RDKB_2024q1_kirkstone

*This is the summary page that describes the CMF kirkstone quarterly release **rdkb-2024q1-kirkstone** based on the branch rdk-next and kirkstone oe layers. Below are links to the relevant documents.*

- RPI profile has enabled DISTRO OneWifi.
- For RPI 4 Extender see RPI4 Extender - reference implementation

Note: The latest rdkb quarterly release addresses licensing issues so users are advised to move to the latest iteration.

- rdkb-2024q1-kirkstone RaspberryPi 4 Test Report (Gerrit)
- 2024Q1 Kirkstone TDK-B Test Reports - M123

For the Gerrit links, you need to log in before you will be able to see the contents.

A detailed changelog since the last release rdkb-2023q4-kirkstone can be found here.

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Baseline

Baseline Branch	nightly/20240315-kirkstone
Post-baseline updates	
TDK	M113
Manifest branch	rdkb-2024q1-kirkstone

Highlights

Components updated since rdkb-2023q4-kirkstone

CcspAdvSecurity	GwProvApp	rdkb/components/generic/json-rpc	sysint
CcspCMAgent	halinterface	rdkb/components/generic/mtu_modifier	telemetry
CcspCommonLibrary	hotspot	rdkb/components/generic/notify_comp	TestAndDiagnostic
CcspCr	lxc-container-generator	rdkb/devices/raspberrypi/hal	Utopia
CcspEPONAgent	MeshAgent	rdkb/tools/tdkb	webui
CcspEthAgent	meta-cmf	RdkCellularManager	webui-bwg
CcspHomeSecurity	meta-cmf-broadband	rdkcentral/DSM	Xconf
CcspLMLite	meta-cmf-mesh	rdkcentral/opensync-vendor-rdk-rpi	xupnp
CcspMisc	meta-cmf-raspberrypi	rdkcentral/RdkEasyMeshController	
CcspMoCA	meta-rdk	rdkcentral/RdkEasyMeshControllerSSP	
CcspPandM	meta-rdk-broadband	RdkGponManager	
CcspPsm	meta-rdk-bsp-emulator	RdkInterDeviceManager	
CcspSnmpPa	meta-rdk-ext	RdkLedManager	
CcspTr069Pa	OneWifi	RdkPppManager	
CcspWifiAgent	OvsAgent	RdkTelcoVoiceManager	
CcspXDNS	rdk_logger	RdkVlanBridgingManager	
cpuprocanalyzer	rdk-wifi-hal	RdkWanManager	

crashupload	rdk/components/opensource/oe/meta-raspberrypi	RdkXdslManager	
dca	rdk/devices/raspberrypi/webpa-client	rdm	
DhcpManager	rdk/tools/tdk	rfc	

Community contributions

A detailed changelog since the last release rdkb-2023q4-kirkstone can be found here.

Getting the code

Note:

- *The manifests repository is only available to RDK licensees.*
- *Opensource versions of the RDKB manifests are available from the* rdkcmf/manifests repository *rdkb-2024q1-kirkstone branch*

```
mkdir <workspace dir>
cd <workspace dir>

repo init -u https://code.rdkcentral.com/r/rdkcmf/manifests -m rdkb-extsrc.xml -b rdkb-2024q1-kirkstone
repo sync --no-clone-bundle --no-tags
```

- The -m <manifest.xml> in the sequence above is important. If this is not specified, you will get an RDK-V tree by default.
  - For RPI builds use manifest: rdkb.xml

    ```
    repo init -u https://code.rdkcentral.com/r/rdkcmf/manifests -m rdkb-extsrc.xml -b rdkb-2024q1-kirkstone
    ```

- The -b rdkb-2024q1-kirkstone in the build sequence above specifies the branch to use.
- If you omit the -b rdkb-2024q1-kirkstone entirely, you will get the HEAD of each component

Building the code

Building for RaspberryPi 4B 32 Bit

```
mkdir <workspace dir>
cd <workspace dir>

repo init -u https://code.rdkcentral.com/r/rdkcmf/manifests -m rdkb-extsrc.xml -b rdkb-2024q1-kirkstone
repo sync --no-clone-bundle --no-tags

MACHINE=raspberrypi4-rdk-broadband source meta-cmf-raspberrypi/setup-environment

bitbake rdk-generic-broadband-image

# To build TDK image
bitbake rdk-generic-broadband-tdk-image
```

- Note. The kernel Image and root filesystem will be created under the ./tmp/deploy/images/raspberrypi4-rdk-broadband folder

Building for RaspberryPi 4B 64 Bit

```
mkdir <workspace dir>
cd <workspace dir>

repo init -u https://code.rdkcentral.com/r/rdkcmf/manifests -m rdkb-extsrc.xml -b rdkb-2024q1-kirkstone
repo sync --no-clone-bundle --no-tags

MACHINE=raspberrypi4-64-rdk-broadband source meta-cmf-raspberrypi/setup-environment

bitbake rdk-generic-broadband-image

# To build TDK image
bitbake rdk-generic-broadband-tdk-image
```

- Note. The kernel Image and root filesystem will be created under the ./tmp/deploy/images/raspberrypi4-64-rdk-broadband folder

Documentation

Documentation on the RDK-B reference platforms including host requirement setup and flashing instructions are available from the following links:

RDK Reference Platforms

RDK-B (RaspberryPi)

RDK-B R-Pi Yocto 3.1 - Dunfell

RDK-B (Raspberry Pi) Build and Setup Manual - Router Profile

RDK-B Turris

Kirkstone (Yocto 4.0) Migration - RDK-B

RPI4 Extender - reference implementation

For all other RDK documentation please refer to the RDK wiki at https://wiki.rdkcentral.com/

Testing

Sanity Testing

RPI Sanity tests include:

- Services checks (wifiagent, hostapd, ccsp processes)
- Network (WAN) connectivity
- LAN client
- Wifi 2.4Ghz and 5Ghz hotspot testing.
- Login, menu navigation, parameter modification, e.g. Wifi SSID/password change and re-connection, changing admin password.

Test No.	Test	RPI 4 32 Bit	RPI 4 64 Bit
1	Boot up & SSH access		
2	Verify SSID name & password		
3	Captive Portal page		
4	Check Internet connectivity (Wi-Fi client)		
5	Check Web UI Launch with local gateway IP and login with admin		
6	verifying whether it is listing the basic parameters		
7	Verified the connected devices are listing		
8	Process Checklist - list of process running and ensure all the CCSP processes are running		
9	DMCLI Output. Verify it is listing all the parameters		

TDK & Automatics Testing

- TDK component, VRT and E2E tests were run against the release on both 32 bit and 64 bit builds
- TDK Manager used is TDK-B Release M123
- TDK-B Test Reports - M123