Broadband QED gains further momentum at Broadband World Forum 2019

Three high profile demonstrations involving numerous companies highlighted industry interest in the initiative which looks to improve management of network latency, consistency, predictability and reliability

Amsterdam, The Netherlands, 28 October 2019 – Broadband Forum's Broadband Quality Experience Delivered (Broadband QED), an initiative which looks beyond conventional measurements to improve overall broadband experience, showed significant industry momentum at Broadband World Forum (BBWF) 2019.

Broadband QED represents a shift in focus in the broadband services market from ever-increasing peak speed to the reliable and consistent delivery of a high quality of experience. With the roll-out of gigabit services, capacity is no longer the limiting factor for the vast majority of applications. End-user satisfaction now depends more on the characteristics of the broadband connection than on its speed. Broadband QED defines a way to measure these characteristics using the mathematical concept of 'quality attenuation' (written 'ΔQ'), which captures the potential impact of the network on any kind of application.

Introduced to Broadband Forum members by Vodafone and Predictable Network Solutions (PNSol) at the Forum's Q4 2018 meeting, the initiative has been rapidly embraced by the membership. Over the course of nine months, the initiative has moved from concept to reality, culminating in it being highlighted in multiple conference presentations, explained in a just-published Broadband Forum marketing report, and showcased via three demonstrations from a variety of companies at BBWF, which took place in Amsterdam last month.

"Since its launch, Broadband QED has resonated with a vast number of our members, but to see it progress so quickly from conception to proofs of concept is remarkable and an excellent example of what can be achieved through industry collaboration," said Geoff Burke, Chief Marketing Officer at Broadband Forum. "While we have increased the speed of broadband to one gigabit and beyond, we now need to improve other aspects such as latency, consistency, predictability and reliability, ultimately moving from a fast network to an invisible network."

Broadband QED was one of a number of hot topics discussed during Broadband Forum's standing-room-only Broadband Acceleration Seminar (BASe) Connected Home Workshop. Vodafone's Andrea Crepaldi, Senior Strategy Manager Fixed Access Centre of Excellence, shared the applications of and opportunities for Broadband QED in its network.

The QED initiative was also explored in depth during a presentation from Domos' CTO Magnus Olden and a panel led by Broadband Forum's Co-Director of the Broadband User Services Work Area John Blackford, as well as in a presentation on "The Future of the Connected Home" in the conference's Connected Home Track, also led by Vodafone's Crepaldi.

BBWF 2019 was also chosen to debut Broadband Forum's Marketing Report MR-452.1, entitled "Motivation for Quality Verified Broadband Services."

Within the BBWF 2019 Exhibition, the Broadband Forum/Open Broadband Interop Pavilion hosted a variety of high-profile demonstrations, including three that showcased Broadband QED.

PNSol, a UK-based company that developed the ideas behind Broadband QED and made them accessible through Broadband Forum, demonstrated a real-time display of quality attenuation using a WebSockets API to facilitate integration with other business processes and systems.

OutSys, an Italian company delivering carrier-grade solutions, enhanced its first-of-its-kind Practical Implementation Demonstration showing how to measure network quality in a mixed environment including customer networks, different access network technologies, MPLS-like scenarios, different BSPs segments and cloud services. Based on standard protocols available in network devices, this minimizes the need for probes deployment.

Domos, a Norwegian company specializing in machine learning for the Connected Home, and Axiros, a global provider of Open Device & Service Management solutions for service providers, led a demonstration sponsored by Vodafone and which included partner KAONMEDIA. The demonstration showed quality attenuation measurements across a Wi-Fi connection, and real-time predictions of those measurements generated by a deep neural network using passive data measurements from the Customer Premises Equipment (CPE). Their goal was to demonstrate how applications could be detected in real-time and how, by using the QED predictions, the available networking resources could be allocated to the different applications depending on what they require to provide a good quality of experience.

Burke added: “PNSol, OutSys Domos, Axiros, and their partners and sponsors are all members of Broadband Forum, which is developing a set of standards for Broadband QED. It is notable that both OutSys and Domos developed quality attenuation measurements independently, based only on the first draft – a clear leading indicator that, once the full standards are published, it will be straightforward and easy for the rest of the industry to follow.”

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About Broadband Forum
Broadband Forum is the communications industry’s leading organization focused on accelerating broadband innovation, standards, and ecosystem development. Our passion – delivering on the promise of broadband by enabling smarter and faster broadband networks and a thriving broadband ecosystem.

Broadband Forum is an open, non-profit industry organization composed of the industry’s leading broadband operators, vendors, thought leaders who are shaping the future of broadband, and observers who closely track our progress. Its work to date has been the foundation for broadband’s global proliferation and innovation. For example, the Forum’s flagship TR-069 CPE WAN Management Protocol has nearly 1 billion installations worldwide.

Broadband Forum’s projects span across 5G, Connected Home, Cloud, and Access. Its working groups collaborate to define best practices for global networks, enable new revenue-generating service and content delivery, establish technology migration strategies, and engineer critical device, service & development management tools in the home and business IP networking infrastructure. We develop multi-service broadband packet networking specifications addressing architecture, device and service management, software data models, interoperability and certification in the broadband market.

Our free technical reports and white papers can be found at https://www.broadband-forum.org/.

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About PNSol
Predictable Network Solutions Limited (pnsol.com) is a UK-based company founded in 2003 to provide consultancy on large and complex projects at the leading edge of feasibility, both technical and commercial. PNSol develops both the mathematical foundations and the practical tools needed to service customers' needs.

About OutSys
OutSys (outsys.com) is a Milan-based company that provides state-of-the-art carrier grade solutions to implement, simplify and speed up the integration, provisioning, management and testing processes in the telecommunication and systems areas.

About Domos
Domos (domos.no) is a Norwegian company offering machine learning technology for Customer Premise Equipment (CPE) to optimize network resources for application outcomes. Domos also identifies applications and slices the network to create Wi-Fi Fast Tracks. Domos has a team of data science experts with years of experience working directly with data from the home and data models to properly develop machine learning algorithms.

About Axiros
Axiros (Axiros.com) is a Munich-based global leader in IoT, M2M, TR-069 and device management, providing software solutions and platforms to service providers and equipment manufacturers worldwide to manage and IoT-ize devices. Founded in 2002, Axiros has sales and service offices and development centers worldwide.