaborates closely with its customers and partners to assure the delivery of any IP-based service, over any network, to any endpoint. EXFO Service Assurance's seamlessly integrated hardware and software products, collectively called the Brix System, are converged service assurance solutions that proactively monitor IP service and application quality. Network operators use the Brix System to guarantee the successful launch and ongoing, profitable operation of their various IP services.

EXFO headquarters **T** +1 418 683-0211 **Toll-free** +1 800 663-3936 (USA and Canada)

EXFO serves over 2000 customers in more than 100 countries. To find your local office contact details, please go to www.EXFO.com/contact.

  Printed in Canada 11/01