**Title:**

# Installation and Deployment of Zookeeper Application

**Description:**

Workflow for installing and starting zookeeper. This bundle has dependency on Core and Validation KIs bundles. For more information related to ZooKeeper and installation process, please check http://www.cloudera.com/content/cloudera/en/documentation/cdh4/latest/CDH4-Installation-Guide/cdh4ig\_topic\_21\_3.html.

**Readme**

Important: the Knowledge Items of this bundle try to simulate Workflows seen in frameworks such as Chef, Puppet and Ansible.

For this reason, Workflow KIs seem to not follow traditional best practices of KI Creation in terms of reusability. They are, however atomic pieces of knowledge, meaning the knowledge cannot be broken down further while still maintaining the same level of functionality.

Due to the controlled nature of the Workflow approach, the Workflow KIs try to structure Tasks like steps in a sequence rather than letting AutoPilot pick the path to a solution.

In order to simulate these Workflows, the Knowledge Items are split into 3 groups:

* Workflow KIs
* Validation KIs and
* Core KIs.

This bundle intends to install ZooKeeper with all its related application and libraries on the given host.

**Dependencies**

1. Core KIs bundle
2. Validation KIs bundle

For this bundle to run, you will need MARS nodes in AutoPilot engine. For your reference, please see sample nodes below (at the end of this readme).

Steps to run

1. Put the validation KIs bundle in AutoPilot engine
2. Put the core KIs bundle in AutoPilot engine
3. Put the Workflow KI ZooKeeperWorkflowHandlePKG.xml (attached with this bundle) in AutoPilot engine
4. Put the Issue in AutoPilot engine to trigger this KI
   * For your reference, please see sample issue below
5. This will trigger the KI and run the workflow to install Zookeeper on your machine (as specified in the Issue)

Workflow KI in this bundle, runs below installation steps (as per the link mentioned in the description) on the target machine (as specified in the Issue)

1. Installs Zookeeper, if not already installed
2. Start the Zookeeper server using command zkserver.

**Sample Issue**

Issue:

NodeID: OpexSoftware:Workflow:Application:EnterpriseInfrastructure

xmlns: http://www.arago.de/IssueSchema

IssueSubject: 'Install and start ZooKeeper'

ZooKeeperWorkflowHandlePKG:

TargetApp: EnterpriseInfrastructure

TargetMachine: BD

TargetState: Created

User: bhagyashree

Host: 192.168.1.89

**Machine Node**

<Linux xmlns="http://mars-o-matic.com" ID="OpexSoftware:Workflow:Machine:BD"

HasAgentType\_WatchMe="False" MachineArchitecture="x86\_64"

NodeType="Machine" MachineClass="Linux" NodeName="BD">

<Dependencies>

<Node ID="OpexSoftware:Workflow:Software:Zookeeper" />

</Dependencies>

<CustomerInformation ID="opex.com" Name="opex"/>

<Extensions>

<ssh User="bhagyashree" />

<PasswordPolicy MinLength="8" MaxLength="14" CharSet="alnum" />

</Extensions>

<OSInformation Name="Ubuntu" MajorVersion="14" Vendor="Ubuntu" />

<NetworkInformation>

<InterfaceInformation>

<Interface Name="eth1" IP="192.168.1.89" />

</InterfaceInformation>

</NetworkInformation>

</Linux>

**Software Node**

<Zookeeper xmlns="http://mars-o-matic.com" ID="OpexSoftware:Workflow:Software:Zookeeper"

NodeType="Software" SoftwareClass="DBMS"

SoftwareSubClass="Zookeeper" NodeName=" Zookeeper ">

<Dependencies>

<Node ID="OpexSoftware:Workflow:Machine:BD" />

<Node ID="OpexSoftware:Workflow:Resource:WebResource" />

</Dependencies>

<CustomerInformation ID="opex.com" Name="opex"/>

</Zookeeper>

**Resource Node**

<Service xmlns="http://mars-o-matic.com" ID="OpexSoftware:Workflow:Resource:WebResource"

NodeType="Resource" ResourceClass="Service" NodeName="WebResource">

<Dependencies>

<Node ID="OpexSoftware:Workflow:Software:Zookeeper" />

<Node ID="OpexSoftware:Workflow:Application:EnterpriseInfrastructure" />

</Dependencies>

<CustomerInformation ID="opex.com" Name="OpexSoftware" />

</Service>

**Application Node**

<EnterpriseInfrastructure xmlns="http://mars-o-matic.com" ID="OpexSoftware:Workflow:Application:EnterpriseInfrastructure"

NodeType="Application" ApplicationClass="Enterprise"

ApplicationSubClass="EnterpriseInfrastructure" NodeName="EnterpriseInfrastructure">

<Dependencies>

<Node ID="OpexSoftware:Workflow:Resource:WebResource" />

</Dependencies>

<CustomerInformation ID="opex.com" Name="OpexSoftware" />

</EnterpriseInfrastructure>