Úplný prehľad o Next – Gen sieťach
**Funkcia** | **Vlastnosť/Benefity** | **Produkt**
--- | --- | ---
Reporting | Executive Reports  
Enhanced Customer Portals  
High Density Reporting | BrixView
IP Video, IPTV Service Assurance | Usage Pattern Analysis  
Video Quality Reporting  
Content Quality Analysis  
Transport/Network Performance | BrixVision
VoIP Service Assurance | Call Tracking & Reporting  
Call Load, Patterns  
Network Quality Assurance  
Per Call Analysis | BrixCall
Metro Ethernet Mobile Backhaul | IEEE 802.1ag, ITU Y.1731  
Validate Initial Turn-up  
Continuously monitor the service  
Trouble-shoot | BrixNGN
Foundation for Converged Service Assurance | SLA Verification & Reporting  
Problem Isolation, Alerts  
On-Demand, Automated Testing  
Config & Scheduling | BrixWorx

Historical Reports and Real-Time Dashboards

Actionable Information for:
- Operation
- Executive Management
- Customer Care
- Sales and Marketing
- Finance and Billing

OSS/BSS Integration
- Provisioning
- Fault Management
- Billing
- Single Sign-On

Open API

KPI Aggregation

Multiservice Correlation and Analysis

Service Status and SLA Reporting

Business Intelligence Historical and Trending

Monitoring Sources

Verifiers  
Standards  
Other Data Sources
BrixWorx

Service Assurance

Reports–Business Manager
Reports - Operations

Custom Report: RTP Stats HQ to R&D (LH) ID

Graph #2 Settings:
- Data Sampling Occurred
- Current Hour

Custom Report: Yesterday's DNS Performance

On Demand Testing

On-Demand Testing

Select a Verifier
- Core
- SQL
- Data Washington
- Core Elements
- Core Elements

On-Demand Testing

Test Results

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<tr>
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Test: Off-Track Test
- Off-Track Test
- On-Track Test
- Core and SQL
- Core Elements
- Core Elements

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Comprehensive IP Service Tests

- Range of IP communications and services tests
  - NGN Networks – Core MPLS, Metro Ethernet
    - Jitter, Packet Loss, Latency, Out of sequence
  - INTERNET Services
    - Email – Includes SMTP, IMAP, POP round-trip capabilities
    - Web – Includes HTTP, HTTPS, FTP, NNTP, and web scripting features
  - VoIP – Comprehensive suite of performance and quality tests for range of signaling protocols and Tri-Q analysis for signaling, content and, media
  - Video – Performance and video quality tests for video over IP applications e.g. video conferencing, VoD, streaming and IPTV
Brix Active Verifiers (IP)

**Brix 100M**
- Designed for CPE deployments
- Inline or one-armed
- Auto-configures for zero-truck-roll install
- Sealed chassis, no local administration

**Fail-safe inline operation**
- Separate packet-forwarding and network testing paths
- Automatic wire relay

**Tech Specs**
- 6” x 8” x 1U
- Two 10/100 Ethernet ports
- 16 MB memory

**Brix 1000**
- Designed for in-POP deployments
- 48V DC power option
- CLI via telnet & console port
- NEBS Level 3 certified
- Carrier-class design and management

**Timing options**
- NTP, GPS and CDMA cards
- Enable accurate one-way delay measurement

**Tech Specs**
- 17”W x 9.75”D x 1.75”H (1U)
- 10/100 Ethernet test port
- 10/100 Ethernet mgmt port
- 64 MB memory

**Brix 2500**
- Designed for core network deployments
- Optical or copper gig-E
- High speed time-stamp resolution
- NEBS Level 3 Certification

**Modular platform**
- Supports NTP, GPS and CDMA timing modules
- Enable accurate one-way delay measurement

**Tech Specs**
- 17”W x 16”D x 3.5”H (2U)
- Test port media modules
- 10/100 Ethernet mgmt port
- 128 MB memory

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**BrixNGN**
(Metro Ethernet)
Metro Ethernet Services

- Leverage Standards
  - 802.1ag and Y.1731 compliant
    - IEEE 802.1ag - Continuity checks, Loopback, and Link trace tests
    - ITU Y.1731 - SLA verification, Frame loss, Frame delay and Frame delay variation, throughput, availability
- Validate Initial Turn-up, continuously monitor the service, trouble-shoot
  - Verifier to NID testing
    - Interoperate with qualified compliant devices
- Tests & Metrics Results
  - Birth Certificate
  - SLA
  - On-demand results
- Correlation & Analytics
  - Spatial composition – by customer, location
  - Temporal aggregation – Overall network performance
  - Engineering & Operations reports

Ethernet Backhaul Service Assurance

Complete service assurance, from turn-up to monitoring/troubleshooting and ongoing correlation and analysis
BrixCall

See it before they hear it!

Service Health

- Monitoring and Aggregated Reports
  - Call failures by type by region
  - Call success/failure ratios by region
  - Call quality (and impairments) by region
  - Average call duration, average call bandwidth
  - Peak hour statistics
- Centralized correlation and reporting
  - Call Quality Records reflect correlation of signaling, media, RTCP and RTCP-XR legs
  - Filter by number, performance, DSCP
  - Simple per call drill-down
Live Call Analysis

- Comprehensive, live call and customer service application
  - Scalable, centralized independent call-signaling, media correlation and service analysis
- Benefits to you
  - Provides detailed visibility to live customer calls for per-call service analysis and troubleshooting
  - Simplifies reporting and tracking call success ratios and durations
  - Visibility into overall call loading and traffic patterns

BrixCall Architecture
VoIP Active Tests

TDM/VoIP Gateway

- Gateway converts Voice to VoIP
- Ensure correct coding of VoIP bearer traffic
BrixVision

Seeing the Problem

IPTV Distribution
Video Quality Analysis

*Video Quality Analysis*

**BrixVision Diagnostic Package**

- Diagnostic Report
- Shows detailed information analyzing some problem
- Poor VQI due to Lost Packets
- Used by
  - Network Engineering
  - Operations...

![Video Quality Analysis Diagram](image-url)
TR 101 290 Full Analysis
BrixView

Exposing the Detail

BrixView Executive Reports
Executive Scorecard

Triple Play Executive Information Package

BrixView Portal
Brix Integration with OSS

- BrixView
- BrixWorx
- SNMP Traps (SLA Alerts)
- On-Demand API
- Data Extraction API
- Provisioning API

EXFO Service Assurance

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<tr>
<th>Telco</th>
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DĚKUJEM ZA POZORNOST

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