

RFP - Release Notes - 2020 - M12



Release Notes - 2020 - M12
RDK Reference Platform (RFP)

Version: 1.10
08 Jan 2021

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Revision History

Release No.	Date	Revision Description
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 Upgrade 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 • Integrated 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 • <i>vc4graphics</i> and <i>v4l2</i> 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 • Implemented 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 <i>Plume</i> 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)
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Introduction

This Release Notes document details for the delivery of version 2020 M12 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	Yocto 3.1 migration on rdk-next branch	R-Pi	RDK-C		key summary  Jira project doesn't exist or you don't have permission to view it. View these issues in Jira

2	2.libcamera validation with gst-launch-1.0	R-Pi	RDK-C	KeySummary No issues found Open Issues KeySummary No issues found
3	Firmware upgrade with HTTP support on RPI from XCONF server	R-Pi	RDK-C	KeySummary No issues found
4	Yocto 3.1 Migration and Validation of RDKB features with Opensync	Turris-Omnia	RDK-B	KeySummary No issues found
5	Yocto 3.1 Migration in rpi3	Raspberrypi	RDK-B	KeySummary No issues found
6	Yocto 3.1 (dunfell) Migration on rdk-next branch	Raspberrypi	RDK-V	keysummary  Jira project doesn't exist or you don't have permission to view it. View these issues in Jira

7	Extensible SDK support from Yocto dunfell builds	Raspberrypi	RDK-V	keysummary  Jira project doesn't exist or you don't have permission to view it. View these issues in Jira
8	Stabilization of RDK Services	Raspberrypi	RDK-V	keysummary  Jira project doesn't exist or you don't have permission to view it. View these issues in Jira
9	Firmware Upgrade on RPi platform from XCONF Server	Raspberrypi	RDK-V	keysummary  Jira project doesn't exist or you don't have permission to view it. View these issues in Jira
10	Community / BD / TDK Tickets	Raspberrypi	RDK-B	KeySummary No issues found KeySummary No issues found

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.
- RPI-3 ribbon cable with RPI 2.1 camera module - 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

Video

- RDKShell is not working on RPi's native display in RDK-V images generated from Yocto 3.1 (dunfell) builds
- Resident App will be launched from the publicly available URL - <https://rdkwiki.com/rdk-apps/accelerator-home-ui/index.html#home>
- eSDK is currently supported only on RPi Mediaclient image

Broadband

- Plume NOC status is offline on Turris
- Could not access webui through 10.0.0.1 on Turris
- For initial boot-up only, toggling the sub-menu is not happening in WebUI in RDKB RPI dunfel builds(WebUI PHP Support).
- Unable to login the admin access page in WebUI in RDKB RPI dunfel builds(WebUI PHP support).

Camera

- By default current date and time is not updating in dunfell camera image.

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 • Release - Yocto Build Instructions - RPi - RDK Video - 2020 - M12 • General - RDK-V (Raspberry Pi) Yocto Build Instructions - Morty Broadband • Release(Dunfel) - RPI 3B/3B+ Model Reference Platform • General (Morty) - RDK-B Raspberrypi - Host SetUp and Build Instructions#BRaspberrypi-HostSetUpandBuildInstructions-BRaspberrypi-HostSetUpandBuildInstructions-YoctoBuildSteps	The wiki links provided here give the Linux commands to setup Yocto Project build framework's workspace and to generate RDK images.
2	High Level Design	Video • RDK Services architecture and work flow - RDK Services on Raspberrypi	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
3	User Manual	Camera • RDK-C Use case validation with rdk-next yocto 3.1 dunfell build • RDK-C libcamera valiadtion with gst-launch-1.0 • RDK-C Firmware Upgrade with HTTP and TFTP support Broadband • Turris - Yocto-3.1 Migration and validation of RDKB features with Opensync • Yocto 3.1 support for RDKB RPi Reference Platform Video • Release Feature - User Manual - Video - 2020 - M12 ◦ RDK-V rdk-next Yocto 3.1 dunfell build for Raspberrypi ◦ Extensible SDK support on RDK-V Raspberrypi Yocto 3.1 dunfell build ◦ 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
4	System Test Plan Results	Camera • System Test Plan and Report - Camera - 2020 - M12 ◦ E-09874-01-01STP74.xls ◦ E-09874-01-01STP77.xls ◦ E-09874-01-01STP78.xlsx Video • System Test Plan and Report - RDK Video - 2020 - M12 ◦ RDK-services-hybrid-E-09874-01-01STP75.xls ◦ RDK-services-mc-E-09874-01-01STP76.xls Broadband • System Test Plan and Report - RDK Broadband - 2020 - M12 ◦ E-09874-01-01STP79.xls	This document contains multiple test cases and test results which are captured after test execution
5	Release Notes	RFP - Release Notes - 2020 - M12	Release Notes -This document

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