

One bundle to rule them all

Kaynam Hedayat examines why converged services delivery demands a converged service assurance approach



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

Providers see many benefits in transitioning to next-generation networks, including lower capital and operational expenses, the more efficient delivery of dynamic service packages that aim to increase the ARPU, and less customer churn. However, providers are also facing new service management challenges, as they must focus on service quality and meeting high customer expectations.

To succeed, providers have to differentiate their service offerings on quality, rather than merely competing on price. End-to-end network and service visibility is a vital requirement for meeting performance and quality objectives and ensuring stringent SLAs. Without the necessary visibility, providers are at serious risk for crippling service degradations and outages, which

lead directly to an escalation in customer care costs, eroding profit margins, increased customer churn, and severely damaged reputations.

Assure the bundle

With competition between broadband cable and DSL service providers growing, customers are now starting to realise the benefits of subscribing to their providers' multi-play (voice, video, data and, increasingly, mobile) IP service offerings, ie, one bill and one provider for all of their next-generation services. As a result, network operators are offering residential subscribers very price-competitive bundled services designed to quickly build and add to their subscriber base.

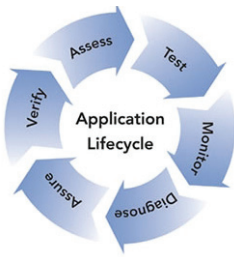
But if providers fail to meet the quality of experience (QoE) expectations on any one of these services in their bundled offerings, they risk losing those customers as subscribers to all of their multi-play services. More IP services and additional network complexities, as well as increased competition, are creating significant and ongoing challenges for providers. Subscribers demand that QoE expectations be met immediately upon the turn-up of their IP services and remain constant; otherwise they will find another provider.

Adding to the QoE challenge that providers are facing is the fact that more than 70 per cent of all problems occur in the last mile of their networks and in subscribers' homes. Traditional network management tools cannot provide visibility into the home network without cost-prohibitive equipment upgrades. To remain competitive, providers need flexible, converged IP service assurance solutions to constantly test and monitor the performance and quality of all their services to residential subscribers in order to continually ensure customer satisfaction, all while reducing operational costs.

Assuring performance and quality throughout the service lifecycle

Consumers and businesses of all sizes rely on their service providers to deliver the highest quality and reliable multi-play, IP communications services. While competitive pricing often wins the initial business, it's the providers' ability to offer continual, high-level service performance and quality that builds successful customer relationships and improves customer retention.

To deliver quality IP-based, multi-play services and continually prove it, providers must assure performance and quality throughout the service lifecycle: from pre-deployment



The service assurance lifecycle

Assess: Network assessment and readiness for voice, data, video and mobile services

Test: Simulate and test services to identify issues before deployment

Monitor: Real-time monitoring and live traffic analysis of service quality details

Diagnose: Root cause to isolate faults before user/customer is impacted

Assure: Ensuring quality of service levels are being met

Verify: Validating service performance and SLAs

network assessment, to service rollout verification and tuning, to customer turn-up, to ongoing operational monitoring and troubleshooting, to SLA enforcement, and customer care.

Customer performance and quality expectations start immediately upon service turn-up. If service turn-ups are successful from the onset, the likelihood of providers meeting their customers' ongoing service quality expectations is very high. Additional testing can help identify and address problems before they ever impact the customer helping to reduce future operational costs while simultaneously ensuring customer satisfaction.

After service turn-up, implementing ongoing operational monitoring of multi-play services gives providers the visibility needed to continually guarantee service performance and quality, and allows them to cost-effectively roll out new services with confidence, properly implement customer-specific quality of service (QoS), and enforce established SLAs.

The challenge for providers, of course, is to deploy a solution that is versatile and robust enough to allow them to measure, monitor, verify, and assure end-to-end service performance and quality throughout the lifecycle of their services. While some test and measurement tools are fine for very specific or limited tasks (video service turn-up verification, for

example), in order to truly obtain an accurate view of the quality and performance of their multi-play services, network operators should look for a solution that provides them with a continuous, end-to-end, automated view of service performance and quality to ensure the successful launch and ongoing profitable operation of all their IP services.

Ensure the customer's QoE

Ensuring the customer's QoE is vital to the success of any multi-play service. Without service assurance providing visibility into the customer experience, providers don't have the necessary insight to proactively ensure that customers' expectations are being met. A carrier-grade service assurance solution is one that continually measures various performance metrics and provides essential usage statistics that network operators need to assure a quality experience for their customers.

According to Ibrahim Gedeon, chief technology officer at TELUS, one of Canada's foremost telecommunications companies, "Converged service assurance solutions provide us with invaluable performance visibility across peering networks, which lets us rapidly resolve service-impacting issues and helps us verify our service performance with partners. These solutions allow us to decouple service quality from network elements and manage service quality from our customer's perspective."

The way to win: assure the bundle

Because multi-play IP services all typically share the converged network, service providers not only need to test, measure, and assess the performance of these voice, video, data, and mobile services,

but the infrastructure supporting these converged networks (IP/MPLS core) as well. A provider's best choice is a converged service assurance solution that delivers the information required to effectively assure any IP-based services, over any network, to any endpoint.

A comprehensive converged service assurance solution is one that lets providers verify the quality of their service offerings via a combination of active (on-demand) testing and passive (live) monitoring of IP services and infrastructures allows providers to:

- Measure service performance as experienced by customers;
- Identify service deteriorations before they impact customers and trigger SLA violations;
- Increase service uptime by isolating the root-cause of service performance problems;
- Enhance customer satisfaction based on enhanced quality of service; and
- Improve customer retention by resolving issues prior to their becoming service-impacting problems.

Continuous delivery of high-quality services is absolutely critical to the success of today's service providers, as they must assure the bundle to survive and thrive in today's ultra-competitive landscape. Only by proactively monitoring service quality and network performance in real-time will providers be able to consistently meet customer expectations and achieve business success by adding new subscribers, building loyalty, and reducing churn. With very high customer expectations, multi-play services change everything. Providers must be prepared and take a proactive approach to service assurance in order to achieve long-term success. **CSI**

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