DataOps Suite Hardware Requirements & Architecture



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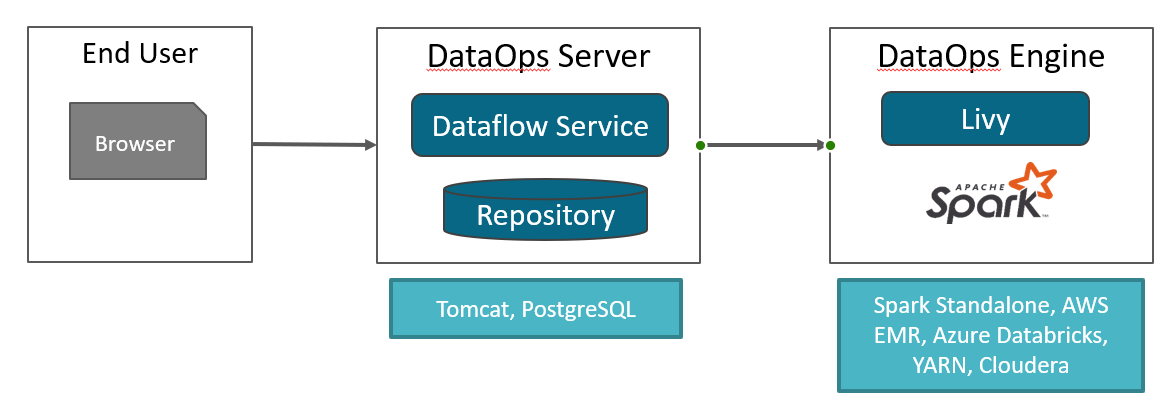
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# Purpose of the DOCUMENT

This document explains the architecture, hardware requirements and pre-requisites for deploying DataOps Suite.

# ETL Validator

## DataOps Suite Architecture



## DataOps Server

DataOps Server is a java-based service deployed in Apache Tomcat. Both Repository and java services can be deployed in the same server machine.

* Operating System
  + Linux, Windows 2012 or later
* Software
  + Open JDK 11
  + Tomcat 9 or later
  + PostgreSQL 12.x (or equivalent RDS can be used)
* Hardware
  + Processor
    - Recommended: 8 Cores
  + Memory (RAM)
    - Recommended: 16 GB
  + Hard drive
    - Minimum: 200 GB SSD
    - Recommended: RAID.

## DataOps Engine

### Standalone Server

DataOps Engine consists of Apache Livy and Apache Spark.

* Operating System
  + Linux or Windows 2012 or later
* Software
  + Open JDK 8/11
  + Apache Livy 0.7
  + Apache Spark 3.0.1
  + Apache Hadoop 3.2.1
* Hardware
  + Processor
    - Minimum: 16 Cores
    - Recommended: 32 Cores
  + Memory (RAM)
    - Minimum: 64 GB RAM
    - Recommended: 128 GB (ECC) or more
  + Hard Disk
    - Minimum: 1TB GB SSD
    - Recommended: RAID. Size is dependent on the volume of data being tested. Typically, the size needed is 2.5 times the volume of data being compared.
  + Network
    - Minimum: 1 Gb
    - Recommended: 10 Gb

### AWS EMR

DataOps can use AWS EMR as the engine for executing dataflows.

* AWS EMR
  + Certified with EMR Version 6.2