

Introduction

This is a report on the work done for Milestone 2 completion by Tor Metrics Team.

Milestone 2: Complete

Milestone: 6 metrics-lib/DescripTor

2.1. Make a wider audience aware of the Tor descriptor parsing library metrics-lib/DescripTor by writing a blog post about it that explains how to use it.

Done. We wrote the following blog post yesterday, titled "Tor descriptors à la carte: Tor Metrics Library 2":

<https://blog.torproject.org/blog/tor-descriptors-la-carte-tor-metrics-library-2>

Also promoted using our Twitter account to 199k followers:

<https://twitter.com/torproject/status/880511229370007552>



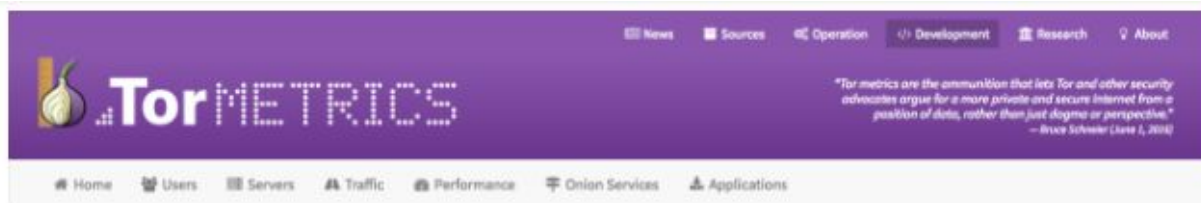
2.2. Put out one or more metrics-lib/DescripTor releases.

Done. Throughout the 12 months of this award we put out in total 11 metrics-lib releases, of which 7 were minor releases and 1 was a major release:

<https://dist.torproject.org/metrics-lib/?C=M;O=D>

2.3. Write user-friendly tutorials for metrics-lib/DescrIPtor that empower users to independently analyze large amounts of network data.

Done. We wrote three tutorials for getting started with metrics-lib and created a project page around them: <https://metrics.torproject.org/metrics-lib.html>



Home » Development » metrics-lib

Tor Metrics Library

Tor Metrics Library is a Java API that facilitates processing Tor network data from the [CollectTor](#) service for statistical analysis and for building services and applications.

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metrics-lib

Welcome to metrics-lib, a Java API that facilitates processing Tor network data from the [CollectTor](#) service for statistical analysis and for building services and applications.

In the tutorials below we're explaining the basic steps to get you started with metrics-lib.

Prerequisites and preparation

The following tutorials are written with an audience in mind that knows Java and to a lesser extent how Tor works. We explain all data used in the tutorials. More and most up-to-date information about descriptors can be found in the [CF Tor directory protocol specification](#) and on the [CollectTor](#) page.

All tutorials require you to [download](#) the latest release of metrics-lib, follow the instructions to [verify](#) its signature, extract the tarball locally, and copy the `lib/` and the `generated/` directories to your working directory for the tutorials.

Tutorial 1: Download descriptors from CollectTor

Let's start this tutorial series by doing something really simple. We'll use metrics-lib to download [recent consensus](#)es from [CollectTor](#) and write them to a local directory. We're not doing anything with those consensuses yet, though we'll get back to that in a bit.

We'll need to tell metrics-lib five pieces of information for this:

1. the CollectTor base URL without trailing slash (`"https://collector.torproject.org"`),
2. which remote directories to collect descriptors from (`new String[] { "/recent/relay-descriptors/consensus/" }`),
3. the minimum last-modified time of files to be collected (`0L`),
4. the local directory to write files to (`new File("descriptors")`), and
5. whether to delete all local files that do not exist remotely anymore (`false`).

Create a new file `DownloadConsensuses.java` with the following content:

```
import org.torproject.descriptor.*;
import java.io.File;
```