# Managed Wi-Fi Use Cases



\* Wi-Fi Home Router may be managed by fixed-line operator, may serve both home network and public Homespots



## **Enhanced Wi-Fi Mobility**

 Fast AP/Network Discovery
802.11ai FILS Discovery, Reduced Neighbor Report

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**Fast Roaming/Authentication** 

802.11r Fast BSS Transition

802.11ai FILS Authentication

**Cellular Network** 

Timely AP/Network Roaming Decisions

- Network-assisted steering: 802.11k/v Beacon Report, BTM Request
- Client steering: based on link quality metric exchange

#### What is Enhanced Mobility?

- Best connectivity experience as devices move within/between coverage of Wi-Fi networks
  - Often in "dense" environments where a large numbers of users are served simultaneously
- Managed mobility within a Wi-Fi network
  - High-speed handover
  - Load balancing between bands and APs
- Selection/aggregation between Wi-Fi (and cellular) networks
- Broadcom solutions enable enhanced mobility and will support upcoming certifications



- Multiband Operations (MBO) upcoming
- Optimized Connectivity Experience (OCE) upcoming



### **Neutral Host Wi-Fi**



#### What is Neutral Host Wi-Fi?

- A single "neutral host" operator deploys and maintains physical Wi-Fi network infrastructure
- Multiple service providers can each offer a virtual network service over the shared/sliced physical infrastructure
- Each service provider has end-toend control over service delivery
  - Network discovery (802.11u)
  - User authentication/signup
  - WPA2 carrier-grade security
  - Quality of Service guarantee via end-to-end optimization
- Broadcom solutions enable Neutral Host Wi-Fi, based on



Wi-Fi CERTIFIED Passpoint



## **Managed Wi-Fi Ecosystem**



### **Operators/SPs**

- High capacity
  - Gigabit Wi-Fi service
  - Spectrum access
- Tiered class-of-service
- Flexible deployment
  - Neutral Host
  - Remote/cloud-based management
  - Self-Optimizing Network (SON), diagnostics



### **Device Vendors**

- Compelling, differentiated user experience
- High performance
- Value-added features
  - Location support
  - Analytics
- Power efficiency



- Quality of experience
  - Speed
  - Reliability
  - Coverage
- Simple configuration
  - Provisioning
  - Always best connected
- Security



Managed Wi-Fi "Umbrella" Certification
Wi-Fi CERTIFIED Vantage

New features added on rolling release cycle

**Baseline PHY/MAC Certifications** 

- Wi-Fi CERTIFIED ac
- 802.11ax upcoming

