

The Trade Desk POC Plan

v1.1 12/14/2017

Introduction:

The Trade Desk is a current user of Apache Mesos and is looking to explore Enterprise Edition DC/OS and Enterprise Support as they add more microservices and explore the use of data services (Confluent Kafka, Spark) within the cluster. The main goals of the POC team are to evaluate the performance of their current application on top of DC/OS tied to Confluent Kafka. The team will also be testing the value of single-click-deployments as well as ease of management and maintenance of data services.

WHO - Who will be performing the DC/OS Evaluation?

Mesosphere	The Trade Desk
Account Executive: Teasara Thompson Solutions Engineer: Alex Ly Mesosphere Tech Support as Needed	Eli Landon - SRE Manager

Areas of Interest:

Use Case	Description	Success Criteria	References	Weighting
Test Application Performance on DC/OS	Test existing containerized solution to existing latency performance specifications	Application must perform within SLA set by customer: Approx 1gbps of throughput through the kafka stream		High (3)

Confluent Kafka	Configure and deploy Confluent Kafka framework to work with the existing microservice application	Successful set-up of Confluent Kafka package with HA storage persistence, configure to work with existing microservice and validate performance	DC/OS Confluent Kafka Service Guide	High (3)
External Persistent Storage	Mount HA external persistent storage on the DC/OS cluster to support stateful services.	The Trade Desk team can decide whether they want to utilize the existing REX-RAY integration with DC/OS for external persistent storage to AWS S3 or the Mesosphere can demo and leverage resources from Portworx for a discussion on HA persistent storage	DC/OS External Persistent Volumes Portworx Universe Package Portworx Webpage	High (3)
Monitoring	Integrate existing monitoring tools with the DC/OS cluster	Successful integration of Sumologic, Graphite, Influx with the EE DC/OS cluster	Performance Monitoring DC/OS Logging DC/OS Monitoring	Medium (2)

Other Notes to Consider:

- **Windows** - Not currently supported by Mesosphere DC/OS, but The Trade Desk has been added to the list of demand for Windows support. Will keep the team updated with any information we receive on this in the near-term.

Number of Servers (Mesosphere recommends at least 3 masters and 5 agent nodes and 2 public agent nodes running RHEL 7, CentOS 7 or CoreOS):

- Operating System:
- # of Master Nodes: 5
- # of Public Agent Nodes: 10
- # of Private Agent Nodes: 4

Location of Servers (data center location or public cloud vendor location):

- Cloud Provider: AWS
- Region: US-East-1

Location of Customer Personnel:

- Boulder, CO

Location of Mesosphere Personnel:

- Teasara Thompson - San Francisco, CA
- Alex Ly - San Francisco, CA
- Mesosphere Tech Support Personnel - San Francisco, CA and Hamburg, Germany

WHEN - Evaluation Start and End Dates:

Planned Start Date: December 18th

Planned Finish Date: January 12th (tentative)

Planned Evaluation Results Briefing Date:

- Early January milestone check-in

Would like to go into production by: Q1 2018 - February

Communication Cadence:

- 30 minutes weekly - Schedule TBD
- Open Slack channel for direct communication