



NVIDIA DOCA Telemetry

Sample Guide

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Chapter 1. Introduction

The telemetry samples in this document demonstrate an initial recommended configuration which covers 2 use cases:

- ▶ Standard DOCA Telemetry data
- ▶ DOCA Telemetry for NetFlow data

The telemetry samples run on the BlueField. If write-to-file is enabled, telemetry data is stored to BlueField's storage. If inter-process communication (IPC) is enabled, data is sent to the DOCA Telemetry Service (DTS) running on the same BlueField.

For general information about the DOCA Telemetry API, refer to [NVIDIA DOCA Telemetry Programming Guide](#).

Chapter 2. Dependencies

N/A

Chapter 3. Prerequisites

For information on initializing and configuring DTS, refer to [NVIDIA DOCA Telemetry Service Guide](#).

Chapter 4. Running the Sample

1. Refer to the following documents:

- ▶ [NVIDIA DOCA Installation Guide for Linux](#) for details on how to install BlueField-related software.
- ▶ [NVIDIA DOCA Troubleshooting Guide](#) for any issue you may encounter with the installation, compilation, or execution of DOCA samples.

2. To build a given sample:

```
cd /opt/mellanox/doca/samples/doca_compress/<sample_name>
meson build
ninja -C build
```



Note: The binary `doca_<sample_name>` will be created under `./build/`.

3. Sample (e.g., `regex_scan`) usage:

```
Usage: doca_telemetry_export [DOCA Flags]
DOCA Flags:
  -h, --help                Print a help synopsis
  -v, --version             Print program version information
  -l, --log-level           Set the log level for the program <CRITICAL=20,
ERROR=30, WARNING=40, INFO=50, DEBUG=60>
```

For additional information per sample, use the `-h` option:

```
./build/doca_<sample_name> -h
```

Chapter 5. Samples

5.1. Telemetry Export

This sample illustrates how to use the telemetry API. The sample uses a custom schema for telemetry.

The sample logic includes:

1. Configuring schema attributes.
2. Initializing schema.
3. Creating telemetry source.
4. Creating example events.
5. Reporting example events via DOCA Telemetry.
6. Destroying source and schema.

Reference:

- ▶ `/opt/mellanox/doca/samples/doca_telemetry/telemetry_export/telemetry_export_sample.c`
- ▶ `/opt/mellanox/doca/samples/doca_telemetry/telemetry_export/telemetry_export_main.c`
- ▶ `/opt/mellanox/doca/samples/doca_telemetry/telemetry_export/meson.build`

5.2. Telemetry NetFlow Export

This sample illustrates how to use the NetFlow functionality of the telemetry API.

The sample logic includes:

1. Configuring NetFlow attributes.
2. Initializing NetFlow.
3. Creating telemetry source.
4. Starting NetFlow.
5. Creating example events.
6. Reporting example events via DOCA Telemetry.

7. Destroying NetFlow.

Reference:

- ▶ `/opt/mellanox/doca/samples/doca_telemetry/telemetry_netflow_export/telemetry_netflow_export_sample.c`
- ▶ `/opt/mellanox/doca/samples/doca_telemetry/telemetry_netflow_export/telemetry_netflow_export_main.c`
- ▶ `/opt/mellanox/doca/samples/doca_telemetry/telemetry_netflow_export/meson.build`

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