

# Milestone 1

## Requirements:

- Develop application monitoring network performance parameters:
  - The monitoring limited to: communication with four Content Delivery Networks (CDNs);
  - Number of monitored CDNs: 4;
  - CDNs selected by: most number of requests;
  - Parameters to monitor: RTT, packet loss, throughput.
  - Active monitoring: RTT, packet loss;
  - Passive monitoring: throughput.
- Collecting results of the monitoring:
  - Active monitoring - sampling rate: 10 minutes (default) ;
  - Active monitoring - tests intensity: 100 probes per sample (default);
  - RTT presentation: ave, min, max, standard deviation;
  - Passive monitoring - sampling rate: 5minutes (default);
  - Configurable monitoring parameters: sampling rate, tests intensity;
- Storing results of the monitoring:
  - Data must be browsable;
  - Data must be consumable by other applications;
- Data presentation:
  - ~~User interface: Command Line Interface (CLI);~~
  - ~~Data format: numerical;~~
  - Data must be consumable through an API:
    - HTTP Method: GET
    - URL:/{monitored\_parameter}?start\_date={start\_date\_epoch}&end\_date={end\_date\_epoch}
    - Parameters:
      - {monitored\_parameter}
        - a string identifying the monitored parameter whose data is to be returned - i.e. rtt, packetLoss, throughput, all.
      - start\_date, end\_date
        - start and end dates expressed as epoch. The dates identify the period for which data has to be returned.
    - Returns 200:
      - Format: JSON;
      - Returned data: samples for monitored\_parameter described with timestamp.

- If the period is longer than available, return all samples within the period.
- Returns 400 if:
  - malformed parameters are passed;
  - there are no samples for the requested period.