TELECOM INFRA PROJECT

FIXED BROADBAND

This Project Group Charter establishes the scope, intellectual property and copyright terms used to develop the materials identified in this Project Group. Only Participants that execute this Working Group Charter will be bound by its terms and be permitted to participate in this Project Group and shall be considered "Contributors" in the Project Group as defined in the Telecom Infra Project IPR Policy document.

TIP Board of Directors Approval Date: [_____]

1. PROJECT GROUP NAME AND TYPE

NAME: Fixed Broadband

TYPE: Product Group

2. PURPOSE

The Fixed Broadband project group is focused on the incubation, test and validation of open and disaggregated technologies relevant to fixed line networks. This work complements existing activities in adjacent project groups by driving the design, development, testing and validation of products and solutions commonly deployed by fixed line operators.

The work of this project group will be optimised for:

- **Interoperability**, enabling operators to build heterogeneous networks from a diverse range of suppliers
- **Modularity**, ensuring that a variety of deployment models can be achieved without significant bespoke customisation
- **Sustainability**, leaving ample room for supplier differentiation and innovation
- **Simplicity**, lowering the barrier to entry for new suppliers, and reducing operational complexity
- **Flexibility**, facilitating the deployment of best-of-breed solutions and accelerating innovation

3. GOAL

The goals of the project group are:

- To promote the adoption of modern and secure technologies based on open and standardised interfaces
- To align the technical approach and aggregate demand across multiple operators and multiple regions
- To improve supply chain diversity, unlocking new business opportunities for suppliers and increasing choice for operators

The project group will work collaboratively to define Deliverables (defined in Section 5) for open Fixed Broadband products for use in TIP test and validation activities including field trials and to support product listings on TIP Exchange including its ribbons and badges.

In order to support the creation of the Deliverables and support the Purpose, the Project Group will work with ecosystem partners and complementary organizations that focus on delivering standards. Any such work work will be covered via third party collaboration agreements with TIP, which will be subject to TIP's Liaison Policy.

4. SCOPE

The proposed Deliverables will encompass the technology functions most commonly deployed by fixed broadband operators. Each of the proposed workstreams will be addressing the building blocks (HW/SW) for a particular technology function that is needed to implement one or more operator use cases. Each workstream will also describe associated deployment scenarios and architectures for the aforementioned building block requirements and deployment use cases, both of which are based on operator input. The workstreams will be identified as subgroups.

The Deliverables will also set forth the guidelines and requirements for implementing and testing products in connection with the Deliverables.

5. WORKSTREAMS AND DELIVERABLES

Each of the workstreams identified below will be addressing the building blocks (HW/SW) of different technologies most commonly deployed by fixed broadband operators.

The following workstreams are envisioned for the Project Group, focusing on specific components of the network. This is not an exhaustive list and may be

expanded to support industry need and in line with the Scope noted above. Any such expansion within Scope that does not require additional types of Deliverables will not require this PG Charter to be re-chartered:

- **OpenBNG**: Defines requirements for Broadband Network Gateway (BNG) devices, including relevant considerations for disaggregated network architectures and convergence between different access technologies
- **Fixed Access**: Defines requirements for access gateway devices, focusing primarily on gigabit-capable access technologies and associated transition architectures

The technical scope of each workstream covers the functional and non-functional characteristics of HW and SW components, plus any external interfaces. This work will also include relevant considerations for related/adjacent technologies, including:

- Technologies that are tightly coupled with Fixed Broadband components, and where there is a strong dependency between them (e.g. AAA infrastructure, SDN controllers). For these technologies, the Deliverables may also include detailed technical requirements that describe how they should be implemented and/or configured to meet an operator use case
- Technologies that are loosely coupled with Fixed Broadband functions, where there is a requirement to interoperate (e.g. IP/MPLS nodes). For these technologies, the Deliverables may provide high-level information and assumptions about how they should be implemented.

Proposed Project Group Deliverables: The following table defines the proposed Deliverables that the project group will draft and publish along with the TIP IPR terms and approval procures. Each project group will manage the finalization and publication of their Deliverables as noted below

This Project Group is not focused on developing interface specifications. Any change of Scope would require a recharter of the Project Group.

Intellectual Property Rights for each type of Deliverable are governed by a different policy or agreement, in each case approved by the TIP Board of Directors. The applicable policies or agreements are specified in the table below along with any procedures for approval and/or release of each Deliverable the Project Group intends to develop. All such policies and agreements may be found with TIP's Organizational Documents at: https://telecominfraproject.com/organizational-documents/ unless otherwise identified and attached to this PG Charter. No Project Group may develop Software without forming a separate Project Group using the TIP Software Project Group Charter Template.

No.	Deliverable	IPR Treatment	Approval Procedures

1	Use Case Definition and High-Level Requirements	Document_IPR_Policy	Versions by consensus of the Project Group; final approval by the Technical Committee
2	Requirement Documents and Detailed Requirements Documents	Document_IPR_Policy	Versions by consensus of the Project Group; final approval by the Technical Committee
3	White Papers or Case Study	Document_IPR_Policy	Initial version may be created in the Project Group, TIP Community Lab, or Field Trials; consensus driven approval in the Project Group, Lab or Trial; final approval by the Technical Committee if the PG chooses to publish
4	Test Plans for use in Lab and Trial activities, Test Reports, Lab Exit Reports, Field Trial Exit Reports	Document_IPR_Policy	Initial version may be created in the Project Group, TIP Community Lab, or Field Trials; consensus driven approval in the Project Group, Lab or Trial; final approval by the Technical Committee if the PG chooses to publish
5	Playbooks	Document_IPR_Policy	Versions by consensus of the Project Group; final approval by the Technical Committee

PARTICIPATION CRITERIA

Eligible to Sponsors and General Participants who have elected to be Full Participants and are in good standing.

A TIP Participant who wishes to participate in this PG must have its TIP Authorized Representative submit an application at https://member.telecominfraproject.com/get-started. The TIP Authorized Representative is the individual identified in the applicable Participant's General Participation Agreement.

No Participant shall be a participant of this PG until and unless TIP notifies the applicable Authorized Representative in writing that the application submitted by such Authorized Representative has been approved by TIP.

6. CHARTER UPDATE

This Project Group Charter will be updated to reflect any changes as set forth in the [Project Group Charter Revision Policy](#).

COLLABORATION AND COOPERATION
The group will be structured and managed as a single Project Group, with the option to create additional sub work streams as appropriate to meet community needs.

7. LEADERSHIP

PROPOSED CHAIRS
Vodafone and Telefonica

ACCEPTANCE

_____

Contact Name

_____

Contact Title

_____

Email Address

_____

Telephone Number (Include Country Code)

_____

Company Name

_____

Company Address, City, State, Country, Postal Code

_____

Company Web Page URL

_____

Primary services or products the company provides

_____   _____

Signature   Date

_____

Signed by (print name)