

RDKB - Yocto 3.1 Migration for Turris-Omnia Reference platform - User manual - M5 - 2020

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1.1. Introduction

Upgrading Turris-Omnia Reference Platform for Yocto 3.1 ie., from morty to dunfell

Considerations for broadband & extender build:

- OpenEmbedded and Yocto Dunfell.
- Linux kernel 4.14.
- Version upgrades for bitbake and other oe recipes(if needed).

1.2. Environment Setup

• 1.2.1. Host- environment

Build instructions for generating the rdk-generic-broadband-image,

- `repo init -u https://code.rdkcentral.com/r/manifests -m rdkb-turris-extsrc.xml -b yocto-dunfell-upgrade`
- `repo sync -j4 --no-clone-bundle`
- `MACHINE=turris source meta-turris/setup-environment`
- `bitbake rdk-generic-broadband-image`

1.3. Error Handling

For rdk-generic-broadband image,

	Error/warning	Layer /Reciepe	Fix	Remarks
1	ERROR: Nothing PROVIDES 'wireless-tools'	meta-rdk-opensync meta-rdk	In opensync_1.4.0.bb, remove wireless-tools from depends And in packagegroup-rdk-oss-broadband.bb, remove wireless-tools for dunfell branch	wireless-tools is not there in yocto-3.1
2	ERROR: Nothing PROVIDES 'bridge-utils-native' ERROR: Nothing PROVIDES 'virtual/kernel-native'	meta-virtualization openvswitch_git.bb upgraded from 2.6.3 to 2.13	Add, DEPENDS_remove = "virtual/kernel bridge-utils" DEPENDS_append_class-target = " virtual /kernel" DEPENDS_append_class-target = " bridge-utils"	Building the dependencies only for the target , not for the narive
3	ERROR: Nothing RPROVIDES 'cpp-symlinks' ERROR: Nothing RPROVIDES 'cpp'	meta-openembedded python3-pycparser_2.19.bb	Add, RDEPENDS_\${PN}_class-target_remove = " cpp cpp-symlinks"	cpp and cpp-symlinks recipes are not present in 3.1
4	ERROR: mosquito-1.4.8-r0 do_compile: oe_runmake failed security_default.c:773:13: error: storage size of 'context' isn't known	meta-rdk-ext mosquitto_1.4.8.bb	In rdk.conf Include preferred version of mosquito with 1.6.9	
5	make: *** No targets specified and no makefile found. Stop. ERROR: oe_runmake failed	meta-rdk-broadband ccsp-common-library.bb	change source directory by including, S = "\${WORKDIR}/ccsp-common-library-yocto-dunfell-upgrade+git\${SRCPV}"	

6	error: dereferencing pointer to incomplete type 'SSL' {aka 'struct ssl_st'} error: 'SSL_ST_OK' undeclared (first use in this function); did you mean 'TLS_ST_OK'?	meta-rdk-broadband ccsp-common-library.bb	remove "SSL_ST_OK" (that has been removed for openssl version 1.1.0g)	
7	error: 'void* memcpy(void*, const void*, size_t)' copying an object of non-trivial type	msgpack-c	Reference: https://github.com/msgpack/msgpack-c/pull/659/commits/a05d92ae85024d0648f69f95307a1d3e8e51109c	
8	undefined reference to 'SSLeay_add_all_algorithms' collect2: error: ld returned 1 exit status	meta-rdk-broadband utopia.bb	In user_openssl.c, Add condition for the function, #if OPENSSSL_VERSION_NUMBER < 0x10100000L #endif	
9	fatal error: cJSON.h: No such file or directory	meta-rdk-broadband utopia.bb, ccsp-psm.bb meta-rdk-ext, ccsp-tr069-pa.bb wdmp-c_1.0.bb meta-rdk dca_git.bb	In apply_system_defaults.c, wdmp_internal.c, wdmp-c.c, cosa_x_cisco_com_mta_apis.h, libpd.c, ssp_cfmif.c, dcautils.h, dca.c, ssp_ccsp_cwmp_cfg.c add the path for header file, #include "cjson/cJSON.h"	
10	error: format '%ld' expects argument of type 'long int', but argument 8 has type 'time_t'	meta-rdk-opensync opensync_1.4.0.bb	In sm_survey_report.c, change long int to long long int	
11	error: 'strncpy' output truncated before terminating nul copying 23 bytes from a string of the same length	meta-rdk-ext wrp-c_1.0.bb	In wrp-c.c, change strncpy with memcpy	
12	error: implicit declaration of function 'strlen' 'gmtime_r' 'localtime_r', 'asctime_r' error: nested extern declaration of 'gmtime_r', 'localtime_r', 'asctime_r' error: assignment to 'struct tm * restrict' from 'int' makes pointer from integer without a cast	meta-openembedded safec_3.5.bb	In safec_3.5.bb Add, CFLAGS += " -D_POSIX_C_SOURCE"	
13	error: implicit declaration of function 'explicit_bzero'	meta-openembedded safec_3.5.bb	In memzero_s.c, Add, #undef HAVE_EXPLICIT_ZERO	
14	configure: error: Package requirements (openssl >= 1.0.1f) were not met: No package 'openssl' found	meta-rdk-broadband sso.bb	In sso.bbappend Add openssl in depends	
15	Patch 0001-DELIA-19972-Dibbler-client-crash-in-checkDecline.patch does not apply	meta-openembedded dibbler_git.bb	In dibbler_%.bbappend Remove the patch file included.	
16	checking for and configuring transport modules to use... configure: error: IPv6 transports not available if IPv6 support is not enabled	meta-openembedded net-snmp_5.8.bb	Edit IPv6 configurations according to the support needed	
17	aclocal: error: couldn't open directory 'cfg': No such file or directory	meta-rdk-broadband notify-comp.bb	In configure.ac, change cfg to m4	
18	fatal error: avro.h: No such file or directory	meta-rdk-broadband ccsp-wifi-agent.bb	In ccsp-wifi-agent.bbappend Add, DEPENDS += "avro-c"	

19	undefined reference to symbol 'breakpad_ExceptionHandler' error adding symbols: DSO missing from command line	meta-rdk-broadband ccsp-epon-agent.bb, ccsp-eth-agent.bb, ccsp-p-and-m.bb	In respective recipes, Add, LDFLAGS += " -lbreakpadwrapper"	
20	error: storage size of 'ctx' isn't known	meta-rdk-broadband ccsp-p-and-m.bb, ccsp-tr069-pa.bb	Its applicable for openssl version < 1.1, for updated version use dynamic allocations for ctx	
21	undefined reference to `syscfg_get'	meta-rdk-broadband ccsp-eth-agent.bb ccsp-p-and-m.bb	In ccsp-eth-agent.bb Add -lsyscfg in LDFLAGS_append,	
22	fatal error: uuid/uuid.h: No such file or directory	meta-rdk-ext miniupnpd_2.1.bb	In miniupnpd_2.1.bb Add, DEPENDS += "util-linux"	
23	dibbler-1.0.1/scripts/notify-scripts/client-notify-bsd.sh': No such file or directory	meta-openembedded dibbler_git.bb	In dibbler_%.bb Change the installation path of the client-notify-bsd.sh	
24	ERROR: \$ bitbake rdk-generic-broadband-image -cdo_populate_lic_deploy -Snone ERROR: \$ bitbake rdk-generic-broadband-image -cdo_populate_lic_deploy -Sprintdiff	meta-rdk-broadband ccsp-p-and-m.bb	In rdk-generic-broadband-image.bbappend Add, BB_HASH_IGNORE_MISMATCH = "1"	
25	requires /bin/bash, but no providers	ccsp-p-and-m.bb dibbler_%.bbappend mesh-agent.bb	In respective recipe, Add according to the component, For Example, RDEPENDS_\${PN}-ccsp_append_dunfell = " bash"	
26	contained in package hal-wifi-generic requires libwpa_client.so, but no providers found in RDEPENDS_hal-wifi-generic?	meta-rdk-broadband hal-wifi-generic_git.bb	In hal-wifi-generic_git.bbappend Add, RDEPENDS_\${PN}_append_dunfell = " wpa-supPLICANT"	
27	Postinstall scriptlets of ['utopia'] have failed	meta-rdk rdk-generic-broadband-image.bb	In utopia.bb comment out ALTERNATIVE_LINK_NAME[syslog-conf] = "\${sysconfdir}/syslog.conf"	
28	rdk-generic-broadband-image-1.0-r0 do_rootfs: Taskhash mismatch	meta-turris rdk-generic-broadband-image.bbappend	IMAGE_NAME[vardepsexclude] = "DATETIME"	

1.4. Flashing procedure

[Turris Omnia Reference Platform: Flashing Instruction](#)

1.5. Known issues and Limitations

1. No systemd Ccsp services are running except CcspLmLite
2. Remote management is disabled, due to lighttpd failure
3. wifi is broadcasting but unable to connect , due to ccsp services failure