RFP - Release Notes - 2021 - M4

Release Notes - 2021 - M4
RDK Reference Platform (RFP)

Version: 1.14
02 May 2021

Revision History

Release No.	Date	Revision Description
1.14	02 May 2021	**Broadband** • Release builds for Turris-Omnia - REFPLTB-1048 • TinyRDK for Turris Omnia target - REFPLTB-1021 • Design preparation for WiFi6 radio bring up in Turris Omnia - REFPLTB-1058 • Community Support for Turris Omnia target - REFPLTB-1063, REFPLTB-1068 • Integrate and compile Opensync_2.0 recipe for RPI4 target - REFPLTB-1070 **Camera** • Validate live stream using pipewire framework with gst-launch - REFPLTCAM-118 • Bringing RDKC Streamerhal component into the yocto framework - REFPLTCAM-104 • Bringing RDKC camera-apps component into the yocto framework - REFPLTCAM-103 • Resolve build failure in RDK-C - REFPLTCAM-125 **Video** • Stabilization fixes in RPi Yocto 3.1 (Dunfell) image. • Stabilization of RDK Services. • Bug fixes in UI.
1.13	31 Mar 2021	**Broadband** • Analyze and ensure the tiny RDK Changes brought up in Raspberry PI - REFPLTB-916 • Analyzed the tiny RDK changes in Raspberry PI and making changes for turris-omnia REFPLTB-1021 • Added wifihal Test binary to validate the wifi hal api's in emu console - REFPLTB-1018 • Wifi Hal refactoring for gathering the information of Associated wireless clients - REFPLTB-1038 • Fixed Build errors for Unification of rtmessage on both RDKB and RDKC • Fixed Turris Extender opensync_2.0.5 build errors in dunfell - REFPLTB-964 **Camera** • Audio playback with pipewire utility - REFPLTCAM-124 • Resolved firmware upgrade issue **Video** • Stabilization fixes in RPi Yocto 3.1 (Dunfell) images • Enhancements in Resident App UI • Bug fixes on RDK Services

1.12	28 Feb 2021	**Broadband** - Analyze and ensure the tiny RDK Changes brought up in Raspberry PI - REFPLTB-916 - RDK-B Upgradation to R-Pi4 - REFPLTB-931 - Yocto 3.1 Migration with WebUI JST support in rpi3 Fixes - REFPLTB-923 - TR-069 Data Parameters Support- GPV, SPV for RPI - REFPLTB-928 - Extensible SDK (eSDK) support for Turris Omnia Phase2 - REFPLTB-584 - Git tagged releases for Turris Omnia on rdk-next branch - REFPLTB-976 **Camera** - Resolve buffer glitches and hang issue in RMS feature with libcamera. - REFPLTCAM-115 - validate cvr feature using libcamera - REFPLTCAM-108 - Bringup pipewire component in RDK-C. - REFPLTCAM-116 **Video** - RDKCentral's generic TR-069 Data Model used in RPi platform - Fixed RDK Services stabilization tickets - Pinned Revision for RDK components in eSDK support - Resolved few Community tickets
1.11	31 Jan 2021	**Broadband** - Yocto 3.1 with WebUI JST migration Support in RPI(Model 3B+/3B) target platform - REFPLTB-862 - Remote Management Support With HTTPS in RDKB RPI target platform - REFPLTB-893 - TR-069 Support for RPI - REFPLTB-899 - Telemetry- Cron Expression Support for Turris Omnia - REFPLTB-866 - Extensible SDK (eSDK) support on Dunfell Turris -REFPLTB-584 - Wireless Protection Setup(WPS) support for Turris Omnia - REFPLTB-673 - Git tagged releases for Turris Omnia on rdk-next branch - REFPLTB-924 **Camera** - extensible SDK (eSDK) support for raspberrypi - REFPLTCAM-105 - fixing zoom issue observed on libcamerasrc video capture - REFPLTCAM-106 - crash observed during capturing video using libcamerasrc after 40+ seconds of capture - REFPLTCAM-107 - Support RMS with RTSP feature using libcamera src - REFPLTCAM-110 **Video** - New RDK Resident App available in RPi images NEW! - Telemetry 1.0 feature on Video profiles NEW! - RDKShell runtime crash is fixed - MPEG-2 playback using hardware decoding on RPi available in Yocto 3.1 - Build issues fixed in RPi RefApp image on Yocto 3.1 - Migration of BRCM Reference Device 72180 to 20.2 sdk
1.10	08 Jan 2021	**Broadband** - Yocto 3.1 Migration and validation of RDKB features with opensync - REFPLTB-836 - Git tagged releases for Turris Omnia on rdk-next branch - Dec_30_12_2020 - Yocto 3.1 migration Support in RPI(Model 3B+/3B) target platform - REFPLTB-862 **Camera** - Yocto 3.1 Migration on rdk-next branch for RPI - REFPLTCAM-91 - Firmware Upgarde with HTTP support for RPI - REFPLTCAM-92 - libcamera validation with gst-launch-1.0 -REFPLTCAM-68 **Video** - Extensible SDK for Raspberrypi Platform - REFPLTV-730 NEW - Yocto 3.1 (Dunfell) Migration of RDK-Video profile's yocto builds on rdk-next branch - Phase 2 - REFPLTV-412 NEW - Firmware Upgrade on RPi platform from XCONF Server - REFPLTV-759 NEW - Stabilization of RDK Services on RDK-V images - fixed most of the issues - REFPLTV-514

1.9	30 Nov 2020	Broadband
		
		• RDK Telemetry for Turris omnia reference platform - REFPLTB-664
		• Yocto 3.1 Migration on rdk-next branch for RPI - REFPLTB-862
		• Validation on Migration from dunfell to rdk-next on Turris Omnia - REFPLTB-836
		• Mesh config on R-Pi 4 (Proof of Concept)
		• Git tagged releases for Turris Omnia on rdk-next branch - Nov_30_11_2020
		
		Camera
		
		• Support RTSP streaming with RMS in Dunfell branch - REFPLTCAM-86
		• Validate CVR use case in RPI3 with dunfell branch - REFPLTCAM-82
		• Support Normal Thumbnail in RPI3 with Dunfell branch - REFPLTCAM-88
		• Support Firmware upgrade in RPI3 with dunfell branch - REFPLTCAM-87
		• Smart Home with Security Surveillance Video Streaming (Proof of Concept)
		   ○ Face detection
		   ○ Thumbnail support
		   ○ RTSP Streaming
		
		Video
		
		• Yocto 3.1 (dunfell) build framework support on rdk-next RPi RDK image builds `NEW`
		   ○ Supports generation of both media client and hybrid gateway generic images
		• Smart Home with Security Surveillance Video Streaming (Proof of Concept)
		   ○ Thumbnail Notification handling
		   ○ Picture-in-Picture video playback
		   ○ IOT device control application
		• RDK Services on x86 PC Emulator `NEW`
		   ○ Supports Controller UI
		   ○ Services: DeviceInfo,

1.8	31 Oct 2020	Broadband
		
		Yocto 3.1 Turris Omnia - Synchronizing from topic branches to mainstream branches
		
		• Synchronizing yocto 3.1 changes in meta-turris layer - REFPLTB-807
		• Git tagged releases for Turris Omnia on rdk-next branch - Oct_30_10_2020
		
		Camera
		
		• Validation of RDK-C use cases of CVR, Normal thumbnail and firmware upgrade in RPI-3B+ target. - REFPLTCAM-74
		• CVR crash issue was fixed - REFPLTCAM-69
		• Supported firmware upgrade with both ethernet and wifi Mac - REFPLTCAM-77
		• CVR build issue was fixed - REFPLTCAM-76
		
		Video
		
		• Firmware Control service on HYB and MC images
		• Wifi service enabled for HYB images
		• Yocto 3.1 Migration on rdk-next build - Phase 1
		   ○ Parsing errors were resolved and RPi specific changes are merged
		   ○ Supporting Jenkins team to merge Comcast migration changes into rdk-next
		• meta-wpe layer removal - Supported all images including RefApp image where video and graphics issue fixed
		• RMF Streamer crash was fixed

1.7	30 Sept 2020	• Support rdk-generic-camera-image for RPI-3 target - REFPLTCAM-67 • Validate RMS Feature in RPI3 B+ - REFPLTCAM-75 • Upstream patches in `meta-rdk-camera` - REFPLTCAM-2 • After initial bootup RPI-0 target not up on reboot. - REFPLTCAM-71 • Graphics and Video rendering issue resolved on RPi for RDK Service integration - REFPLTV-597, REFPLTV-594 • Bluetooth RDK service enabled for both MediaClient and Hybrid Gateway - REFPLTV-610 • RDK Services on RPi Generic MediaClient • RDK Services on RPi Generic Hybrid Gateway • Yocto 3.1 Turris Omnia - Synchronizing from topic branches to mainstream branches - REFPLTB-808 • Git tagged releases for Turris Omnia on rdk-next branch - Sep_30_09_2020_RDKB_Gateway

1.6	31 Aug 2020	Updated Release Information, Release Identification for 2020 M8 Release Updated Features supported for this sprint and Community tickets addressed - Yocto 3.1 integration and validation for rdk-generic-camera-image - REFPLTCAM-31(REFPLTCAM-55,REFPLTCAM-56, REFPLTCAM-57,REFPLTCAM-60) - Telemetry with cron job support - REFPLTB-607 - RDKServices on Raspberrypi 's Firebolt ® Media Client Image - REFPLTV-514 - Yocto-3.1 Turris-Omnia Opensync Integration with Plume NOC and MeshAgent Support - REFPLTB-750 - Git tagged releases for Turris Omnia on rdk-next branch - Aug_31_08_2020
1.5	31 Jul 2020	Updated Release Information, Release Identification for 2020 M7 Release Updated Features supported for this sprint and Community tickets addressed - Integarted SNMP module in RDKB stack in RPI - REFPLTB-714 - RDKB Emulator hal refactoring - REFPLTB-758 - Online / Offline status of connected devices on RDKB in R-Pi - REFPLTB-622 - Fixed high priority run-time/build time issues: Yocto 3.1 RDK MediaClient Generic Image - REFPLTV-474 - Validation and fixes for runtime issues for Yocto 3.1 RDK Hybrid Generic image - REFPLTV-473 - Integrate yocto3.1 for rdk-generic-camera-image - REFPLTCAM-31 - Yocto 3.1 dunfell RDKB build for Turris Omnia: Brought all RDKB feature that are available in rdk-next build - REFPLTB-566 - Git tagged release build(rdk-next) for Turris omnia - REFPLTB-680
1.4	30 Jun 2020	Updated Release Information, Release Identification for 2020 M6 Release Updated Features supported for this sprint and Community tickets addressed - Firmware upgrade through XCONF server in Turris Omnia Platform - REFPLTB-665 - Added RDKM logo support in UI page and corresponding syndication DM parameters also updated with respect to emulator - REFPLTB-623 - Added Firmware Upgrade with http protocol support in rpi platform - REFPLTB-659 - Supported Normal Thumbnail feature for RPI-0 Device - REFPLTCAM-15 - Validation and fixes for various runtime/build time failures for rdk-generic-mediaclient-image - REFPLTV-474
1.3	29 May 2020	Updated Release Information, Release Identification for 2020 M5 Release Updated Features supported for this sprint and Community tickets addressed - *vc4graphics* and *v4l2* enabled for RDK Hybrid Thunder image on RPI platform to resolve MPEG TS streams playback issue - REFPLTV-433 - RDK Generic Hybrid image support on RPI platform from yocto 3.1 manifest - REFPLTV-473 - RDK Generic Mediaclient image support on RPI platform from yocto 3.1 fixing Issues - REFPLTV-474 - Yocto - 3.1 support in Turris Omnia Target - RDK Broadband generic gateway image - REFPLTB-566 - Implementated the hal-dhcpv4c api's for successfully fetching of Device.DHCPv4.Client.{i} data model tree - REFPLTB-635 - Supported Firmware Upgrade with XConf server for RDK-C - REFPLTCAM-21
1.2	30 Apr 2020	Updated Release Information, Release Identification for 2020 M4 Release Updated Features supported for this sprint and Community tickets addressed - Yocto-3.1 core minimal image support in Turris Omnia target (REFPLTB-564) - Yocto-3.1 RDK generic media client image support in R-Pi(REFPLTV-412) - EMS Refactored to RMS (REFPLTCAM-11 REFPLTCAM-18 REFPLTCAM-19 REFPLTCAM-20 and REFPLTCAM-2) - CVR Support in AWS cloud through gstreamer kvs sink (REFPLTCAM-10) - RDK Telemetry support in Emulator(REFPLTB-563)
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) - Continuous Video Recording (CVR) - RDKC (REFPLTCAM-10)

| 1.0 | 02 Mar 2020 | Updated Release Information, Release Identification for 2020 M2 Release

Updated Features supported for this sprint and Community tickets addressed

• 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)
• IO connector plugin in R-PI Thunder image (REFPLTV-393)
• Community Tickets (REFPLTB-528 & REFPLTB-487) |

Contents

Introduction

This Release Notes document details for the delivery of version 2021 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 is the list of release features supporting Turris Omnia, R-Pi, and Emulator platforms.

S. No.	Feature	Device	Profile	Tickets	Remarks
1	OpenSync integration in RPI4	R-Pi	RDK-B	⚠ REFPLTB-1070 - Jira project doesn't exist or you don't have permission to view it.	

2	Release Build for Turris-Omnia target	Turris-Omnia	RDK-B	⚠ REFPLTB-1048 - Jira project doesn't exist or you don't have permission to view it.
				Sub-task Tickets:
				⚠ REFPLTB-1054 - Jira project doesn't exist or you don't have permission to view it.
				⚠ REFPLTB-1056 - Jira project doesn't exist or you don't have permission to view it.
				⚠ REFPLTB-1055 - Jira project doesn't exist or you don't have permission to view it.
3	Tiny RDK for Turris Omnia	Turris-Omnia	RDK-B	⚠ REFPLTB-1021 - Jira project doesn't exist or you don't have permission to view it.
4	Design preparation for WiFi6 radio bring up in Turris Omnia	Turris-Omnia	RDK-B	⚠ REFPLTB-1058 - Jira project doesn't exist or you don't have permission to view it.
5	Community Support	Turris-Omnia	RDK-B	⚠ REFPLTB-1063 - Jira project doesn't exist or you don't have permission to view it.
				⚠ REFPLTB-1068 - Jira project doesn't exist or you don't have permission to view it.
6	Pipewire live stream	R-Pi	RDK-C	⚠ REFPLTCAM-118 - Jira project doesn't exist or you don't have permission to view it.

7	Opensource component	R-Pi	RDK-C	⚠ REFPLTCAM-104 - Jira project doesn't exist or you don't have permission to view it.
				⚠ REFPLTCAM-103 - Jira project doesn't exist or you don't have permission to view it.
8	Build Failure	R-Pi	RDK-C	⚠ REFPLTCAM-125 - Jira project doesn't exist or you don't have permission to view it.
9	Stabilization of Dunfell	R-Pi	RDK-V	**key summary type created updated due assignee reporter priority status** ⚠ Jira project doesn't exist or you don't have permission to view it. View these issues in Jira
10	Stabilization on RDK Service	R-Pi	RDK-V	**key summary type created updated due assignee reporter priority status** ⚠ Jira project doesn't exist or you don't have permission to view it. View these issues in Jira
11	Resident App Enhancements	R-Pi	RDK-V	**key summary type created updated due assignee reporter priority status** ⚠ Jira project doesn't exist or you don't have permission to view it. View these issues in Jira

| 12 | Community Tickets | Rpi | RDK-V | ⚠ SMARDTV-2 - Jira project doesn't exist or you don't have permission to view it. |
| | | | | ⚠ COMCAST-678 - Jira project doesn't exist or you don't have permission to view it. |

Hardware and Software Requirements

Hardware Requirements

Broadband

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
- Turris Omnia Target for Wi-Fi Extender functionality
- USB to Ethernet
- Desktop PCs
- 8 GB SD-Card

Video

- Raspberrypi 3 Model B+   - 1 No.
- Power Supply (Output: 5V 2A) - 1 No.
- HDMI Supported TV - 1 No.
- HDMI cable - 1 No.
- Micro SD Card - 1 No.
- Card Reader - 1 No.
- Keyboard - 1 No.

Camera

- Raspberrypi 3 Model B+   - 1 No.
- USB webcamera - 1No.
- Power Supply (Output: 5V 2A) - 1 No.
- HDMI Supported TV - 1 No.
- HDMI cable - 1 No.
- Micro SD Card - 1 No.
- Card Reader - 1 No.
- Keyboard - 1 No.

System Requirements

- How to Build#SettinguptheHostEnvironment - This Link provides the Software and System requirements for both Yocto 2.2 (Morty) and Yocto 3.1 (Dunfell) builds

Known Issues and Limitations

Camera

- Used USB webcamera to validate live stream with pipewire framework.

Project Documentation

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

1	Build Instructions	Camera • RDK-C rdk-next Yocto 3.1 dunfell build for Raspberrypi Video • RDK-V rdk-next Yocto 3.1 dunfell build for Raspberrypi	The wiki links provided here give the Linux commands to setup Yocto Project build framework's workspace and to generate RDK images.

2	User Manual	Broadband - RPI, Turris Omnia
		
		• Release Build for Turris-Omnia:
		
		  ◦ Dunfell extender TurrisOmnia build: rdkb-2021q1-dunfell
		  ◦ Dunfell gateway TurrisOmnia build: rdkb-2021q1-dunfell
		  ◦ Morty extender TurrisOmnia build: rdkb-2021q1
		  ◦ Morty gateway TurrisOmnia build: rdkb-2021q1
		
		Camera
		
		• Release feature user manual - Camera - 2021 - M4
		  ◦ Pipewire use case validation with gst-launch
		
		Video
		
		• User Manual - RDK Services on RPi
			The user manual consists of a procedure to test the particular feature also covers Environment setup, Executing the System, and Troubleshooting steps

3	System Test Plan Results	Broadband
		
		• System Test Plan and Report - Broadband - 2021 - M4
		  ◦ E-09874-01-01STP89.xls
		
		Camera
		
		• System Test Plan and Report - Camera - 2021 - M4
		  ◦ E-09874-01-01STP90.xls
			This document contains multiple test cases and test results which are captured after test execution

4	Release Notes	RFP - Release Notes - 2021 - M4	Release Notes -This document

Technical Support contact

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