Broadband Forum launches open source USP Agent, fast-tracking connected home interoperability in the IoT age

OB-USP-Agent project leverages open source model to provide faster time-to-market for vendors, supporting operators in unlocking new revenue from IoT

Fremont, California, 28 March 2019: Broadband Forum today announced it will provide an open source USP Agent implementation as it continues to evolve its User Services Platform (USP) to facilitate tomorrow's Connected Home and accelerate interoperable Internet of Things (IoT) deployments.

Created as part of Broadband Forum's Open Broadband initiative, the Open Broadband – USP Agent (OB-USP-Agent) project will provide vendors with a code base that they can either integrate into their devices or use as a reference implementation as they utilize USP. A necessary catalyst to adoption in today's software development world, OB-USP-Agent will facilitate USP deployment and result in faster time-to-market for USP-based solutions and innovation. Furthermore, as a standards-based solution, operators can have the peace of mind that they won't become locked into more costly and less flexible proprietary management solutions.

Published in April 2018, USP is an evolution of the TR-069 standard, currently installed in more than 1 billion households globally. USP has already seen significant uptake and currently has hundreds of active developers. For operators seeking a truly unified, common approach to securely deploy, manage and control network-aware consumer electronics, including home and enterprise Wi-Fi, IoT, and more, USP is an ideal solution.

"USP is designed to be flexible, scalable and secure, and the new open source agent implementation builds on this by allowing vendors to integrate it into their devices or use it as a reference implementation," said Barbara Stark, of AT&T, USP Project Lead at Broadband Forum. "This is a natural evolution for USP as the industry moves more and more towards software development. We are confident the new agent will not only help to increase interoperability but also support operators looking to launch new connected home services as additional revenue streams."

Using the same data models as TR-069, USP builds a network of controllers and agents to allow applications to manipulate service elements. This allows service providers, consumer electronics manufacturers and end-users to securely manage connected devices, carry out upgrades, for example, for critical security updates, and onboard new devices. Customer support is also improved by remote monitoring and troubleshooting of connected devices, services and home network links.

The open source USP Agent has been provided by Broadband Forum member ARRIS International plc, which has already used the agent in previous USP Plugfest events and tested it against the existing USP Compliance Test Plan. Project participants can leverage and extend this code as innovation around OB-USP-Agent grows. The project has been launched and the code is available for Broadband Forum members to view here. A public release will be made available later this year.

"OB-USP-Agent marks an important step in the evolution of USP, aiding adoption rates on devices," said John Blackford, Product Management Director at ARRIS and Co-Director of the Broadband User Services (BUS) Work Area. "Through the vast number of TR-069 deployments, USP is the evolution of a platform that already has a proven track record and we are confident it will support service providers looking to capitalize on the IoT market by enabling an open market without vendor lock-in."

USP's services are defined in a data model, which has new functionality and revisions added to it every six-to-nine months. It supports three multiple messaging protocols for different use cases – WebSockets for point-to-point legacy devices, STOMP for cloud controllers supporting LAN side devices and devices that may move from one network to the other, and CoAP for LAN communication between LAN side controllers, for example in a smartphone. This ensures that USP solutions targeted towards end-users are not dependent on the cloud. Planned future updates include MQTT support, in response to demand from service providers.

Since USP's launch, regular Plugfests have taken place, with the two held so far attracting participation from five companies, including Nokia, ARRIS, Axiros, Greenwave Systems, and QA Cafe (for testing purposes). Broadband Forum member, Greenwave Systems has also successfully deployed USP in its Internet of Things (IoT) applications. The next USP Plugfest, hosted by University of New Hampshire InterOperability Lab (UNH-IOL) will take place from Monday, April 1 to Friday, April 5.

"Since its launch, USP has continued to evolve both in regard to its capabilities and its potential for the industry," said Geoff Burke, Broadband Forum CMO. "As an open standard for the industry, USP brings a unique offering to the broadband industry, with the OB-USP-Agent project marking the next step in our drive to help operators deliver carrier-class services – all the way from the central office into the home."

Broadband Forum's Geoff Burke has conducted two video interviews with ARRIS' John Blackford and AT&T's Barbara Stark to provide a comprehensive view of the OB-USP-Agent project and its relationship to USP and TR-069. You can find the video interview with Blackford providing insights into the OB-USP-Agent project here. A video interview on USP, its history, and its breadth of Forum initiatives featuring Barbara Stark, is available here.

For more written information about USP, please click here. A new webinar, titled 'Deliver on the promise of the connected home: An expert panel webinar on USP/TR-369' will take place on Thursday, April 4 at 10am Eastern Time.

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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 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 https://www.broadband-forum.org/.

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