

# QoE and The Transition to “Services-Led Broadband”

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# Continued Realignment of our Focus

Connected User

Services  
Led Broadband

Provider  
Cloud

Broadband Network  
Architecture

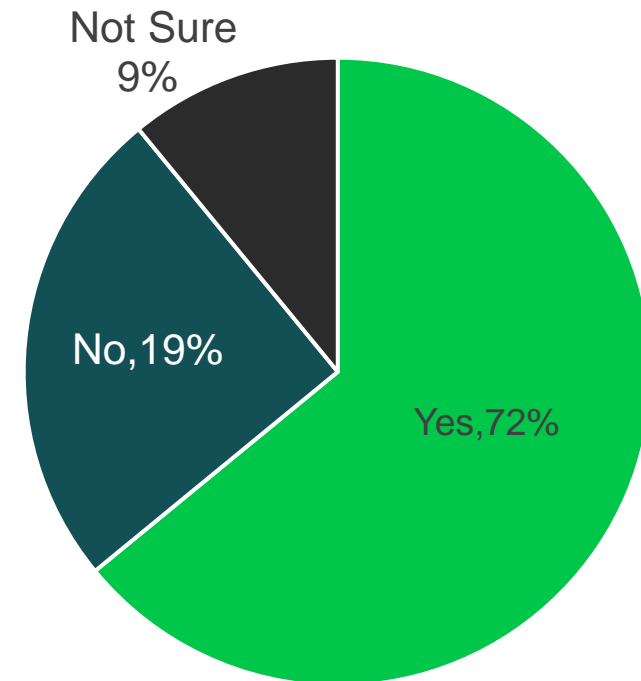


# More Speed Versus Better User QoE

## QoE increasingly will become as important as speed to the subscriber

- Adding application aware intelligence and monitoring is a critical demand of the network
- Relevant QoE per application will be a key differentiator when monetizing new services
- End-User education is essential
- QoE needs to be 'end-to-end' but where is the current focus?

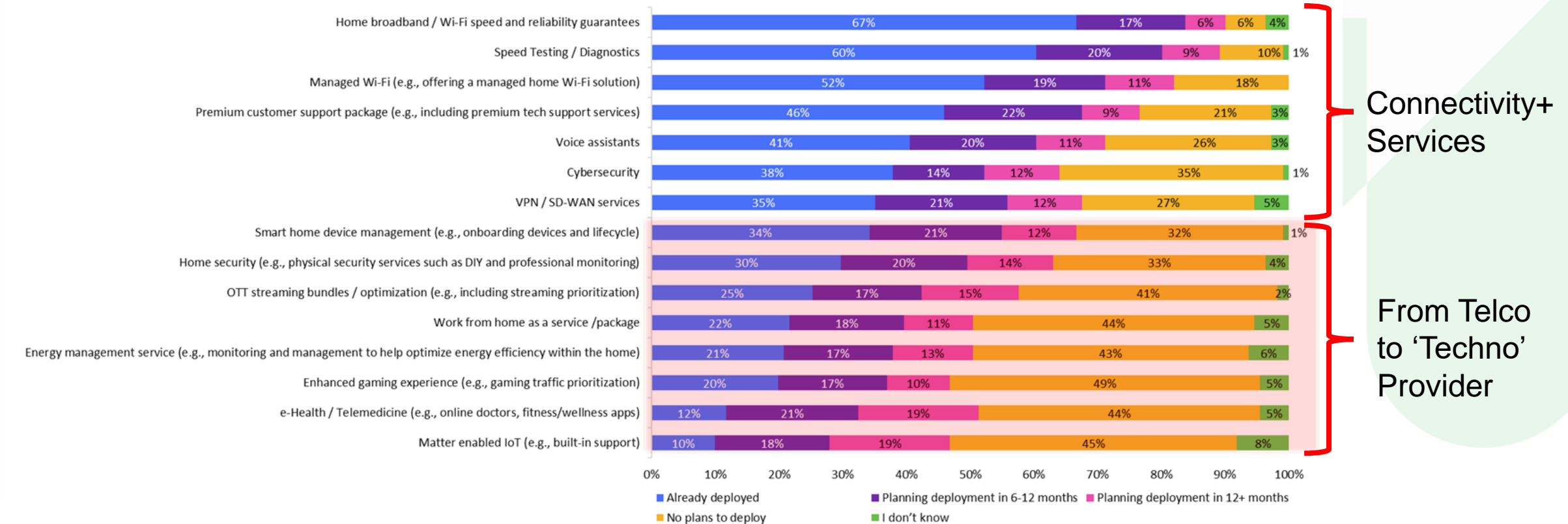
## Do you plan to differentiate customer QoE on a per-service basis?



Source Broadband Forum & OMDIA  
Connected Home Survey 2023

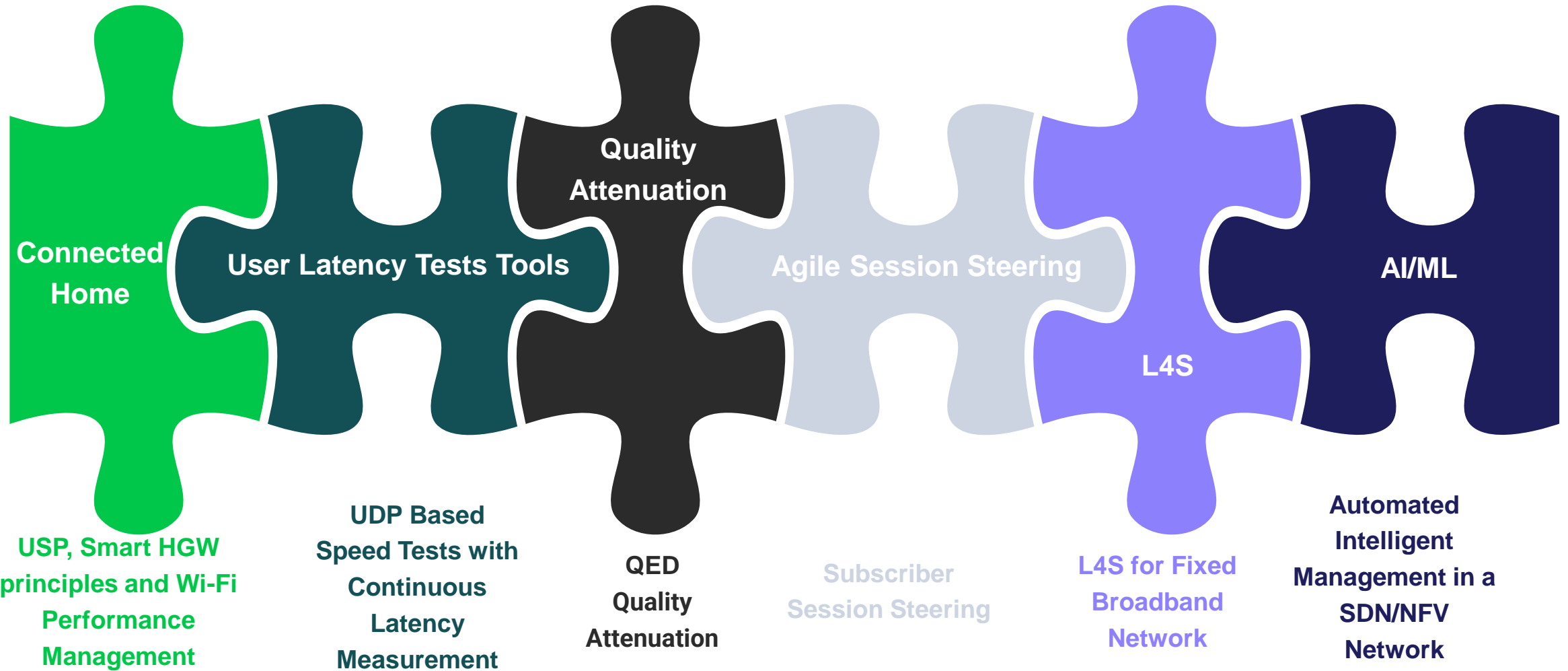
# What are the New Value-Add Services?

Do you offer or plan to offer any of the following value-added services/features as part of your broadband offering?



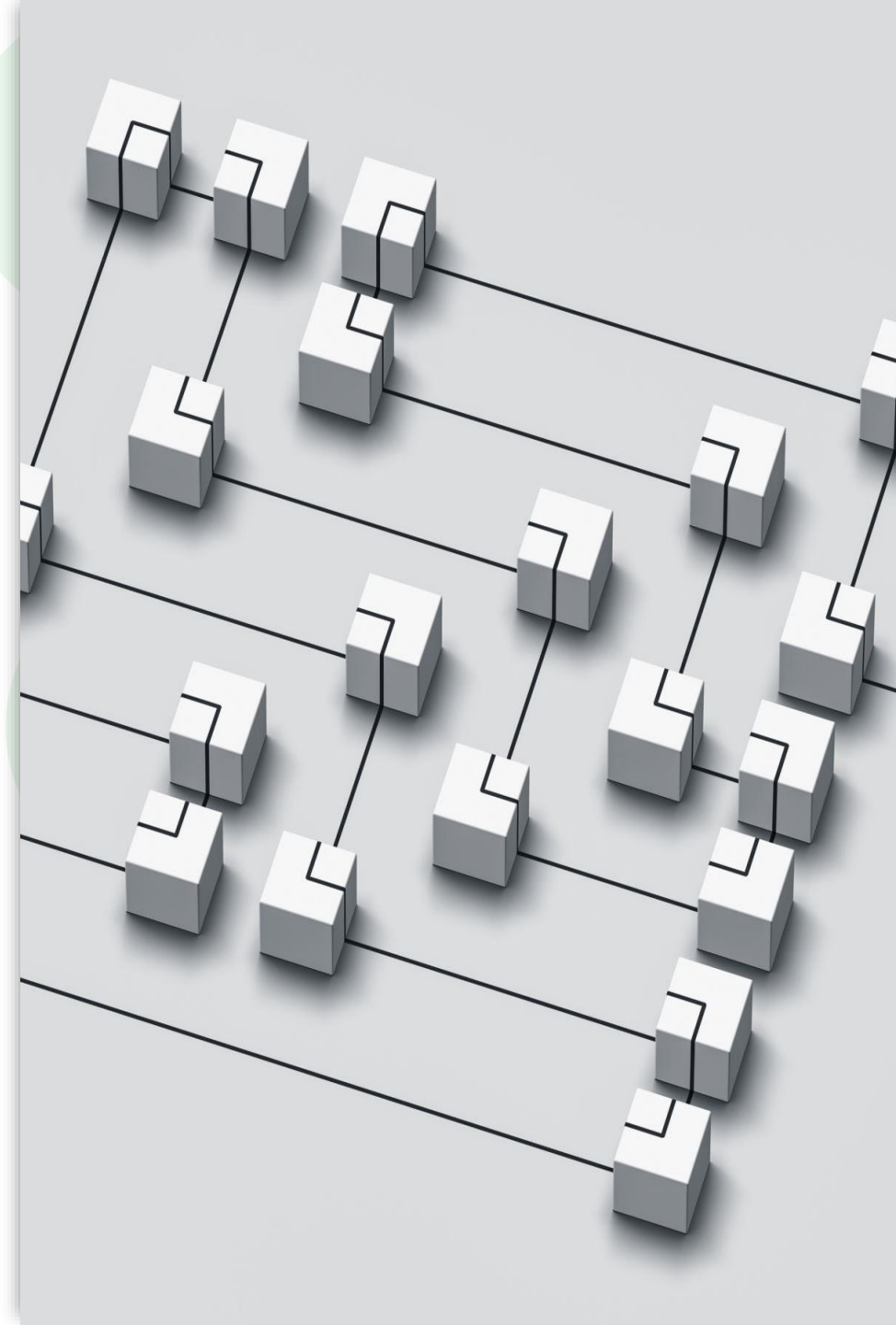
Source Broadband Forum & OMDIA  
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# BBF Standards Focus – Pieces of the QoE Puzzle



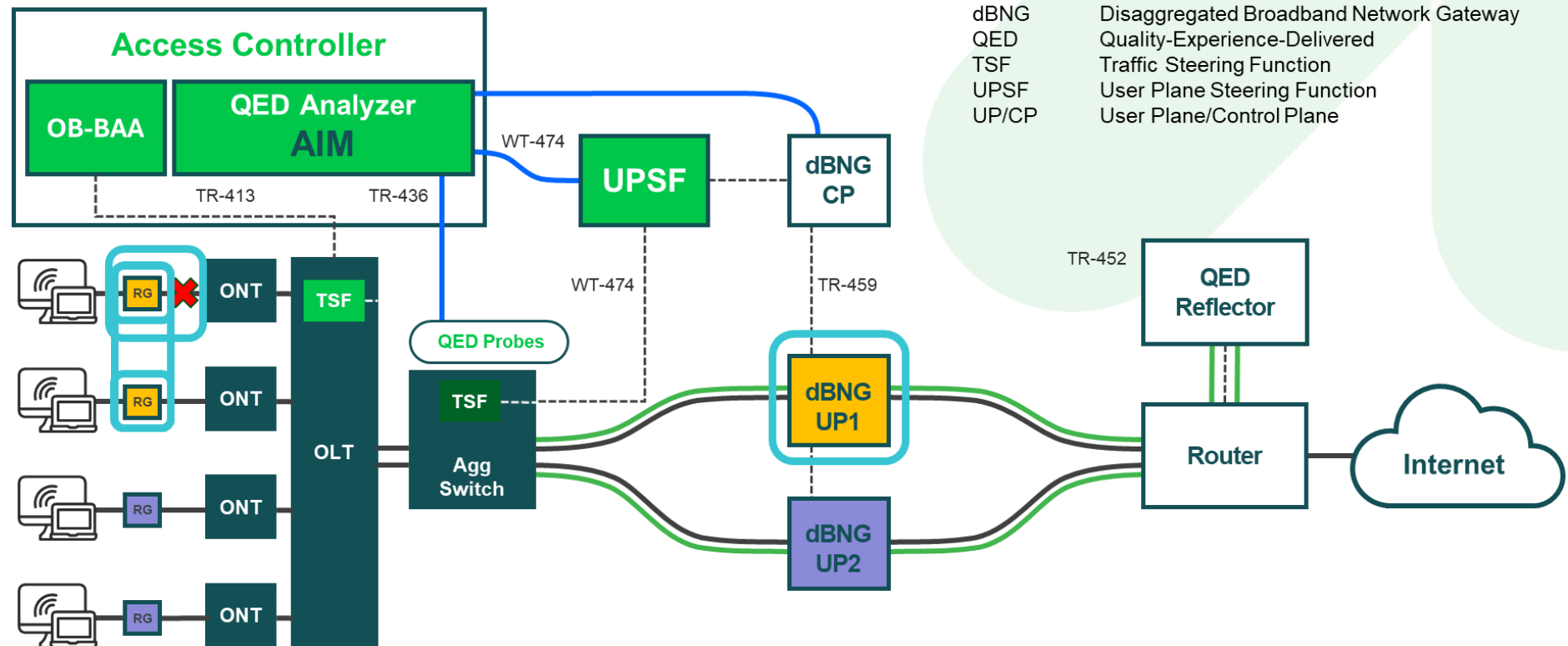
# QED (TR-452.5)

- BBF Quality of Experience Delivered project:
  - provides a comprehensive approach to measuring network performance
    - Move from a bandwidth-based model to one focused on Quality.
  - Integrates both packet loss and packet delay instead of treating them separately
    - Delivers a measurement framework that can be linked to application outcomes.
  - Allows the specification of the minimum packet-level performance required for an end application to deliver a good experience
    - Can then be directly compared against network performance.



# AIM – Automation and Session Steering

- Provider Cloud (SDN/NFV)
- Automation that can react and update to respond to network events
  - I.e events that may impact customer QoE
- Example: QED and Subscriber Session Steering





# L4S for Broadband

- BBF new project on L4S:
  - BBF is Defining how L4S support can be implemented into a broadband network.
  - Close Liaison with IETF RFC's 9330/9331/9332
- L4S allows supporting hosts to fairly share a network capacity without building a queue
  - Aim to deliver good throughput flows with consistent and low latency.
- BBF plans to define minimum requirements for the broadband network elements
- The scope includes wholesale deployment models.

Latency probability distribution





# A QoE Services-Led Broadband is essential for the future of Broadband



- BBF Is working on some of the jigsaw pieces
- Critical to work with other SDO's to build an end-to-end picture
- We welcome your involvement
- Come and Join our work!
  - [info@broadband-forum.org](mailto:info@broadband-forum.org)

# Thank you