

Chaos Engineering Report

03 December 2023

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Summary

This report aggregates 1 experiments spanning over the following subjects:

kubernetes

Experiment

Evaluate system behavior with delayed pod termination

We expect Kubernetes to handle the situation gracefully when there's a delay before terminating a pod

Summary

Status	completed
Tagged	kubernetes
Executed From	small
Platform	Linux-6.6.2-101.fc38.x86_64-x86_64-with-glibc2.37
Started	Sun, 03 Dec 2023 20:10:31 GMT
Completed	Sun, 03 Dec 2023 20:11:31 GMT
Duration	1 minute

Definition

The experiment was made of 1 actions, to vary conditions in your system, and 0 probes, to collect objective data from your system during the experiment.

Steady State Hypothesis The steady state hypothesis this experiment tried was “**Verifying service remains healthy**”.

Before Run The steady state was verified

Probe	Tolerance	Verified
paymentservice-should-be-healthy	True	True

After Run The steady state was verified

Probe	Tolerance	Verified
paymentservice-should-be-healthy	True	True

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
action	introduce-delay-before-termination

Result

The experiment was conducted on Sun, 03 Dec 2023 20:10:31 GMT and lasted roughly 1 minute.

Action - introduce-delay-before-termination

Status	succeeded
Background	False
Started	Sun, 03 Dec 2023 20:11:31 GMT
Ended	Sun, 03 Dec 2023 20:11:31 GMT
Duration	0 seconds
Paused Before	60s

The action provider that was executed:

Type	python
Module	chaosk8s.pod.actions
Function	terminate_pods
Arguments	{'label_selector': 'app=paymentservice', 'name_pattern': 'paymentservice-[0-9].*\$', 'rand': True}

Appendix

Action - introduce-delay-before-termination The *action* returned the following result:

```
['paymentservice-7b6fdd5657-4q7f6']
```