RDK B Features

RDK is a community-based project that allows developers, vendors and cable operators to use a defined stack of software on one layer in order to provision set-top boxes and gateways. Unique features of RDK such as **commitment to open source, speed** and **flexibility** of RDK-based devices makes it stand out from the conventional settop software stacks.

- The RDK is a standardized open source software stack that sits below the MVPD application/services layer and provides a common interface to SoC's, acting as a universal SoC adapter that allows portability across hardware platforms.
- The RDK Broadband standardized stack provides complex broadband and management functions such as Mesh Networks, WiFi Management, and Device Management.

The RDK Broadband Feature List is categorized by the below functions, Enhancements and new features are developed and contributed asynchronously by members of the RDK Community.

Category	Feature	Feature	Dependency(If any)
Home Networking	Camera	Camera Onboarding (discovery via UPnP)	Device dependency
	GRE	Soft Generic Routing Encapsulation	
	HNAP	HNAP Support (for Home Security)	
	IoT	ZigBee Ready	Device dependency
		Bluetooth LE Ready	
		Bluetooth LE App Manager (For Tile Detection and Ring)	New items
		Zilker SDK	New items
	IP	IPv4/IPv6	
	IP Configuration	Static IP Provisioning (DSLite based)	
		RIPv2	
		Subnet Mask Configurability Ready	Device dependency
	LAN	DSCP marking for first northbound packets	
		Ability to Disable LAN DHCP	
		New CcspEthAgent component to manage Ethernet interface and clients	
	WAN	New EthWan component to enable wan side connection through Ethernet port	
		WAN mode auto detect	Device dependency
		WAN Manager	New items, Device dependency
	Wi-Fi Home Network QOS	Home Network Quality of Service	
	Wi-Fi	Active Band Steering	
		Configuration of Transmission Rates for the 2.4 and 5 GHz Bands	
		Create telemetry markers for WiFi vAP (SSID) up percentages	
		Dual Band support on XH SSID	
		Lost+Found SSID – Automatic WiFi Onboarding	
		Plume support	Device dependency
		Private Wi-Fi	
		Public Wi-Fi	
		Split Configuration - Band steering (POC)	Device dependency
		Wi-Fi ATM/DCS/DFS Ready	Device dependency
Content	WiFi	Wi-Fi Spectrum Analysis Ready	Device dependency, Cloud dependency
		Wi-Fi Telemetry	Cloud dependency
		HAL for easyconnect and passpoint	New items
	Device Profile	DOCSIS 3.0 Support	
		DOCSIS 3.1 Support	Device dependency
		EPON	Device dependency

		DSL	New items, Device dependency
		GPON	New items, Device dependency
	Video	Video over Wi-Fi (client required)	
		VidiPath	
Device Management	Administration	Local Admin Pages	
		Feature Control (Remotely enable/ disable individual features on devices without new code deployment)	Cloud dependency
		Cloud Management (WebPA & TR-181 based)	Cloud dependency
		MeshAgent – Adaption layer between WiFi extender and cloud based management services	
	Boot Up & System time	Additional Boot Up information	
		Synchronize System Time with NTP Server	
	Build	Yocto 3.1 Dunfell on Raspberry Pi Reference Platform	Changed items
	Download	HTTP Code Download	
		XCONF Code Download & Device Management (client)	Cloud dependency
		XCONF Server	Cloud dependency
	Implementation	Converge RDK Video and RDK Broadband Messaging Bus	
		Support for Cujo Rabid Framework for Parental Control	
		Rabid Framework for Finger Printing	
	Initialization & Reset	Boot Time Optimization	
	Kernel	Linux 5.4.72	Device dependency, Changed items
	Linux Containers	Initial container implementation	
		Linux Container for lighttpd	
	Monitoring	TR-069/TR-181	
		SNMP	
		SNMPv3 Migration	
		Alias Manager – Exposing Custom DML for MSO specific names	New items
		SNMP Security Hardening	
		RDK Telemetry	Cloud dependency
		WebPA	Cloud dependency
		TR-181 Object Telemetry	Cloud dependency
		Broadband Profiling (SpeedTest to Gateway device)	
	Platform Enhancement	Read factory CM MAC (WAN MAC for non CM device) from hardware.	Device dependency
	Power	Battery Backup Ready	Device dependency
	RFC	Configurable RFC Check-in immediately	
	Security	Device-agnostic platform hooks for CEDM Phase 1	
		Intrusion Detection	
		Remove Tr69 sharedKey stored in the clear	Device dependency
		Update credential encryption/decryption utility to avoid platform specific prebuilt images	
		Update dnsmasq to version 2.78 or above	
	Self Healing	Resource Monitoring	
		Need to limit the Ping failure based erouter Reset recovery mechanism	Device dependency
	Telemetry	WHiX - Create telemetry markers for channel noise floor	
		Supports the ability to configure a "Unique Identification Telemetry Tag" to be used in the telemetry report	
		Create telemetry markers for Maximum TX_RATE, RX_RATE per client	