

RFP - Release Notes - 2020 - M3 - Backup



Release Notes - 2020 - M3
RDK Reference Platform (RFP)

Version: 1.1
31st March 2020

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Revision History

Release No.	Date	Revision Description
1.0	02 Mar 2020	Updated Release Information , Release Identification for 2020 M2 Release Updated Features supported for this sprint and Community tickets addressed • IO connector plugin in R-Pi Thunder image (REFPLTV-393) • Super POD connectivity to Plume cloud server through Turris Omnia RDKB Gateway (REFPLTB-434) • Wi-Fi Hostapd dynamic Configuration - Turris Omnia (REFPLTB-539) • Emulator for Developer in rdk-next branch (REFPLTB-540 & REFPLTB-541) • Community Tickets (REFPLTB-528 & REFPLTB-487)
1.1	31 Mar 2020	Updated Release Information , Release Identification for 2020 M3 Release Updated Features supported for this sprint and Community tickets addressed Updated Known Issues and Limitations for • Band Steering Support in RPI - RDKB (REFPLTB-432) • Bring WebPA support for Turris Omnia - RDKB (REFPLTB-550) • Integration of Firmware Control Plugin for RPI - RDKV (TS-27) • Voice Plugin support in Thunder R-Pi - RDKV (TS-31) • Continuous Video Recording (CVR) - RDKC (REFPLTCAM-10)

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Introduction

This Release Notes document details on the delivery version 2020 M3 for the RDK Reference Platform to the RDK Community

1. Release Feature Information
2. Software and Hardware requirements to build
3. Known limitations
4. Updated Platform Tickets

Release Information

Below are the list of release features supporting Turris Omnia, R-Pi platform and Emulator.

S. No	Feature	Device	Profile	Remarks	Tickets
1	Band Steering Support in RPI	R-Pi	RDKB	- Steering support added based on RSSI Threshold for client devices which support both 2.4GHz and 5GHz - Added WiFi Hal Functions - wifi_setBandSteeringEnable - wifi_getBandSteeringEnable - wifi_getBandSteeringCapability - Made modification in CcspWiFiAgent Component - Compilation flag added to support Band Steering Feature for Band steering calls under R-Pi Platform - System Testing performed with 19 test cases	REFPLTB-432
2	Wi-Fi Spectrum Analyzer Support in Emulator	Emulator - X86	RDKB	- WiFi Spectrum Analyzer feature provides the real time metrics for the WiFi radio spectrum - Integrated wifi-spectrum analyzer php , ajax files to view the UI page in Browser. - Added new php and ajax files are wifi_spectrum_analyzer.php, spectrum_analyzer_download.php,at_saving.php, ajax_wifi_spectrum_analyzer.php,ajax_at_saving.php - Added Troubleshooting > Wi-Fi Spectrum Analyzer page in WebUI - Implemented wifi_getNeighboringWiFiDiagnosticResult2() api's in wifi hal layer - System Testing Performed with 9 Test Cases	REFPLTB-553
3	Bring WebPA support for Turris Omnia	Turris Omnia	RDKB	- Turris Omnia Platform supported with WebPA Based Remote Management and performed Get/Set operations using WebPA Server - Added parodus service and parodus_start script files under meta-turris layer - Added parodus.bbappend file to include added files and install under /lib/rdk and system folder - Established communication with WebPA Server by providing respective URL in parodus_start.sh file - System Testing performed with 19 Test Cases	REFPLTB-550
4	Synchronization of RDKB (WebUI) changes (update of SSID name) in Plume NOC	Turris Omnia	RDKB	TBD - Rajakumaran/Mani	REFPLTB-549
5	Integration of Firmware Control Plugin for RPI	R-Pi	RDKV	- Firmware Control Plugin will provide support to device for changing the firmware running in device switching between two memory partitions - Added Support to auto create second memory partition in SD-Card for memory bank switching - Parameter validation while upgrade request reached - Loop mounting of firmware image, extract and copy the content to passive bank and make as active - Auto reboot after flashing completed - System Testing Performed	TS-27
6	Voice Plugin support in Thunder R-Pi	R-Pi	RDKV	- Voice control support using Tech 4 Home remote on RDKV 4.0 R-Pi . Voice command from remote is transferred to RPI board via bluetooth and is processed by Voice plugin - Demo Video added explains use of this feature	TS-31
7	Yocto 3.1 Migration on RDKV R-Pi	R-Pi	RDKV	Yocto 3.1 Upgradation support the following: - Yocto BSP layer for meta-raspberrypi. - OpenEmbedded and Yocto Dunfell. - Linux kernel 4.19. - Version upgrades for bitbake, gstreamer and other oe/wpe recipes. - Integrate latest westeros. - Launching Youtube with WPEFramework UI.	REFPLTV-404

8	Community Tickets	R-Pi and Emulator	RDKB	[TDK][AUTO]Emulator UI not coming up after factory reset - CcspwifiSsp : Unable to load library -- libwifi.so [TDK][AUTO] Some WiFi parameters queried after a factory reset through webpa is giving a empty value - Device.X_COMCAST-COM_GRE. query is returning CCSP_ERR_NOT_EXIST(192) error [TDK][AUTO]WiFi SSID broadcast not stopping even after disabling the SSIDs [TDK][AUTO]Device.WiFi.SSID Status is Up even if Device.WiFi.SSID Enable is disabled for both 2.4 GHZ and 5 GHZ public wifi [TDK][AUTO]Unable to toggle Device.WiFi.AccessPoint.10002.SSIDAdvertisementEnabled through webpa - RPI's clients losing connectivity intermittently [TDK][AUTO]Webpa and dnmcli queries are giving different values as output for few of the WiFi parameters - RDKB EMU snmp request for wifi factory reset failing in rdk-dev branch	REFPLTB-532 REFPLTB-520 REFPLTB-509 REFPLTB-422 REFPLTB-529 REFPLTB-461 REFPLTB-492 REFPLTB-396 REFPLTB-515 REFPLTB-408
9	Community Tickets	R-Pi	RDKV	- Thunder Metro App UI Graphics not loading on default with westeros change 34694 - Remove securityagent from meta-cmf-raspberrypi	REFPLTV-389 REFPLTV-410
10	Continuous Video Recodrding (CVR) Support	R-Pi	RDKC	CVR uses Kinesis Video Streams and supporting 24/7 video recording support.	REFPLTCAM-10
11	WebPA Support	R-Pi	RDKC	- Supporting Webpa Remote management with parodus and webpacamera components being enabled in RDK-C. - Enabling get/set functionality to operate TR-181 device parameter.	REFPLTCAM-8

Hardware and Software Requirements

Supported software and hardware

- Preferred 2.4GHZ WIFI adapter for Emulator: Tenda 150Mbps Wireless PICO USB Adapter with RT5370 chipset (W311MI) (or)
- Preferred 2.4GHZ WIFI adapter for Emulator: TP-Link AC1200 Wireless Dual Band USB Adapter (Archer T4U)
- Preferred 5GHZ WIFI adapter for Emulator/RPI: TP-Link AC1200 Wireless Dual Band USB Adapter (Archer T4U)
- Preferred xfinity-wifi 2.4GHZ WIFI adapter for RPI: TP-LINK TL-WN823N 300Mbps Mini Wireless N USB Adapter
- New dongle - Ultra-fast 1300 (867+400) mbps wireless speed with 802.11ac
- USB to Ethernet
- Desktop PCs
- 8 GB SD-Card

Known Issues and Limitations

- Integration of Firmware Control Plugin for RPI
 - Auto reboot after firmware update is not happening currently. User has to reboot manually after completion of firmware update.
 - RPI board will reboot before firmware update only for the first request for updating memory partition table, and user has to give request command once again for firmware update. This occurs only for the first request after board boot up.
- Band Steering Support in RPI
 - Band Steering feature is limited only to dual/tri band radio capable devices.
 - Steering of 5 GHz capable wireless clients can be done only when SSID and security parameters are same for both 2.4GHz and 5GHz.
- Bring WebPA support for Turris Omnia
 - Limited number of Get/Set Parameters are tested, listed under user manual
- Voice Plugin support in Thunder R-Pi
 - Currently voice plugin is working with a specific version of controller UI, <https://widgets.metrological.com/lightning/metrological/25f919f4b5bd9803d97df1c926cb0f83?>
 - Only Tech 4 Home remote, Notus S2 is working, with Notus S1 voice commands are not working.
- RDKC- Continuous Video Recording (CVR)
 - CVR feature can record and stored content locally i.e. on R-Pi target.
 - Need to support content upload to AWS server.
- WebPA support - RDK Camera - R-Pi
 - Limited number of Parameters tested which are listed under respective User Manual

Project Documentation

Below are the list of supporting documents that are part of release

1	High Level Design	• High level design approach - BroadBand - 2020 - M3 ◦ RDKB Wi-Fi Spectrum Analyzer support in EMU - Design - 2020 M3 ◦ RDKB BandSteering(With CcspWifiAgent) - Design Approach • High level design approach - Video - 2020 - M3 ◦ RDKV 4.0 Firmware Upgrade on RPI - Design - 2020 - M3 • High level design approach - RDK Camera - 2020 - M3 ◦ Continuous Video Recording (CVR) Support in R-Pi - RDK Camera - Design - 2020 - M3	An high level design document which explains the design flow of each and every feature also covers Design Considerations, Architecture, Data Model, Limitations and Future Enhancements
2	User Manual	• Release feature user manual - Broadband - 2020 - M3 ◦ Band Steering User manual(With CcspWifiAgent) - RDKB ◦ RDK Broadband - WebPA Support in Turris Omnia - User Manual - 2020 - M3 ◦ Spectrum Analyzer in Emulator - RDKB - User Manual - 2020 - M3 ◦ Synchronization of RDKB (WebUI) changes (update of SSID name) in Plume NOC using RDK Mesh Agent - RDKB - User Manual - 2020 - M3 • Release feature user manual - Video - 2020 - M3 ◦ RDKV4.0 Firmware Upgrade - User Manual - 2020 - M3 ◦ RDK Video - Voice Plugin in Thunder - User Manual - 2020 - M3 ◦ Yocto 3.1 Upgrade in RPI - RDK Video - Build Manual - 2020 - M3 • Release feature user manual - Camera - 2020 - M3 ◦ RDK Camera in RPI Reference Platform - Continuous Video Recording (CVR) - User manual - 2020 - M3 ◦ RDK Camera in RPI Reference Platform - WebPA Support - User manual - 2020 - M3	The user manual consists of procedure to test the particular feature also covers Environment setup, Executing the System and Trouble shooting steps
3	System Test Plan Results	• System Test Plan and Report - Broadband - 2020 - M3 ◦ WiFi_Spectrum_Analyzer-E-03259-01-01-STP36v3.0.xls ◦ BandSteering-E-09874-01-01STP35v3.0.xls ◦ WebPA_Server-E-09874-01-01STP38v3.0.xls ◦ RDKB_Plume_Sync-E-09874-01-01STP39v3.0.xls • System Test Plan and Report - Video - 2020 - M3 ◦ TBD • System Test Plan and Report - Camera - 2020 - M3 ◦ WebPA-E-09874-01-01STP42v2.0.xls ◦ CVR-E-09874-01-01STP41v2.0.xls	This document contains multiple test cases and test results which are captured after test execution

4	Release Notes	• Release Notes - 2020 M3	Release Notes -This document
5	Requirement Traceability Table	• E-09874-01-01_RDK_ReferencePlatforms_RTT_March_2020.xls	This document tracks the requirement/feature from end to end (For Eg: from design, coding,testing,documentation are tracked for an particular feature. This enables the user to have a quick references of a particular feature
6	Demo Videos	• Demo Videos - RDK Video- 2020 - M3 ◦ Voice Recognition through Bluetooth Remote Control Plugin - RDKV 4.0 - Demo - 2020 - M3 • Demo Videos - RDK Camera - 2020 - M3 ◦ Demo - RDK Camera Continuous Video Recording (CVR) Support in RPI - 2020 - M3	This document/Video explains the feature supported in video file format and explains use cases covered for the respective feature with set up needed

Technical Support contact

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