

## KaiOS Jio 2.5 quoin Release Note

Date	09-29-2020
Release	kaio_s_jio_quoin_2_5_20181106_R3_ER12_production
non-KaiOS APP tag for JIO Qwerty phone	jio_apps_2.5_170920_3.7_qwerty
non-KaiOS APP tag for JIO Candy Bar phone	jio_apps_2.5_170920_3.6_candybar
Type	TA Candidate Release

### Integration Dependencies

1. Integration based on Qualcomm Grease releaseAU_LINUX_GECKO_LF.BR.1.2.8.C2.00.00.00.000.106
2. [ODM - MANDATORY] Add Reverie RT9/QWERTY Library to manifest: For candy bar: <project name="platform_external_librt9" path="external/librt9" remote="quoin" revision="refs/tags/kaio_s_jio_quoin_2_5_20181106_R3_ER12_production"/>  For qwerty: <project name="platform_external_libqwerty" path="external/libqwerty" remote="quoin" revision="refs/tags/kaio_s_jio_quoin_2_5_20181106_R3_ER12_production"/>
3. [ODM - Optional] Additional repo for MMI Test source is made available to ODMs: <project name="platform_system_mmitest" path="system/mmitest" remote="quoin" revision="refs/tags/kaio_s_jio_quoin_2_5_20181106_R3_ER12_production"/>
4. [ODM - MANDATORY /NFC] For NFC Devices Add nfcd project from KaiOS: <project name="platform_system_nfcd" path="system/nfcd" revision="refs/tags/NFC_NCIx_KRC0.2.15.0"/>
5. [ODM] Needed for altering Jio Store server settings - add below project: <project name="kaio_s-plus.kaiostech.com" path="apps/kaio_s-plus.kaiostech.com" remote="quoin" revision="refs/tags/kaio_s_jio_quoin_2_5_20181106_R3_ER12_production"/>
6. [ODM - MANDATORY] Add Jio Sales Tracker from Adups (ODMs to get username & password from Adups): 6.1 clone project from Adups into external/sales-tracker/ directory: 1. Go to web: <a href="http://rgit.adups.com/customer/Sales_Tracker.git">http://rgit.adups.com/customer/Sales_Tracker.git</a> 2. Login with user name: odm (password is same as before) 6.2 add below line in device/qcom/common/common.mk: \$(call inherit-product-if-exists, external/sales-tracker/sales-tracker.mk) <del>6.3 Adups Sales Tracker version: v9-20190327</del>
7. [ODM - MANDATORY] for Metrics Daemon: 7.1 Add two repositories in manifest <project name="metrics" path="services/metrics" remote="quoin" revision="refs/tags/kaio_s_jio_quoin_2_5_20181106_R3_ER12_production"/> <project name="rust-toolchain" path="prebuilts/rust" remote="quoin" revision="refs/tags/kaio_s_jio_quoin_2_5_20181106_R3_ER12_production"/> 7.2 Take below system_core patch <a href="https://github.com/kaiostech/platform_system_core/commit/c30d1b4202dccc4243755226085cb6eaec8b86a">https://github.com/kaiostech/platform_system_core/commit/c30d1b4202dccc4243755226085cb6eaec8b86a</a> 7.3 if RJIO requests to NOT share performance and usage data to Cloud, please change SHARE_PERF_USAGE in gaia/Makefile from 1 to 0 like below: <b># Share performance and usage data</b>
8. Since R3_ER10, ODM needs to take 2 new repo which already in manifest to build software. It's KaiOS release process optimization to avoid build mistake in KaiOS release. <!-- Prebuilt modules for release --> <project name="prebuilt-apps" path="prebuilt-apps" /> <project name="prebuilt-b2g" path="objdir-gecko" />

### Notes

1. Launch log manager with **##0574##**
2. Launch MMITest app with **##2886##**
3. Please contact NXP for release note and information on NFC\_NCIx\_KRC0.2.15.0 release
4. revert api-daemon to commit <https://git.kaiostech.com/quoin/api-daemon/commit/14cb78c04981d0fea6ebd3705f23dec28090901c> to fix bug57083
5. revert patch of bug44287 and bug50171 to remove 2000 contacts sync limitation and fix bug57502/51303

### ODM Config

Model Name	ro.product.model
KaiOS version	ro.product.version_tag = kaio_s_jio_quoin_2_5_20181106_R3_ER12_production
ODM version	ro.build.version.incremental
Chipset version	ro.product.base_version
SAR Value	ro.product.sar_value <b>e.g. ro.product.sar_value=1.23</b>
Network types UI	ro.moz.ril.0.network_types <b>e.g. ro.moz.ril.0.network_types=gsm,wcdma,lte</b>
Torch LED	ro.kaio_s.torch_node=/sys/class/leds/flashlight/brightness ro.kaio_s.torch_enable_value=127
Enable NFC	1. Include NXP/KaiOS projects 2. set ro.moz.nfc.enabled = true

CU Reference (Please consult Jio)	<p>deviceinfo.cu needs to be defined in ../gaia/distribution/settings.json;</p> <p>Please check with Reliance JIO team on the value of CU Reference, in general, it is same as CU Ref used by FOTA which means deviceinfo.cu shares same value as ro.fota.cu_ref;</p> <p>+ "deviceinfo.cu" : "XXXX-YYYYZZZ",</p>
KaiOS FOTA Parameters (Please consult Jio)	<p>ro.fota.cu_ref:</p> <p>ro.fota.sw_ver:</p> <p>ro.fota.SUMaster:</p> <p>ro.fota.network_type:</p> <p>ro.fota.network_port: (default 80)</p>
KaiOS FOTA diff tool	<p>Please kindly get associated FOTA diff tool from git server which is under ../fota_tools; If BLOCK FOTA is needed, the version information of FOTA diff tool is under ../fota_tools/blob/quoin/block/release.txt and the version for this release is v1.6.8 which fix Bug 71856 - Move modem upgrade ahead of bootloader upgrade.</p> <p>Taking BLOCK FOTA diff tool as an example, following steps can be used to make full modem diff package:</p> <ol style="list-style-type: none"> <li>1. put source and target softwares into software/src and software/tgt</li> <li>2. then run ./prepare_pkg_start.sh and ./gen_update_pkg_start.sh</li> </ol>
Device Pref (see options below)	<ol style="list-style-type: none"> <li>1. Create a new directory under device directory with the name "default-prefs" (e.g. /device/qcom/msm8909_512)</li> <li>2. created a new file name "dev-pref.js" inside the directory "default-prefs" Add below preferences into this file</li> <li>3. In the Device mk file (e.g. device/qcom/msm8909_512/msm8909_512.mk) add EXPORT_DEVICE_PREFS line: e.g. EXPORT_DEVICE_PREFS := /device/qcom/msm8909_512/default-prefs</li> </ol>
Browser UA String	<pre>pref("general.useragent.use_device", true); pref("general.useragent.device_string", "[Device String]");</pre>
Internal FM Antenna	<pre>pref("dom.fmradio.antenna.internal", true);</pre>
Jio Push Server	<pre>pref("dom.push.serverURL", "wss://push.kai.jiophone.net:443/");</pre>
IPv6	<p>If JIO requests to turn on IPv6 tethering, please add new flag in makefile such as ../msm8909_512.mk as:</p> <pre># Enable IPv6 tethering ENABLE_RADVD := true</pre>
ViLTE (IR94)	<p>If JIO requests to turn on or off IR94, please go to ../dev-pref.js and set following flag as true or false accordingly:</p> <pre>device.capability.vilte</pre> <p>turn off by default as per RJIO request in ticket 43670 comment 20</p>
VoWiFi (IR51)	<p>If JIO requests to turn on or off IR51, please go to ../dev-pref.js and set following flag as true or false accordingly:</p> <pre>device.capability.vowifi</pre> <p>turn off by default as per RJIO request in ticket 43670 comment 31</p>
eMBMS	<ol style="list-style-type: none"> <li>1. The board config "TARGET_ENABLE_EMBMS" can only be configured by Kai, default is TRUE.</li> <li>2. The pref "dom.embms.enabled" is proposed to work as a confirming toggle for OEMs to disable EMBMS on demand in case "TARGET_ENABLE_EMBMS" is true in prebuilt gecko. Here is the code piece of b2g/app/b2g.js:</li> </ol> <pre>// Disable eMBMS by default. #ifdef ENABLE_EMBMS +pref("dom.embms.enabled", false); #endif</pre> <p>If OEM doesn't get source from KaiOS, please toggle pref "dom.embms.enabled" in proc-prefs.js or dev-pref.js file instead of b2g.js. ex: in /device/qcom/msm8909_512/default-prefs/proc-prefs.js, put pref("dom.embms.enabled", true);</p> <ol style="list-style-type: none"> <li>3. If "TARGET_ENABLE_EMBMS" is false, EMBMS will be definitely disabled regardless of</li> </ol>

Qwerty device related config.	<p>Please add BOARD_HAVE_QWERTY := true into board config makefile, each hardware has its own board configfile such as device/qcom/msm8909_512/msm8909_512.mk, please check with your HW supplier on which board is used for this project;</p> <p>Please add pref("device.capability.qwerty", true) and APP developer can use code such as "navigator.hasFeature("device.capability.qwerty") == true" to know that current device is under landscapemode;</p> <p>Please set "orientation": "landscape-primary" in the manifest.webapp of concerned web APP such as MMITest module;</p> <p>Please add ENABLE_REVERIE_QWERTY := true to board config makefile;</p> <p>Please add pref("device.capability.endcall-key", true) to ../dev-pref.js;</p> <p>pref("device.capability.endcall-key", true) be added to ../dev-pref.js as by default setting in qwerty;</p>
Dual SIM	<p>Please add following new property to board config makefile, each hardware has its own board configfile such as device/qcom/msm8909_512/msm8909_512.mk, please check with your HW supplier on which board is used for this project;</p> <p>+persist.radio.multisim.config=dsds</p> <p>Please kindly check with Reliance JIO whether SIM1 needs to be fixed as JIO SIM only (LTE only) and SIM2 need to be fixed as GSM only, if so, please set</p> <p>- ro.moz.ril.0.network_types=gsm,wcdma,lte + ro.moz.ril.0.network_types=lte + ro.moz.ril.1.network_types=gsm</p>
api-dameon	<p>If api-dameon needs to be turn-on per the request of JIO, please kindly:</p> <ol style="list-style-type: none"> <li>1. please make sure that following two git repositories has been correctly synchronized based on manifest:  <pre>&lt;project name="api-daemon" path="services/api-daemon"/&gt; &lt;project name="ads-sdk" path="services/ads-sdk"/&gt;</pre> </li> <li>2. KaiOS adds following line of code to ../gonk-misc/b2g.mk and ODM can double check: PRODUCT_PACKAGES += api-daemon ads-sdk </li> <li>3. KaiOS adds following line of code to ../gonk-misc/init.b2g.rc and ODM can double check: <pre>service api-daemon /system/kaioS/api-daemon /system/kaioS/config.toml class main user root</pre> </li> <li>4. please check that QCOM code, ../system/core/libcutils/fs_config.c, includes following: <pre>{ 00775, AID_ROOT, AID_ROOT, 0, "system/kaioS/api-daemon" },</pre> </li> </ol> <p>Please note, ODM can check with QCOM if ODM would like to understand how new Linux process can be added to system SW. By 09:00am, GMT+8, May, 18, 2018, reference code developed by QCOM for this purpose can be found on CodeAurora at <a href="https://source.codeaurora.org/quic/la/platform/system/core/tree/libcutils/fs_config.c?h=LF.BR.1.2.8.c2-06900-8x09.0#n114">https://source.codeaurora.org/quic/la/platform/system/core/tree/libcutils/fs_config.c?h=LF.BR.1.2.8.c2-06900-8x09.0#n114</a>, ODM can check with QCOM if further clarification is needed;</p>
ODM hardware version	<p>If ODM needs to display HW version by phone UI to end user, ODM can add one new system property as listed as following to makefile, please note, string length of HW version needs to be less than 91 characters:</p> <p>+ ro.hardware=;</p> <p>For instance, ODM may set ro.hardware=ODM name_SKU name_DVTx as HW version;</p> <p>Once the new system property is added and a clean SW build is done, end user can find HW version from phone UI from Settings APP at "Settings -&gt; Device Information -&gt; More information -&gt; Hardware Version";</p>
ODM phone ROM size	<p>Please kindly add ROM size of device in Mbyte to device folder as preference;</p> <p>For instance, if ROM size is 4GByte, please add pref("device.storage.size", 4096); if ROM size is 512MByte, please add pref("device.storage.size", 512);</p>
Enable Marionette for MTBF	<p>If a SW build is needed for MTBF testing, please kindly:</p> <ol style="list-style-type: none"> <li>1, use no production SW tag, for instance, TA2_R2, not TA2_R2_production;</li> <li>2, make a userdebug build;</li> </ol>

KaiOS API version	Please kindly double confirm with Reliance JIO on KaiOS API version and add one new preference to ../dev-pref.js accordingly. In general, it should be v2.0 and if it is v2.0, the new added preference will be:  + pref("app.kaiapi.version", "2.0")
Bug 66376 - Allow to disable Verify the installed apps on boot	please kindly double confirm with Reliance JIO on pref apps.disable_boot_verify value in the final build.
Jio Store	In ../gaia/build/config/common-settings.json, you can set: "deviceinfo.cu": "your string here", (ex. deviceinfo.cu: "40440-2BAQUS1-R"), "apps.serviceCenterUrl": "server url here", (ex. "apps.serviceCenterUrl": "https://api.kaiostech.com/v2.0".)

Issues Fixed	
105763	[TA1/TA2] app tags R3 ER12 jio_apps 2.5 170920 3.6 candybar, jio_apps 2.5 170920 3.7 qwerty
63363	Support for SPP, HID & peripheral mode profiles for Bluetooth
65800	Verify the installed apps on boot
66765	[FOTA]FM app disappear after FOTA upgrade
69598	Date check handling for verify apps during bootup
70058	[Security] Block Unauthorized & Rogue apps
72720	[JIO Device] App store getApplist MCC/MNC parameter support
77849	[CLM ID-1143348] [VIT_LF2403S]:EPA-AKA doesn't work after device reboot.
82627	[Kai Cloud-DP-0.99_101-p21] App AutoUpdate /SilentInstall /Manual JioStore functionality is breaking w.r.t MCC/MNC
82685	Device reboot on invoking of Root Check API on 9820E USER/production builds
82724	[Security][launcher][JIO] Block Unauthorized & Rogue apps
82725	[Security][System][activity][JIO] Block Unauthorized & Rogue apps
83011	[KaiCloud-DPv0.99_101-P21] Signed Device build required to validate MCC MNC Feature
84878	[Jio-Devices] Device side changes required for adding MCC & MNC parameter for getApplist and getManifest API call to
86071	App Usage Event has not been sent to JBS app.
87438	[JPV] include time & appVersion information as part of app usage data to JBS app
88320	Data Collector :: Not receiving App Usage data from KAI FrameWork - SPRD
97705	Data Collector :: Need to understand more on API to capture Rx and Tx bytes
99146	App verify on boot got some problem
100372	There could be duplicated entries in navigator.mozApps.mgmt.getAll()
105957	[JPV][JPP][JioPhone1]Device Setup to contain RIL EULA.
70337	NFC hang is observed during mPOS start and stop
71144	Card activation changes to be merged to nfcd
96099	[NFC][NFCD] Sync nfcd from nxp NFC_NCIx_KRC0.2.15.0 release to kaios
96108	[NFC] Update manifest to NFC_NCIx_KRC0.2.15.0 for jio daily build image

Dependent Issues	
Following tickets are needed by	
43562	[ViLTE / VoWiFi] VoWiFi Phonebook: Device shall display correct icons during call in status bar & call logs to differentiate Normal call, VoLTE call, VoWiFi call [CLM ID-706225] => it needs QCOM release AU_LINUX_GECKO_LE.BR.1.2.8.C2.00.00.00.000.106
47970	[DATA] Hipri type state is incorrect when WIFI is on. => QCOM needs to release a patch as per bug47970 comment 115, as a follow up patch for bug37523
44350	API to detect device is rooted or not => need to take below diff in QCOM AU106 sepolicy/domain.te file  # Don't allow raw read/write/open access to block_device # Rather force a relabel to a more specific type - neverallow { domain -kernel -init -recovery -vold -uncrypt -install_recovery -fsck } block_device:blk_file { open read write }; + neverallow { domain -kernel -init -recovery -vold -uncrypt -install_recovery -fsck -b2g } block_device:blk_file { open read write };

Known issue	
63885	[Crash][Calendar]The first time you delete a Google event, the Crash phenomenon occurs in Calendar. => patch ready.