broadband forum

Shaping the Future of Broadband

WELCOME TO THE **BROADBAND FORUM**

QUARTERLY NEWSLETTER

Your quarterly resource for updates on recent activities and our most critical work and focus areas.

A Word from our CEO

It seems fitting that Hungary's capital city, Budapest is the location for our Q1 meeting which has seen significant progress across our Work Area groups and a fruitful transition of our leadership team. In a location which combines the two cities of Buda and Pest, our members have continued to focus on the convergence of open source and open standards, virtualized and physical network functions, and, fixed and mobile networks to help transform and shape the future of broadband.

This meeting provided the backdrop for a wave of transition, as our annual election took place and we bid fond farewells to colleagues. Newly elected and re-elected members have joined the Board of Directors, our Technical Committee Chair Lincoln Lavoie has resumed his role and Bernd Hesse has been appointed as Marketing Chair. These new leaders will continue to position Broadband Forum as a truly open and collaborative organization.

Bernd's appointment to Marketing Chair will see him develop our strategy and support our work in a changing technological landscape and the advent of 5G, high capacity PON, the multi-service Connected Home, SDN and NFV. Since 2017, Bernd has established the BASe workshops as key industry events for vendors, operators, analysts and other stakeholders, and we will look to build on this success with the expansion of the BASe event schedule. This growth has been aided by the efforts of our CMO Geoff Burke who is moving onto a new challenge at DZS. I want to express my gratitude for his continued efforts in helping to publicize our ongoing work.

Our Q1 meeting also saw our esteemed colleague and friend Kevin Foster sport the "Last-time Attendee" lanyard as he heads into a well-deserved retirement. Having helped oversee our move to an agile and open organization, Kevin has played a fundamental role in the Forum's success as a Board Member, contributor and as President and Chairman. I am sure I echo the whole membership's sentiments when I say you will be truly missed! Kevin has passed the Broadband Forum Chairman baton to long-time member John Blackford, whom I am certain will help us to continue to pave the way for enhanced broadband experience, innovation and standards development. Congratulations John, and best of luck!

With the Q1 meeting completed, our next quarterly meeting and first-ever BASe Australia event are fast approaching, taking us to a new continent as we continue to unlock the ever-growing potential of the broadband industry.

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Kevin Foster receives Distinguished Fellow Award and Leadership Award

Kevin Foster, of BT, has been presented with two accolades – Distinguished Fellow Award and Leadership Award – for more than ten years of service and expertise as he steps down from Broadband Forum and heads into retirement.

Serving as Chairman since 2012, Foster joined the board in 2008 before being made President in 2011. He has made significant contributions during this time and played a key role in transforming the Forum.

Howard Watson, Chief Technology and Information Officer of BT, said: "The importance of standards in both the past, present and future of our broadband industry cannot be underestimated and Kevin's work is an excellent example of why operators should get involved."

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Broadband Forum honors latest achievements in rapidly evolving broadband industry

Exceptional vision and achievements, leadership, and technical excellence were among the qualities recognized during Broadband Forum's annual awards.

Jason Walls, of QA Cafe, received a Distinguished Fellow Award for his technical excellence and significant contributions. Kenneth Wan, of Nokia, was given a Circle of Excellence Award for his instrumental work in the Access and Transport Architecture (ATA) Work Area and Wireline-Wireless Convergence (WWC) Work Area.

Recognizing outgoing, commendable Work Area Directors or Board members, Leadership Awards were presented to Chris Croot, formerly of BT, Director of the SDN NFV Work Area, and Ken Ko, of ADTRAN.

Outstanding Contributor Awards were presented to Daniel Egger of Axiros, Robert Peschi of Nokia, Hugh Singleton of BT, and Jonathan Newton of Vodafone. Tim Carey of Nokia received his second Outstanding Contributor award to reflect his continued commitment to progressing broadband standards.

For more information on Broadband Forum's award winners, please read the full press release.

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New leadership appointments for the Forum

Broadband Forum has announced its newly elected and re-elected members of the Board of Directors, re-election of its Technical Chair and the appointment of its Marketing Chair.

John Blackford has been appointed as Chairman and is involved in some of Broadband Forum's most innovative work as it prepares fixed networks for the era of 5G and the Connected Home.

Newly appointed to the twelve-member Board: Francisco de Carvalho of BT, Bernd Hesse of Calix, John Blackford of CommScope, David Sinicrope of Ericsson, Frank Van der Putten of Nokia, and Mauro Tilocca of TIM.

Lincoln Lavoie, of the University of New Hampshire Interoperability Lab (UNH-IOL) was also re-elected as Technical Chair. Bernd Hesse was additionally appointed as Marketing Chair and will focus on positioning the work of the Forum in the rapidly changing environment of 5G, high capacity PON, the multi-service Connected Home, SDN and NFV.

Officers of the Board were appointed as follows:

- John Blackford: Chair
- Tom Starr: President

- David Sinicrope: Vice President
- Frank Van der Putten: Treasurer
- Aleksandra Kozarev: Secretary

There were six seats open for the Board of Directors and representatives from all member companies were eligible.

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A fond farewell and thank you to Geoff Burke

Geoff Burke will be stepping down as Broadband Forum CMO but returning as a sponsor in his new role as VP, Global Marketing at Broadband Forum member DZS.

Geoff joined the Forum in September 2018 and helped oversee the brand revamp, raised Broadband Forum awareness, and helped take the BASe series to the next level.

We wish you all the best in your next chapter! This isn't goodbye but a see you soon!

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Broadband Forum finalizes two new 5G standards

Operators looking to leverage their fixed networks to deliver on the promise of 5G will soon have new tools at their disposal as Broadband Forum wraps up the development of two new standards and delivers on its promise to rapidly support the 3GPP release cycles.

Based on contributions from operators and vendors across the globe and close collaboration with the 3GPP, '5G Fixed Mobile Convergence (FMC) Architecture' (TR-470) and 'Access Gateway Function (AGF) Functional Requirements' (TR-456) build on Broadband Forum's previous 5G work to provide a practical roadmap to deliver 5G.

"When it comes to deploying 5G, all operators will have different starting points which means any transformation steps need to be independent and not require co-ordination," said Gavin Young, Head of Fixed Access Centre of Excellence at Vodafone Group Technology. "Deployment flexibility is also needed – and it is these challenges, and more, that TR-470 and TR-456 address."

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BASe series set for continued success in 2020!

Following the monumental industry-wide attention, with the Forum's BASe series attracting more than 1,000 participants last year, 2020 will see an extended calendar of events delivered across the globe.

The six BASe events will take place in Australia, San Diego, Las Vegas, Berlin and Amsterdam and will see insights delivered by innovative service providers, leading vendors and top-tier analysts to continue to progress the broadband industry.

If you are interested in sponsoring any of the events in the 2020 BASe series calendar or would like any more information, please email info@broadband-forum.org.

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Work Area Updates from Budapest, Hungary

For a full list of all Technical Reports published by Broadband Forum, click here. Please feel

free to share this information with your colleagues, so they are engaged and aware of the developments of this work. For additional insight and to get involved, sign up for access to Broadband Forum tools and access your account using your company email address.

ATA unrestricted by travel restrictions

• **Target**: The ATA Work Area maintains primary architectural work of Broadband Forum. This work reflects the control, management and data plane aspects of the Broadband Forum's defined and new architectures. These architectures are augmented to leverage new industry practices, while protecting the investment in broadband networks already deployed.

• **Progress**: WT-459 Disaggregated Broadband Network Gateway (DBNG) completed straw ballot, WT-452.1 Quality Attenuation Architecture and Requirements was sent to Straw Ballot, WT-390.2 performance measurement using STAMP was also sent to Straw Ballot.

• **Outcomes**: A study on Carrier Grade Network Address Translation (CGN) for DBNG was completed, three new marketing documents on 5G Transport, IP Capacity Measurement and Resiliency via DBNG were approved for publication.

Despite COVID-19 related company travel restrictions imposed on several key work area participants, including the Work Area Director, ATA successfully leveraged remote participation to progress and complete items on their work plan without interruption. Coming out of the "Budapest" meeting, with remote participants across the globe in attendance via Zoom™ Internet collaboration software, ATA has completed three Marketing Reports (MRs) to be published on topics including IP Capacity Metrics and Measurement, DBNG Resiliency, and 5G Transport. The Work Area also progressed two documents to Straw Ballot (last call for comments) on Quality Attenuation Architecture and IP Performance Measurement using STAMP. Another much anticipated document on DBNG completed Straw Ballot and will be considered for final approval (Final Ballot) in the weeks following the meeting. The work area also completed a study on Carrier Grade Network Address Translation (CGN) Architectures and will be starting technical specification following the meeting.

In the area of 5G Transport, the group approved MR-521.1 5G Transport Motivation and continues to progress the 5G Transport architecture and requirements document (WT-521). The requirements introduce the use of new transport and routing technologies and application of these technologies to the 5G split RAN architecture. Those interested are encouraged to join the conference calls.

The group wrapped up the last comment resolution on WT-459 DBNG Architecture and Requirements. The Editor will be completing the last of the editorial updates and the group will decide to send the document to final approval in the weeks following the meeting. The group also concluded work on a document explaining DBNG benefits to service resiliency (MR-459.2) which was approved for release.

The study of CGN for DBNG architectures was concluded. The Work Area will hold a call following the meeting to recap the architectures selected for those who have interest.

The Performance, Experience and Application Testing (PEAT) Project Stream concluded contribution on both WT-452.1 Quality Attenuation Architecture and Requirements and WT-390.2 Performance Measurement from CE to IP Edge using STAMP. Both documents will be sent for last comments (Straw Ballot) after the meeting. The MD-471.1 Maximum IP-Layer

Capacity Metric and Measurement document was approved for release, and the WT-471 Maximum IP-Layer Capacity Metric, Related Metrics, and Measurements technical specification is anticipated to be ready for last comments following the meeting. A new architecture document on Quality Attenuation Measurements using Active Test Protocols was kicked off.

Those interested in any of the work above should contact the ATA WA Director or the PEAT Project Stream Lead for more information on how to get involved.

The ATA Work Area would like to express its sincere thanks to the on-site leadership and Broadband Forum staff for their assistance with remote participation and making the meeting a success. The ATA Work Area Director would like to express his sincere thanks to all the participants both present in Budapest and those attending "virtually" from around the globe, at all hours of the day and night, for their diligence and dedication to progressing the Forum's work in the face of such challenging circumstances.

For more information on ATA Work Area's ongoing work, visit: https://wiki.broadband-forum.org/display/BBF/Access+and+Transport+Architecture.

Significant steps forward for BUS Work Area in Budapest

BUS Broadband User Services

- **Target:** Help service providers control the connected home business model.
- **Progress:** The group has started joint work with the prpl Foundation to explore how TR-369 can be used to enable "microservices" in home gateways. Work has continued on TR-398 and the group is working with the WWC Work Area to finalize requirements for a managed 5G fixed wireless gateway.
- **Outcomes:** A certification program is set to be finalized for fully integrated USP Agents in Q2 of 2020.

The Broadband User Services (BUS) Work Area had an exciting week entering into joint work with members of the prpl Foundation to explore how Broadband Forum's powerful new User Services Platform (USP) (TR-369) can be used to enable "microservices" in home gateways, creating truly interoperable "app-enabled" Wi-Fi routers that can obtain easily deployed, activated, and managed third-party services like Wi-Fi analytics, security, and more. This is an incredible step forward for something that has been somewhat of a "holy grail" for the broadband and consumer electronics industries for some time.

The group is also on track to finalize service elements and requirements for a managed 5G fixed wireless gateway in collaboration with the WWC Work Area. Providers and manufacturers will have clear guidelines for how to build, deploy, and maintain these devices through a harmony between traditional broadband networks and mobile networks.

Furthermore, the group also continued work on the next version of its TR-398 standard that has created a way for providers and vendors to properly evaluate Wi-Fi routers and Access points (APs) for performance. The next version will include tests and metrics for Wi-Fi 6 enabled gateways.

The USP has been gaining steam in the industry at an incredible pace. In addition to the open source USP Agent published by Broadband Forum, the group is on track for a certification program to be finalized for fully integrated USP Agents in Q2 of 2020.

For more information on BUS' ongoing work, visit: https://wiki.broadband-forum.org/display/BBF/Broadband+User+Services.

Common YANG scores a hat-trick and prepares for three Straw Ballot reviews!

- **Target:** Specify YANG modules that are applicable to multiple Work Areas, NETCONF/YANG test plans and certification for the defined YANG modules, and maintain YANG Best Current Practices, processes, procedures and tools.
- **Progress:** Progressed Common YANG models focusing on software management, enhanced Quality of Service (QoS) and Access Node Control Protocol (ANCP); joint review with the ATA Work Area on YANG for managing BNGs.
- **Outcomes:** Agreed to proceed to Straw Ballot for Amendment 3 of the YANG Modules for Fiber-to-the-distribution-point (FTTdp) Management. Planned to move to Straw Ballot for Amendment 3 of the Common YANG Modules and the Persistent Management Agent Aggregator (PMAA) Management Models in an interim conference call.

The group has reached the final stage of preparing for Straw Ballot of Amendment 3 of the Common YANG Modules for Access Nodes (WT-383a3). This work further enhances the suite of YANG Modules by including software management, QoS enhancements and ANCP, as well as several other updates facilitating flexible service configuration and troubleshooting. With all contributions heard and with the agreements reached, Straw Ballot comment resolution is slated for the Q2 meeting. WT-383a3 will allow service providers to further facilitate the deployment of YANG-enabled ultrafast broadband over VDSL, FAST and Passive Optical Networks (PON).

Likewise, the group agreed to proceed to Straw Ballot for Amendment 3 of the YANG Modules for FTTdp Management (WT-355a3). This amendment enables management of bonded DSL lines and eases the path towards supporting the IETF Network Management Datastore Architecture (NMDA) in the near future.

And if that wasn't enough, the group also plans to move to Straw Ballot for the Persistent Management Agent Aggregator (PMAA) Management Models (WT-393) in an interim conference call. This work defines the overall architecture of aggregating multiple PMAs and presenting a single Northbound Management Interface (NBI) towards the OSS systems.

For an overview of the Common YANG Work Area's current activities, please visit: https://wiki.broadband-forum.org/display/BBF/Common+YANG+Work+Area.

FAN continues to make significant strides in key project streams

- **Target:** Inter-Channel Termination Protocol (WT-352) is awaiting additional contributions but will hopefully be sent to straw ballot after 2020 Q1.
- **Progress:** At the Q1 meeting, WT-385 Issue 2 ITU-T xPON YANG is preparing for straw ballot and there will be a teleconference on March 19 to attempt to resolve all remaining issues and the date for straw ballot readiness will be determined. WT-431 Issue 1 EPON Yang has not progressed.
- **Outcome:** The Optical Network Unit (ONU) interoperability and certification test plan, DTP-247 issue 4 has almost been completed and a teleconference will be scheduled to

resolve all remaining items.

- WT-280 amendment 1 straw ballot resolution has concluded at Q1 and a teleconference for final ballot readiness is to be announced.
- The Work Area is also examining whether to start TR-280 Corrigendum 1 work at this meeting to conclude at Q2.

The Fiber Access Networks (FAN) Work Area has continued to make significant progress in its key project streams. The straw ballot for WT-309 Issue 2 Amendment 1 PON TC Layer Test Plan completes on 23 March 2020.

For more on the FAN Work Area's ongoing work, please see: https://wiki.broadband-forum.org/display/BBF/Fiber+Access+Networks.

OB-BAA issues Release 3.0 to ease migration to cloud-based networks

OB-BAA has issued its third release that brings needed capabilities for service providers to monitor their networks with existing management systems or SDN enabled management and control systems. In addition, this release continues enabling accelerated migration to cloud-based access networks by expanding the breadth of vendor implementations by providing capabilities to adapt vendors' SNMP-based Access Nodes.

Specifically, this release provides the following enhancements:

- Service assurance capabilities to include collection and transformation of performance monitoring (PM) data into standardized YANG data models. This includes storage of the translated PM data into a common data lake. The BAA layer provides an IP Flow Information Export (IPFIX) data collector for use with Access Nodes that support Broadband Forum's standard for PM data collection. In addition, the notification capabilities are enhanced to allow for subscriptions for notifications to monitor events within the network.
- Integration with existing SNMP-based Access Nodes by providing a SNMP adapter framework.
- Operation of the BAA layer that includes the capability to determine how well vendors' implementations conform to the standard YANG modules defined in the Broadband Forum's TR-413 'SDN Management and Control Interfaces for CloudCO Network Functions' specification.

In addition to the capabilities offered by the current release, the OB-BAA project has experimented and demonstrated how the BAA layer and Broadband Forum's standardized YANG modules can be used to relay traffic from the Access Nodes toward SDN controllers in order to steer traffic. The next release is scheduled to enhance the capabilities of this feature by making it available as part of the BAA layer.

OB-MAP continues work with prplMesh to refine topology database and APIs

The Open Broadband – Multi Access Point (OB-MAP) project together with prplMesh is continuing to refine the details of its architecture. The architecture includes a whole-network topology database which allows for definition of a third-party controller and other uses. This architecture also requires three sets of APIs: between prplMesh and a controller, prplMesh and the topology database and the controller and topology database.

The group has been reviewing SoftAtHome's gMap database to see if it would be suitable as the topology database. That determination will impact the syntax of the APIs. After the decision is made on the database, the group will decide how to make the database accessible through USP and how other local applications will access this. Access to this database may be enabled through the "microservices" project that the prpl Foundation is driving into the BUS Work Area.

The project also continues to ensure that all physical layer technologies are supported in the context of the database and network topology.

In the future, OB-MAP expects to produce vendor extensions to the IEEE 1905.1a specification that will provide carrier-grade capabilities enhancing EasyMesh operation in operator deployments. Once these are done, we will also deliver certification requirements for these Broadband Forum extensions that would lead to a certification program.

PHYtx reaches major Gfast performance test plan milestone

- **Target:** To help service providers deploy equipment that will provide a better Quality of Experience (QoE) for their end-users.
- **Progress:** The Physical Layer Transmission (PHYtx) Work Area finalized the Technical Review of the Architecture and Requirements for Fiber to the Distribution Point recommendation. The Gfast performance test plan reached the completion of the twisted-pair performance targets. The remaining use cases for fiber access extension over existing copper infrastructure became more detailed. New Dynamic Time Assignment (DTA) testcases were added to the Gfast certification plan.
- **Outcome:** Three documents are now ready for straw ballot review. These are WT-380, WT-338i2 and WT-419. The document WT-301i2a1 is ready for final approval.

The twisted-pair performance requirements have been included in the 'Gfast performance test plan' (WT-380) proving that Gfast systems can reach data rates beyond 1Gbs for the 106MHz profile and beyond 1.6Gbs for the 212MHz profile. This document is now ready for its second Technical Review. Scheduled for publication from the Q2 2020 Meeting, this document provides operators with a means to evaluate the twisted-pair performance of Gfast systems. The next step is to define the performance targets for coax based Gfast systems and the test framework for multi-line performance requirements.

The Reverse Power Feed (RPF) Test Plan (WT-338i2) has been completed and is ready for Technical Review, and now includes performance requirements for Distribution Point Units operating with RPF.

The next revision of the 'Gfast certification test plan' (DTP-337) is on its way. This revision now includes certification of software download, while operation with DTA improves the response times and throughput of the Gfast connection. First implementations of DTA have been undergoing tests at the latest Gfast Plugfest.

Project WT-419 (Fiber Access Extension Over Existing Copper Infrastructure) detailed the remaining use cases and the document is now ready for Technical Review. WT-419 provides telecom operators with an overview of technologies they can use to offer fiber-like speeds on their existing copper infrastructure where the installation of fiber is not yet economical.

A secure Dying Message was included in the Architecture and Requirements for Fiber to the Distribution Point recommendation (WT-301i2a1). This solves a security vulnerability that may

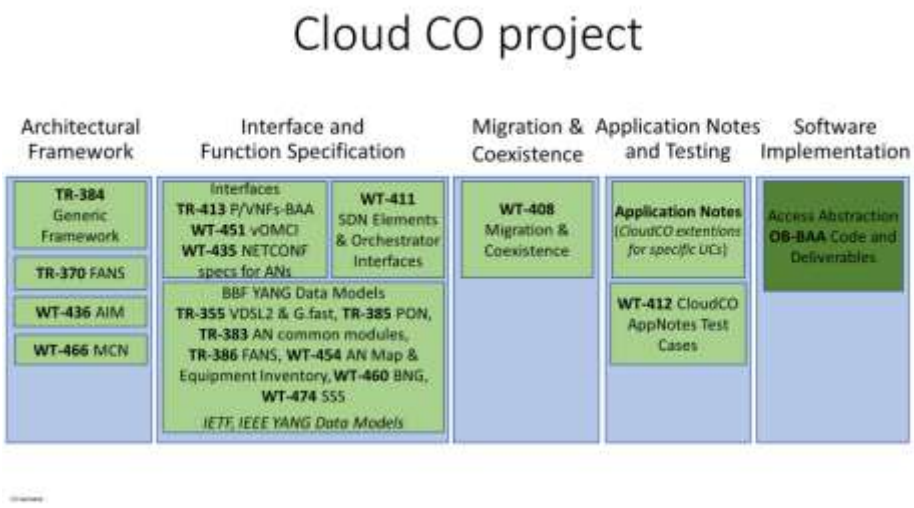
occur with the reception and processing of an unencrypted, non-validated or non-authenticated Dying Gasp message. This technical recommendation is ready for its final approval.

To gain further insight into what the Physical Layer Transmission Work Area is doing, visit: https://wiki.broadband-forum.org/display/BBF/Physical+Layer+Transmission.

Issue 2 of TR-370 published and WT-408 heading to straw ballot

SDN NFV

- **Target**: To drive the migration of SDN and NFV into all aspects of broadband networks to facilitate the agile deployment of new customized distributed broadband services and applications with greater operational efficiency and lower cost.
- **Progress**: The CloudCO project encompasses an expanding set of deliverables addressing: Reference Architecture; Interfaces specifications; Software reference implementations; Coexistence and Migration; and exemplary implementations and testing illustrated in the figure below. Some of these activities involve other Broadband Forum Work Areas and this will continue to expand.



Outcomes:

TR-370 Issue 2 on Fixed Access Network Sharing has been published.

TR-384 Cloud-based Framework (CloudCO) work on Issue 2 has started.

WT-408 Migration and Coexistence decision on Straw Ballot readiness will be made in the next four weeks. It includes a strategy of either migrating existing Multi-Service Broadband Network (MSBN) and discusses when and how to introduce the CloudCO infrastructure. It also provides examples of how functionality in the management, control and user planes can be migrated toward CloudCO.

WT-435 NETCONF Requirements for Access Nodes and Broadband Access Abstraction draft was completed with more details on selected requirements and Use Cases to align with operators' needs and to clarify interdependencies among requirements. A teleconference call will be scheduled to review revisions and determine straw ballot readiness.

WT-436 Access & Home Network O&M Automation/Intelligence agreed on a framework for the specification in January and draft text content for Broadband Forum framework is being progressed via a tiger team including terminology consistency issues.

WT-451 vOMCI for New Access Nodes started Straw Ballot comment resolution. Final approval is contingent on verifying successful multi-vendor WT-451 Plugfest interoperability that includes vendor participants and the OB-BAA reference implementation.

WT-454 YANG Modules for Access Network Map & Equipment Inventory. The purpose of this Working Text is to define YANG data models for access network map and Equipment Inventory applicable to the BAA layer and the Access SDN Management and Control. Current results are that two YANG models have been accepted and source code uploaded to Broadband Forum Open Broadband. Ahead of the Q2 meeting, the Work Area is hopeful the gaps will be addressed, and the group will determine if it is ready for straw ballot resolution.

In the future, new work will be starting on:

- WT-466: Metro Computing Networking
- WT-474: Subscriber Session Steering which may involve other Work Areas

More information about the SDN/NFV Work Area can be found at: https://wiki.broadband-forum.org/display/BBF/SDN+and+NFV.

Canary Release nears completion for OB-USP-Agent

Recent Accomplishments: OB-USP-Agent completed its work on a 2.1 Release (a minor update to the Blackbird Release).

Current Efforts: The Canary Release (Release 3) is in progress, which focuses on providing support for MQTT and Architecture improvements to better support OpenWRT/prplWRT and RDK-based deployments. This should be completed by the end of March.

There have been several requests for an “Example” USP Controller and we are close to uploading our first version of this USP Controller. The focal point of this work effort is initially around the testing of the open source USP Agent.

Future Plans: Working on publishing a roadmap for the community to better understand the Work Area’s current state and future direction.

WWC set to roll out finalized documents of Release 16 in Q2

WWC Wireless-Wireline Convergence

- **Target:** Address the needs of converged operators, which have both wireline and mobile networks deployed and are in a position to leverage all their assets with combined subscriber offerings.
- **Progress:** The WWC Work Area completed populating the first set of documents at the Q1 interim meeting in January. These documents will be the first normative specifications for the equipment that will connect wireline to the 5G core and the CPE it will serve.

  The Work Area is now immersed in the Straw Ballot process whereby the documents go through a detailed review as the next step to finalization. The area’s target is to have the work for Release 16 complete by year end, with finalized documents rolling out starting in Q2/2020.
- **Outcomes:** Complete solutions to WWC will be delivered in the Release 16 timeframe as originally planned.

Work in the WWC Work Area is now increasingly focused on finalizing the technical details that

require specification, addressing the needs of converged operators with both wireline and mobile networks deployed who are in a position to leverage all their assets with combined subscriber offerings. This work will allow converged operators to provide a uniform experience to their customers irrespective of the access or appliance they are using. This will be supported by a common and streamlined back office and control plane.

Broadband Forum and 3GPP are now deeply engaged in ensuring the myriad of technical details required to generate detailed specifications are addressed. This is in respect to CPE network equipment and changes to the 5G core.

Broadband Forum is taking an important role in developing 5G, making recommendations for the connection points between the fixed and 5G mobile core networks in order to drive core convergence. At this point in the WWC work, the group has shifted from documenting the decisions to critical review of the decisions.

WWC is also working with BUS to extend the TR-181 data models for 5G to leverage TR-069/TR-369 as part of WWC. The Work Area also did a final push to get the CPE changes to a state of completion and critical review.

WWC is deeply engrossed in the normative phase of this work, with the first set of specifications set to be published in Q2/2020.

For more on the WWC Work Area, please see: https://wiki.broadband-forum.org/display/BBF/Wireline-Wireless+Convergence.

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Welcome to our new and returning members!

We were pleased to announce Altran, Affirmed Networks, EZCONN, Kaloom, University of New South Wales, Lambda Networks and Netsia as new members to Broadband Forum. In addition, Telecom Argentina upgraded its Broadband Forum membership, while 4Site, CityFibre and Telecom Egypt attended as special guests at the Q1 meeting in Budapest.

Are you interested in becoming the next member of the industry's leading standards body in defining broadband networks? Broadband Forum membership will not only accelerate your company's progress but enable you to become a key influencer in developing 5G, the Cloud, the Connected Home and Access Networks.

We have a range of Membership options for companies of all sizes, from start up companies to large corporations and not-for-profit organizations. Our new Regional Operator Membership category has further opened participation, take a look for further details of the access level privileges, benefits and requirements.

To learn more about the benefits of Membership, watch a video interview of Rhonda Heier, Membership Development Manager, here. She can also be reached at rheier@broadband-forum.org.

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Broadband Forum in the news

Combining open source with open standards in conjunction with agile technologies will transform the broadband industry. This was the viewpoint expressed by CEO Robin Mersh in Information Age. The feature discussed the Forum's work on OB-BAA, the progress of its Broadband Quality Experience Delivered (Broadband QED) and Open Broadband Labs (OB-Labs) initiatives and the publication of TR-421.

Mersh and CMO Geoff Burke discussed the Forum's roadmap for 2020 and its ongoing work with Peter Dykes in Optical Connections. The duo discussed the success of BBWF 2019, how fibre optics continues to be a hot topic in the industry and how to get a more homogenous view of network management for broadband.

Finally, as Broadband Forum continues to look at developing carrier-grade Wi-Fi, Alison Diana focused on the progress being made in the Connected Home and Wi-Fi Management in Broadband World News.

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Events Calendar

2020 Broadband Forum Meetings and BASe Events

- Q2 June 2-4, UFBB BASe, Den Haag, the Netherlands
- Q2: June 15, BASe Australia, Melbourne, Australia
- Q2: June 16-19, Q2 Meeting, Melbourne, Australia
- Q3: August 31-September 3, Q3 Meeting, Antwerp, Belgium
- Q3: October 13, BASe Events at BBWF, Amsterdam, the Netherlands
- Q3: October 24, BASe North America, Las Vegas, USA
- Q4: December 7-10, Q4 Meeting in Americas (location TBD)

Sponsorship opportunities are available for Broadband Forum's 2020 quarterly meetings.

Sponsoring a meeting is a great way to highlight your company and exhibit your company's innovation in the broadband industry – including demonstrations or prototypes – while showing your support of Broadband Forum. Opportunities vary and can be customized to accommodate a variety of budgets.

Please view the list of our standard sponsorship packages and benefits at: https://wiki.broadband-forum.org/display/BBF/Sponsorship+Opportunities.

If you are interested in sponsoring a meeting, please contact Rhonda Heier at rheier@broadband-forum.org.

Other dates for your diary:

- FTTH Conference: April 21-23, 2020, Berlin, Germany
- Broadband Forum TR-369 (USP) Plugfest: May 11-15, 2020 in Durham, New Hampshire, USA
- MPLS + SDN + NFV World: June 30-July 3, 2020 in Paris, France
- Convergence India: July 7-9, 2020, New Delhi, India
- Broadband World Forum: October 13-15, 2020, Amsterdam, The Netherlands

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Contact information

Questions or ideas? Contact the Broadband Forum on +1 510.492.4020 or email info@broadband-forum.org.