



NVIDIA DOCA Profiles

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The following document provides an introduction to the various supported DOCA profiles.

Introduction

NVIDIA DOCA™ can be used by a variety of customers who have different workloads and requirements. The DOCA package includes drivers, libraries, and tools to support NVIDIA® BlueField® DPU and NVIDIA® ConnectX® SmartNIC, Ethernet and InfiniBand, and kernel and user-space components. Depending on their specific needs, customers may choose not to install the full DOCA package but only the subset of components and tools relevant for their use case (whether to have a smaller installation size, lower integration/validation effort, etc).

To support the different use cases, DOCA allows installation of DOCA profiles, which are a subset of the full DOCA installation. DOCA profiles are validated and tested installation packages. The following are the available DOCA profiles:

- doca-all
- doca-cx
- doca-oped

doca-all

doca-all profile contains all DOCA libraries and drivers.

The doca-all profile supports the following devices:

- BlueField-3
- BlueField-2
- ConnectX-7
- ConnectX-6 Dx
- ConnectX-6 Lx
- ConnectX-6

doca-cx

The DOCA for ConnectX profile is intended for users who have ConnectX devices connected to their host server and wish to benefit from DOCA's framework and the enhanced functionality it grants.

The content of the `doca-cx` package is as follows:

- MLNX_OFED
- MLNX-DPDK
- DOCA Flow
- DOCA IPsec

The `doca-cx` profile supports the following devices:

- ConnectX-7
- ConnectX-6 Dx
- ConnectX-6 Lx
- ConnectX-6

doca-Ofed

This profile is intended for users who wish to have the exact same user experience and content as MLNX_OFED but with DOCA Package. `doca-Ofed` installs the MLNX_OFED drivers and tools but not other DOCA components.

The content of the `doca-Ofed` package is as follows:

- MLNX_OFED drivers
- MLNX_OFED tools

The `doca-Ofed` profile supports the following devices:

- ConnectX-7
- ConnectX-6 Dx
- ConnectX-6 Lx

- ConnectX-6

DOCA Profile Installation

Follow the instructions under [Manual BlueField Image Installation](#) in the "NVIDIA DOCA Installation Guide for Linux".

Supported Host OS per DOCA Profile

DOCA for Host	Kernel	Arch	doca-all	doca-cx	doca- ofed
CTYunOS3 23.01	5.10	x86	✓	✓	✓
RHEL/CentOS 7.6	3.10	x86	✓	✓	✓
	4.14	aarch64	✓	✓	✓
RHEL/CentOS 8.2	4.18	x86	✓	✓	✓
RHEL / Rocky Linux 8.6	4.18	x86	✓	✓	✓
Ubuntu 18.04	4.15	x86	✓	✓	✓
Ubuntu 20.04	5.4	x86	✓	✓	✓
Ubuntu 22.04	5.15	X86	✓	✓	✓
	5.15	aarch64	✓	✓	✓
Debian 10.8	4.19	x86	✓	✓	✓
Debian 10.13	5.10.135 / 5.4.210	x86	✓	✓	✓
Allinux 3.2	5.10	X86	✓	✓	✓
Oracle Linux 8.7	5.10	x86	✓	✓	✓
RHEL/Rocky Linux 9.1	5.14.0-162.19.1.el9	x86	✓	✓	✓
Debian10.9	4.19.0-16	x86			✓
BCLinux 21.10 SP2	4.19.90	x86/aarch64			✓
Kylin 10 SP2	4.19.90	x86/aarch64			✓
openEuler 20.03 SP3	4.19.90	x86/aarch64			✓
openEuler 22.03	5.10.0	x86/aarch64			✓

DOCA for Host	Kernel	Arch	doca- all	doca- cx	doca- ofed
UOS 20 1040d	4.19.0	x86/aarch64			✓
RHEL/CentOS 7.7	3.10.0-1062.el7	x86			✓
RHEL/CentOS 7.8	3.10.0-1127.el7	x86			✓
RHEL/CentOS 7.9	3.10.0-1160.el7	x86			✓
RHEL/CentOS 8.1	4.18.0-147.el8	x86/aarch64			✓
RHEL/CentOS 8.3	4.18.0-240.el8	x86/aarch64			✓
RHEL/CentOS 8.4	4.18.0-305.el8	x86/aarch64			✓
RHEL/CentOS 8.5	4.18.0-305.el8	x86/aarch64			✓
RHEL/CentOS 8.8	4.18.0-477.10.1.el8_8	x86/aarch64			✓
RHEL/CentOS 8.9	4.18.0-513.5.1.el8_9	x86/aarch64			✓
RHEL/CentOS 9.0	5.14.0-70.46.1.el9_0	x86/aarch64			✓
RHEL/CentOS 9.2	5.14.0-284.11.1.el9_2	x86/aarch64			✓
RHEL/CentOS 9.3	5.14.0-362.8.1.el9_3	x86			✓
sles12sp4		x86 / aarch64			✓
sles12sp5		x86 / aarch64			✓
sles15sp2		x86 / aarch64			✓
sles15sp3		x86 / aarch64			✓
sles15sp4		x86 / aarch64			✓
sles15sp5		x86 / aarch64			✓

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