

SDK 6.5.25

Release Notes

Table of Contents

[Section 1: About This Document](#)

[Section 2: Devices supported in this release](#)

[Section 2.1: Supported DNX Switch Devices](#)

[Section 2.2: Preview DNX Switch Devices](#)

[Section 3: Information per Device](#)

[Section 3.1: DNX-Family](#)

[Section 3.1.1: Reference Documentation](#)

[Section 3.1.1.1: SW/Arch documentation](#)

[Section 3.1.1.2: In-Package Documents](#)

[Section 3.1.2: Supported SKUs](#)

[Section 3.1.3: Important Notes](#)

[Section 3.1.3.1: Backward Compatible Important Notes](#)

[Section 3.1.4: SDK build & load](#)

[Section 3.1.5: IPsec and MACSEC support](#)

[Section 3.1.6: Validated features](#)

[Section 3.1.6.1: Access, Basic data path, Connectivity and Traffic Management Features Validated features](#)

[Section 3.1.6.2: Packet-Processing Validated feature](#)

[Section 3.1.6.3: ACL Validated features](#)

[Section 3.1.6.4: High Availability Validated features](#)

[Section 3.1.7: New Features & Bug-fixes](#)

[Section 3.1.8: Errata](#)

[Section 3.2: DNXF-Family \(BCM88790-Family\)](#)

[Section 3.2.1: Supported SKUs](#)

SDK-6.5.25Release Notes

[Section 3.2.2: Important Notes](#)

[Section 3.2.2.1: Backward Compatible Important Notes](#)

[Section 3.2.3: Validated Features](#)

[Section 3.2.4: Errata](#)

[Section 3.2.5: Bug fixes & New features](#)

[Section 3.3: DPP-Family - BCM88670/680/470/270 Family GA Release](#)

[Section 3.3.1: Important Notes](#)

[Section 3.3.2: Backward Compatible Important Notes](#)

[Section 3.3.3: Errata](#)

[Section 3.3.4: New Features and Bug fixes](#)

[Section 3.4: DFE-Family - BCM88770 \(FE3600\) Release](#)

[Section 4: New Features & Bug fixes 6.5.25 for DNX/DNXF/DPP/DFE Families](#)

[Section 5: Compatibility](#)

[Section 5.1: SDK and PCIe FW Compatibility](#)

[Section 5.2: SDK and KBPSDK lib Compatibility](#)

[Section 6: GNU tools versions](#)

No table of figures entries found.

Section 1: About This Document

This document contains the release notes for DNX devices affected by the Broadcom network switching Software Development Kit (SDK) release 6.5.25.

The document provides a general description of the SDK and its new features. It also describes the DNX chips supported by the release, BCM API additions or changes, resolved issues, and any relevant open issues.

Only new features are described in this document. For a comprehensive review of the DNX SDK features and issues, refer to earlier release notes for SDK 6.5.x.

For the full resolved list (Both Bugs and Improvement), please reference the file SDK-6.5.25-Resolved-Issues-Improvements.xlsx in the RELDOCS directory in the release package.

Section 2: Devices supported in this release

For any given SDK release, support for certain devices may be provided in preview or supported status. Devices in “Supported DNX Switch Devices” have completed the full QA process and are intended for use in production systems. It is expected that customers would integrate the version of the SDK which provides "Supported" status for their use on actual development or production systems.

Devices in “Preview DNX Switch Devices” are provided to allow early integration of the customer's application with the SDK APIs that support that device. This software has not been fully tested on the physical target device and is not expected to fully function.

Section 2.1: Supported DNX Switch Devices

<i>Family</i>	<i>Devices</i>	<i>Description</i>
BCM8828X		Q2U - GA quality
BCM8880X/BCM8882X		J2C - GA quality
BCM8848X		Q2A - GA quality
BCM8869X		J2 - GA quality
BCM8879X		Ramon - GA quality
BCM8868X		J+ - GA quality
BCM8837X/BCM8867X		JR - GA quality
BCM8866X		ARAD+ - GA quality
BCM8827X		QUX - GA quality
BCM8847X		QAX - GA quality
BCM8829X		Q2n - GA quality

Section 2.2: Preview DNX Switch Devices

<i>Family</i>	<i>Devices</i>	<i>Description</i>
BCM8883X		J2X - Pre quality

Section 3: Information per Device

This release is an incremental version for DPP, DNX, DNXF, DFE family devices.

The subsequent sections describe the increment in available features compared to 6.5.24, backward-compatible notes, major bug-fixes and known issues.

In this SDK release, we introduce J2X for the first time in a PRE quality. In addition, Q2n is GA-quality release.

It is very important to carefully go over the release-notes prior to adapting a new release.

The following sections describe the features validated for this release, known issues and bring-up guidelines.

Section 3.1: DNX-Family

This section includes the following family devices:

- **BCM8869X-Family (Jericho2)**
- **BCM8880X/BCM8882X-Family (Jericho2C)**
- **BCM8848X-Family (Qumran2A)**
- **BCM8828X-Family (Qumran2U)**
- **BCM8829X-Family (Qumran2N)**
- **BCM8883X-Family (Jericho2X)**

Section 3.1.1: Important Notes

Before integrating the new release, review this section thoroughly.

Section 3.1.1.1: Backward Compatible Important Notes

SW Compatibility Guidelines to 6.5.24

Please go over the list carefully.

Note: This document is written with the assumption that upgrade is done from 6.5.24. In case upgrade is done from older releases, users must first go over previous release notes.

JIRA	Module	Release-note	Affected Devices
SDK-271089	COSQ	<p>Following items are not supported and SDK will now return no support.</p> <p>The probabilistic latency drop mechanism is not supported.</p> <p>Unsupported cosq controls:</p> <ol style="list-style-type: none">1. bcmCosqControlLatencyDropProbBaseThreshold2. bcmCosqControlLatencyDropProbEnable. <p>Coupled mode mechanism is not supported.</p> <p>Unsupported cosq controls:</p> <ol style="list-style-type: none">1. bcmCosqControlLatencyEgressCoupledAqmMode2.	88480_B0, 88800_A0

		bcmCosqControlLatencyEgressAqmL4sEcnClassificationThresholdM ax 3. bcmCosqControlLatencyEcnProbConvertCoeff 4. bcmCosqControlLatencyEcnProbConvertExponent The probabilistic latency ECN marking is not supported for ingress profiles. Unsupported cosq controls: 1. bcmCosqControlLatencyEcnProbEnable 2. bcmCosqControlLatencyDropProbBaseThreshold 3. bcmCosqControlLatencyEcnProbBaseThreshold	
--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Section 3.1.2: SDK build & load

Compile and set config files :

```
setenv SDK `pwd`
```

Example of Intel GTS CPU compilation:

```
# Copy pre compiled mdb and kaps libraries into the relevant build folder.
# For Intel GTS CPU 64b build flavor, Following are the relevant 2 libraries and the
# relevant build folder (names in build folder must be libkaps.a & libmdb.a):
mkdir -p $SDK/build/unix-user/x86-64-fc28/
cp $SDK/libs/bin/dnx/GTS_64B_libkaps.a $SDK/build/unix-user/x86-64-fc28/libkaps.a
cp $SDK/libs/bin/dnx/GTS_64B_libmdb.a $SDK/build/unix-user/x86-64-fc28/libmdb.a
# Additional mdb and kaps libraries flavors can be found under $SDK/libs/bin/.
```

Example of CMODEL compilation:

```
# Compile SDK
cd $SDK/systems/linux/user/x86-64-fc28/
make -j 5 MAKE_LOCAL=$SDK/make/local/dnx/Make.custom.gts

# Copy pre compiled mdb and kaps libraries into the relevant build folder.
# For CMODEL build flavor, Following are the relevant 2 libraries and the
# relevant build folder (names in build folder must be libkaps.a & libmdb.a):
mkdir -p $SDK/build/unix-linux-64-cmodel/
cp $SDK/libs/bin/dnx/CModel_libkaps.a $SDK/build/unix-linux-64-cmodel/libkaps.a
cp $SDK/libs/bin/dnx/CModel_libmdb.a $SDK/build/unix-linux-64-cmodel/libmdb.a
```


SDK-6.5.25Release Notes

Additional mdb and kaps libraries flavors can be found under \$SDK/libs/bin/.

Compile SDK

cd \$SDK/systems/sim/dpp

make -j 5 MAKE_LOCAL=\$SDK/make/local/dnx/Make.pkg.dnx_only_sim_cmodel

target_suffix=-cmodel

Common config files:

ln -fs \$SDK/rc/rc.soc

ln -fs \$SDK/rc/dnx.soc

ln -fs \$SDK/rc/config-jer2pemla.bcm

ln -fs \$SDK/tools/sand/db

ln -fs \$SDK/rc/dnx_sku

ln -fs \$SDK/rc/dnx_dram

ln -sf \$SDK/rc/cmfcfw/linkscan_led_fw.bin

ln -sf \$SDK/rc/cmfcfw/custom_led.bin

BCM8869X specific links:

ln -fs \$SDK/rc/config-jr2.bcm config.bcm

ln -fs \$SDK/rc/bcm88690_revB_board.bcm

ln -sf \$SDK/rc/bcm88690_board.bcm

ln -sf \$SDK/rc/bcm88690_legacy_interop_board.bcm

BCM8880X/BCM8882X specific links:

ln -fs \$SDK/rc/config-j2c.bcm config.bcm

ln -sf \$SDK/rc/bcm88800_board.bcm

BCM8848X/BCM8828X specific links:

ln -fs \$SDK/rc/config-q2a.bcm config.bcm

ln -fs \$SDK/rc/bcm88480_board.bcm

BCM8883X specific links:

ln -fs \$SDK/rc/config-j2x.bcm config.bcm

ln -fs \$SDK/rc/bcm88830_board.bcm

Run :

./bcm.user

Section 3.2: DNXF-Family (BCM88790-Family)

Section 3.2.1: Important Notes

Before integrating the new release, review this section thoroughly.

None

Section 3.2.1.1: Backward Compatible Important Notes

SW Compatibility Guidelines 6.5.24 to 6.5.25

Please go over the list carefully.

Note: This document is written with the assumption that upgrade is done from 6.5.24 to 6.5.25. In case upgrade is done from older releases, users must first go over previous release notes.

None

Section 3.3: DPP-Family - BCM88670/680/470/270 Family GA Release

This release is for:

- BCM88670 (Jericho) family product lines.
- BCM88270 (QUX) family product line
- BCM88470 (QAX) family product line
- BCM88680 (Jericho+) family product line

The subsequent sections describe the increment in available features compared to 6.5.24, major bug-fixes and known issues. Before integrating the new release, review the “Backward compatible important notes” section.

Section 3.3.1: Important Notes

Before integrating the new release, review this section thoroughly.

None

Section 3.3.2: Backward Compatible Important Notes

SW Compatibility Guidelines 6.5.24 to 6.5.25

Note: This document is written with the assumption that upgrade is done from 6.5.24. In case upgrade is done from earlier releases to 6.5.24, it must first go over previous SDK release notes.

None

Section 3.4: DFE-Family - BCM88770 (FE3600) Release

The Broadcom BCM88770 (formerly named BCM88950) is the fourth generation in the DNX product line of Fabric Element (FE) devices.

This is a sustaining release.

