NVIDIA DOCA Telemetry

Sample Guide
Table of Contents

Chapter 1. Introduction........................................................................................................ 1
Chapter 2. Dependencies..................................................................................................... 2
Chapter 3. Prerequisites...................................................................................................... 3
Chapter 4. Running the Sample...........................................................................................4
Chapter 5. Samples.............................................................................................................. 5
  5.1. Telemetry Export...........................................................................................................5
  5.2. Telemetry NetFlow Export...........................................................................................5
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:
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:
2. Initializing NetFlow.
3. Creating telemetry source.
5. Creating example events.
6. Reporting example events via DOCA Telemetry.

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