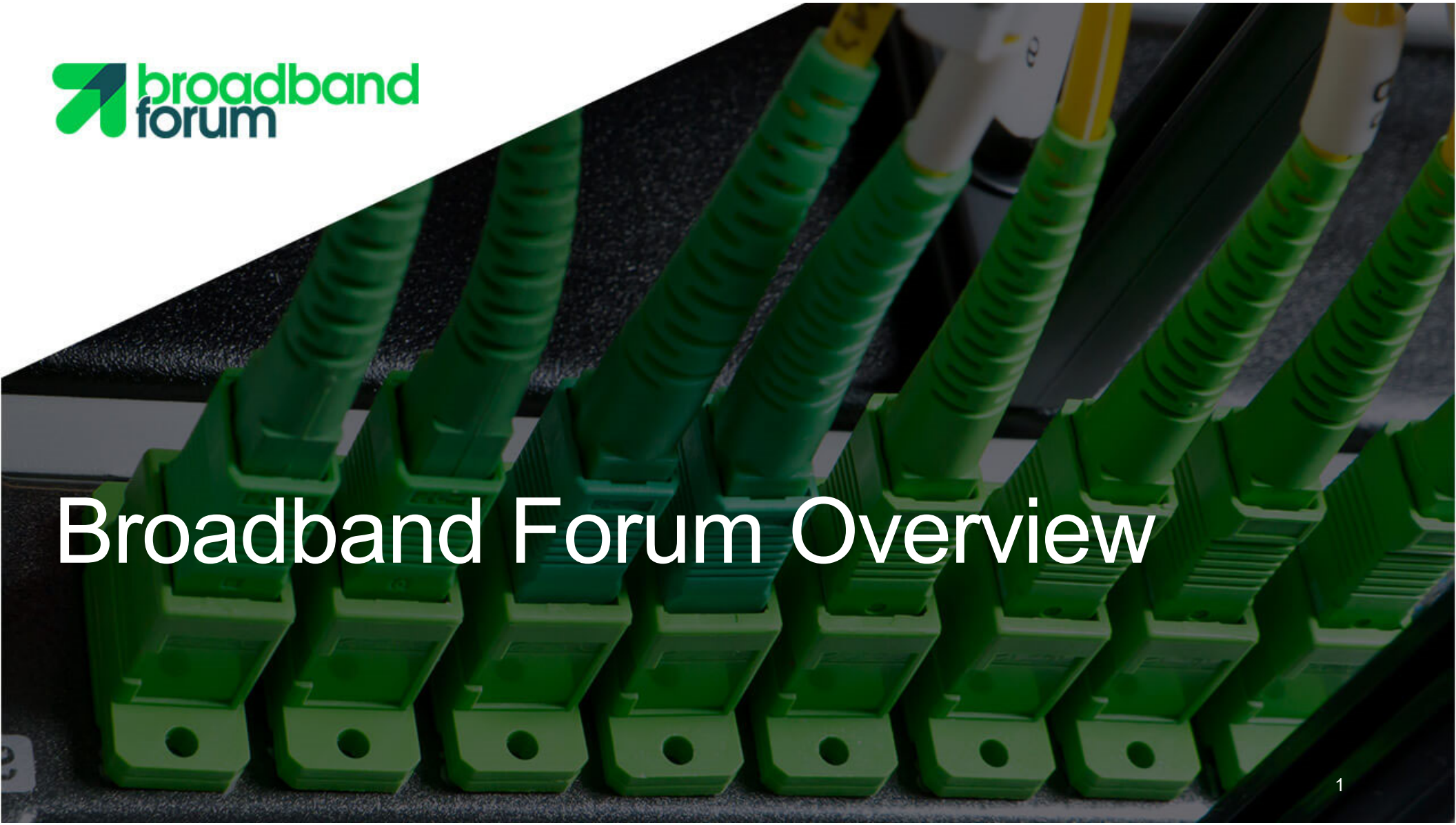


Broadband Forum Overview

The Broadband Forum

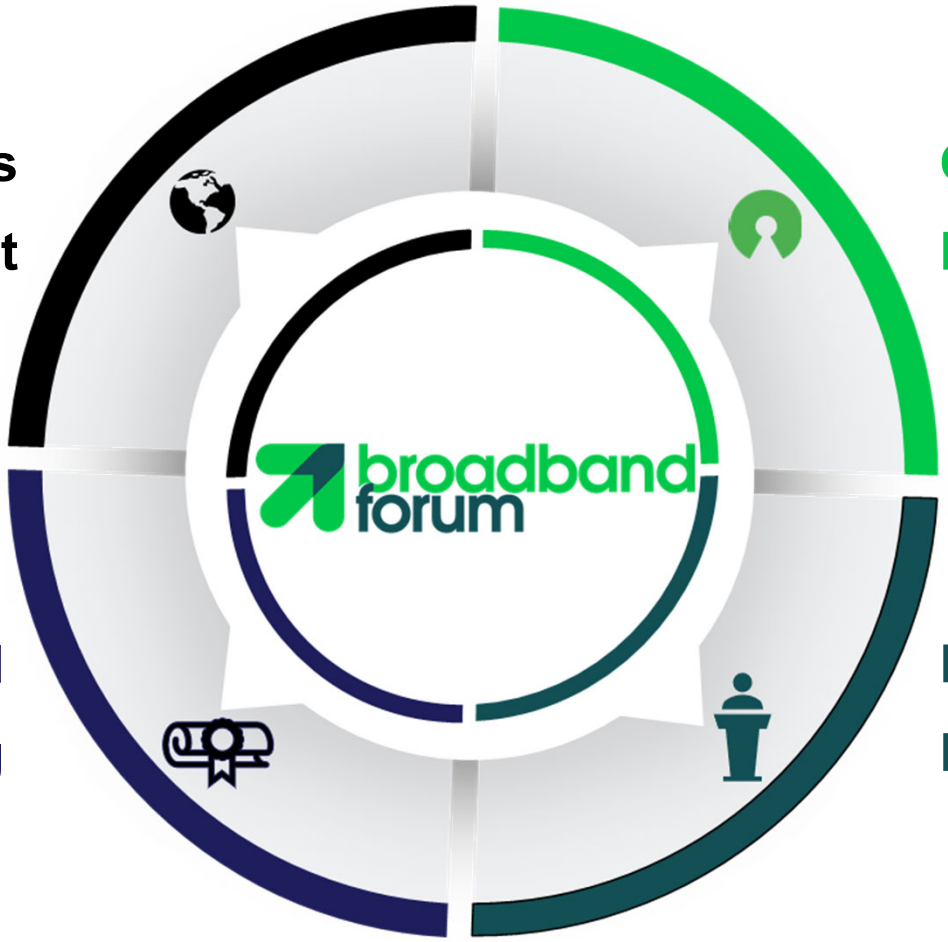
Our Vision: *A thriving, services-led broadband industry based on global collaboration, open standards, and open source that maximizes value for all stakeholders.*

Our Mission: *As the industry-recognized center of competence, we provide an accessible, efficient, and effective community where all broadband stakeholders can collaborate on, develop, and promote open standards and open software that provide the basis for deployable solutions for the global broadband industry.*

BBF Deliverables

Global Open Standards Development

Open Broadband Projects



Certification and Performance Testing

BASe: Industry Education

broadband forum

BBF Areas of Focus and Innovation

Connected Home

- *User Services Platform (USP)*
- *TR-069 (CWMP)*
- *Subscriber Network Infrastructure*
- *Subscriber Software, Hardware, and Applications*
- *Device Requirements*
- *Wi-Fi Performance*

5G

- *5G Fixed Mobile Convergence*
- *5G Transport*

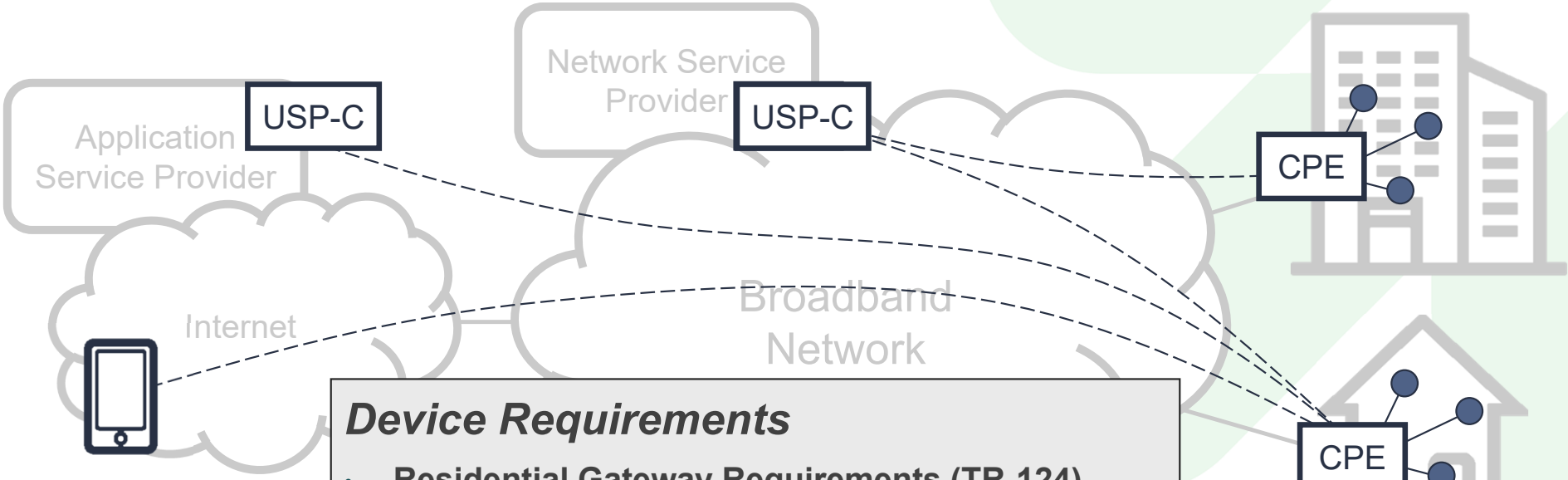
Cloud

- *CloudCO*
- *Virtualization*
- *Disaggregation*
- *FANS*

Access/Next

- *Fiber*
- *Copper*
- *Performance Measurement & Analysis*

Connected Home Open Standards



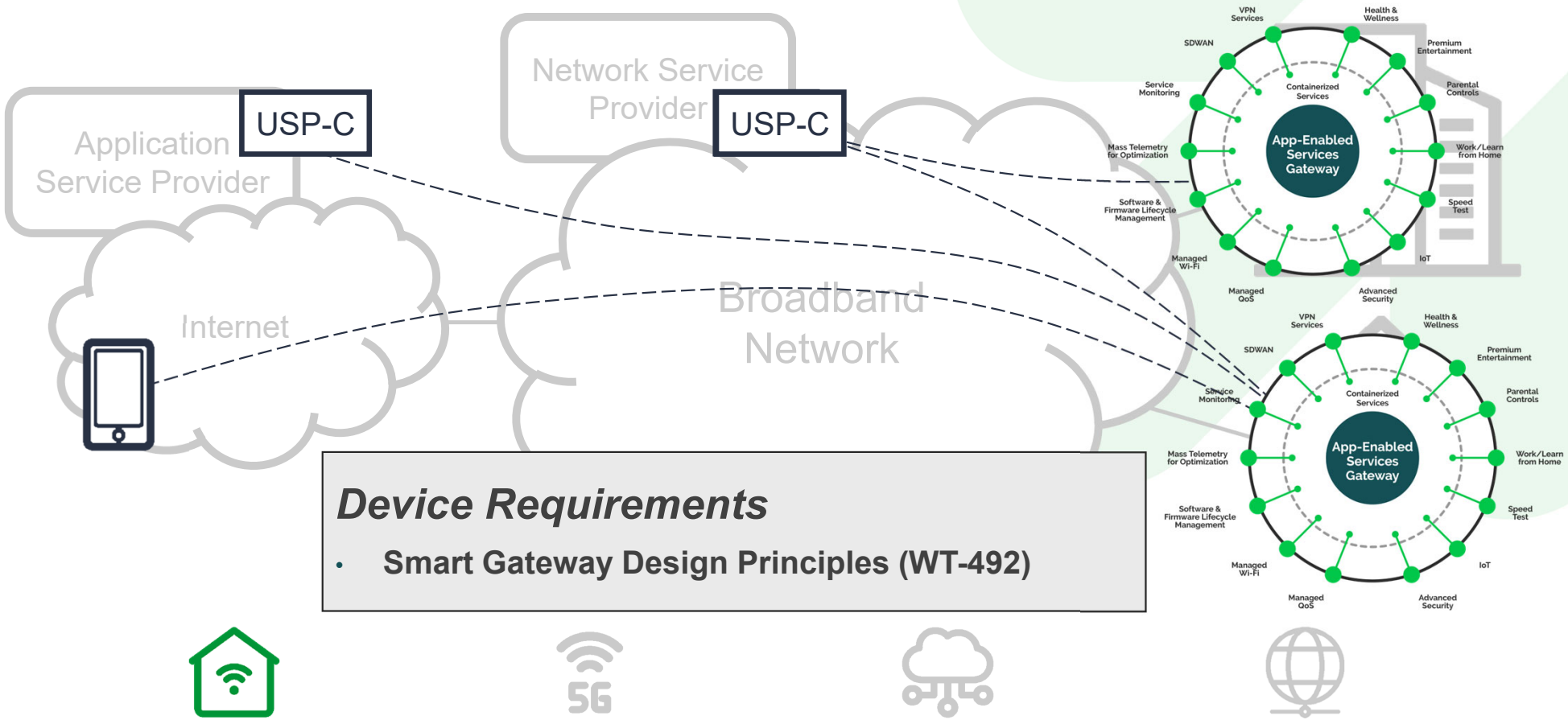
Device Requirements

- **Residential Gateway Requirements (TR-124)**
- **Device Data Models (TR-181 and others)**

Device Management

- **CPE WAN Management Protocol, CWMP (TR-069)**
- **User Services Platform, USP (TR-369, WT-479)**

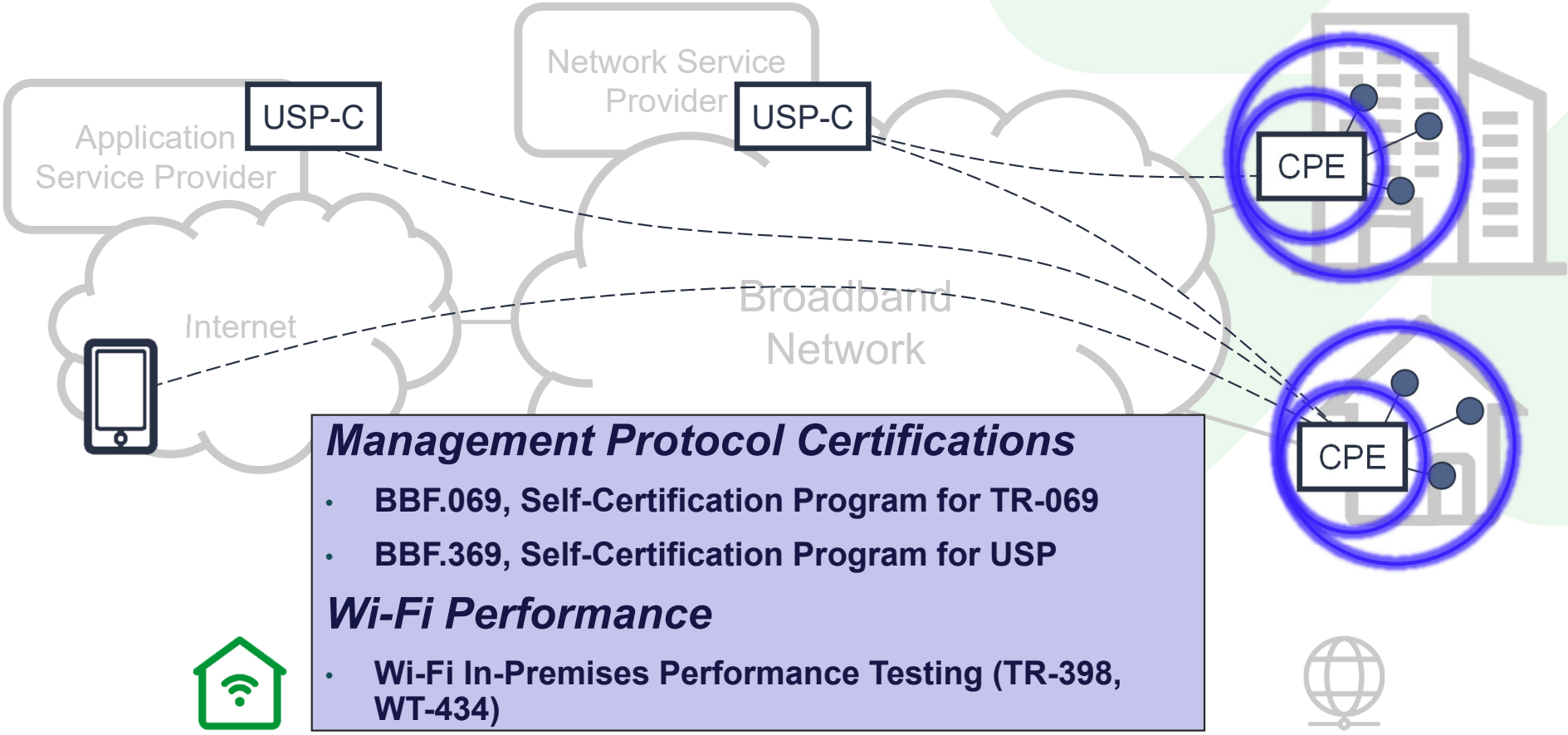
Connected Home Open Standards



Device Requirements

- **Smart Gateway Design Principles (WT-492)**

Connected Home Certification and Performance Testing



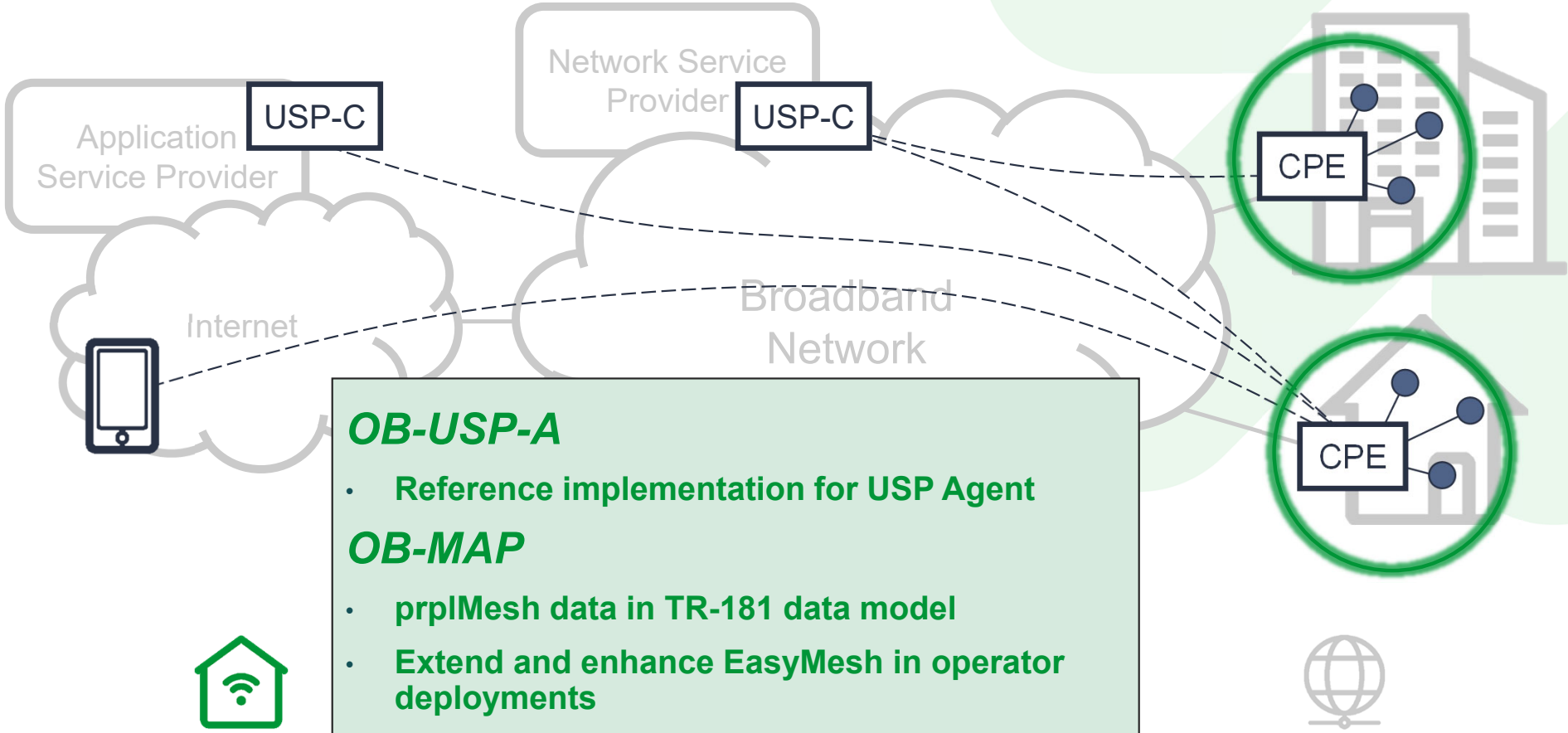
Management Protocol Certifications

- **BBF.069, Self-Certification Program for TR-069**
- **BBF.369, Self-Certification Program for USP**

Wi-Fi Performance

- **Wi-Fi In-Premises Performance Testing (TR-398, WT-434)**

Connected Home Open Broadband Projects



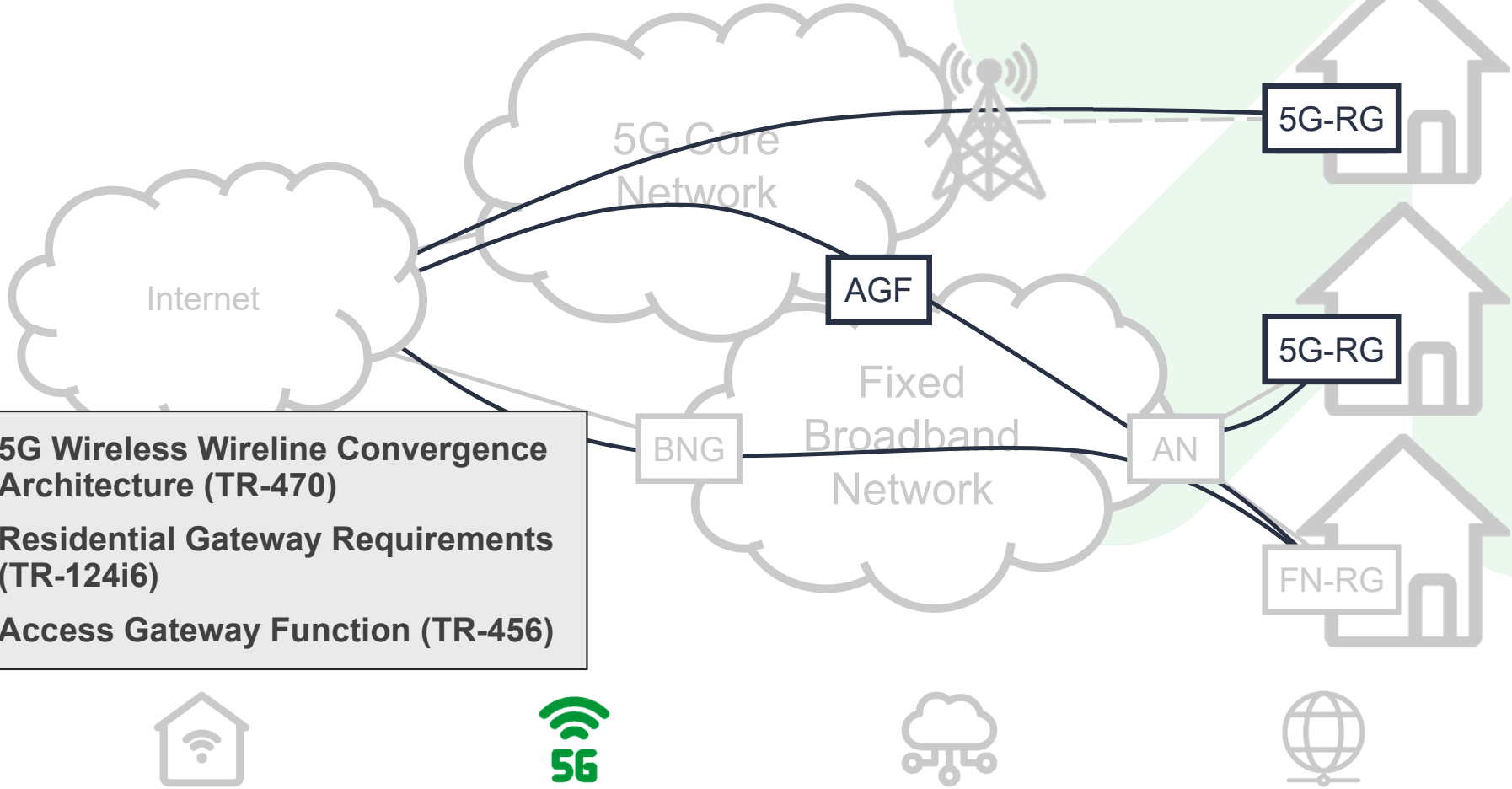
OB-USP-A

- **Reference implementation for USP Agent**

OB-MAP

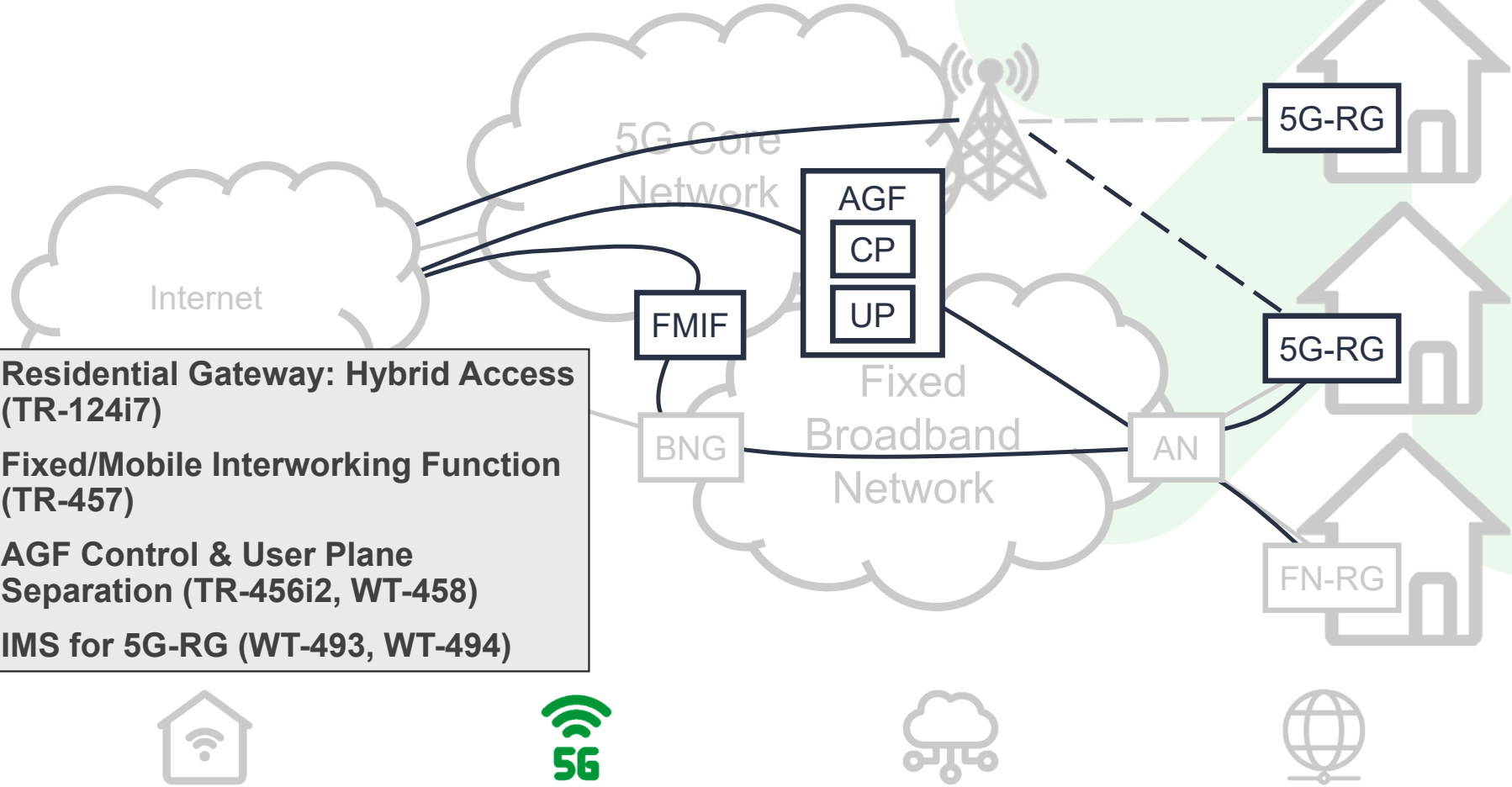
- **prplMesh data in TR-181 data model**
- **Extend and enhance EasyMesh in operator deployments**

BBF/5G Open Standards: Phase 1



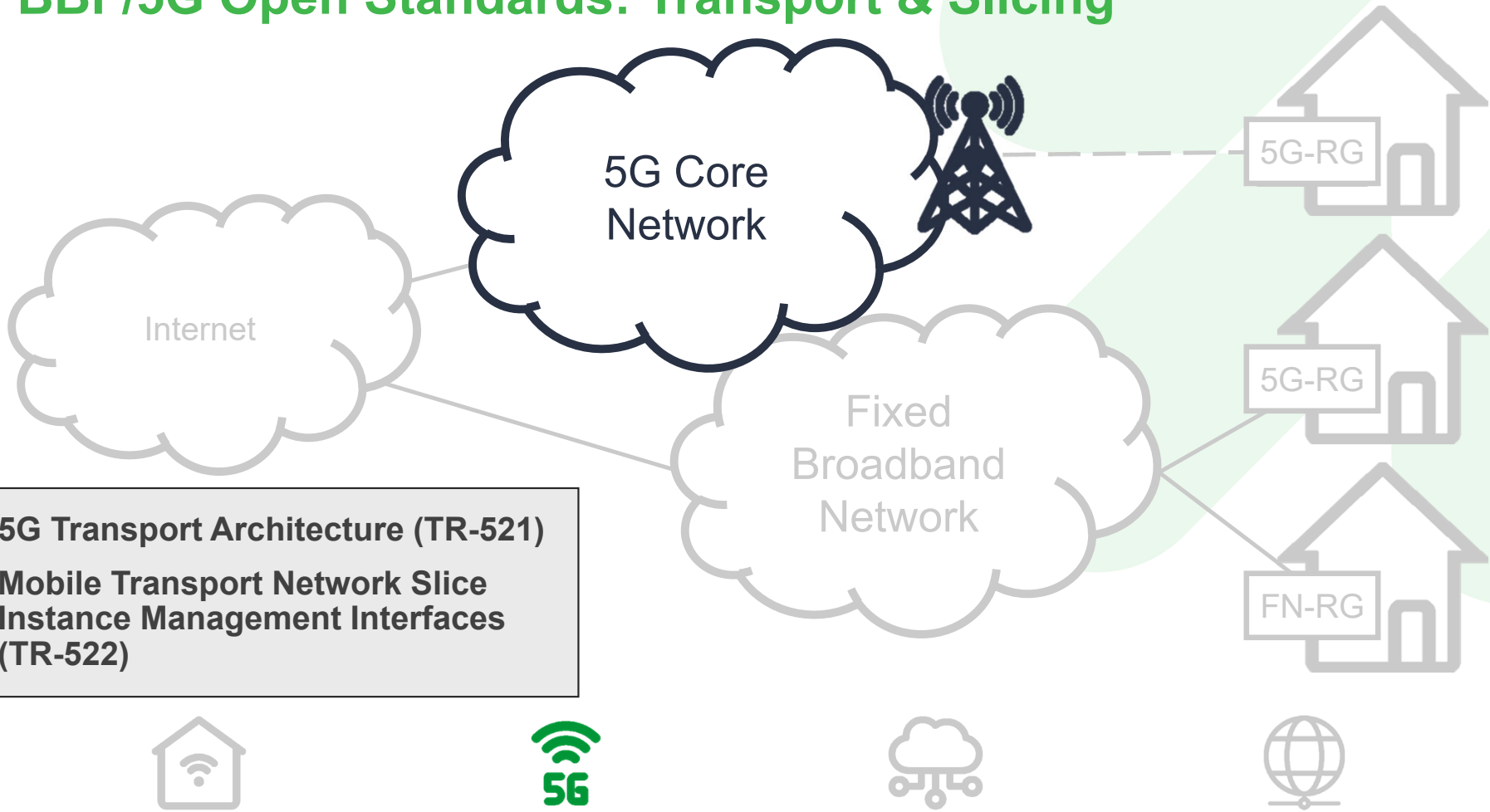
- **5G Wireless Wireline Convergence Architecture (TR-470)**
- **Residential Gateway Requirements (TR-124i6)**
- **Access Gateway Function (TR-456)**

BBF/5G Open Standards: Phase 2



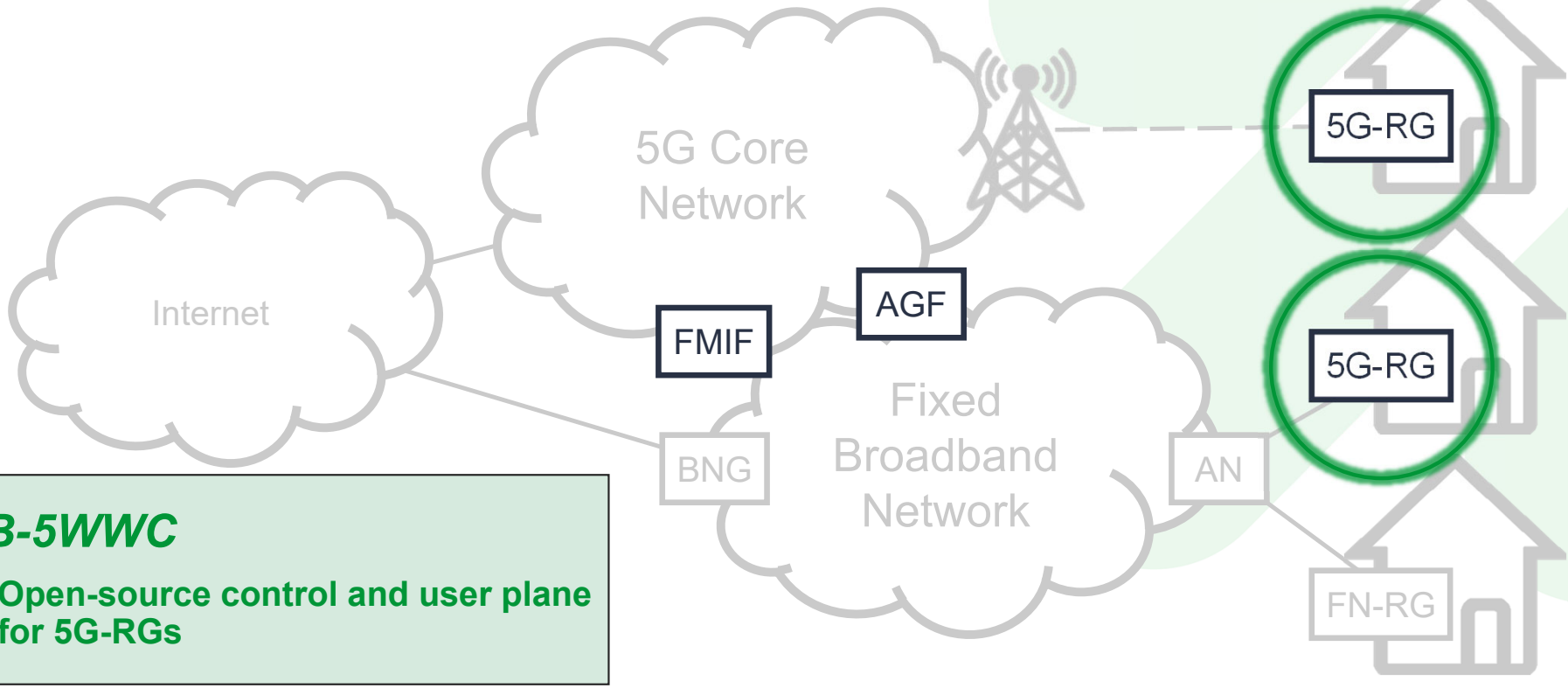
- **Residential Gateway: Hybrid Access (TR-124i7)**
- **Fixed/Mobile Interworking Function (TR-457)**
- **AGF Control & User Plane Separation (TR-456i2, WT-458)**
- **IMS for 5G-RG (WT-493, WT-494)**

BBF/5G Open Standards: Transport & Slicing



- **5G Transport Architecture (TR-521)**
- **Mobile Transport Network Slice Instance Management Interfaces (TR-522)**

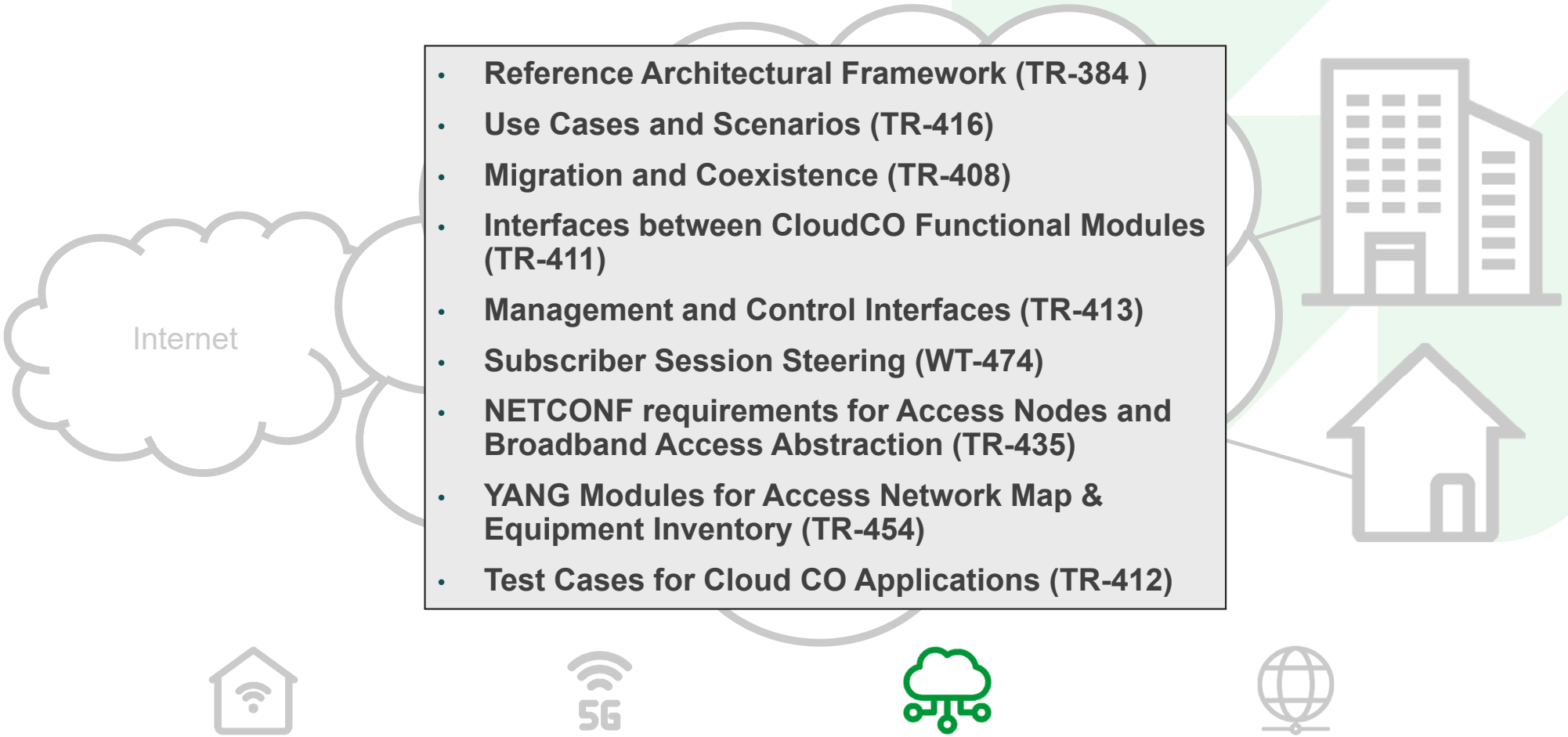
BBF/5G Open Broadband Projects



OB-5WWC

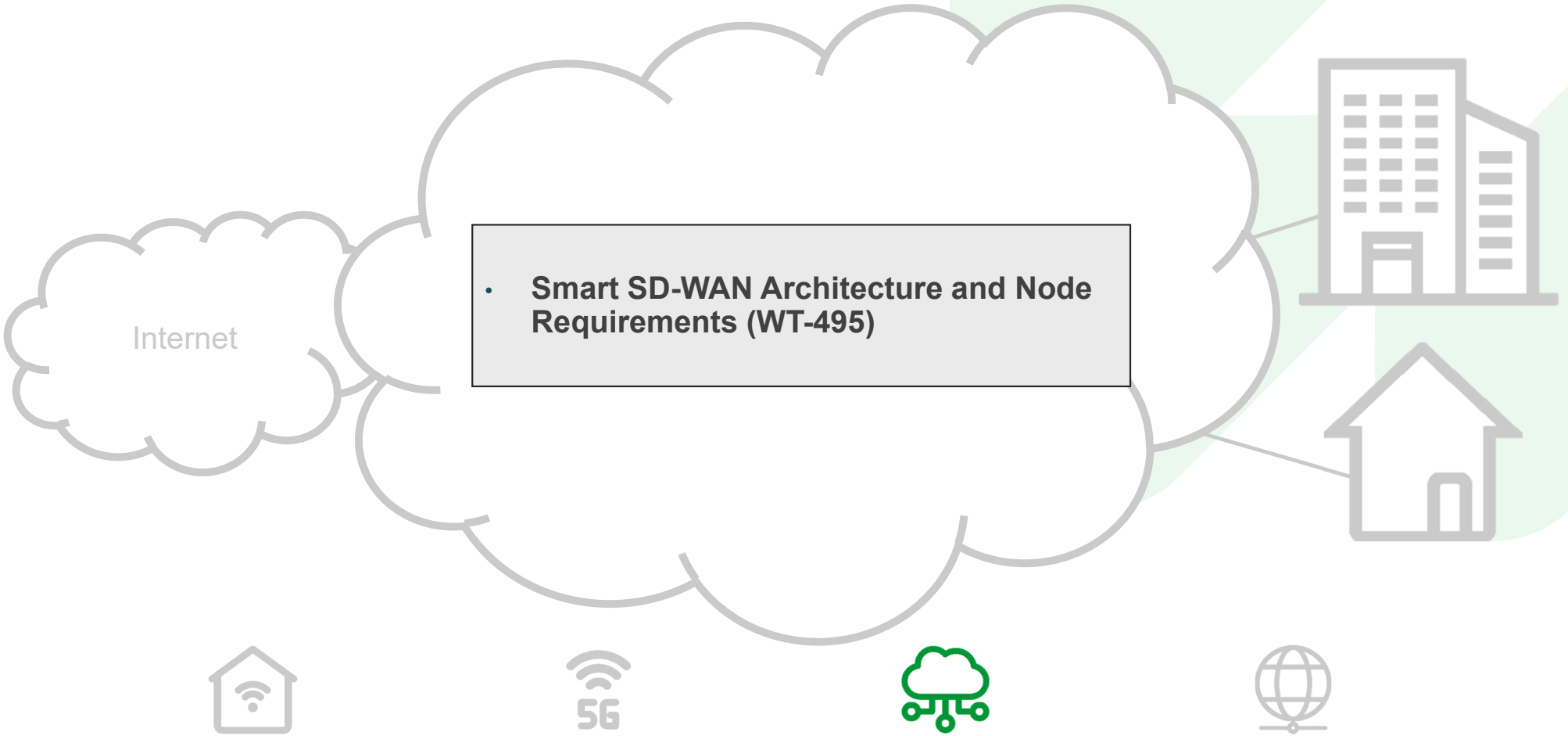
- **Open-source control and user plane for 5G-RGs**

Cloud Open Standards: CloudCO

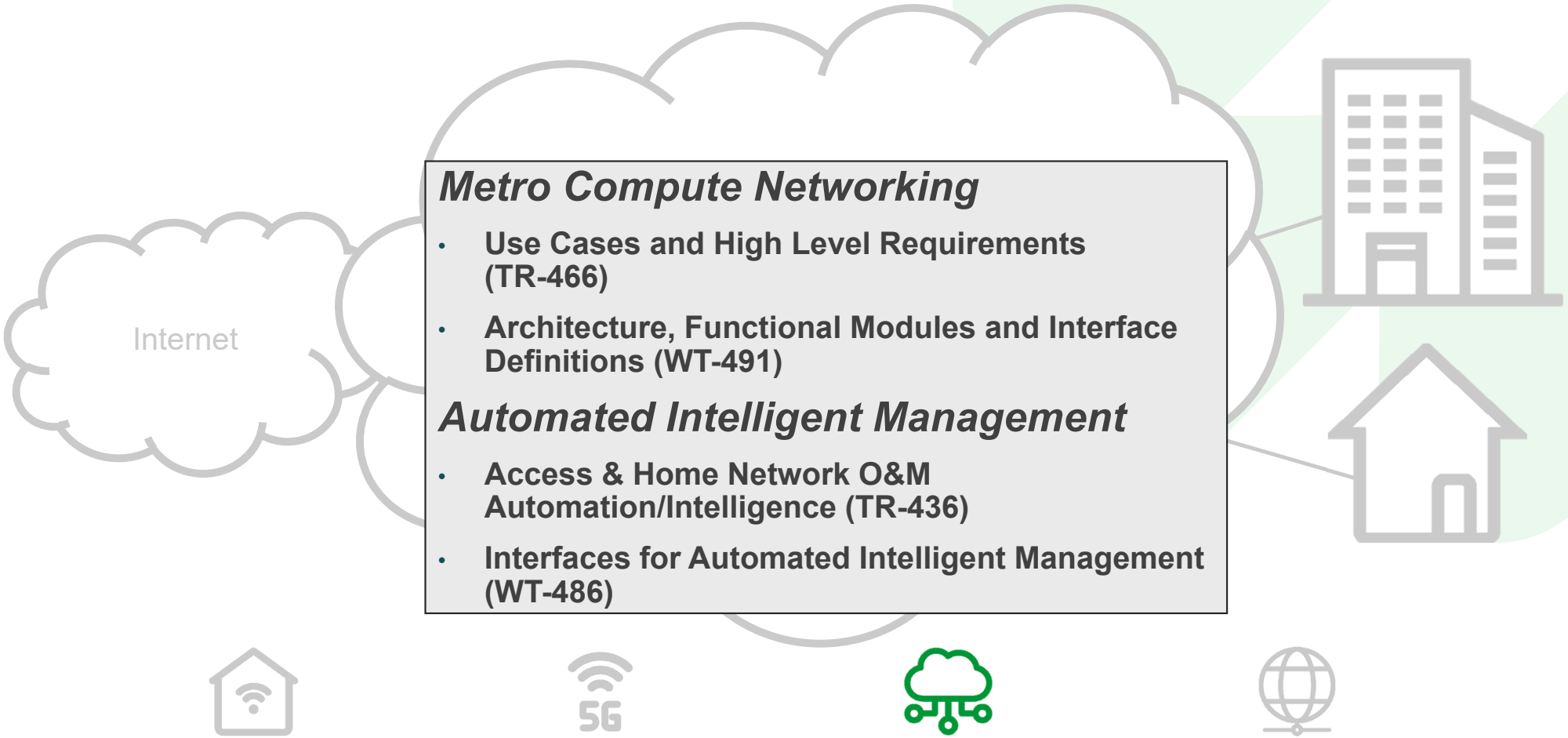


- Reference Architectural Framework (TR-384)
- Use Cases and Scenarios (TR-416)
- Migration and Coexistence (TR-408)
- Interfaces between CloudCO Functional Modules (TR-411)
- Management and Control Interfaces (TR-413)
- Subscriber Session Steering (WT-474)
- NETCONF requirements for Access Nodes and Broadband Access Abstraction (TR-435)
- YANG Modules for Access Network Map & Equipment Inventory (TR-454)
- Test Cases for Cloud CO Applications (TR-412)

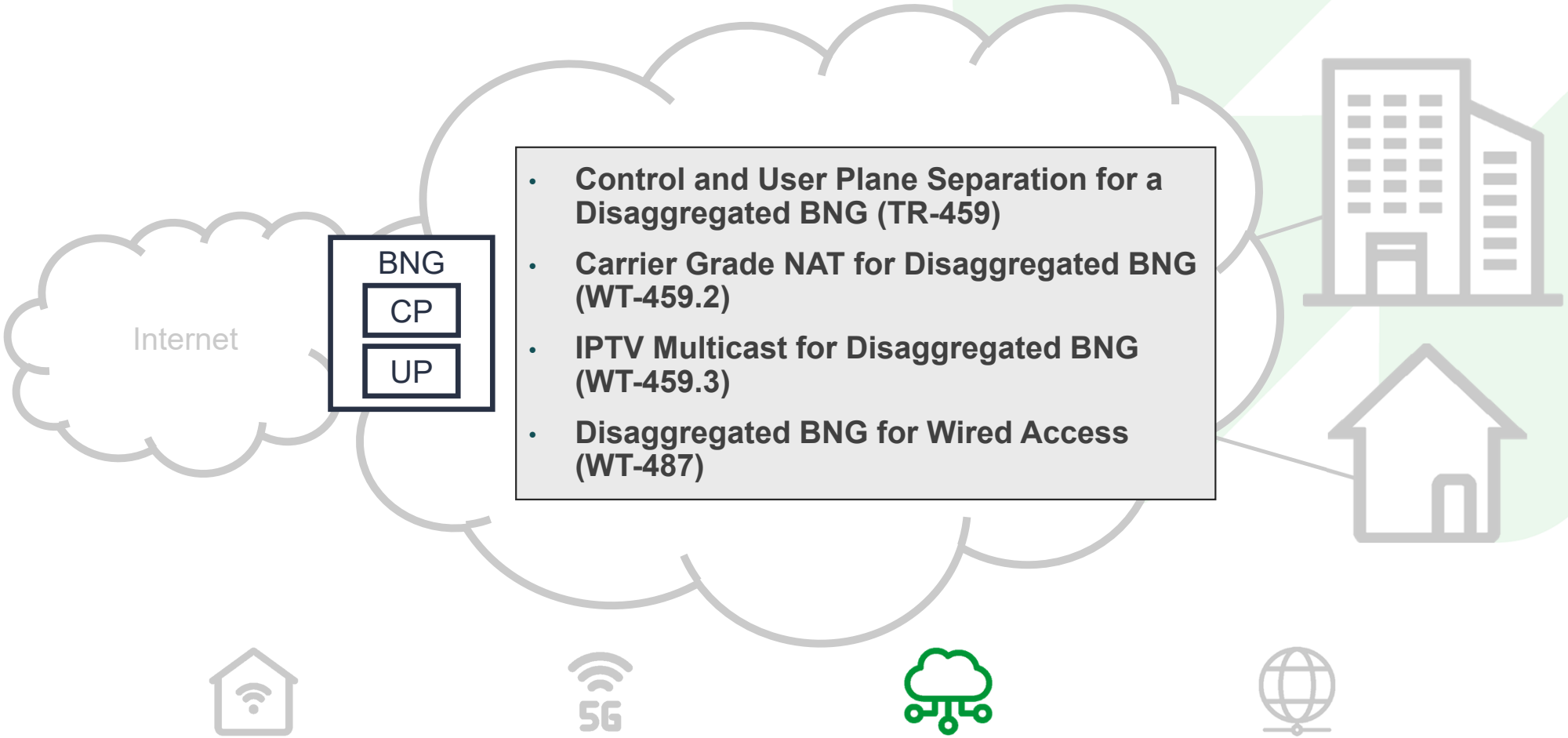
Cloud Open Standards: SD-WAN



Cloud Open Standards: Cloud Components



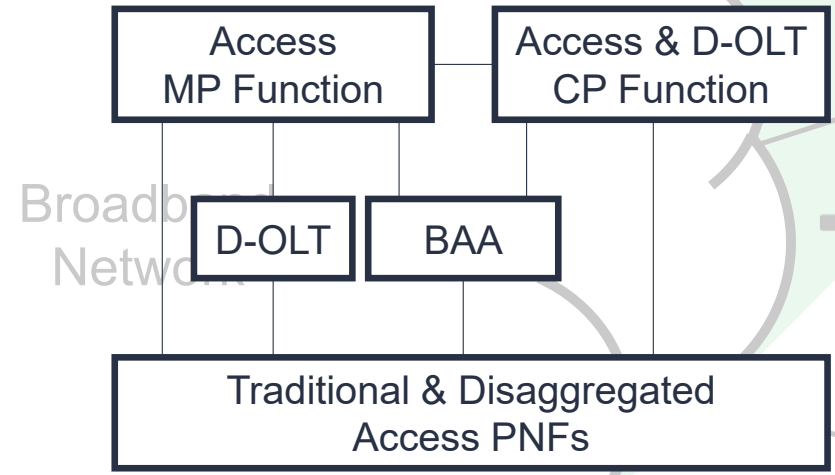
Cloud Open Standards: Broadband Network Gateway



- **Control and User Plane Separation for a Disaggregated BNG (TR-459)**
- **Carrier Grade NAT for Disaggregated BNG (WT-459.2)**
- **IPTV Multicast for Disaggregated BNG (WT-459.3)**
- **Disaggregated BNG for Wired Access (WT-487)**

Cloud Open Standards: Access Nodes

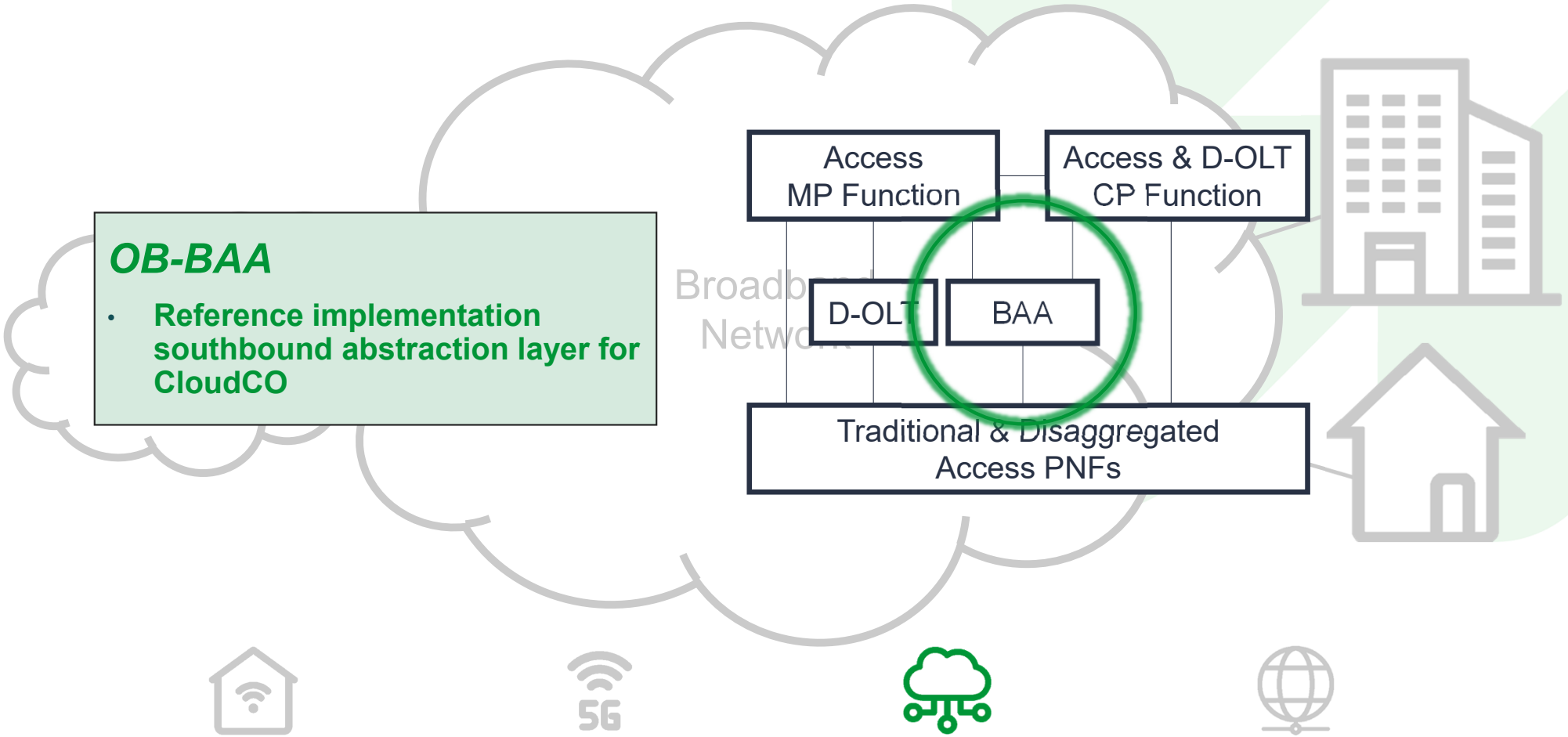
- **Broadband Access Abstraction (TR-484)**
- **Access Node Hardware Disaggregation (WT-477)**
- **vOMCI Interface (TR-451)**



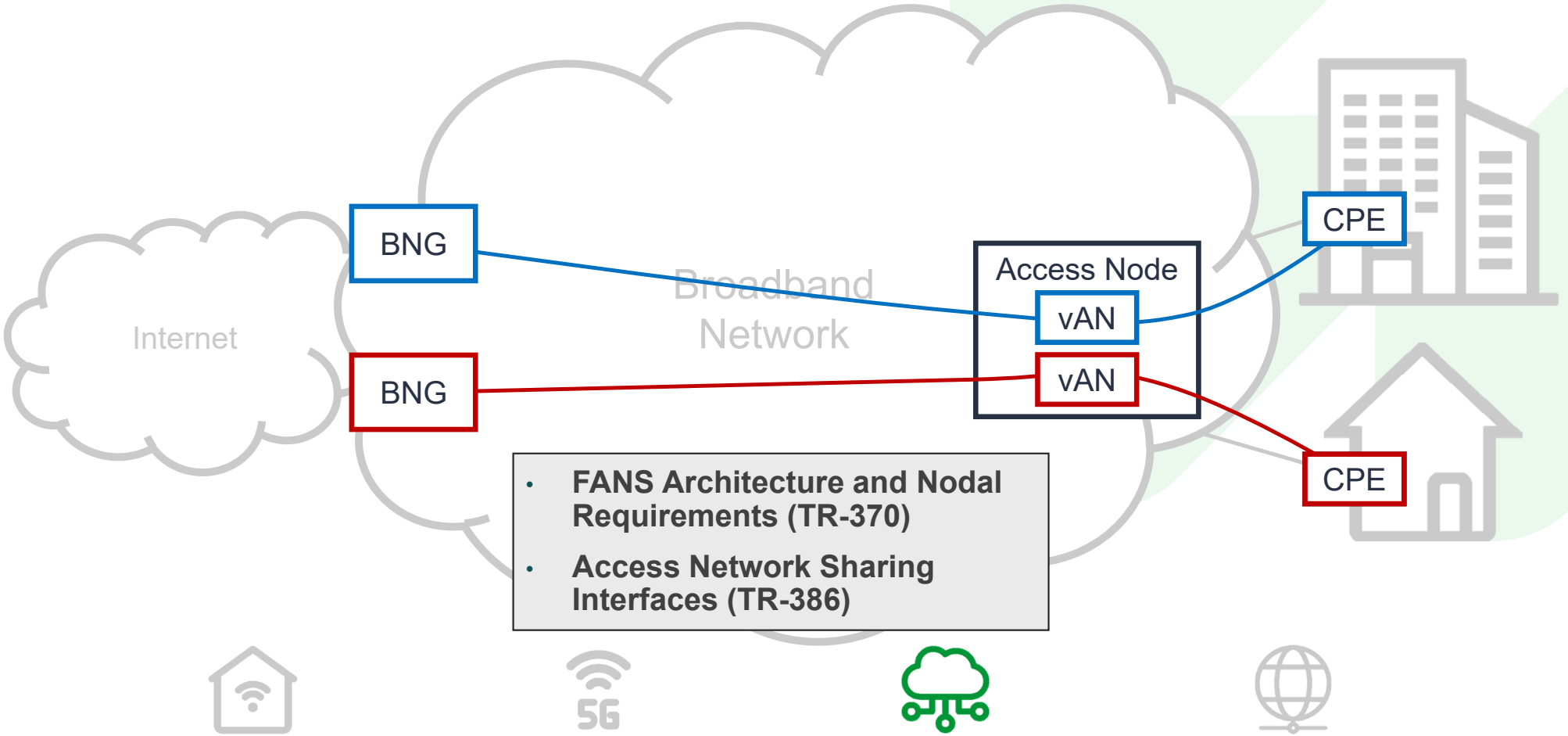
Cloud Open Broadband Projects

OB-BAA

- **Reference implementation southbound abstraction layer for CloudCO**



Cloud Open Standards: Fixed Access Network Sharing



- **FANS Architecture and Nodal Requirements (TR-370)**
- **Access Network Sharing Interfaces (TR-386)**

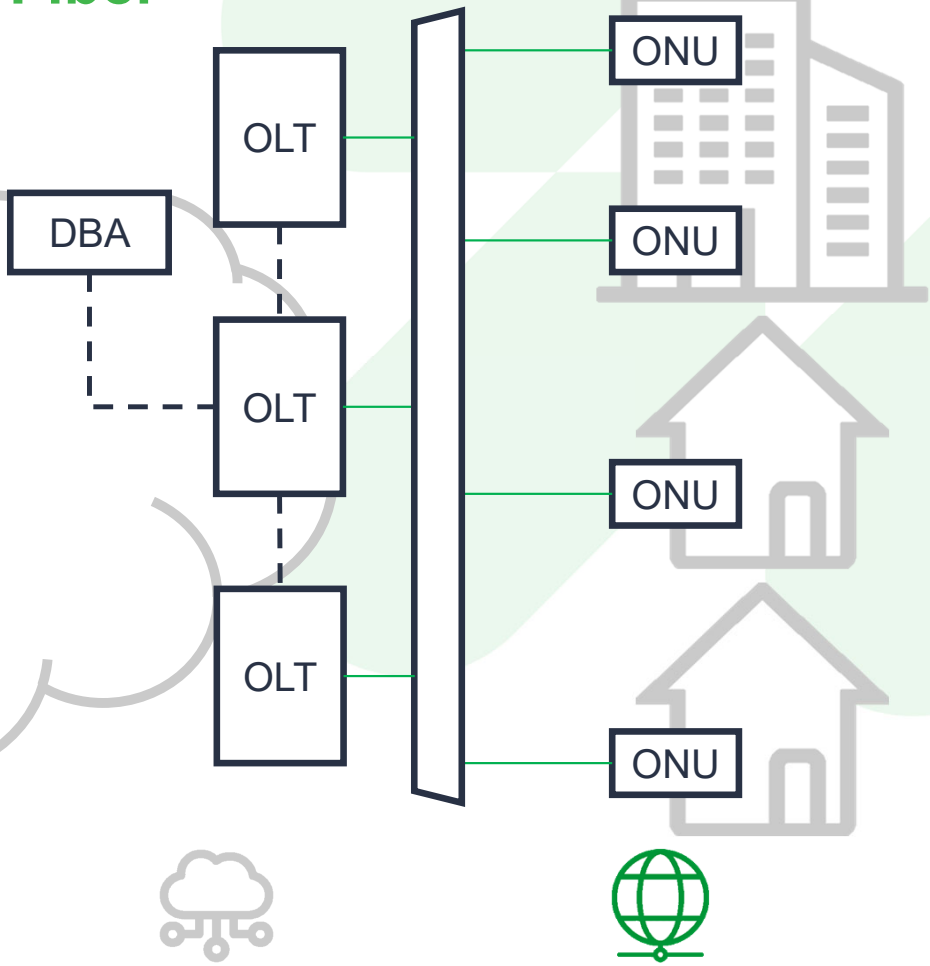
Access/Next Open Standards: Fiber

PON Architecture

- PON with TR-101 (WT-156i5)
- PON-fed Ethernet Access Nodes (WT-167i4)
- ITU-T PON with TR-178 (WT-280i4)
- PON-based Mobile Backhaul (WT-331i2)

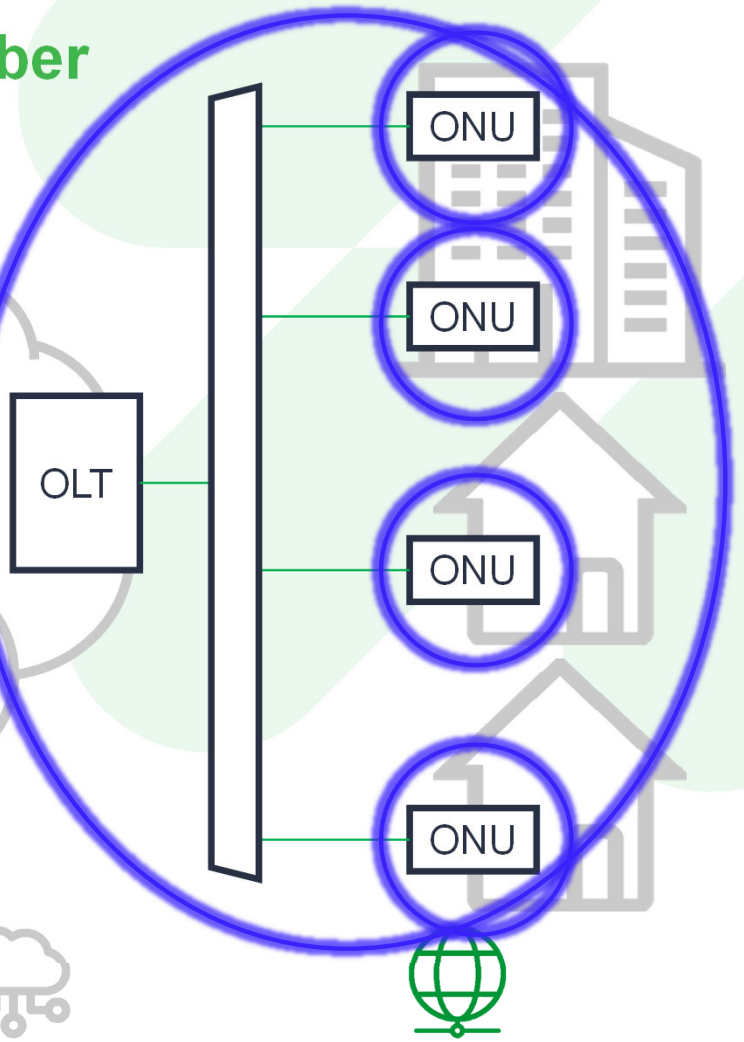
PON Management

- ITU-T PON YANG Modules (WT-385i3)
- EPON YANG Modules (WT-431)
- CWMP- and USP-enabled PON devices (WT-142i5)
- ONU Authentication and eOMCI/vOMCI (TR-489)
- ONU Management at Scale (WT-505)
- Multi-wavelength PON Inter-Channel Termination Protocol (ICTP) (TR-352)
- PON Abstraction Interface for time-critical application (TR-402/TR-403)



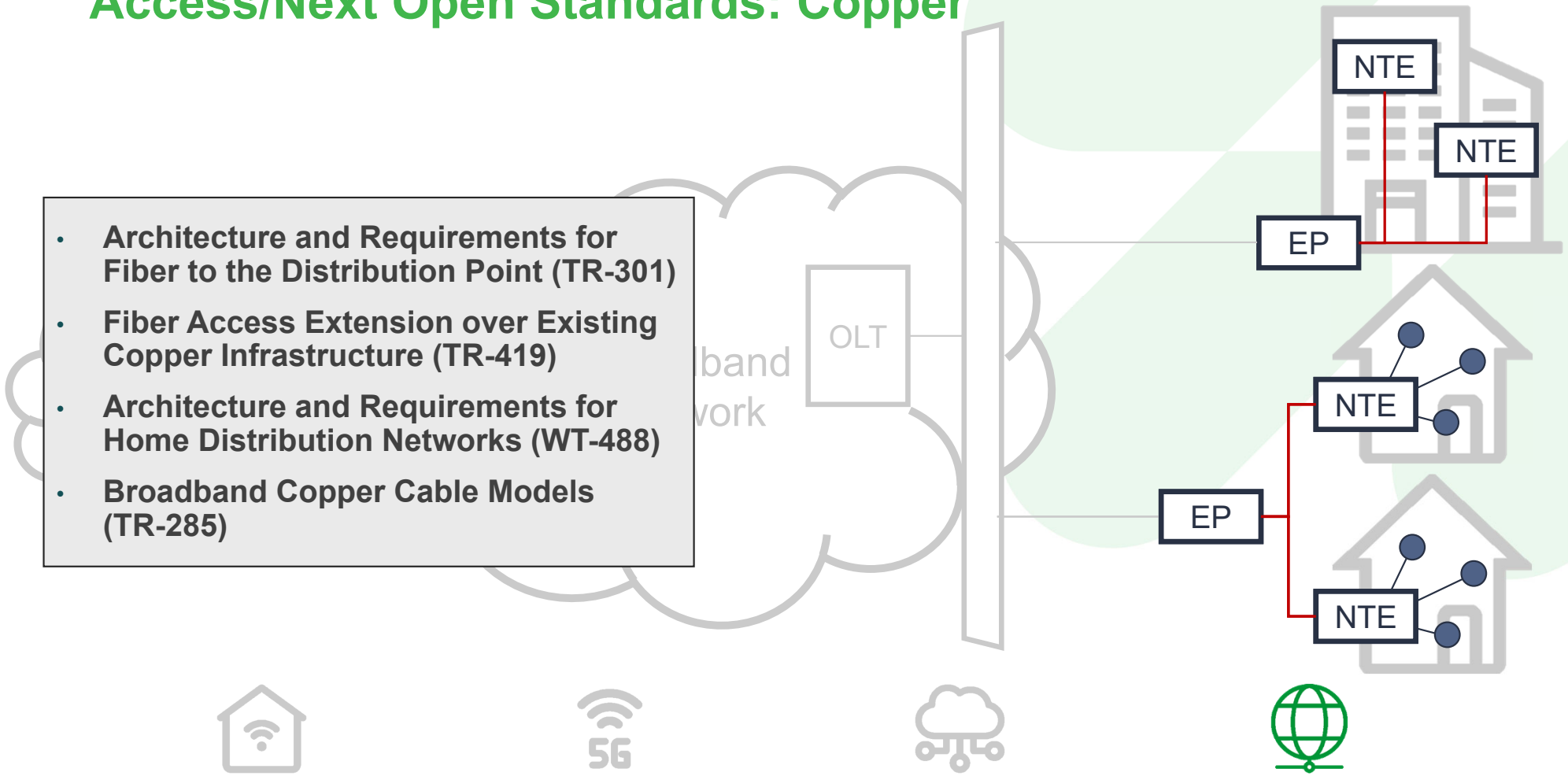
Access/Next Certification Testing : Fiber

- ONU Certification (BBF.247, DTP-247i5)
- DTP-255i2 PON Interoperability Test Plan
- TC Layer Interoperability Test Plan (WT-309i3)
- PON PMD Layer Conformance Test Plan (WT-423i3)



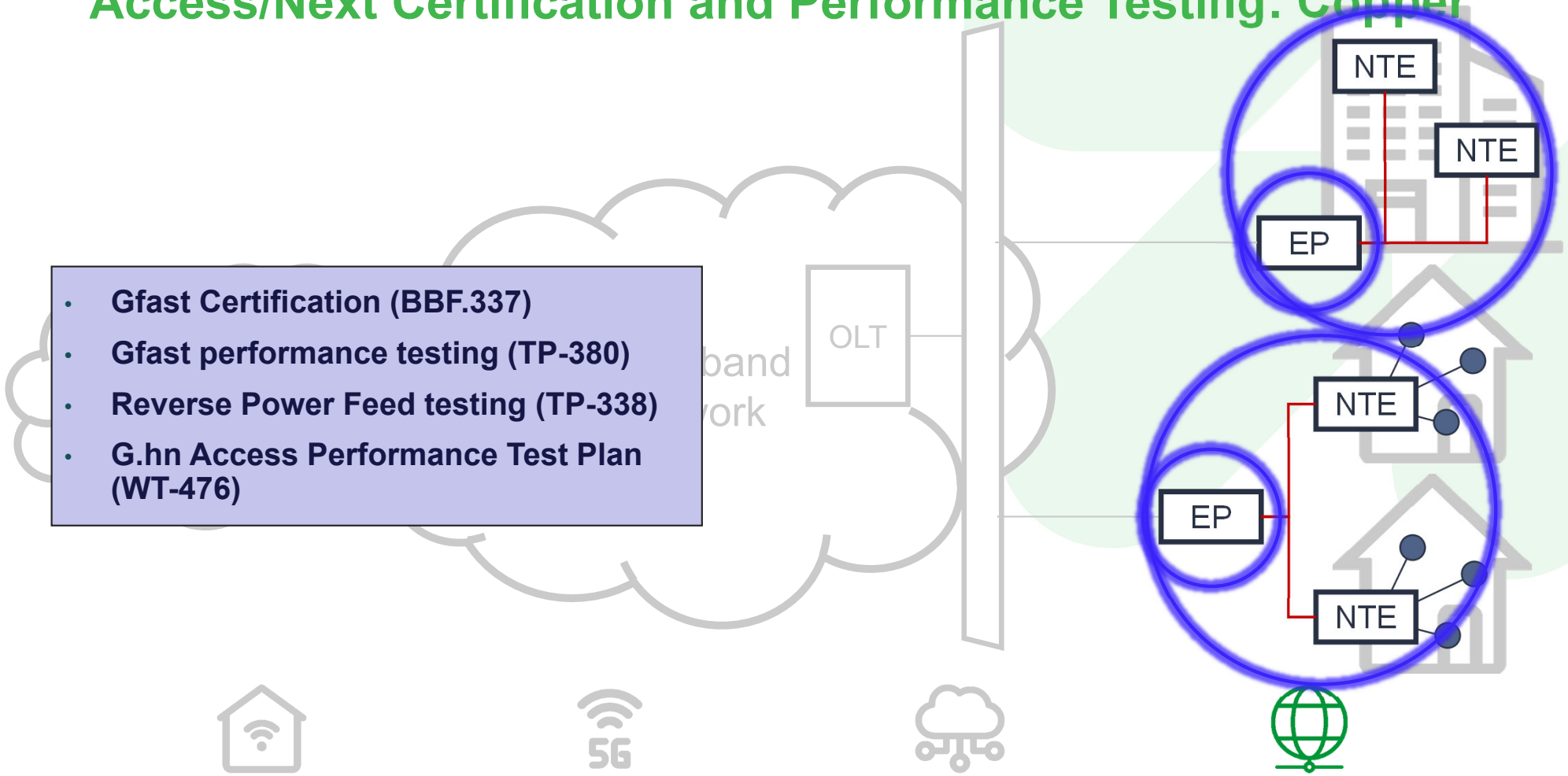
Access/Next Open Standards: Copper

- **Architecture and Requirements for Fiber to the Distribution Point (TR-301)**
- **Fiber Access Extension over Existing Copper Infrastructure (TR-419)**
- **Architecture and Requirements for Home Distribution Networks (WT-488)**
- **Broadband Copper Cable Models (TR-285)**

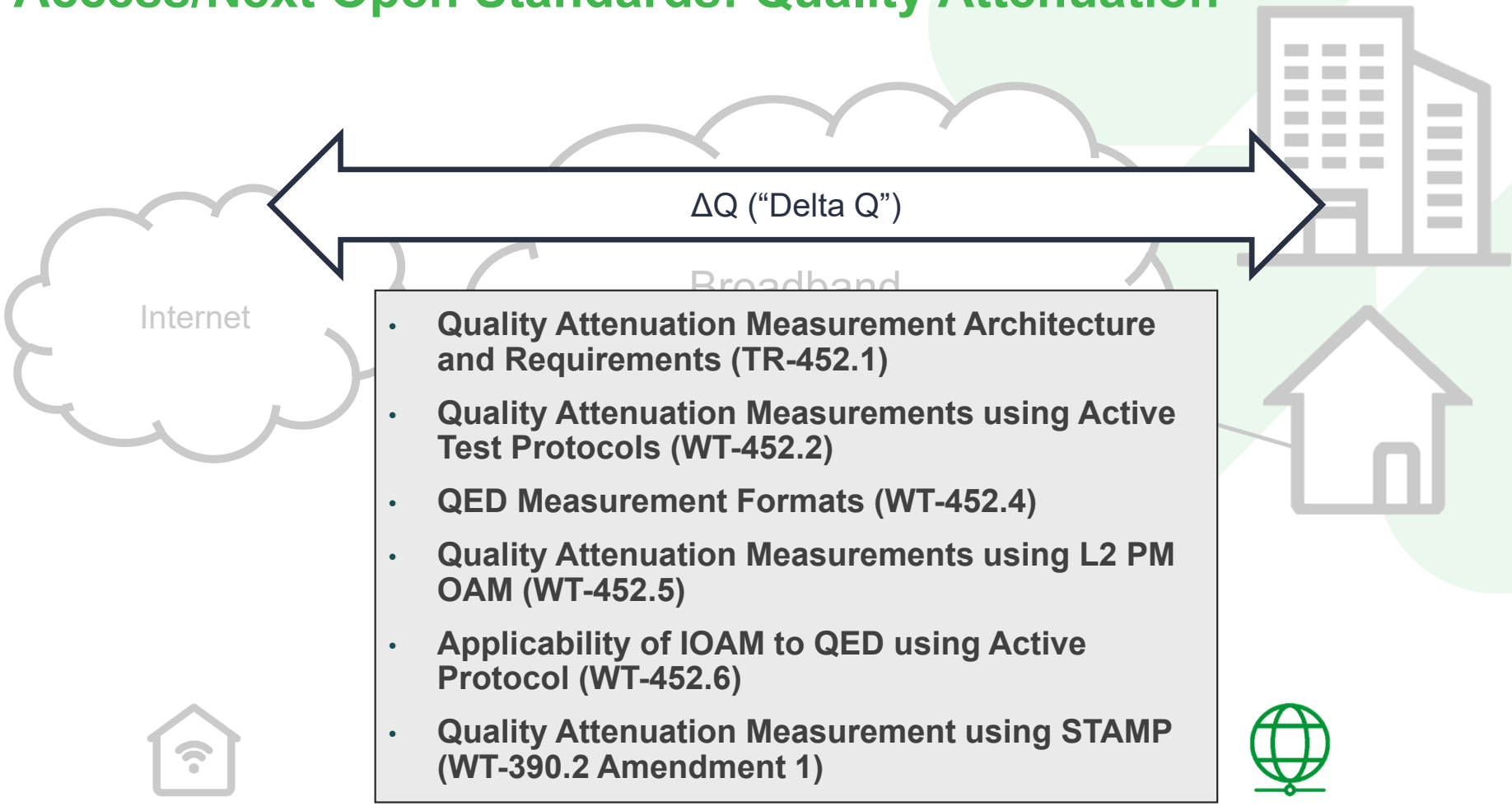


Access/Next Certification and Performance Testing: Copper

- **Gfast Certification (BBF.337)**
- **Gfast performance testing (TP-380)**
- **Reverse Power Feed testing (TP-338)**
- **G.hn Access Performance Test Plan (WT-476)**

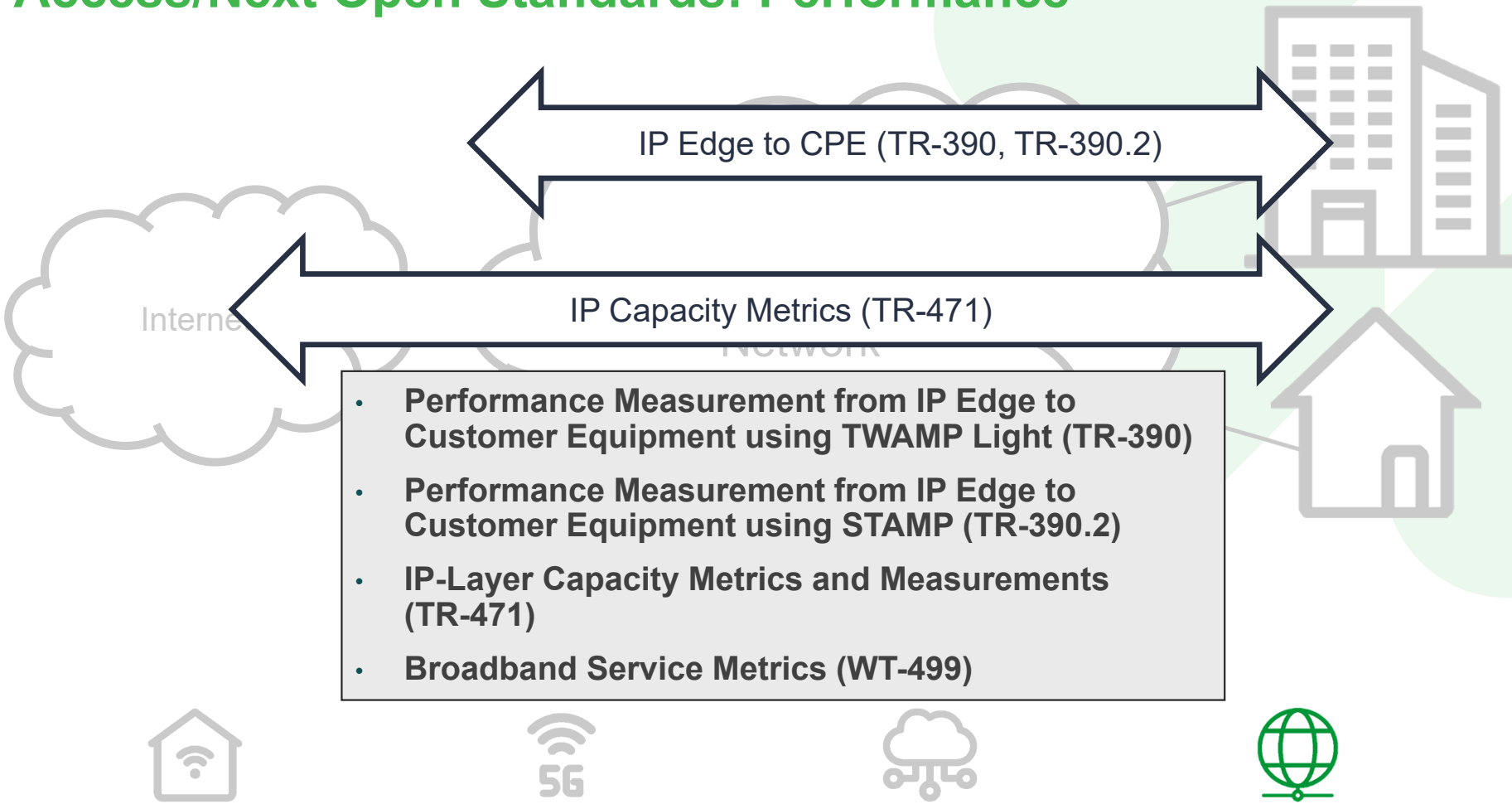


Access/Next Open Standards: Quality Attenuation



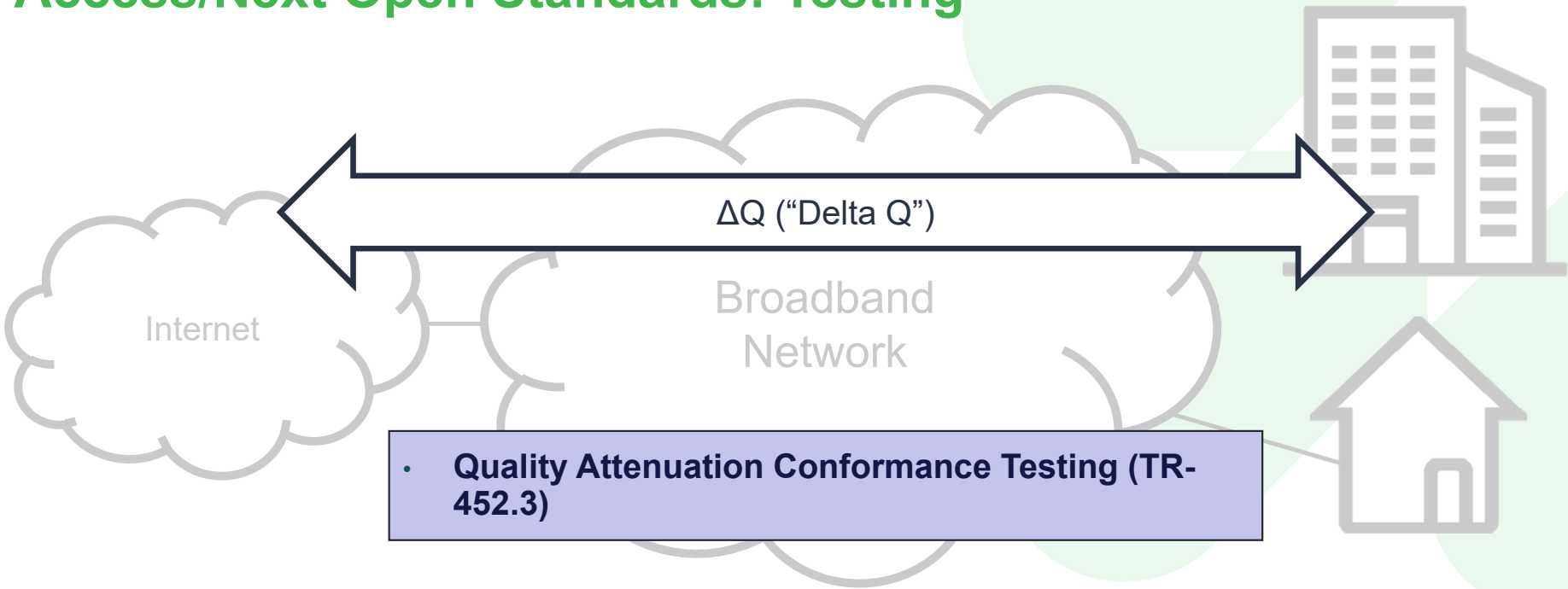
- **Quality Attenuation Measurement Architecture and Requirements (TR-452.1)**
- **Quality Attenuation Measurements using Active Test Protocols (WT-452.2)**
- **QED Measurement Formats (WT-452.4)**
- **Quality Attenuation Measurements using L2 PM OAM (WT-452.5)**
- **Applicability of IOAM to QED using Active Protocol (WT-452.6)**
- **Quality Attenuation Measurement using STAMP (WT-390.2 Amendment 1)**

Access/Next Open Standards: Performance



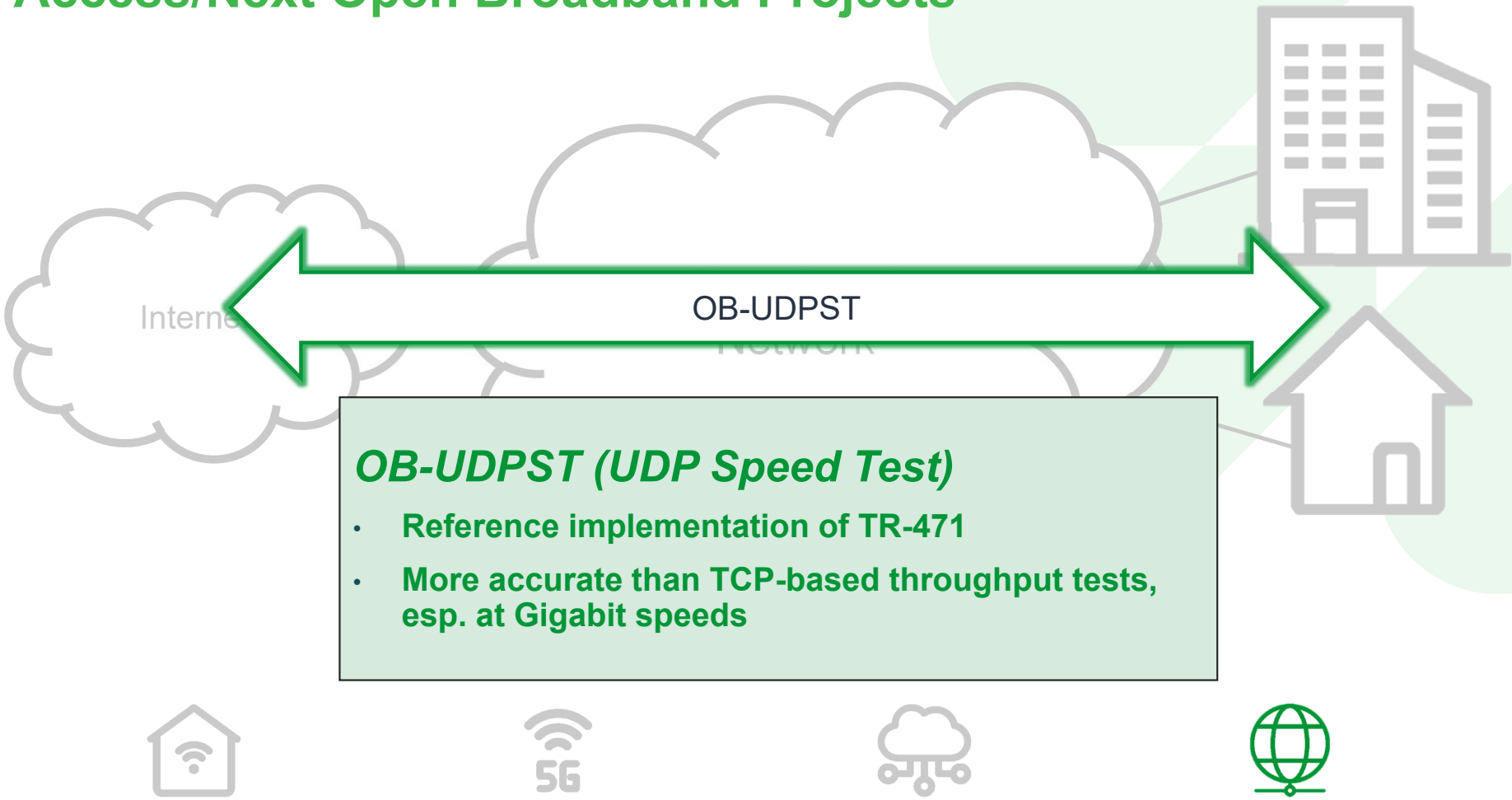
- **Performance Measurement from IP Edge to Customer Equipment using TWAMP Light (TR-390)**
- **Performance Measurement from IP Edge to Customer Equipment using STAMP (TR-390.2)**
- **IP-Layer Capacity Metrics and Measurements (TR-471)**
- **Broadband Service Metrics (WT-499)**

Access/Next Open Standards: Testing



- **Quality Attenuation Conformance Testing (TR-452.3)**

Access/Next Open Broadband Projects



OB-UDPST (UDP Speed Test)

- **Reference implementation of TR-471**
- **More accurate than TCP-based throughput tests, esp. at Gigabit speeds**

Thank you

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

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info@broadband-forum.org

broadband forum