

Service Assurance for Inter-Carrier IP Peering



Service Quality Matters™

The ultimate goal of inter-carrier VoIP peering is to ease transitions between IP and TDM networks while assuring quality, reducing costs, and making it simple to utilize expected IP-dependent features. Effective, well-managed peering arrangements provide the ability for VoIP to exceed the quality expectation of PSTN voice service with a feature-rich offering at a much lower cost. While IP-to-IP network peering arrangements can solve issues like these, there are challenges to overcome as providers look to deliver high-quality services.

Using IP data peering arrangements as a model, providers are taking a similar approach to offer true end-to-end VoIP calling services. However, with VoIP demanding a higher grade of quality of service (QoS) than data, providers need to address management and service performance issues. Peering providers must guarantee QoS levels and service level agreements (SLAs) to avoid costly violation penalties and customer churn. To meet these requirements, providers need the ability to share service assurance responsibilities to gain service performance visibility as VoIP calls traverse each other's network domains to consistently ensure a high quality of experience (QoE) for subscribers.

Providing Visibility Into Peer Network Performance

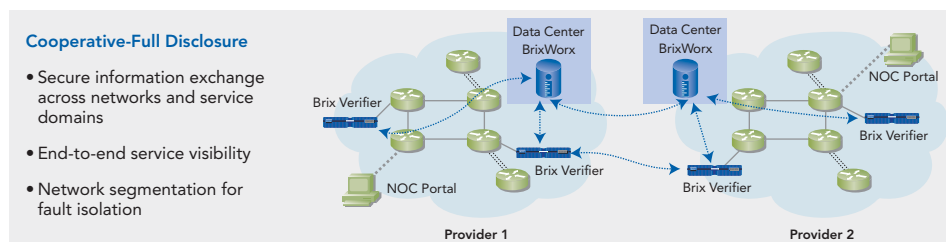
For service providers, Brix Networks offers versatile converged service assurance solutions that enable service performance visibility across peering networks. Using Brix Networks' Brix System, an open standards-based and seamlessly integrated hardware and software solution, providers gain end-to-end network visibility and continuous real-time IP service monitoring and verification.

After strategically deploying Brix Verifiers (measurement probes) throughout a network to collect performance and quality metrics, network operators use the BrixWorx™ central site software engine to correlate and analyze key performance indicators (KPIs) and view detailed, actionable information reports to proactively manage end-to-end IP service assurance and continually guarantee service levels are met. Brix Verifiers can be installed across provider and peering networks in MPLS cores, data centers, PoPs, and at the edge to manageably segment the networks to more easily localize problems and identify root causes of service and network performance issues.

In providing service assurance for inter-carrier peering arrangements, the following examples highlight specific situations and requirements.

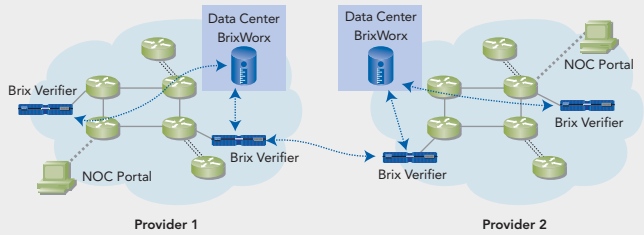
BENEFITS SUMMARY

- Manage and verify established SLAs are met
- Measure and monitor performance and quality metrics across networks
- Establish KPIs and set thresholds to proactively manage QoS and QoE
- Enable secure sharing of service performance data
- Segment each network to quickly pinpoint problems and reduce MTTR



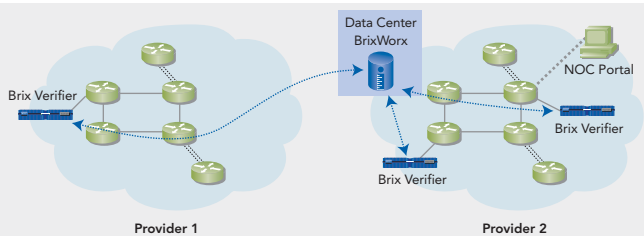
Cooperative-Partial Disclosure

- Selective sharing of information between peering providers
- End-to-end service visibility
- Network segmentation for fault isolation



Cooperative-Minimal Disclosure

- Place Brix Verifiers at locations along the path to manage service quality
- No information sharing between providers
- Some level of service visibility



Continually Ensuring QoS and QoE

With each of these service assurance models, the Brix System is providing the service performance visibility required to meet QoS and QoE expectations.

In the full and partial disclosure models, both peering providers share service performance metrics to establish SLAs. When KPI thresholds are exceeded during simulated testing or live service monitoring, BrixWorx can trigger an alert to each provider. And, through proper network segmentation, problems are quickly pinpointed to significantly reduce the mean time to repair (MTTR) before service levels are compromised and subscribers are impacted.

In the minimal disclosure model, Provider 2 deploys Brix Verifiers in the network of Provider 1, and uses BrixWorx to monitor and measure performance and quality of its service as it traverses the peering

provider's network. This model allows Provider 2 to ensure end-to-end service performance and quality even as subscribers access its service through the peering provider. Provider 2 also has the ability to identify where problems are occurring—whether they are on its own network or the peering provider's network.

Service Assurance Provides Service Performance Verification

With service quality requirements heightened by customer expectations, service providers must implement automated, proactive performance management solutions, such as the Brix System, that continuously verify service levels across networks. Partnered service providers need performance visibility across network domains because the nature of IP applications and services requires end-to-end monitoring to ensure the quality and success of these services.

ABOUT BRIX NETWORKS

Brix Networks is the leading 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.

Brix Networks' 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.

The company also offers self-service testing portals (www.TestYourIPVideo.com and www.TestYourVoIP.com) that enable users to independently measure the quality they are receiving from their interactive IP-based video and VoIP services.



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