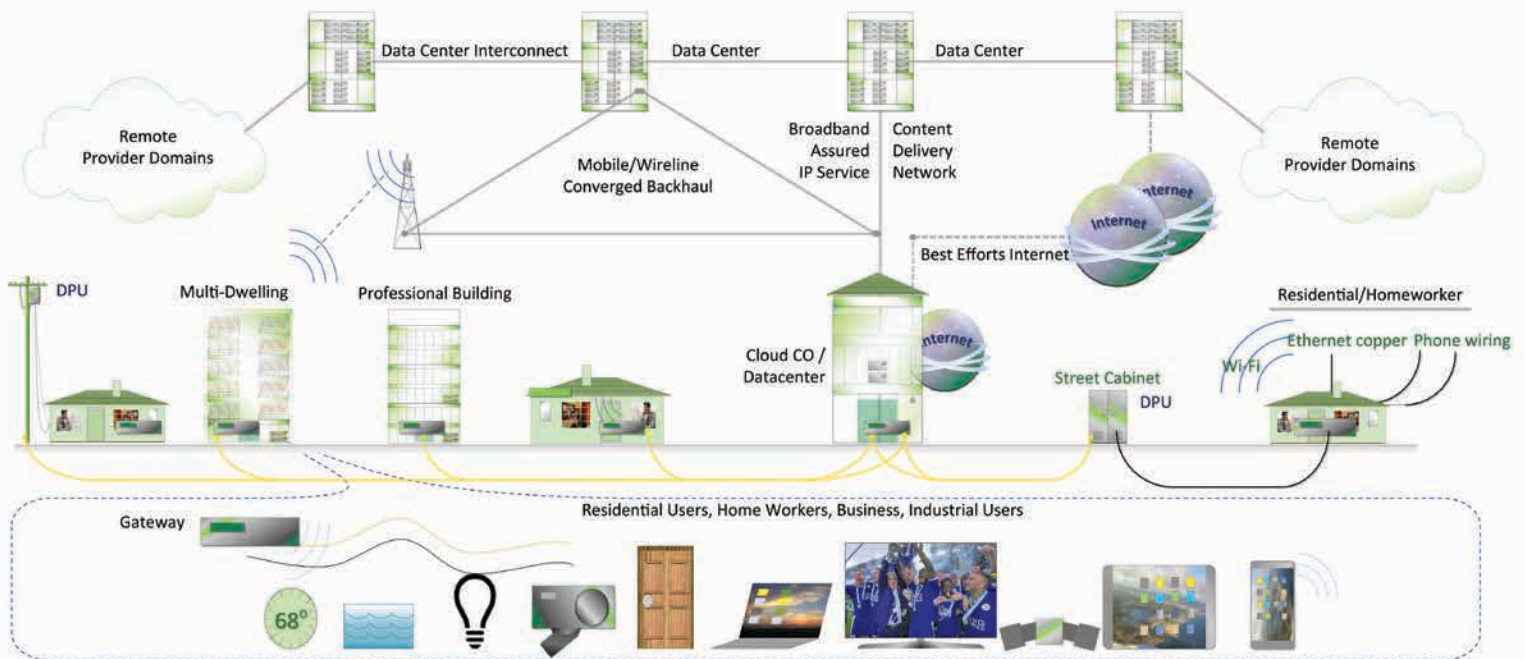


BROADBAND: THE BIG PICTURE



CHAIRMAN'S LETTER

DEAR COLLEAGUES,

We designated 2016 as a year of executing on our Broadband 20/20 vision – and so it turned out to be. Above all, we remain steadfast to the strategy of leveraging innovative broadband technologies to enable and grow large scale markets with new revenue generating opportunities for both current and potential Forum members and for all stakeholders in the Broadband community. As our strategy continues to develop, it is increasingly apparent that this a journey of evolution towards truly holistic broadband with common standardized management and interoperability. The Broadband Forum is ideally positioned to facilitate this journey.



What we did not predict a year ago, was the importance and impact of our special meeting in Atlanta last May. The topics were the changing nature of the network, the emergence of Cloud CO, virtualization of highly-distributed computing and the BBF's role in transforming broadband networks towards ultrafast capability. Service providers came from around the world to present their perspectives on the Future of Broadband Networks. These were augmented by the views of key Broadband equipment manufacturers. The outcome has already seen the significant developments in the operation and work of the Forum. As a direct result the Forum is embracing the best of both open source and standards development, instigating new methods for rapid delivery of innovative software and standards that are key to generating large-scale global markets.

The launch of several new Forum web-based tools and sites, including the rapid adoption of a members' collaborative wiki, plus JIRA for interactive project management of development issues and the Bitbucket code repository with safe harbor for IPR and an all-new new public website. These combined with accelerated approval processes are examples of how we are evolving to meet the changing needs of our membership and the broadband industry.

It's clear that we have entered a period where migration and transition have become the day-to-day norm. As we bring the technologies of NFV, SDN and IoT to ultrafast Broadband and Cloud-driven services, we have seen a significant increase in the number of contributions and collaborative web pages created. The network enhanced virtualized residential gateway and publishing of seven new data models for FTTdp are typical examples of work completed. We are currently working on more than 100 projects, including:

- The User Service Platform that will unify the services of the connected home including IoT and security
- The convergence of traditional wireline connectivity with 5G to create a new kind of hybrid access network
- The continuing development of ultrafast access, with management and interoperability testing programs
- The development of Cloud CO and distributed compute platforms enabled by NFV
- The definition of performance aware services to fuel the insatiable appetite for higher quality of experience

Looking forward to the year ahead the hot topics will be the migration to new platforms, provider-initiated projects that accelerate market deployment and onboarding of new services while current and new implementations co-exist to ensure business revenues are not compromised. I know that with your active engagement, the Broadband Forum can continue to serve your needs, the needs of the broadband industry and our collective customers.

On behalf of the Board and staff, may I take this opportunity to thank for your continued support.

Kevin Foster CEng. FIET

Chairman

The Broadband Forum

2016 BROADBAND FORUM LEADERSHIP



Kevin Foster
Chairman
BT



Tom Starr
President
AT&T



David Sinicrope
Vice President
Ericsson



Frank Van der Putten
Treasurer
Nokia



Lincoln Lavoie
Secretary
University of New Hampshire IOL



Robin Mersh
Chief Executive Officer



Kenneth J Kerpez
Board Member
ASSIA Inc.



Mauro Tilocca
Board Member
Telecom Italia



Manuel Paul
Board Member
Deutsche Telekom



Les Brown
Board Member
Huawei Technologies



Massimo Sobara
Board Member
Telebyte



Michael Fargano
Technical Committee Chair
CenturyLink

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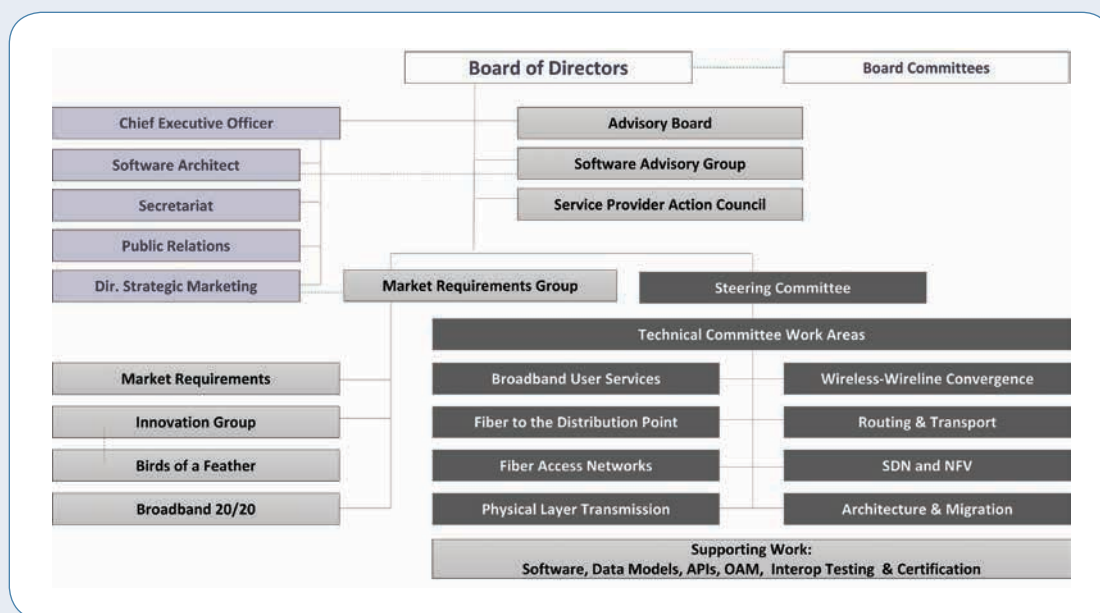
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WORK OF THE BROADBAND FORUM

The following structure provides the framework for the work of the Broadband Forum. The latest information is to be found on the members' collaboration site wiki.broadband-forum.org



Service Provider Action Council

The SPAC (Service Provider Action Council) is an important and influential standing committee that keeps the Forum connected to user requirements and the key financial realities of the market. Open exclusively to the service provider membership it offers the Broadband Forum continuous direction on industry requirements and areas of innovation. It works to ensure that strategic work items have the service provider engagement needed to achieve timely standards development

Mauro Tilocca, Telecom Italia - SPAC Chair



Steering Committee

The steering committee sets the strategic direction for the Technical Committee. It played a key role in 2015 in the re-engineering of the Broadband Forum. It oversees ongoing work of the Forum and streamlines the instigation of development of new projects.

Michael Fargano, CenturyLink – Technical Committee and Steering Committee Chair

Software Advisory Group

The SAG (Software Advisory Group) comprised of contributing Forum member companies met for the first time in 2016. It provides a center of software expertise acting as a “think tank” within the Forum, as well as advising on engagements with external SDOs and Open Source (OS) organizations. It will also be looking at the processes needed to enable the Broadband Forum to work successfully as a software-focused organization – for example, using tools such as GitHub to allow agile creation, review, publication and updating of software deliverables.

The group began addressing the challenges of IPR in open-sourcing software developments - RAND (reasonable fair and non-discriminatory) basis and RAND-Z (zero) licensing. A key issue is balancing the Forum's role on the definition of requirements and service attributes with the implementation of code and prototyping.

William Lupton, BBF – SAG Chair

Innovation Group

The Innovation Track was formed as the incubator for new projects such as the developments in 5G. As envisaged in the Broadband 20/20 vision document, the Innovation Track began work on Broadband Assured IP Services. The Forum has long recognized the need for performance-assured services that are secure, standardized, on-demand and user-initiated and is leveraging several new technologies (SDN, NFV, G.fast, etc.), its IP expertise and experience with more than 350 million TR-069 installations.

There are many use cases for Broadband Assured Service (BAS) but the most pressing is for cloud service delivery. The Forum's priority is to define and deploy connectionless user selectable services that enhance the performance (QoS) of Internet services and without the inherent uncertainties of insecure basic Internet Access connectivity.

The Innovation Track also works with various member groups to host “Birds of a Feather” events such as the one on 5G held in 2015. 5G will push the envelope of performance to provide for example much greater throughput, much lower latency, ultra-high reliability, much higher connectivity density, and higher mobility range.

Christele Bouchat, Nokia and Mauro Tilocca, Telecom Italia – Co-Chairs

Architecture and Migration

The Architecture and Migration Work Area defines the architecture of Broadband Forum's work. This identifies and documents the key functionalities and relationships between entities to facilitate the transition of networks to encompass new practices such as virtualization while documenting the key functionalities that need to be brought forward to enable a seamless evolution path. A critical element of the work is the long-term support of existing and new physical and statically managed network elements alongside agile and virtualized functions in what effectively will be a stable hybrid network. This enables seamless migration based on market acceptance on new technologies, protection of existing infrastructure investment and normal spread of deployment in different territories.

Business Impact: The work creates the necessary foundation for all the work of the Broadband Forum. It underpins all the new value-added services and application delivery for fixed and mobile access networks, home and business that can now be deployed at the pace of each market. Co-existence of physical and virtualized solutions and from static and dynamic services will create a hybrid broadband network mitigating the risks to existing revenue and enabling market-paced migration.

Work Area Directors: David Thorne, BT; David Allan, Ericsson

Broadband User Services

The Broadband User Services Work Area provides the broadband industry with technical specifications, implementation guides, reference implementations, test plans, and marketing white papers for the deployment, management, and consumption of services by the broadband end user. This Work Area represents the end user perspective when incorporating into the Broadband Forum architecture.

Business Impact: The Broadband User Services Work Area develops specifications and publications to create a new kind of the Broadband experience for the end user and provides new means for service providers and application developers to monetize the broadband user's connection. This ranges from on-demand performance assured business and entertainment services, IoT services related to energy, security, environment, etc. to user control of what can become the data center in the home and small business managed and control with zero-touch diagnostics. All of which opens large markets and profitable business models.

Work Area Directors: John Blackford, Arris, Jason Walls, QA Cafe

Fiber Access Networks

To define the requirements for deploying Broadband Forum network architectures in fiber access technologies so as to accelerate deployments and ensuring interoperability.

Business Impact: This Work Area's focus along with the Physical Layer Transmission area is on both cost savings and acceleration of time to

market. Standardized interoperability and certification create a trusted base of equipment and services without which significant investments in time and resources can cause years of delay and in-service failures that impact revenue and credibility. Interoperability provides invaluable intelligence as feedback to both developers and implementers of new products and services. As the move to virtualized devices with non-deterministic functions and performance becomes a reality, the need for interoperability testing and reference configurations will become critical.

Work Area Directors: Greg Bathrick, Calix Networks; Wei Lin, Huawei Technologies

Fiber to the Distribution Point

Objective: to establish common related technical specification for FTThp to ensure maximal equipment and management interoperability.

Business Impact: The Fiber to the Distribution Point (FTThp) network offers many new important benefits to operators and its customers. First, it allows deployment of FTTH ultra-fast broadband network without having to install fiber at the customer premises. This increases the service take-up rate and requires zero-touch provider provisioning with customer install, no rewiring and no truck roll. Secondly, it offers the opportunity to lower OpEx through reverse powering and remote connectivity reconfiguration. It opens up

new opportunities to service multi-tenant/dwelling business and residential locations with different requirements. Finally, the ultra-fast broadband network opens a new market for provisioning of high-value performance-assured applications and services. By developing specifications for architecture, management and interoperability, the FTTdp Work Area plays a key role in accelerating time to market.

Work Area Directors: *Christopher Croot, BT; Sven Ooghe, Nokia*

Physical Layer Transmission

The Physical Layer Transmission Work Area provides test plans, technical documentation, and marketing papers to enable multi-vendor interoperability in deployments for both access and in-premises networks.

Business Impact: As with the Fiber Access Networks work area, the focus is on cost reduction and accelerating time to market. Standardized interoperability and certification create a trusted base of equipment and services avoiding large investments in time, repeated customized one-off and NxN testing that impact revenue and credibility. Interoperability provides invaluable intelligence as feedback to both developers and implementers of new products and services. As the move to open sourcing gains momentum the role of interoperability becomes ever more necessary.

Work Area Director: *Les Brown, Huawei Technologies*

Routing and Transport

To produce industry agreed specifications of the routing and transport network infrastructure for applications such as mobile backhaul/transport infrastructure, data center interconnect, video distribution etc. This work typically being in the form of architecture, equipment requirements, interoperability and conformance test plans, implementation guidance and education materials.

Business Impact: This work accelerates industry adoption of new technology and deployment of new services and infrastructure. The work includes the introduction of and migration to SDN and virtualization of the network infrastructure where commercially viable.

Work Area Director: *David Sinicrope, Ericsson*

SDN and NFV

This Work Area focuses on the introduction of Software Defined Networking (SDN) and Network Functions Virtualization (NFV), including migration and coexistence of physical and virtual elements, into the broadband network. Important developments in publishing the Network enhanced Residential Gateway and the formation of the Cloud CO project took place in 2016.

Business Impact: The migration to SDN and NFV in the broadband network facilitates agile deployment of new customized distributed broadband services and applications. This enables new revenues and provider differentiation while managing OpEx both in the access network and in single and multi-tenant residential and business locations.

Work Area Directors: *Ken Ko, ADTRAN; George Dobrowski, Huawei Technologies*

Wireline-Wireless Convergence

This Work Area addresses the increasing synergy between wireless access technologies and wired access technologies, as well as that of wireless networking and wireline networking functions. Activities examine scenarios where wireless access technologies play a role or mobile networking is involved in the wireline network.

Business Impact: The principle impact on the market addresses the ability to create seamless connectivity to either wireline or wireless access connectivity from single or multi-tenant business and residential locations that will radically alter users' network experience. This is the next step in the evolution from the automatic connectivity to available Wi-Fi networks and will become the norm with the advent of 5G.

Work Area Directors: *David Allan, Ericsson; Hongyu Li, Huawei Technologies*

BBF Software Models

A critical area of all the work areas in the Forum is the development of software models, specifically, the development of both data and information models that accelerate the implementation of agile services. 2015 saw the appointment of Software Architect William Lupton who also leads the Software Advisory Group. Significant projects in 2016 were YANG Models for FTTdp (TR-355) consisting of seven YANG data model software specifications and the Common YANG Project.

Impact on Work Areas

The emergence of SDN and NFV is clearly important in almost every aspect of the above work and data modelling impacts many of the areas.

Technical Work Published in 2016

| | |
|------------------------------|--|
| TR-115 Issue 3 | VDSL2 Functionality Test Plan |
| TR-124 Issue 5 | Functional Requirements for Broadband Residential Gateway Devices |
| TR-181 Issue 2 Amendment 11 | Device Data Model for TR-069 |
| TR-181 Issue 2 Corrigendum 2 | Device Data Model for TR-069 |
| TR-196 Issue 2 Corrigendum 3 | Femto Access Point Service Data Model |
| IR-247 Issue 3 Amendment 1 | GPON & XG-PON1 ONU Conformance Test Plan |
| TR-273 Amendment 1 | Testing of Bonded, Multi-Pair xDSL Systems |
| MR-276 | Lessons Learned from IPv4 to IPv6 Migration and Guidance for Future Deployment |
| TR-280 | ITU-T PON in the context of TR-178 |
| MR-311 | Overview of Fiber Infrastructure Management Systems |
| TR-317 | Network Enhanced Residential Gateway |
| TR-319 Part B | Achieving Packet Network Optimization using DWDM Interfaces - Physically Separated/Logically Separated Model |
| TR-341 | Radius Attributes Catalog |
| TR-345 | Broadband Network Gateway and Network Function Virtualization |
| TR-348 | Hybrid Access for Broadband Networks |
| TR-349 | DSL Data Sharing |
| TR-355 | YANG Modules for FTTdp Management |
| TR-356 | Alternate Management Path from Home Gateway |
| TR-359 | A Framework For Virtualization |
| TR-371 | G.fast Vector of Profiles (VoP) Managed Object Structure |

Testing & Certification Programs

Since its inception, the Forum has had an objective to establish interoperability in the broadband marketplace. Initially focused exclusively on DSL, the scope of that commitment has extended to meeting end-to-end broadband testing requirements including DSL, fiber, MPLS and home networking related testing. Supporting the standards set by SDOs, our program includes 1) developing common test requirements, 2) establishing a test suite, which normally includes functional as well as performance tests, and finally 3) hosting test events also known as plug fests,

which can include private members-only multivendor plug fests, conformance testing, public interoperability demonstrations and/or certification.

Key areas include:

CWMP TR-069 Related Testing & Certification
Fiber Testing & Certification (G-PON, EPON)
xDSL (ADSL, SHDSL, ADSL2plus, VDSL2)
Home Networking Related Testing (G.hn)
Approved Test Laboratory (ATL) Program



The Broadband Forum Approved Test Laboratory (ATL) program has been established to benefit the industry by having independent, yet vetted, test laboratories, thus enabling vendors and operators to choose test labs with a heightened level of confidence that the labs have the right competence.

INDUSTRY INITIATIVES AND ENHANCED COLLABORATION

Broadband 20/20 Vision

The Forum's new Broadband 20/20 vision launched in 2015 continues its roadmap of unlocking the potential new markets and profitable revenue growth by leveraging new technologies in the home, small business and multi-user infrastructure of the broadband network. The innovative use of NFV, SDN, Ultra-Fast access and IoT (Internet of Things) and, when formally defined, 5G, enables the delivery of exciting ultra-fast broadband services, with distributed compute and storage to anywhere and any device in the home and business locations.

Liaison Program

There have been many official liaisons with other SDOs including, OPNFV, 3GPP, ATIS, DLNA, ETSI TM6 & NFV ISG, IETF, ITU-T study groups, NICC, ONF, and Z-Wave Alliance. In addition, there have been interactions with many of the open source organizations. Much of those discussions have been in the area of intellectual property, proprietary solutions and interoperability solutions, which will have continued discussions in the coming year.

Interoperability Events

The Forum hosted a number of G.fast Interoperability demonstrations including at the annual Broadband World Forum event in London.

Events

The Forum's 2016 members' meetings were held in Hong Kong, Prague, Berlin and Kansas City and a special interim meeting in Atlanta as mentioned in the chairman's introduction. 2017 meetings are scheduled in Chicago, Taiwan, Helsinki and New Orleans. Full details are on the forum's web site and the members wiki. Several interim technical meetings are also scheduled.

The Broadband Forum continues to have a strong, worldwide presence at key industry conferences and events related to broadband intelligent home, etc. Details are to be found on the public website.

New Collaborative Tools

2016 saw the development and implementation of a new set of state-of-the-art web-based tools designed to create an agile environment for faster collaboration and development of work augmenting the BBF's contribution site. Currently these include the Atlassian suite of tools: Confluence Collaborative Wiki, Bitbucket the Forum's IPR protected software repository and Jira providing project management for discussions on issues raised during development of data models and standards.



These tools currently consist of 30 free community licenses with more to come. Although only formally opened to the general membership in October, at time of writing, the Confluence wiki alone has more than 600 registered member users with well over 300 separate content pages! Access and sign-up for these tools is via wiki.broadband-forum.org.

New Public Web site

The public site, www.broadband-forum.org, was completely recreated in 2016 and features new descriptive content on existing upcoming work and new videos by the Work Area Directors and Project Leaders.

Initiatives

MEMBER RECOGNITION

In 2016 many of our members were recognized for their valuable contributions to the industry and specifically to the Broadband Forum. Below are the lists of awards and recipients. We thank each person and each company for their outstanding support.

Leadership Award

This award is given to outgoing, commendable Leaders. These individuals, who have dedicated their time and leadership ability to establishing our success, have gone above and beyond the call of duty within the Broadband Forum and we thank them for their service.

2016 Recipients

Charles "Drew" Rexrode, Verizon
Marcin Drzymala, Orange

Outstanding Contributor Award

The Top Contributor award is given to individuals who, during the previous year, went above and beyond the call of duty within the Forum Work Areas by making many valuable contributions throughout the year as well as effectively moving the consensus process forward. Both the quantity and quality of the contributions are taken in to consideration.

2016 Recipients

Klaus Wich, Axiros
Les Humphrey, BT
Rao, Cherukuri, Juniper Networks
Ken Schneider, Telebyte
Bruno Cornaglia, Vodafone

BROADBAND FORUM MEMBERS

Reflecting high levels of active participation and the radical changes in process in the industry, membership levels were maintained.

5V Technologies, Ltd.
A1 Telekom Austria AG
Actiontec Electronics
ADTRAN
Advanced Digital Broadcast S.A.
ADVA Optical Networking Ltd
Agama Technologies
Allied Telesis
Altice Labs, S.A.
Arcadyan Technology Corp.
Arris
Askey Computer Corp.
ASSIA, Inc.
AT&T
A TLC SRL
AVM
AVSystem sp.j.
Axiros
Beijing Internet Institute
Bell Canada
Blu-Castle SA
Botswana Fibre Networks
Broadcom
BT
Calix Networks
Cambridge Industries Group Limited
CenturyLink
Charter Communications
China Telecom
China Unicom
Chunghwa Telecom Labs
Ciena
Comcast
CommScope
Continental Automated Buildings Association (CABA)
Cyta
D-Link
DASAN Zhong Solutions
Deutsche Telekom AG
Dimark Software, Inc.
ECONET
Eircom Ltd
Ericsson
ETRI
EXFO
FASTWEB SPA
Fiberhome Telecommunications Technologies CO., LTD.
Foxconn
Foxconn Interconnect Technology, Ltd.
Fraunhofer Institute for Embedded Systems and Communication Technologies ESK
Friendly Technologies (FTL) Ltd.
Gemtek Technology Co.
Genexis BV
Google Inc
Greenlee Communications
GreenWave Systems
HiSilicon Technologies CO., LIMITED
Huawei Technologies Co., Ltd.
Icoteria
Inango Systems Ltd
Incognito Software
Industry Canada
Industry Development Augmentation Division
Infinera
Informa T & M (Broadband World Forum)
Intec
Intel
iPhotonix, LLC
ITRI
Juniper Networks
Keymile
KPN
LAN
Layer123
LEA Networks
Marvell Semiconductor Inc.
Metanoia Communications
Methode Electronics
Microsemi
MT2 SAS
National Broadband Network
National Exchange Carrier Association
National Media and Infocommunications Authority
NEC
NetComm Wireless Limited
Nokia
NTT Corporation
Observe Telecom
Oliver Solutions
OPT New Caledonia
Orange
Point Topic
Proximus
QA Cafe
Qualcomm Incorporated
RAD Data Communications
Research Institute of Telecommunications Transmission (RITT)
Sagemcom Broadband
SaskTel
Sckipio Technologies
ServComm Inc.
Sigma Designs
Sky plc
SmartRG, Inc.
SoftBank
Spark New Zealand
Sparnex Instruments
Spirent Communications
Sumitomo Electric Industries
Swisscom (Switzerland) Ltd.
TDC A/S
Technicolor
Tecnalia Research & Innovation
Tecom Co., LTD.
Teldat
Telebyte, Inc.
Telecom Italia S.p.A
Telefonica S.A.
Telekom Malaysia R&D
Telenet NV
Telenor
TeliaSonera
Telkom SA Ltd
Tellabs
Telstra Corporation Ltd
TELUS Communications, Inc.
Tessares
Tilgin
Time Warner Cable
TNO
TP-Link
Triductor Technology
Trinity College Dublin
Ubilinx Technology, Inc.
UNH InterOperability Lab
VeEx
Verizon
Viavi Solutions
VMware
Vodafone Group Services
Westermo
Zhong Technologies
Zinwell Corporation
ZTE Corporation
Zyxel Communications

Members

BROADBAND FORUM MEMBERSHIP

Broadband Forum Membership Levels for 2017

For 2017, membership levels have been expanded to provide new active and informational participation levels further details are covered on the Broadband Forum public site and here we focus on the benefits for principal members



Principal, Small Principal and Start-up Member Privileges and Benefits

- Shape and influence the entire industry and develop new markets by submitting contributions to create new standards, software and best practices as the work of the Forum
- Unlimited access to a large library of technical work-in-progress contributions, marketing contributions, meeting minutes, discussions and tutorials, member contacts on the BBF Members-only site
- Access advanced information on the Forum's work and the Broadband industry's direction ahead of the market to develop your own winning strategy
- Unlimited access to the new members' collaborative wiki and Bitbucket code repository
- Unlimited opportunities to collaborate with your peers on conference calls
- Network with experts and leaders in many of the top industry companies
- Opportunity to represent the Broadband Forum as an industry authority
- Eligibility to run for Board of Director and Committee officer positions
- Eligible for committee Work Area chair positions
- Voting rights on all technical matters and Board of Directors elections
- Members' newsletter communications and updates on new work
- Attend all sessions of annual & general meetings, frequent conference calls (no limit to the number of participating eligible employees)
- Participation at interim meetings and conference calls
- Recognition of company membership on BBF public web site
- Use of BBF Logo on company marketing materials
- Use of the BBF logo to aid in promoting your company's adherence to global standards
- System vendors: Participate in BBF Certification Programs to meet frequently mandated RFP product compliance, increase recognition and perceived value and recognition of Certification on BBF public web site
- Service Providers: Participation in the Service Provider Action Council meetings, projects and calls



Choosing Your Participation

Principal Membership: Simply put, anyone serious about leadership at this innovative time in the Broadband community should be a principal member to help steer the industry and accelerate their own commercial plans. For service providers it affords the opportunity to keep the market focused on practical solutions that will drive end-customer and wholesale revenues. Principal membership offers the most value and avoids the risk of missing out on new initiatives that can change the market. The question you should ask is not “Why should we join?” but “Why have we NOT joined?”

Small Company Principal Membership: Represents the best value in the industry for such an influential role. This level of membership is geared for growing companies or companies that focus on smaller niche markets.

Startup Company Membership: This new membership level is geared for startups companies that bring new hardware, components, software or services to market. Goal: encourage new member participation for market entrants and provide the opportunity for innovative contributions and direct communication with potential clients.

Auditing Membership: Is a great option for (1) growing companies seeking recognition for new products, (2) Local and regional Internet service providers wanting to use the Broadband Forum work to enable new growth opportunities, but have limited resources to make contributions (3) companies with limited resources but who need to obtain independent guidance on best practices for implementation of SDN, NFV, G.fast, 5G, IoT, converged wireline/wireless software models and interoperability in Broadband networks (4) consumer electronics companies, OTT providers, etc., who wish to track adjacent technology and business areas, but do not have the available resources to actively contribute.

Associate Membership: Is open to government organizations, educational institutions and non-profit industry associations. It provides a very affordable way to fully participate and use the independent work and best practices documents of the Forum to set implementation strategies based on the industry’s collective best minds.

Individual Membership: Provides a new way for individual consultants, researchers, independent industry specialists and software developers to connect to the leading edge of the market. Individual membership is subject to approval by the BBF CEO.

Membership Requirements

| Membership level | Requirements | Annual Subscriptions (\$US) |
|------------------------|---|-----------------------------|
| Principal Membership | No company conditions | \$13,650 |
| Small Principal Member | Less than \$20m revenue | \$5,875 |
| Startup Member | Membership Period max 2 years only Pre-revenue, founded 18 months or less, or <\$5m revenue per year Confirmation letter from Company CEO Approval at the discretion of BBF CEO. Please contact info@broadband-forum.org | On application |
| Auditing Member | No company conditions | \$4,850 |
| Associate Member | Not-for-profit Educational organizations Industry Associations | \$1,300 |
| Individual Member | Independent individual membership (e.g. industry consultant, researcher) May not be proxy or surrogate for company membership by affiliated company May not pass member-only information to third parties Approval at the discretion of BBF CEO. Please contact info@broadband-forum.org | On application |

FINANCIAL REPORT

Auditors John Waddell & Co, Certified Public Accountants, have audited the financial statements of the Broadband Forum. The following gives an overview over the key financial figures and indicators of the Broadband Forum.

STATEMENT OF FINANCIAL POSITION:

December 31, 2016 and 2015

ASSETS

| | <u>2016</u> | <u>2015</u> |
|--|---------------------------|---------------------------|
| Cash | \$ 547,760 | \$ 680,402 |
| Accounts receivable | 12,408 | - |
| Contribution receivable | 6,498 | - |
| Accrued interest receivable | 4,389 | 4,976 |
| Prepaid expenses | 37,748 | 109,171 |
| Website, net of accumulated amortization | 7,058 | - |
| Investment in marketable securities | \$ 1,526,494 | \$ 1,654,337 |
| | <u><u>\$2,142,355</u></u> | <u><u>\$2,448,886</u></u> |

LIABILITIES AND NET ASSETS

| | | |
|--------------------------|---------------------------|---------------------------|
| Liabilities | | |
| Accounts payable | \$ 99,595 | \$ 75,371 |
| Deferred membership dues | 554,150 | 502,310 |
| | <u>653,745</u> | <u>577,681</u> |
| Net Assets | | |
| Temporarily restricted | 16,498 | |
| Unrestricted | 1,472,112 | 1,871,205 |
| | <u><u>\$2,142,355</u></u> | <u><u>\$2,448,886</u></u> |

STATEMENTS OF ACTIVITIES

For the Years Ended December 31, 2016 and 2015

| | <u>Unrestricted</u> | <u>Temporarily Restricted</u> | <u>2016 Total</u> | <u>2015 Total</u> |
|--|---------------------------|-----------------------------------|---------------------------|---------------------------|
| REVENUE | | | | |
| Membership dues | \$ 1,211,250 | \$ – | \$ 1,211,250 | \$1,349,665 |
| Meeting fees | 211,180 | – | 211,180 | 236,765 |
| Sponsorship fees | 77,110 | – | 77,110 | 50,000 |
| Interest and investment income (loss) | 52,123 | – | 52,123 | (18,779) |
| Contribution | – | 16,498 | 16,498 | – |
| Other income | 2,546 | – | 2,546 | 3,250 |
| Total Revenue | <u>1,554,209</u> | <u>16,498</u> | <u>1,570,707</u> | <u>1,620,901</u> |
| EXPENSES | | | | |
| Meetings | 608,091 | – | 608,091 | 453,311 |
| Tradeshows | 44,742 | – | 44,742 | 42,848 |
| Management fees | 677,216 | – | 677,216 | 650,520 |
| Marketing and public relations | 339,594 | – | 339,594 | 342,671 |
| General and administration | 107,509 | – | 107,509 | 121,692 |
| Strategic initiatives | 171,610 | – | 171,610 | 129,669 |
| Miscellaneous/contingency | 4,540 | – | 4,540 | 1,655 |
| Total Expenses | <u>1,953,302</u> | <u>–</u> | <u>1,953,302</u> | <u>1,742,366</u> |
| Change in Net Assets | <u>(399,093)</u> | <u>16,498</u> | <u>(382,595)</u> | <u>(121,465)</u> |
| NET ASSETS | | | | |
| Beginning of Year | <u>1,871,205</u> | <u>–</u> | <u>1,871,205</u> | <u>1,992,670</u> |
| End of Year | <u>\$1,472,112</u> | <u>\$ 16,498</u> | <u>\$1,488,610</u> | <u>\$1,871,205</u> |



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