New Open-Source Initiative Led by Broadband Forum and prpl Foundation Speeds Deployment of Intelligent Wi-Fi Mesh Networks

Fremont, California, October 16, 2018: Broadband Forum and the prpl Foundation today announced a new partnership to develop an open-source reference implementation of the Wi-Fi Alliance® Multi-AP Specification. The goal is to make it easier and faster for service providers and retail Original Equipment Manufacturers (OEMs) to develop Wi-Fi CERTIFIED EasyMesh™ products and to deliver intelligent, carrier grade, whole-home and small business coverage.

As consumers and businesses alike demand faster and higher-capacity Wi-Fi® throughout the entire home and office, mesh networks are growing in popularity to deliver uniform coverage to all corners of residential and commercial premises. The new reference implementation from Broadband Forum and the prpl Foundation will be based on the Wi-Fi Alliance Multi-AP Specification, which brings together multiple mesh routers to form a unified network that provides smart, efficient Wi-Fi throughout homes and businesses. An open-source effort, this ground-breaking initiative further accelerates time-to-market by providing a software foundation upon which service providers and OEMs can quickly and easily develop and deploy carrier grade mesh Wi-Fi systems which may be submitted for testing under the Wi-Fi CERTIFIED EasyMesh™ program.

The open-source reference implementation will be hosted by the prpl Foundation, with both organizations' members contributing to the project. Alongside this, the Broadband Forum has launched the Open Broadband Multi-AP project, a leading-edge initiative with the goal of ensuring that the software of open-source innovators, like prpl Foundation, and their mesh software projects will be scalable to large service provider deployments via carrier grade manageability. The two organizations will foster a vibrant open-source community to contribute and maintain the reference implementation.

"*An open-source approach will greatly speed the deployment of multi-vendor mesh networks for efficient, self-configuring, whole-home Wi-Fi coverage,*" said prpl Foundation President Art Swift. "*The prplMesh project is intended to make it easy for service providers and OEMs to develop interoperable Wi-Fi CERTIFIED EasyMesh products.*"

Broadband Forum CEO Robin Mersh said: "*Whether it's VR, AR, UHD TV, 5G-based services, artificial intelligence, or any of a myriad of cutting-edge new technologies and services, technology-savvy consumers are demanding that services leveraging these innovations incorporate the highest standard of Wi-Fi, backed by a world-class fixed broadband infrastructure. This new project will enable home and small business network coverage to be seamlessly expanded via open-source software, saving the expense of rebuilding access points from scratch. Furthermore, as end-user expectations continue to rise, Wi-Fi upgrades will become commensurately simpler and more cost-efficient.*"

"Wi-Fi Alliance applauds the efforts by prpl Foundation and Broadband Forum to accelerate the development of devices implementing the Wi-Fi Alliance Multi-AP Specification," said Kevin Robinson, VP Marketing at Wi-Fi Alliance. "Device vendors will benefit from the accelerated time to certification for the Wi-Fi CERTIFIED EasyMesh™ program, providing solutions to market quickly."

Peter Joyce, Director Connectivity CPE Architecture at Liberty Global, added: "*Standardization of communication and data in residential Multi-AP environments will help Liberty Global and other service providers provide increasingly effective support and management of customers' in-home networks. The recently released Wi-Fi Alliance EasyMesh certification program will play an important role in standardizing the communication element. The development of an open-source implementation of the underlying standard will be key to enhancing the adoption rate, and Liberty Global fully supports the initiative.*"

prplMesh Controllers and Agents will be based upon the Wi-Fi Alliance Multi-AP Specification, and may be submitted for Wi-Fi CERTIFIED EasyMesh testing, making prplMesh easy to integrate into various product platforms. Equipment manufacturers will also be able to easily extend the architecture for product differentiation, for example, with different transmission prioritization or different signal broadcasting capabilities.

The Broadband Forum intends to lead and manage the development of carrier grade interfaces to service provider management systems, including new management data models needed to manage networks with Wi-Fi CERTIFIED EasyMesh devices. The Broadband Forum is also addressing TR-069/TR-369 management of ISP-provided devices.

A number of service providers, OEMs, and technology vendors will contribute to the prplMesh project, including Altran, ARRIS International plc, ASSIA, AT&T, BT, CableLabs, Dasan Zhone (DZS), Greenwave Systems, Huawei, Intel, Iopsys, Liberty Global, MaxLinear, MediaTek, Nokia, Plume, QA Cafe, Quantenna, SmartRG, SoftAtHome, and Vodafone. The Broadband Forum and prpl Foundation also welcome new memberships from companies who would like to get involved in the work.

Charles Cheevers, CTO of Customer Premises Equipment at ARRIS, said: "*Our customers are looking for standards-based solutions based on open-source. We recently achieved a milestone as a developer of the world's first Wi-Fi Certified EasyMesh solution. We are pleased to take this one step further with support of an open-source reference implementation to advance the solution to the next version.*"

Philip Yim, Chief Operating Officer at DZS, said: *"DZS believes that carriers need freedom of choice in order to provide their customers the broadband internet connection experience they have come to expect. Open-source increases choices for broadband providers, particularly when there is vibrant collaboration among innovators, as is the case in this Wi-Fi prplMesh initiative. Concurrently, it allows technology vendors to add value and differentiate offerings to further improve business agility for carriers."*

WK Tan, Vice President and General Manager of Intel's Connected Home Division, said: "*Mesh Wi-Fi networks give consumers what they want – fast, reliable connectivity in all corners of the home. Speeding up deployment of these networks is essential and the prplMesh effort is a great step forward to both quicken and simplify development.*"

Will Torgerson, Vice President & General Manager of MaxLinear's Broadband Group, said: *"MaxLinear envisioned a future of home networking using Multi-AP systems, where OB-MAP can enable multiple wireless access points interconnected through the best available backhaul technology (e.g., Wi-Fi, G.hn, MoCA). We contributed and supported the development of the IEEE 1905.1a open-source stack for home networking devices and are now excited to continue this effort as part of the Broadband Forum's Open Broadband Multi-AP project adapting the software stack to support Multi-AP technology in a carrier-grade environment."*

Bill McFarland, CTO of Plume, said: "*Plume enthusiastically supports the development of an open-source implementation of Wi-Fi Multi-AP. Wi-Fi CERTIFIED EasyMesh devices based on the Wi-Fi Multi-AP standard integrate into Plume's service curation and management framework and complement the benefits of cloud driven in-home mesh networking. With the addition of this new open-source solution, we believe it could dramatically accelerate the adoption of these modern networks.*"

Ambroise Popper, Vice President of Strategy and Corporate Marketing at Quantenna, said: "*Quantenna is committed to supporting this open-source implementation with its expertise and financially. The completion of this project will make it possible for ISPs, CPE manufacturers and Wi-Fi vendors to have a validated reference code of a Wi-Fi Multi-AP Agent, which is easier to maintain and enhance, and allows each of them to focus on innovation through competitive Wi-Fi Multi-AP Controllers.*"

SoftAtHome CTO Wojtek Makowski said: "*We're proud to have a leadership role in getting this effort off the ground with Broadband Forum and the prpl Foundation. We are now on the way toward a standardized open-source implementation so that ISPs will extend their ability to bring cutting-edge digital home offerings to their subscribers. These new solutions focus on highly improved end-to-end user experience. They will play an important role, enabling ISPs to remotely manage the delivery of high-quality broadband connectivity and services with whole-home coverage.*"

For more information, please visit: https://prplFoundation.org and https://www.broadband-forum.org/

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

A non-profit industry organization composed of the industry's leading broadband operators, vendors, and thought leaders, our 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 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 www.broadband-forum.org. Twitter @Broadband_Forum.

For more information about the Broadband Forum, please go to http://www.broadband-forum.org or follow @Broadband_Forum on Twitter. For further information please contact Brian Dolby on +44 (0) 7899 914168 or brian.dolby@proactive-pr.com or Jayne Brooks on +44 (0) 1636 704 888 or jayne.brooks@proactive-pr.com.

About prpl Foundation
prpl (pronounced "purple") is a community driven, non-profit organization with a focus on enabling the security and interoperability of embedded devices for the IoT and smart society of the future. prpl represents leaders in the technology industry investing in innovation in

efficiency, portability and compatibility for the good of a broad community of developers, businesses and consumers.

prpl Press Contact:
Art Swift
Art@prplFoundation.org
+1.832.252.2594