



Installing Repo Package on Host Side

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Note

This section assumes that an NVIDIA® BlueField® networking platform (DPU or SuperNIC) has already been installed in a server according to the instructions detailed in the [BlueField's hardware user guide](#).

The following procedure instructs users on upgrading DOCA local repo package for host.

Removing Previously Installed DOCA Runtime Packages

If an older DOCA (or MLNX_OFED) software version is installed on your host, make sure to uninstall it before proceeding with the installation of the new version:

Deb-based	<pre>\$ for f in \$(dpkg --list grep doca awk '{print \$2}'); do echo \$f ; apt remove --purge \$f -y ; done \$ /usr/sbin/ofed_uninstall.sh --force \$ sudo apt-get autoremove</pre>
RPM-based	<pre>host# for f in \$(rpm -qa grep -i doca) ; do yum -y remove \$f; done host# /usr/sbin/ofed_uninstall.sh --force host# yum autoremove host# yum makecache</pre>

Then perform the following steps:

Note

The following procedure is valid for RPM-based OS only.

1. Download NVIDIA's RPM-GPG-KEY-Mellanox-SHA256 key:

```
# wget http://www.mellanox.com/downloads/ofed/RPM-GPG-KEY-Mellanox-SHA256
--2018-01-25 13:52:30-- http://www.mellanox.com/downloads/ofed/RPM-GPG-KEY-Mellanox-
SHA256
Resolving www.mellanox.com... 72.3.194.0
Connecting to www.mellanox.com|72.3.194.0|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1354 (1.3K) [text/plain]
Saving to: ?RPM-GPG-KEY-Mellanox-SHA256?

100%[=====>] 1,354  --.-K/s  in 0s

2018-01-25 13:52:30 (247 MB/s) - ?RPM-GPG-KEY-Mellanox-SHA256? saved [1354/1354]
```

2. Install the key:

```
# sudo rpm --import RPM-GPG-KEY-Mellanox-SHA256
warning: rpmts_HdrFromFdno: Header V3 DSA/SHA1 Signature, key ID 6224c050: NOKEY
Retrieving key from file:///repos/MLNX_OFED//RPM-GPG-KEY-Mellanox
Importing GPG key 0x6224C050:
  Userid: "Mellanox Technologies (Mellanox Technologies - Signing Key v2) "
  From : /repos/MLNX_OFED//RPM-GPG-KEY-Mellanox-SHA256
Is this ok [y/N]:
```

3. Verify that the key was successfully imported:

```
# rpm -q gpg-pubkey --qf '%{NAME}-%{VERSION}-%{RELEASE}\t%{SUMMARY}\n' | grep Mellanox
gpg-pubkey-a9e4b643-520791ba  gpg(Mellanox Technologies )
```

Downloading DOCA Runtime Packages

The following table provides links to DOCA Runtime packages depending on the OS running on your host.

OS	Arch	Link
Alinux 3.2	x86	doca-host-2.8.0-204000_24.07_alinux32.x86_64.rpm
Anolis	aarch64	doca-host-2.8.0-204000_24.07_anolis86.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_anolis86.x86_64.rpm
BCLinux 21.10	aarch64	doca-host-2.8.0-204000_24.07_bclinux2210.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_bclinux2210.x86_64.rpm
BCLinux 21.10 SP2	aarch64	doca-host-2.8.0-204000_24.07_bclinux2110sp2.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_bclinux2110sp2.x86_64.rpm
CTyunOS 2.0	aarch64	doca-host-2.8.0-204000_24.07_ctyunos20.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_ctyunos20.x86_64.rpm
CTyunOS 23.01	aarch64	doca-host-2.8.0-204000_24.07_ctyunos2301.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_ctyunos2301.x86_64.rpm
Debian 10.13	aarch64	doca-host_2.8.0-204000-24.07-debian1013_arm64.deb
	x86	doca-host_2.8.0-204000-24.07-debian1013_amd64.deb
Debian 10.8	aarch64	doca-host_2.8.0-204000-24.07-debian108_arm64.deb
	x86	doca-host_2.8.0-204000-24.07-debian108_amd64.deb
Debian 10.9	x86	doca-host_2.8.0-204000-24.07-debian109_amd64.deb
Debian 11.3	aarch64	doca-host_2.8.0-204000-24.07-debian113_arm64.deb
	x86	doca-host_2.8.0-204000-24.07-debian113_amd64.deb
Debian 12.1	aarch64	doca-host_2.8.0-204000-24.07-debian121_arm64.deb

OS	Arch	Link
	x86	doca-host_2.8.0-204000-24.07-debian121_amd64.deb
Debian 12.5	aarch64	doca-host_2.8.0-204000-24.07-debian125_arm64.deb
	x86	doca-host_2.8.0-204000-24.07-debian125_amd64.deb
EulerOS 20 SP11	aarch64	doca-host-2.8.0-204000_24.07_euleros20sp11.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_euleros20sp11.x86_64.rpm
EulerOS 20 SP12	aarch64	doca-host-2.8.0-204000_24.07_euleros20sp12.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_euleros20sp12.x86_64.rpm
Fedora32	x86	doca-host-2.8.0-204000_24.07_fc32.x86_64.rpm
Kylin 1.0 SP2	aarch64	doca-host-2.8.0-204000_24.07_kylin10sp2.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_kylin10sp2.x86_64.rpm
Kylin 1.0 SP3	aarch64	doca-host-2.8.0-204000_24.07_kylin10sp3.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_kylin10sp3.x86_64.rpm
Mariner 2.0	x86	doca-host-2.8.0-204000_24.07_mariner20.x86_64.rpm
Oracle Linux 7.9	x86	doca-host-2.8.0-204000_24.07_ol79.x86_64.rpm
Oracle Linux 8.4	x86	doca-host-2.8.0-204000_24.07_ol84.x86_64.rpm
Oracle Linux 8.6	x86	doca-host-2.8.0-204000_24.07_ol86.x86_64.rpm
Oracle Linux 8.7	x86	doca-host-2.8.0-204000_24.07_ol87.x86_64.rpm
Oracle Linux 8.8	x86	doca-host-2.8.0-204000_24.07_ol88.x86_64.rpm
Oracle Linux 9.1	x86	doca-host-2.8.0-204000_24.07_ol91.x86_64.rpm
Oracle Linux 9.2	x86	doca-host-2.8.0-204000_24.07_ol92.x86_64.rpm
openEuler 20.03 SP3	aarch64	doca-host-2.8.0-204000_24.07_openeuler2003sp3.aarch64.rpm

OS	Arch	Link
	x86	doca-host-2.8.0-204000_24.07_openeuler2003sp3.x86_64.rpm
openEuler 22.03	aarch64	doca-host-2.8.0-204000_24.07_openeuler2203.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_openeuler2203.x86_64.rpm
openEuler 22.03 SP1	x86	doca-host-2.8.0-204000_24.07_openeuler2203sp1.x86_64.rpm
RHEL/CentOS 8.0	aarch64	doca-host-2.8.0-204000_24.07_rhel80.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel80.x86_64.rpm
RHEL/CentOS 8.1	aarch64	doca-host-2.8.0-204000_24.07_rhel81.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel81.x86_64.rpm
RHEL/CentOS 8.2	aarch64	doca-host-2.8.0-204000_24.07_rhel82.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel82.x86_64.rpm
RHEL/CentOS 8.3	aarch64	doca-host-2.8.0-204000_24.07_rhel83.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel83.x86_64.rpm
RHEL/CentOS 8.4	aarch64	doca-host-2.8.0-204000_24.07_rhel84.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel84.x86_64.rpm
RHEL/CentOS 8.5	aarch64	doca-host-2.8.0-204000_24.07_rhel85.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel85.x86_64.rpm
RHEL/Rocky 8.6	aarch64	doca-host-2.8.0-204000_24.07_rhel86.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel86.x86_64.rpm

OS	Arch	Link
RHEL/Rocky 8.7	aarch64	doca-host-2.8.0-204000_24.07_rhel87.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel87.x86_64.rpm
RHEL/Rocky 8.8	aarch64	doca-host-2.8.0-204000_24.07_rhel88.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel88.x86_64.rpm
RHEL/Rocky 8.9	aarch64	doca-host-2.8.0-204000_24.07_rhel89.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel89.x86_64.rpm
RHEL/Rocky 8.10	aarch64	doca-host-2.8.0-204000_24.07_rhel810.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel810.x86_64.rpm
RHEL/Rocky 9.0	aarch64	doca-host-2.8.0-204000_24.07_rhel90.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel90.x86_64.rpm
RHEL/Rocky 9.1	aarch64	doca-host-2.8.0-204000_24.07_rhel91.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel91.x86_64.rpm
RHEL/Rocky 9.2	aarch64	doca-host-2.8.0-204000_24.07_rhel92.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel92.x86_64.rpm
RHEL/Rocky 9.3	aarch64	doca-host-2.8.0-204000_24.07_rhel93.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel93.x86_64.rpm
RHEL/Rocky 9.4	aarch64	doca-host-2.8.0-204000_24.07_rhel94.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_rhel94.x86_64.rpm
SLES 15 SP2	aarch64	doca-host-2.8.0-204000_24.07_sles15sp2.aarch64.rpm

OS	Arch	Link
	x86	doca-host-2.8.0-204000_24.07_sles15sp2.x86_64.rpm
SLES 15 SP3	aarch64	doca-host-2.8.0-204000_24.07_sles15sp3.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_sles15sp3.x86_64.rpm
SLES 15 SP4	aarch64	doca-host-2.8.0-204000_24.07_sles15sp4.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_sles15sp4.x86_64.rpm
SLES 15 SP5	aarch64	doca-host-2.8.0-204000_24.07_sles15sp5.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_sles15sp5.x86_64.rpm
SLES 15 SP6	x86	doca-host-2.8.0-204000_24.07_sles15sp6.x86_64.rpm
TencentOS 3.3	aarch64	doca-host-2.8.0-204000_24.07_tencentos33.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_tencentos33.x86_64.rpm
Ubuntu 20.04	aarch64	doca-host_2.8.0-204000-24.07-ubuntu2004_arm64.deb
	x86	doca-host_2.8.0-204000-24.07-ubuntu2004_amd64.deb
Ubuntu 22.04	aarch64	doca-host_2.8.0-204000-24.07-ubuntu2204_arm64.deb
	x86	doca-host_2.8.0-204000-24.07-ubuntu2204_amd64.deb
Ubuntu 24.04	aarch64	doca-host_2.8.0-204000-24.07-ubuntu2404_arm64.deb
	x86	doca-host_2.8.0-204000-24.07-ubuntu2404_amd64.deb
UOS20.1060	aarch64	doca-host-2.8.0-204000_24.07_uos201060.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_uos201060.x86_64.rpm
UOS20.1060A	aarch64	doca-host-2.8.0-204000_24.07_uos201060a.aarch64.rpm
	x86	doca-host-2.8.0-204000_24.07_uos201060a.x86_64.rpm

OS	Arch	Link
XenServer 8.2	x86	doca-host-2.8.0-204000_24.07_xenserver82.x86_64.rpm

Installing Local Repo Package for Host Dependencies

1. Install DOCA local repo package for host:

OS	Procedure
Ubuntu	<ol style="list-style-type: none"> 1. Download the DOCA SDK and DOCA Runtime packages from Downloading DOCA Runtime Packages section for the host. 2. Unpack the deb repo. Run: <pre>host# sudo dpkg -i doca-host-repo-ubuntu<version>_amd64.deb</pre> 3. Perform apt update. Run: <pre>host# sudo apt-get update</pre> 4. Run apt install for DOCA runtime, tools, and SDK: <pre>host# sudo apt install -y doca-runtime doca-sdk</pre>
CentOS	<ol style="list-style-type: none"> 1. Download the DOCA SDK and DOCA Runtime packages from Downloading DOCA Runtime Packages section for the x86 host. 2. Install the following software dependencies. Run: <pre>host# sudo yum install -y epel-release</pre> 3. For CentOS 8.2 only, also run: <pre>host# yum config-manager --set-enabled PowerTools</pre> 4. Unpack the RPM repo. Run: <pre>host# sudo rpm -Uvh doca-host-repo-rhel<version>.x86_64.rpm</pre> 5. Run yum install for DOCA runtime, tools, and SDK.

OS	Procedure
	<pre data-bbox="412 218 1459 350">host# sudo yum install -y doca-runtime doca-sdk</pre>
RHEL	<ol data-bbox="375 380 1198 541" style="list-style-type: none"> 1. Open a RedHat account. <ol data-bbox="456 422 1198 499" style="list-style-type: none"> 1. Log into RedHat website via the developers tab. 2. Create a developer user. 2. Run: <pre data-bbox="412 548 1459 722">host# subscription-manager register --username=<username> --password=PASSWORD</pre> <p data-bbox="412 730 685 764">To extract pool ID:</p> <pre data-bbox="412 772 1459 1226">host# subscription-manager list --available --all ... Subscription Name: Red Hat Developer Subscription for Individuals Provides: Red Hat Developer Tools (for RHEL Server for ARM) ... Red Hat CodeReady Linux Builder for x86_64 ... Pool ID: <pool-id> ...</pre> <p data-bbox="412 1234 1414 1312">And use the pool ID for the Subscription Name and Provides that include Red Hat CodeReady Linux Builder for x86_64.</p> 3. Run: <pre data-bbox="412 1360 1459 1612">host# subscription-manager attach --pool=<pool-id> host# subscription-manager repos --enable codeready-builder-for-rhel-8-x86_64-rpms host# yum makecache</pre> 4. Install the DOCA local repo package for host. Run: <pre data-bbox="412 1661 1459 1835">host# rpm -Uvh doca-host-repo-rhel<version>.x86_64.rpm host# sudo yum install -y doca-runtime doca-sdk</pre> 5. Sign out from your RHEL account. Run:

OS	Procedure
	<pre>host# subscription-manager remove --all host# subscription-manager unregister</pre>

2. Verify that RShim is active.

```
host# sudo systemctl status rshim
```

This command is expected to display inactive (dead).

- To launch RShim service, run:

```
host# sudo systemctl start rshim
```

- To allow RShim to launch automatically in future boots, run:

```
host# sudo systemctl enable rshim
```

3. Assign a dynamic IP to tmfifo_net0 interface (RShim host interface):

```
host# ifconfig tmfifo_net0 192.168.100.1 netmask 255.255.255.252 up
```

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