

# Broadband Services

RDK-B provides a range of broadband services to both the users and the service providers.

## Business Router Feature

- Offers carrier grade Internet to Small and Medium Businesses (SMB) residing within the Service Provider footprint.
- As part of this support is provided for:
  - WiFi – 5 GHz with 4x4 and 2.4 GHz with 2x2
  - Voice support with 8 FXS ports
  - 8 Gigabit Ethernet ports – ports 1 - 4 support 1Gbps individually while port 5-8 support shared capacity of 1 Gbps
  - Power over Ethernet (PoE) on ethernet port 8
  - functionalities like content filtering, bridge mode, various levels of firewall, and remote access to control the router

## WiFi

- WiFi connectivity over both 2.4 GHz and 5 GHz.
- WPS support for WiFi connectivity
- Easy monitoring of WiFi credentials through UI
- WiFi Air Time Management feature helps the user to assign weight and prioritize the bandwidth allocation based on SSID
- WiFi Spectrum Analyzer feature provides the real time metrics for the WiFi radio spectrum
- Band Steering feature helps the device to smartly switch the connected devices between 2.4 GHz and 5 GHz frequency band
- WiFi Range Extender support
- Prefer Private Mode when enabled prioritizes the private SSID over hotspot while at home
- Component : [CcspWifiAgent](#)

## Hotspot

- Ability to access the service provider network outside the home WiFi range
- Component : [hotspot](#)

### Passpoint

- Protocol that helps users discover and authenticate to Wi-Fi hotspots to access the internet.
- Passpoint is based on Hotspot2.0 technology

## Home Security - HNAP

- Supports Home Network Administration Protocol (HNAP)
- [HNAP](#) is an HTTP-Simple Object Access Protocol (SOAP)-based protocol that allows advanced programmatic configuration and management by remote entities
- Component : [CcspHomeSecurity](#)

## MoCA

- Supports MoCA 2.0 for WiFi extenders
- Multimedia over Coax Alliance (MoCA) supports networking over coaxial cable
- Component : [CcspMoCA](#)

## WiFi Protected Setup: (WPS)

- A wireless network security standard that tries to make connections between a router and wireless devices.
- Faster and easier for wireless networks that use a password encrypted with the WPA Personal or WPA2 Personal security protocols

## MeshAgent

- RDK gateway includes wifi extender functionality which can be disabled/enabled on demand. This creates a Mesh network using a daemon called "Mesh agent" running on the gateways.
- MeshAgent facilitates the platform needed for the WiFi extender
- Performs synchronization of SSID / passwords / security modes between the Gateway and the 3rd party extender services / middleware

## Ethwan

- EthWAN provides the functionality to enable wan side connection through Ethernet port. More details can be found [here](#)

## EPON Agent

- EPON Agent is a CCSP component that exposes TR181 parameters related to the DPoE ONU interface characteristics.
- Component: [CcspEPONAgent](#)