



Overview

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About Cisco UCS Director Express for Big Data

Cisco UCS Director Express for Big Data provides a single touch solution that automates deployment of Big Data infrastructure and provides a single management pane across both physical infrastructure and Hadoop software. It supports key Hadoop distributions including Cloudera, MapR, and Hortonworks.

Cisco UCS Director Express for Big Data delivers end-to-end automation of Hadoop cluster deployment that allows you to spin up and expand clusters on-demand. Configuration of the physical infrastructure, which includes compute, internal storage, network, and installation of operating system, Java packages, Hadoop along with provisioning of Hadoop services are handled automatically with minimal user input. This is achieved through the innovative Cisco UCS service profiles wherein both the physical infrastructure and Hadoop configuration are incorporated into a Hadoop cluster deployment profile.

Cisco UCS Common Platform Architecture for Big Data

Cisco UCS Common Platform Architecture (CPA) for Big Data is an industry leading architecture designed to meet a variety of Big Data workloads. It scales as processing and storage needs grow without increasing management challenges and delivers predictable performance along with reduced total cost of ownership (TCO).

Cisco UCS CPA is comprised of the following components:

- **Cisco UCS Fabric Interconnects**
- **Cisco UCS 2200 Series Fabric Extenders**

- Cisco UCS C-Series Rack-Mount Servers
- Cisco UCS Virtual Interface Cards (VICs)
- Cisco UCS Manager

You can read more about the Cisco UCS CPA for Big Data in the [Cisco UCS Common Platform Architecture for Big Data design guides](#).

Supported Hadoop Distributions

Cisco UCS Director Express for Big Data supports the following Hadoop distributions:

- Cloudera 5.x
- MapR 3.1 and 4.0
- Hortonworks 2.1 and 2.2

High Level Work Flow to Create an Instant Hadoop Cluster

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- Step 1** Create a Cisco UCS Manager account. For more information, see [Adding a Cisco UCS Manager Account](#).
 - Step 2** Configure Big Data IP pools. For more information, see [Adding a Big Data IP Pool](#).
 - Step 3** Create an Instant Hadoop Cluster. For more information, see [Creating an Instant Hadoop Cluster](#).
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High-Level Work Flow to Create a Customized Hadoop Cluster

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- Step 1** Configure a Cisco UCS Service Profile template for Big Data. For more information, see [Creating a Cisco UCS Service Profile Template for Big Data](#).
 - Step 2** Configure an Hadoop cluster template. For more information see, [Creating an Hadoop Cluster Template](#).
 - Step 3** Configure an Hadoop cluster deploy template. For more information, see [Creating an Hadoop Cluster Deploy Template](#).
 - Step 4** Create a customized Hadoop cluster. For more information, see [Creating a Customized Hadoop Cluster](#).
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