

# Chaos Engineering Report

25 February 2021

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## Summary

This report aggregates 1 experiments spanning over the following subjects:

*kubernetes*

## Experiment

### What are the possibility's of using the Chaos Toolkit in OpenShift at DUO

Check what parts of the Chaos Toolkit are usable on the platform of DUO

#### Summary

|               |                                                                 |
|---------------|-----------------------------------------------------------------|
| Status        | failed                                                          |
| Tagged        | kubernetes                                                      |
| Executed From | chaos-toolkit-test-79cdb9fc78-7nrnj                             |
| Platform      | Linux-4.18.0-193.29.1.el8_2.x86_64-x86_64-with-redhat-8.3-Ootpa |
| Started       | Thu, 25 Feb 2021 11:23:01 GMT                                   |
| Completed     | Thu, 25 Feb 2021 11:23:01 GMT                                   |
| Duration      | 0 seconds                                                       |

#### Definition

The experiment was made of 3 actions, to vary conditions in your system, and 10 probes, to collect objective data from your system during the experiment.

#### Steady State Hypothesis

The steady state hypothesis this experiment tried was “**Verifying services are healthy and pod accepts api request**”.

#### Before Run

The steady state was not verified.

| Probe                            | Tolerance | Verified |
|----------------------------------|-----------|----------|
| deployment-available-and-healthy | True      | False    |

#### After Run

The steady state was not verified.

| Probe | Tolerance | Verified |
|-------|-----------|----------|
|       |           |          |

#### Method

The experiment method defines the sequence of activities that help gathering evidence towards, or against, the hypothesis.

The following activities were conducted as part of the experimental's method:

| Type   | Name                               |
|--------|------------------------------------|
| probe  | count-pods                         |
| probe  | pod-is-not-available               |
| probe  | Pods-in-conditions                 |
| probe  | Pods-in-phase                      |
| probe  | Pods-not-in-phase                  |
| probe  | read-pod-logs                      |
| action | terminate-pods                     |
| probe  | statefulset-fully-available        |
| probe  | service-is-initialized             |
| action | delete-deployment                  |
| action | scale-deployment                   |
| probe  | microservice-available-and-healthy |
| probe  | read-microservices-logs            |

## Result

The experiment was conducted on Thu, 25 Feb 2021 11:23:01 GMT and lasted roughly 0 seconds.

## Appendix