Hadoop Personal Project: Apache Ambari

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Apache Ambari

A framework for provisioning, managing and monitoring Apache Hadoop clusters

What it does?

Ambari enables system administrators to **provision**, **manage** and **monitor** a Hadoop cluster, and also to **integrate** Hadoop with the existing enterprise infrastructure.

Apache Ambari

Provision

Manage

Monitor

Integrate

Apache Ambari
Provision

No matter the **size** of your Hadoop cluster, the **deployment** and **maintenance** of hosts is **simplified** using Ambari. Ambari includes an **intuitive Web interface** that allows you to easily **provision**, **configure** and **test** all the Hadoop services and core components. Ambari also provides the powerful **Ambari Blueprints API** for **automating cluster installations** without user intervention.

Apache Ambari
Manage

Ambari provides **tools to simplify** cluster management. The Web interface allows you to **control the lifecycle** of Hadoop services and components, **modify configurations** and **manage the ongoing growth** of your cluster.

Apache Ambari
Monitor

Gain **instant insight** into the **health** of your cluster. Ambari **pre-configures alerts** for watching Hadoop services and **visualizes** cluster operational data in a simple Web interface.

Apache Ambari
Integrate

Ambari provides a **RESTful API** that **enables integration** with **existing tools**, such as Microsoft System Center and Teradata Viewpoint, to **merge Hadoop** with your **established operational processes**.

Hadoop cluster **provisioning** and ongoing **management** can be a **complicated task**, especially when there are **hundreds or thousands** of hosts **involved**. Ambari provides a **single control point** for **viewing**, **updating** and **managing** Hadoop service life cycles, with some **important features**.

Ambari Important Feature

FEATURE	BENEFIT
WIZARD-DRIVEN INTERFACE	FACILITATES INSTALLATION OF HADOOP ACROSS ANY NUMBER OF HOSTS
API-DRIVEN INSTALLATIONS	AMBARI BLUEPRINTS FOR AUTOMATED PROVISIONING
GRANULAR CONTROL	PRECISE MANAGEMENT OF HADOOP SERVICES AND COMPONENT LIFECYCLES
CONFIGURATION HISTORIES	ONGOING MANAGEMENT OF HADOOP SERVICE CONFIGURATIONS
EXTENSIBLE FRAMEWORK	BRINGS CUSTOM SERVICES UNDER MANAGEMENT VIA AMBARI STACKS
USABILITY IMPROVEMENTS	INNOVATIVE USER EXPERIENCES VIA AMBARI VIEWS
RESTFUL APIS	ENABLES INTEGRATION WITH ENTERPRISE SYSTEMS

Supported Hadoop Project

Supported OS

64 64-bit

ORACLE LINUX

5 & 6

ubuntu

12

CentOS

5 & 6

SUSE Linux Enterprise Server

redhat LINUX

11

5 & 6

Ambari API v1

- Authentication

- Monitoring

- Management

Authentication

- Every API call to Ambari API need the user authenticated.

- The authentication is using HTTP Basic Authentication method.

Monitoring

- This API provides access to monitoring and metrics information of an Apache Hadoop cluster.

Management

- This API provides for the management of the resources of an Apache Hadoop cluster.

- This includes resource:

    - creation,

    - deletion,

    - update

감사합니다
Thank you