teqwave

Cloudera MP User Guide for Microsoft System Center Operations Manager

**Version 2.0
User Guide,
Revision A**

July, 2019

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CONTACTING TEQWAVE

At Teqwave we value the feedback from our customers. It is important not only to help you quickly with your technical issues, but it is our mission to listen to your input, and build products that incorporate your suggestions.

CUSTOMER SUPPORT

Should you have a product issue, suggestion or question, please send an E-mail to the Teqwave support team at support@teqwave.com

ONLINE SUPPORT

If you have any questions about the Teqwave Management Pack for Cloudera, you may use the following resources:

- Support
  - http://teqwave.com/support/
- Online documentation
  - http://teqwave.com/resources/

ABOUT THIS DOCUMENT

This document describes the features included in the Teqwave Management Pack for Cloudera. It gives instructions for installing the Management Pack and monitoring your Cloudera infrastructure and services in Microsoft System Center Operations Manager.

Edition	Date	
1.0	November 2016	Initial version of the document for Teqwave Management Pack for Cloudera.
1.1	March 2017	Version 1.1 release.
1.1, Revision B	May 2017	Fixed formatting in appendices.
1.2	February 2018	Version 1.2 release. Support for newest Cloudera releases. Various fixes.
2.0	July 2019	Support for Cloudera versions up to 6.2. Support for SCOM 2019. Various fixes.

WELCOME TO TEQWAVE CLOUDERA MP

The **Teqwave Management Pack for Cloudera** (**Teqwave Cloudera MP**) — integrates Cloudera infrastructure and services into the enterprise-wide automated management, monitoring and alerting workflow implemented using Microsoft System Center Operations Manager (Ops Mgr).

KEY FEATURES

The Teqwave Cloudera MP provides the following advanced features:

- Discovers complete Cloudera topology, including Cloudera clusters, racks, hosts, services, and service roles
- Proactively monitors the availability and capacity
- Proactively notifies when the health is critical
- Provides customizable dashboard views for monitoring the configuration, resource utilization and health state of the Cloudera components
- Includes a set of performance and status monitors that diagnose the state of Cloudera clusters, hosts, and services.
- Includes an extensive knowledge base to speed up root-cause diagnosis and reduce resolution time for detected issues

LICENSING

The Teqwave Cloudera MP is licensed per Cloudera host.

The license file is obtained from Teqwave and is a requirement during MP configuration. A free 30-day trial license is available.

SYSTEM REQUIREMENTS

Before you start installing the product, make sure your environment meets the following hardware and software requirements.

CLOUDERA INFRASTRUCTURE

The Teqwave Cloudera MP supports the following Cloudera infrastructure components:

Specification	Requirement
Cloudera Manager	• 5.0 or newer 📝 **Note:** Management pack interacts with Cloudera Manager URI to perform all monitoring and management activities. It should be accessible at all times to enable cluster monitoring with this management pack.

MICROSOFT SYSTEM CENTER OPERATIONS MANAGER

The Teqwave Cloudera MP supports the following versions and components of Operation Manager:

Specification	Requirement
Operations Manager	• Microsoft System Center 2012 SP1 Operations Manager • Microsoft System Center 2012 R2 Operations Manager • Microsoft System Center 2016 Operations Manager • Microsoft System Center 1801 Operations Manager • Microsoft System Center 1807 Operations Manager • Microsoft System Center 2019 Operations Manager 📝 **Note:** Make sure that the latest available updates for System Center Operations Manager are installed.

Custom management packs usually have dependencies on some of the default management packs. The Teqwave Cloudera MPs have the following dependencies:

Management Pack	Dependencies
Teqwave Management Pack for Cloudera (Discovery)	• Microsoft System Center Library • Microsoft System Center Operations Manager Library • Microsoft System Center Visualization Library • Microsoft Windows Library • System Health Library • System Library

Teqwave Management Pack for Cloudera (Monitoring)	• Microsoft System Center Data Warehouse Library • Microsoft System Center Library • Microsoft Windows Library • Microsoft Windows Server Library • System Health Library • System Library • System Performance Library • Teqwave Management Pack for Cloudera (Discovery)
Teqwave Management Pack for Cloudera (Presentation)	• Microsoft System Center Visualization Configuration Library • Microsoft System Center Visualization Library • System Library • Teqwave Management Pack for Cloudera (Discovery) • Teqwave Management Pack for Cloudera (Presentation)
Teqwave Management Pack for Cloudera (Advanced Dashboards)	• Microsoft SQLServer Visualization Library 6.6.0 or newer • Microsoft System Center Visualization Library • System Library • Teqwave Management Pack for Cloudera (Discovery)

INSTALLING TEQWAVE CLOUDERA MP

To deploy the Teqwave Cloudera MP, follow these steps:

1. Install Teqwave Cloudera MP on a Management Server
2. Import Teqwave Cloudera MP Management Packs
3. Configure the Management Pack
4. License the Management Pack

Please see the details of each step in the following sections.

BEFORE YOU BEGIN

Before you begin installation, take the following steps:

1. Make sure that your environment meets the prerequisite conditions described in section System Requirements.
2. Prepare Cloudera manager user account, URL address and port number. A user account with **Auditor user role** assigned is sufficient.

STEP 1 - INSTALL TEQWAVE CLOUDERA MP ON A MANAGEMENT SERVER

Log on to the Management Server using an account with local Administrator rights and launch the *Teqwave.Cloudera.msi* setup package.

1. Click **Next** to start the installation.
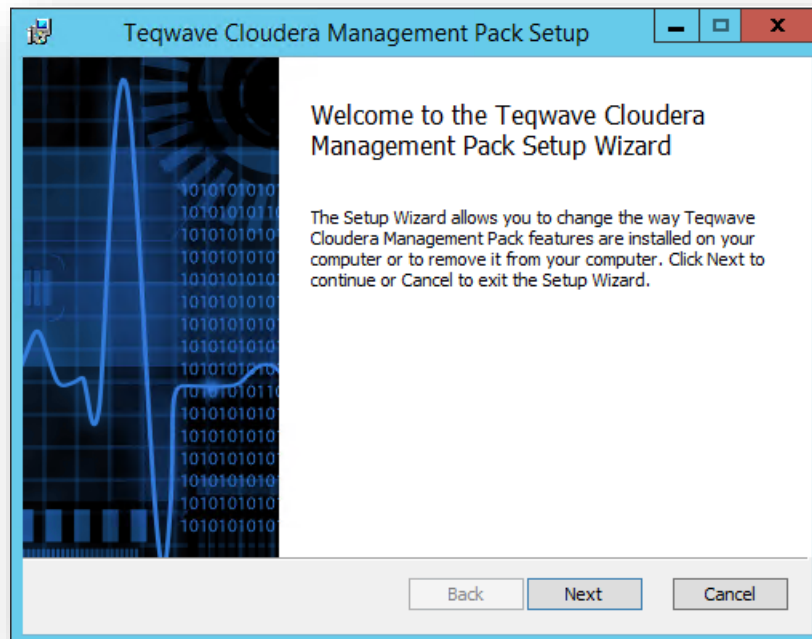
2. Read and accept the license agreement. If you reject the agreement, you will not be able to continue installation.
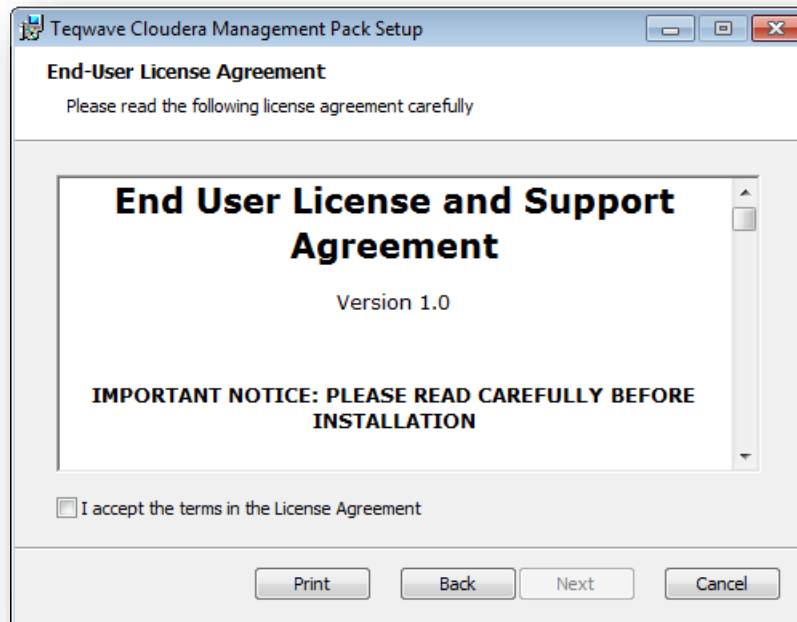
3. Click **Next** to install to the default folder or click **Change** to choose another folder.
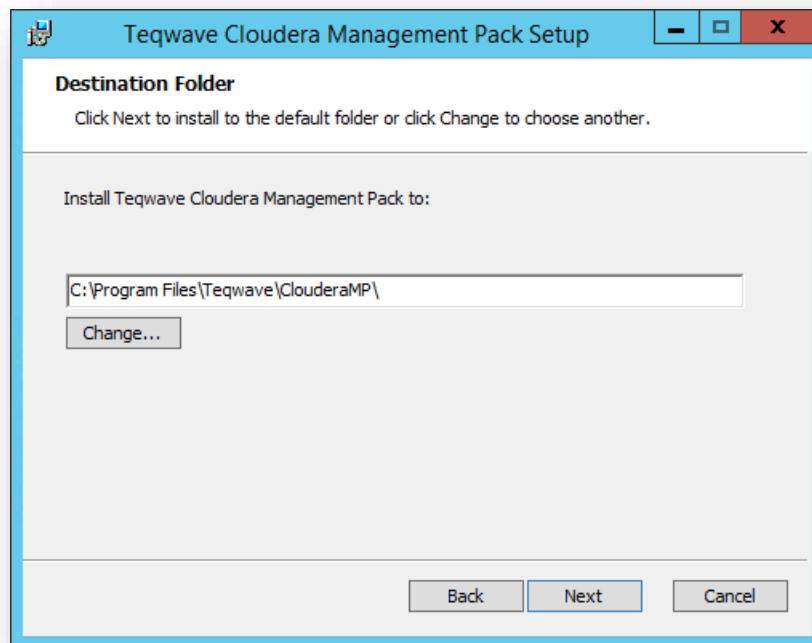
4. Click **Install** to begin the installation.
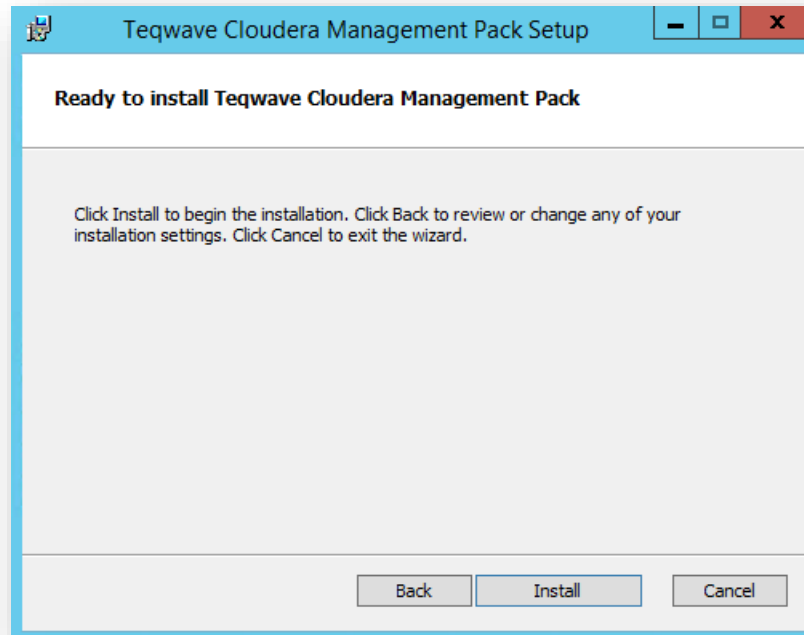
5. Click **Finish**.
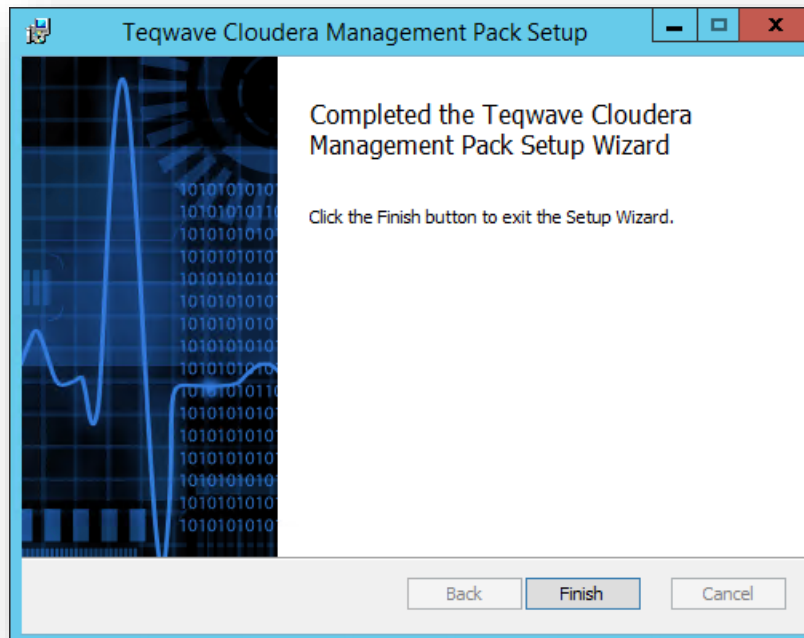
The following table describes the files included in this management pack.

File	Display name	Description
Teqwave.Cloudera.mpb	Teqwave Management Pack for Cloudera (Discovery)	Contains definitions for object types and groups.
Teqwave.Cloudera.Monitoring.mpb	Teqwave Management Pack for Cloudera (Monitoring)	Provides all monitoring for Cloudera. 📝 **Note:** Cloudera will not be monitored until you import this management pack.
Teqwave.Cloudera.Presentation.mpb	Teqwave Management Pack for Cloudera (Presentation)	Provides dashboards for Cloudera.
Teqwave.Cloudera.Presentation.Advanced.mp	Teqwave Management Pack for Cloudera (Advanced Dashboards)	Provides dashboards for Cloudera that depend on SQL Server Summary Dashboard.

To import the Teqwave Cloudera MPs to the System Center Operations Manager, perform the following steps:

1. On the **Management Server**, start the **System Center Operations Manager** console.
2. In the Operations console, click **Administration**.
3. Right-click the **Management Packs** node, and then click **Import Management Packs**.
4. The **Import Management Packs** wizard opens. Click **Add**, and then click **Add from disk**.
5. The **Select Management Packs to import** dialog box appears. Locate the management packs in the MP installation directory `%ProgramFiles%\Teqwave\Cloudera MP`, select all MP files and then click **Open**.
6. On the **Select Management Packs** page, the management packs that you selected for import are listed. An icon next to each management pack in the list indicates the status of the selection, click **Install**.

7. The **Import Management Packs** page appears and shows the progress for each management pack. If there is a problem at any stage of the import process, select the management pack in the list to view the status details. Click **Close**.

Note: Import is possible only if all required management packs are available. Missing management packs can be imported from the System Center Operations Manager installation directory.

STEP 3 - CONFIGURE THE MANAGEMENT PACK

To setup Cloudera cluster monitoring:

1. In SCOM Console navigate to **Authoring | Management Pack Templates | Cloudera**, right-click it and select **Add Monitoring Wizard…**:
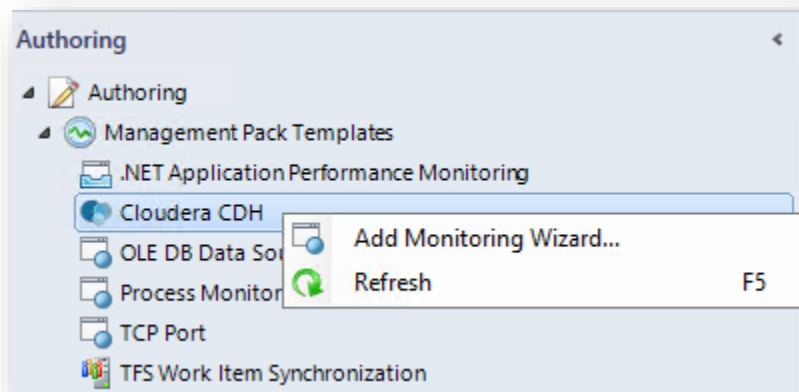
2. On the **Monitoring Type** page select **Cloudera** and click **Next**:
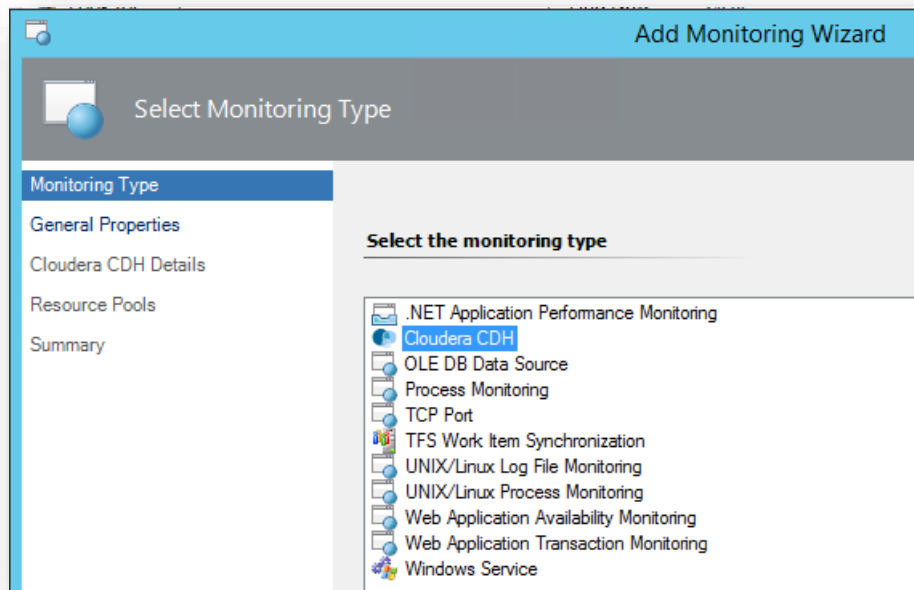
3. On the **General Properties** page provide **Name** and **Description** for your Cloudera cluster and select target **Management Pack** to store configuration to:
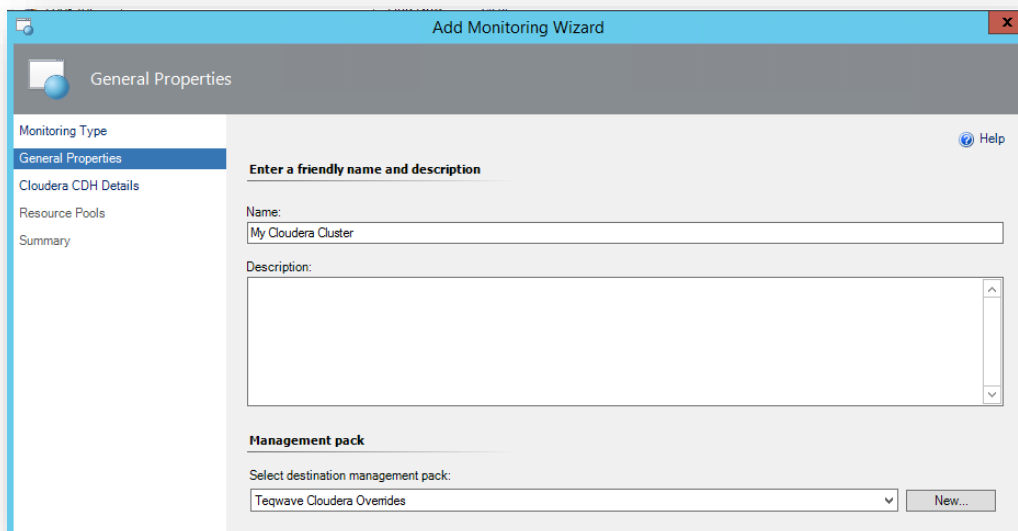
For more information about target Management Pack, please see Best Practice: Create a Management Pack for Customizations section. You can create new management pack right from this wizard by clicking **New** button, located next to Management Packs drop-down list.

4. On the **Cloudera Details** page provide your **Cloudera Manager URI** and **Credentials Run As Account** to be used. If the RunAs account is not created yet, please click on **Create New Account** button.

Enter account credentials and hit **Create RunAsAccount** button.

To test the connection, click on **Test Configuration** button. A pop-up window with the connection status will appear
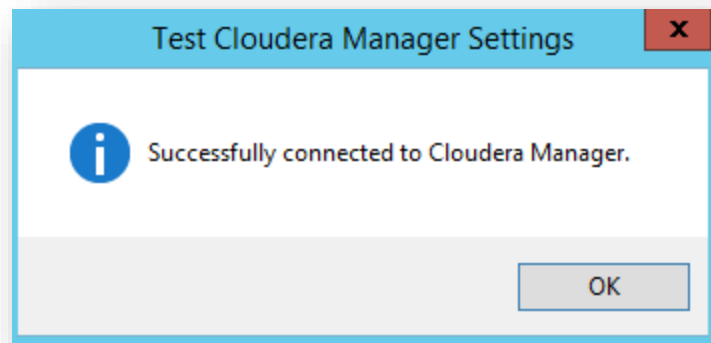
Note: In case HTTPS communication is used with self-signed certificate, Cloudera Manager Server certificate must be obtained and placed under »Trusted Root Certification Authorities« for Local System on each SCOM management server in resource pool.
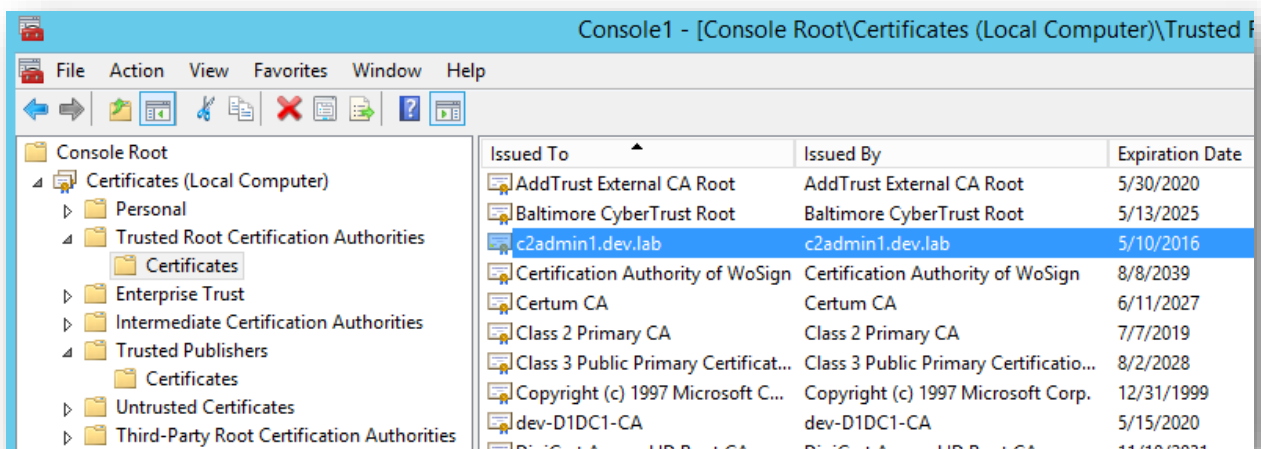
5. On the **Resource Pools** dialog you need to specify the resource pool that will be used for remote monitoring. To do this:
    a. Click **Browse** button next to Resource Pool:
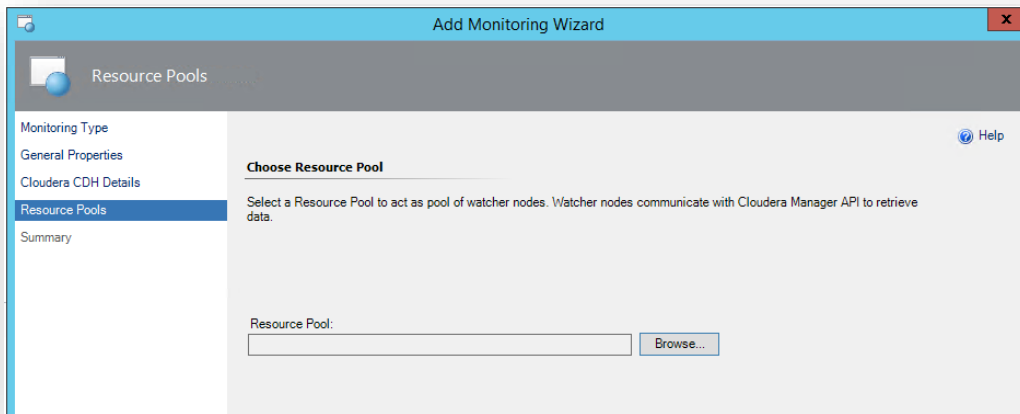
b. In the **Select Resource Pool** dialog enter search criteria (or leave textbox empty to show all available agents) and click **Search**:
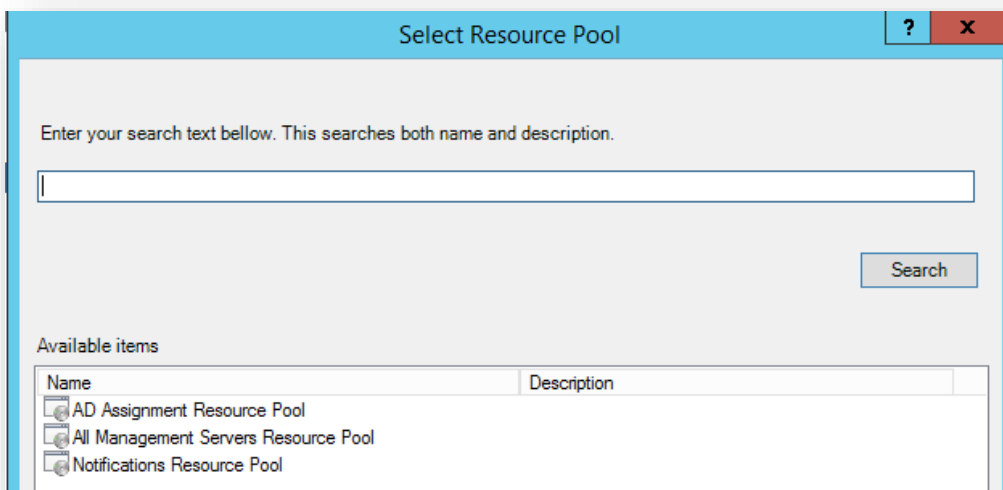
c. Select desired resource pool and click **OK**. Selected pool will show up on **Resource Pool** page. Click **Next**.

6. Review the configuration on the **Summary** page and click **Create**:
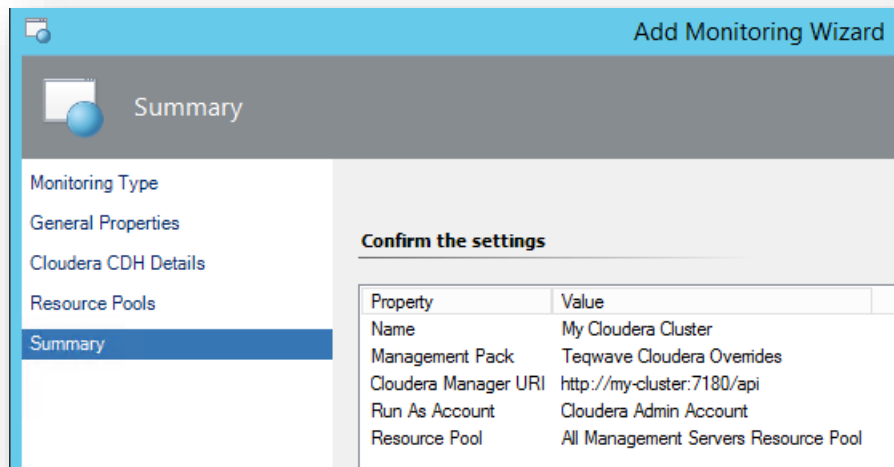
BEST PRACTICE: CREATE A MANAGEMENT PACK FOR CUSTOMIZATIONS

By default, Operations Manager saves all customizations such as overrides to the Default Management Pack. As a best practice, you should instead create a separate management pack for each sealed management pack you want to customize.

When you create a management pack for the purpose of storing customized settings for a sealed management pack, it is helpful to base the name of the new management pack on the name of the management pack that it is customizing.

Creating a new management pack for storing customizations of each sealed management pack makes it easier to export the customizations from a test environment to a production environment. It also makes it easier to delete a management pack, because you must delete any dependencies before you can delete a management pack. If customizations for all management packs are saved in the Default Management Pack and you need to delete a single management pack, you must first delete the Default Management Pack, which also deletes customizations to other management packs.

STEP 4 - LICENSE THE MANAGEMENT PACK

Teqwave Cloudera MP is licensed per node. Every node in the Cloudera cluster needs a valid license in order to be monitored.

Before using Teqwave Cloudera MP, a valid license must be obtained. There are two license types:

- Evaluation licenses and
- Permanent licenses

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Evaluation licenses are time-limited and are used for product evaluations. Permanent licenses are issued after product purchase and have no expiration date.

OBTAIN THE LICENSE

PERMANENT LICENSE

If you have purchased the Cloudera MP then the license file should already be sent to you electronically. You can skip this step.

EVALUATION LICENSE

To obtain the evaluation license activation file, send an E-mail with the following details to the Teqwave licensing department at licensing@teqwave.com:

- Your company name
- Number of hosts in the cluster(s)

Use the same E-mail address if you have any questions about the licensing process.

APPLY THE LICENSE

To apply the license, navigate to Teqwave **Cloudera -> MP Administration -> Licensing** view.
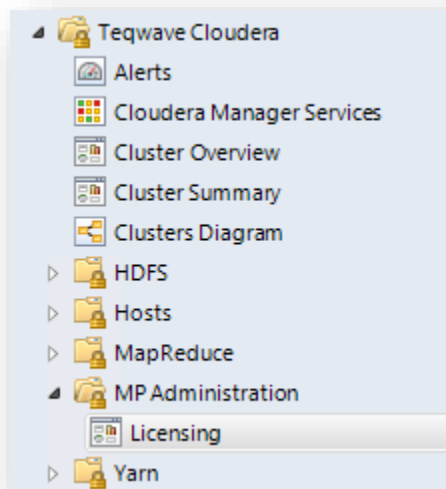
Copy the license key to the **License Key** text box, select the Cloudera cluster that you want to monitor and press **Apply**.

Please enter a valid license key and choose cluster(s) for which you want to apply the license.

License Key:

ns2eAh+Rp66kVgBfxW++7yp5jtnQuIxhZWa9t5GAibHojik8D9dOggpg4x/
LnxUVAKevfPHXAjTsqWvghljXD9jUap557Q0kv62rSwilyT1pFOGVYAzKZjR2
DQ0bnfIY09eNCEghBF8TnsTbCDxIs1XIGn4oDFOBmR30JAQiQRj4AaNr2Of0
OMr2YgjifQasrk3Omzsp/4wjaMs3ueXwRDCfnkjGXvNgz7klt32xK8NYm
+zyYB3u4uAwcOQvE1IdwQ3Jxk+E+k7mIWntk6Rwd6XI9Y/
yGFKy6k0TJLbM8GU=

License Status: Ok

License Type: Temporary

Expiration Date: 6/1/2017

Licensed Hosts: [==== 5   ] 20

Cluster Name: Current Hosts: Licensed Hosts:

c1admin1 (http://10.10.2.30:7180/api)
☑ Cluster 1   4   4   Edit
☑ cluster3   1   1   Edit

Apply

📝 **Note:** Cloudera clusters and hosts have to be discovered before applying the license. Please configure the MP and wait couple of minutes for the initial discovery to finish and then apply the license.

MONITORING WITH TEQWAVE CLOUDERA MP

The Teqwave Cloudera MP includes a comprehensive set of views available under the Teqwave Cloudera folder in the Ops Mgr console Monitoring tree. The folder includes views for alerts, performance, state and diagrams. Subfolders allow drill-down into filtered views for Cloudera clusters, hosts, services and service role instances.
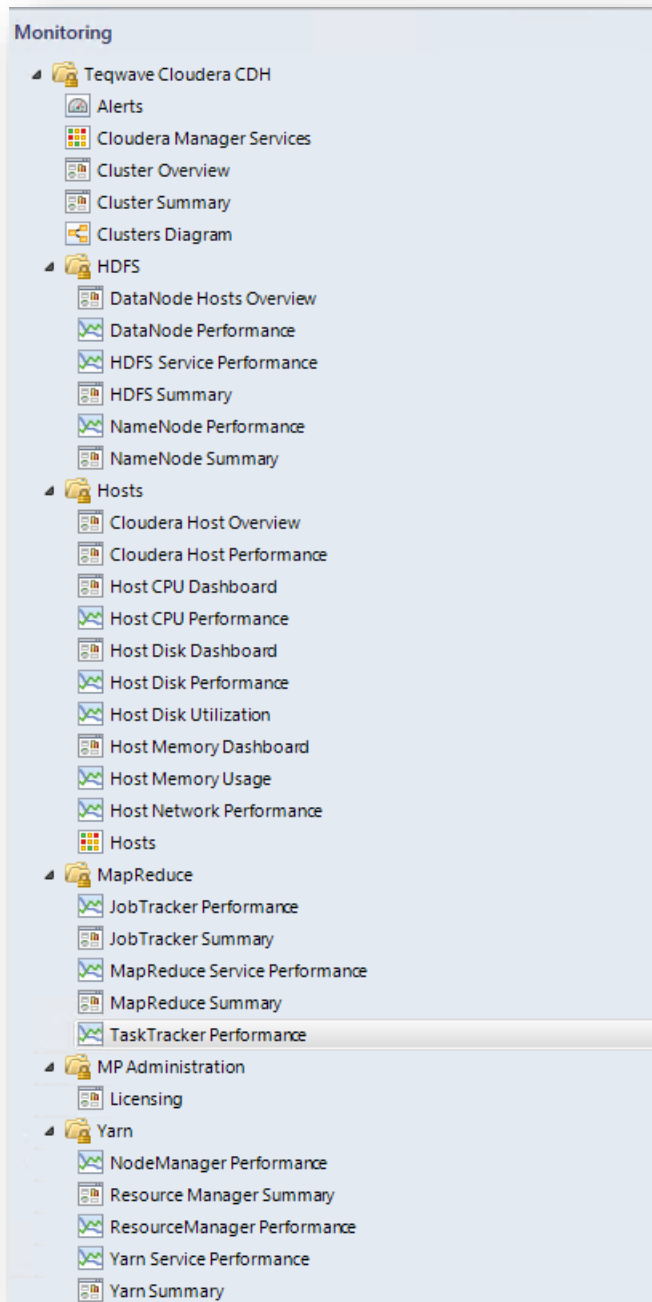
Cloudera topology showing Cloudera clusters, Racks, Hosts and Service role instances that are running on a specific host.
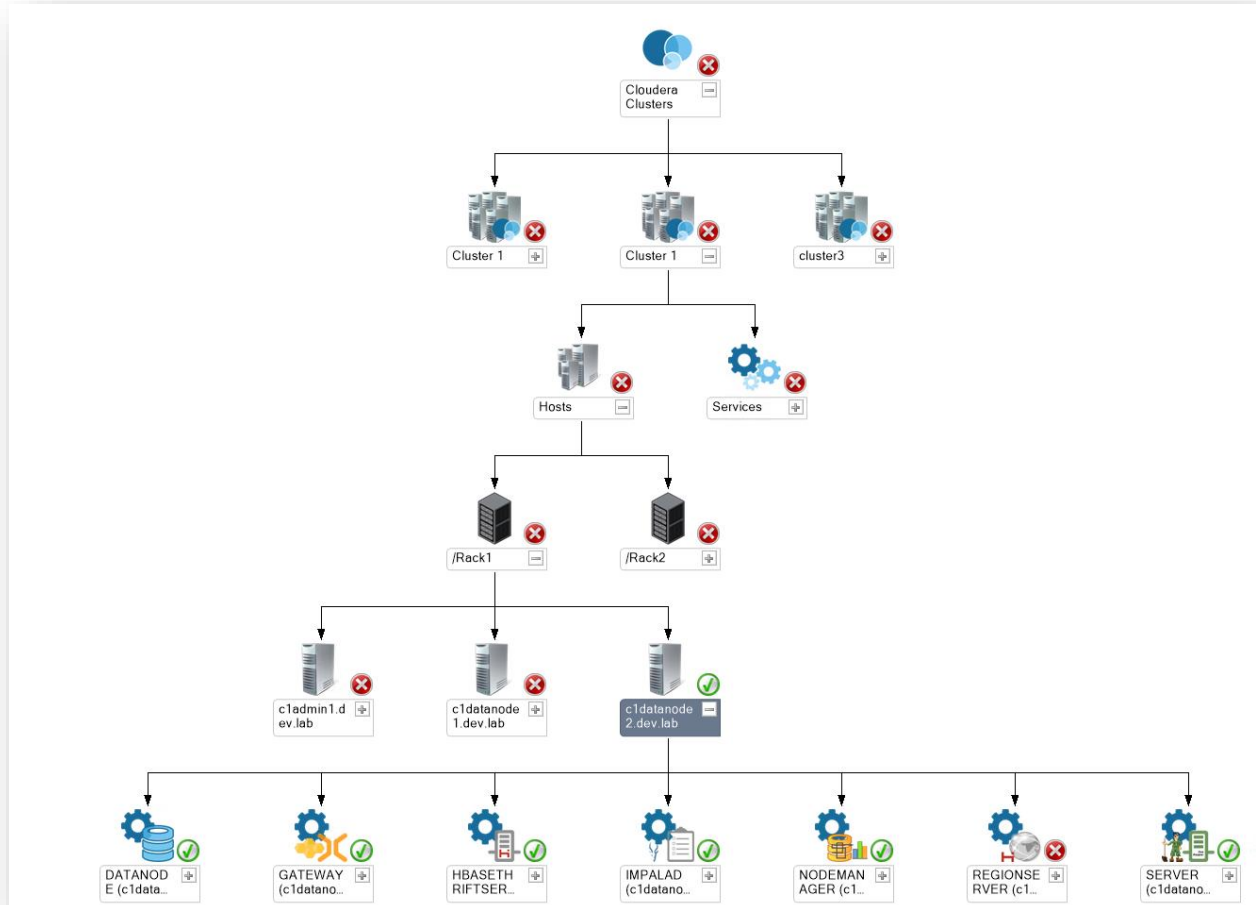
Cloudera topology showing Cloudera clusters, Cluster Services, Service role types.
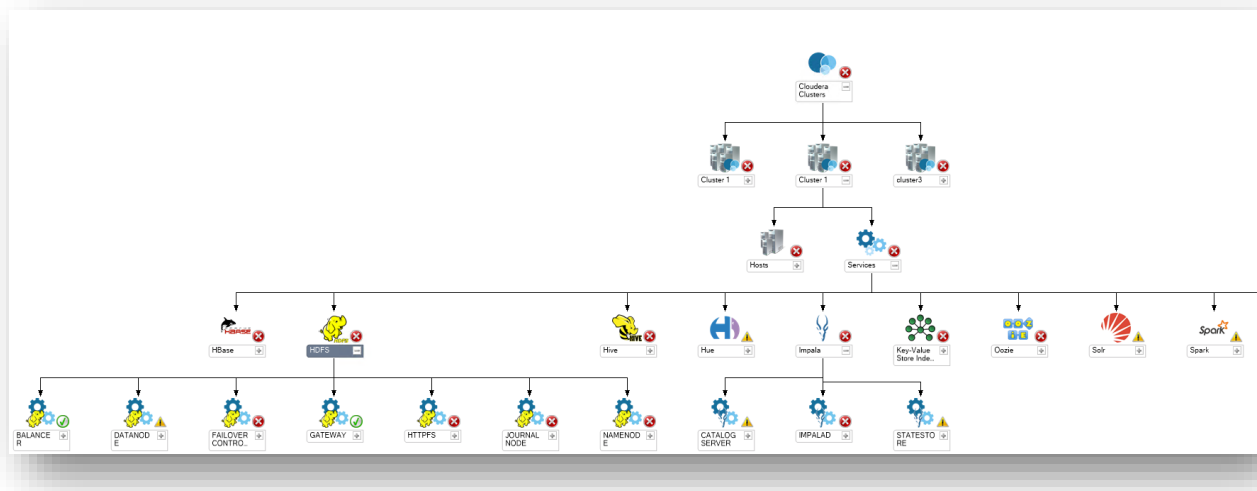
ALERTS AND KNOWLEDGE BASE

The Alert views reveal current issues in your Cloudera environment.

Teqwave Cloudera MP includes **Alerts** view under the Teqwave Cloudera folder, showing all alerts generated by the Teqwave MP for Cloudera.

For each alert, you can view a knowledge base article that provides detailed information about the issue, possible cause description, resolution steps and links to external resources.
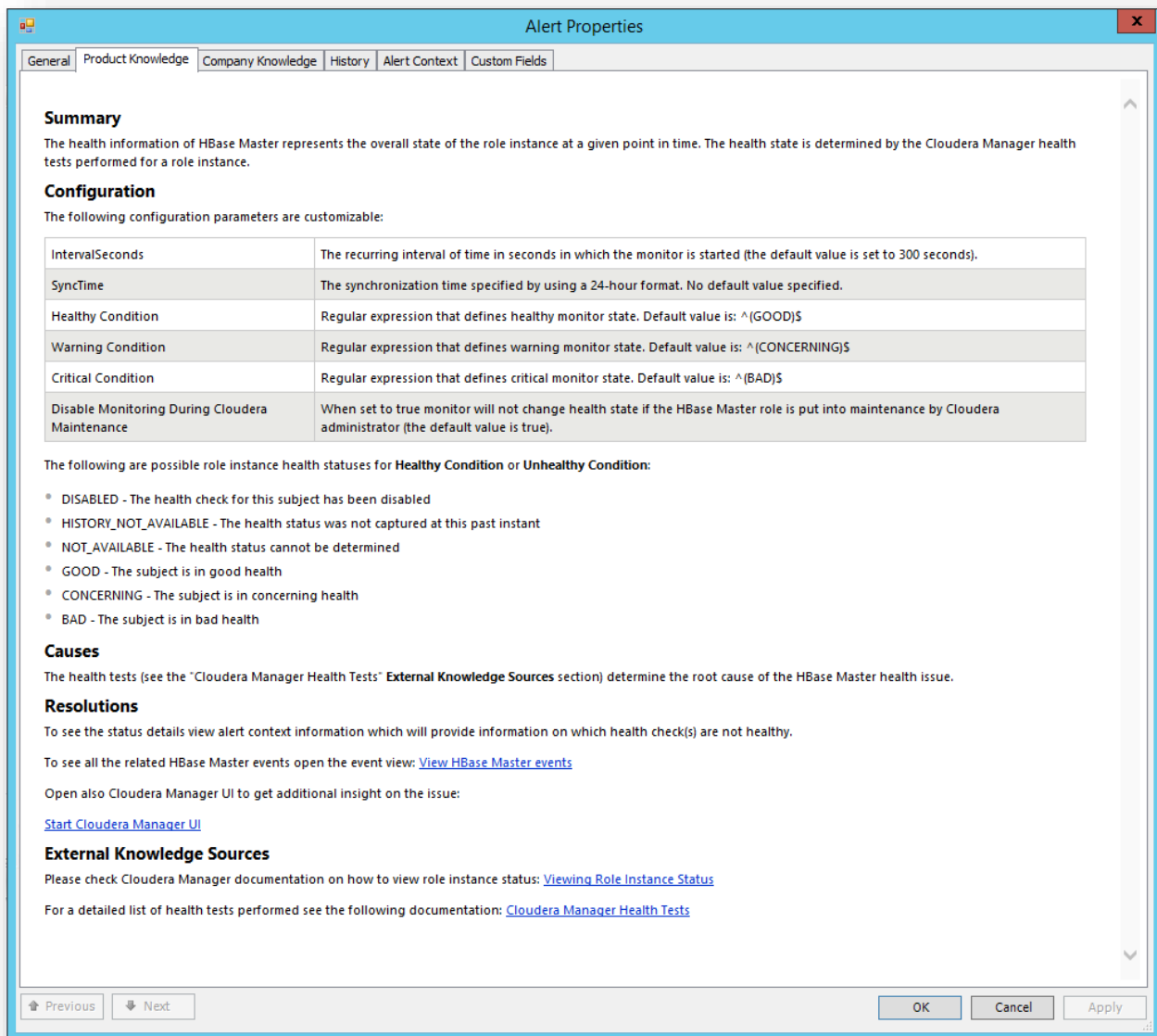
DASHBOARDS

Dashboards help you quickly drill down into the root cause of a problem and speed the troubleshooting process. These dashboards allow you to analyze the metric history for a specific performance area.

CLUSTER OVERVIEW

This dashboard shows health status overview across all Cloudera clusters. In top view the dashboard shows health state in aggregated way. It is possible to drill down from the top view to the Instance view in order to investigate the root cause of the issue. You can return to the home page from any Instance view by clicking the Home part of the navigation pane.

📝 **Note:** Microsoft SQLServer Visualization Library MP version 6.6.0 is the prerequisite for this dashboard.
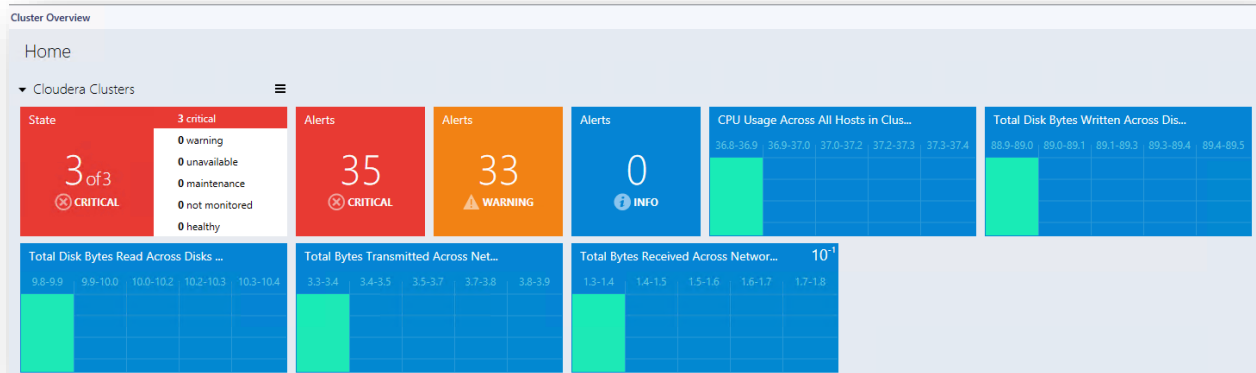
CLUSTER SUMMARY

This dashboard shows Clusters health state. User can choose the Cluster by clicking **Cluster Name**, after user can see intuitively visualization of:

- Cluster Services
- Service Roles
- Live vs. Dead Nodes
- Space Utilization

After user selects a **Cluster Service**, **Service Roles** will populate automatically.
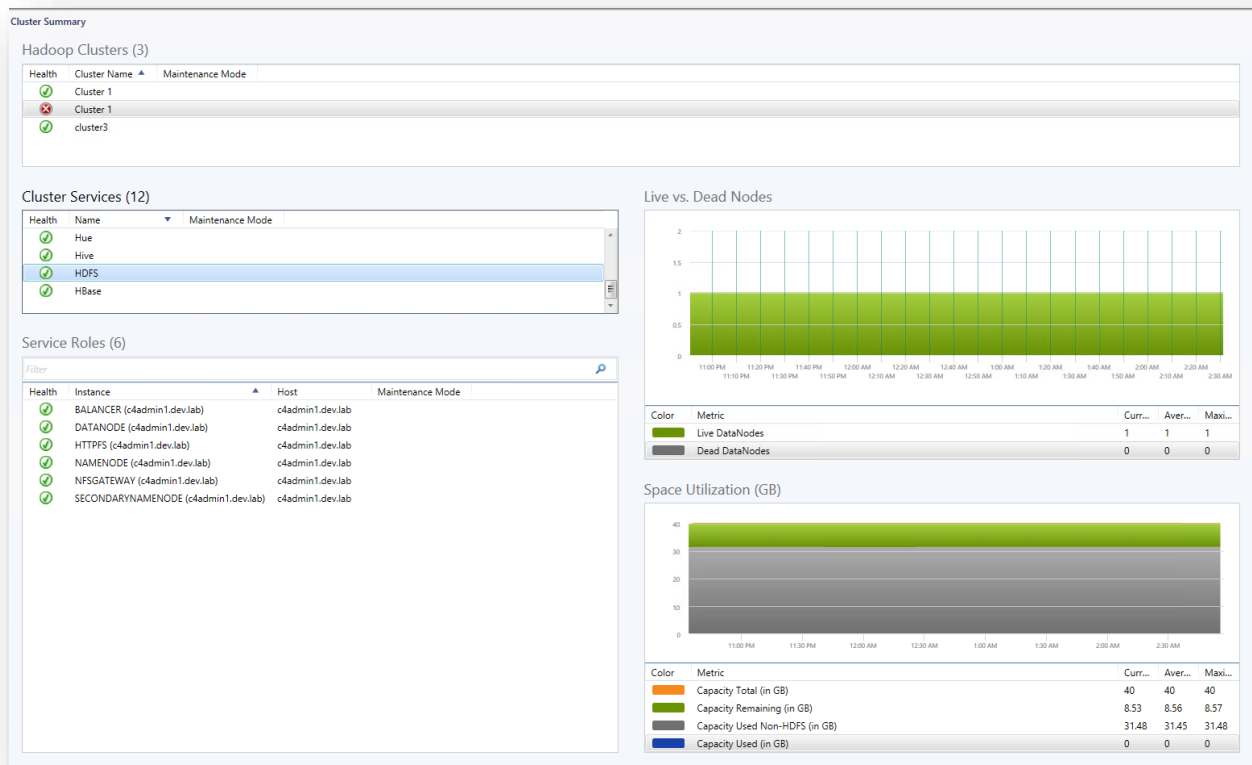
DATANODE HOSTS OVERVIEW

This dashboard shows health status overview across all DataNodes. In top view the dashboard shows health state in aggregated way. It is possible to drill down from the top view to the Instance view in order to investigate the root cause of the issue. You can return to the home page from any Instance view by clicking the Home part of the navigation pane.

Note: Microsoft SQLServer Visualization Library MP version 6.6.0 is the prerequisite for this dashboard.
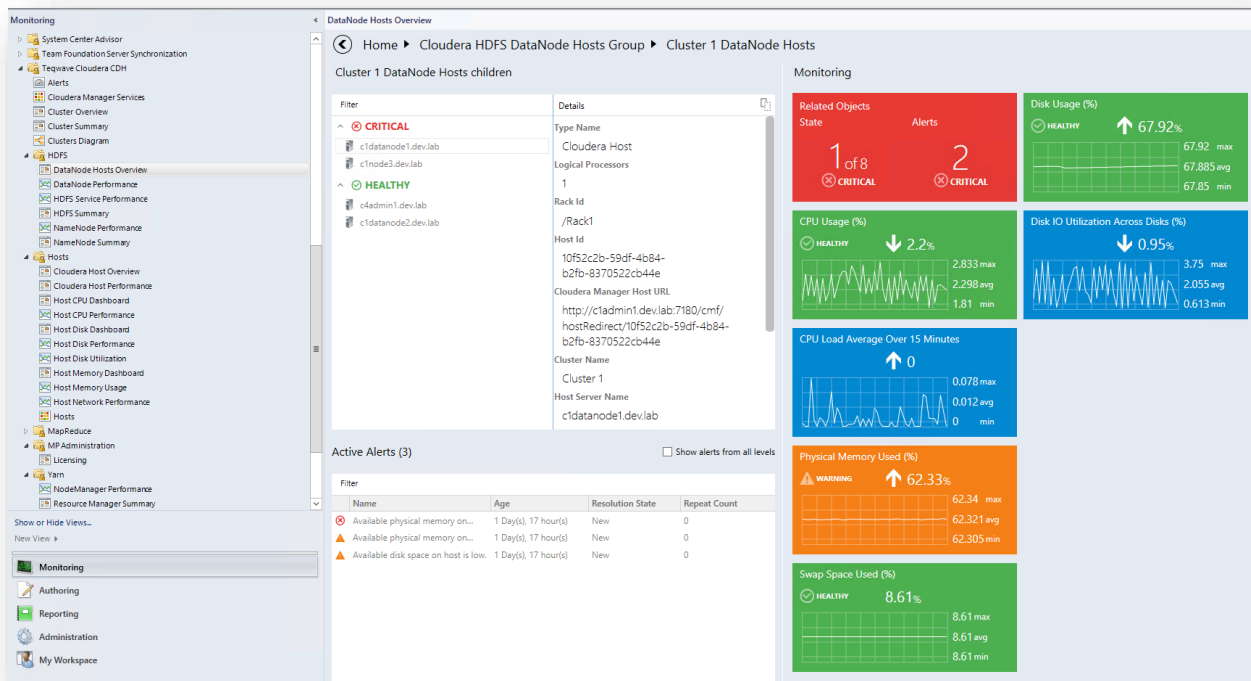
HDFS SUMMARY

This dashboard shows HDFS Cluster Services health state. User can choose the Cluster by clicking **Cluster Name**, after user can see intuitively visualization of:

- Files Summary metrics
- Blocks Summary metrics
- I/O Summary metrics
- Capacity Remaining
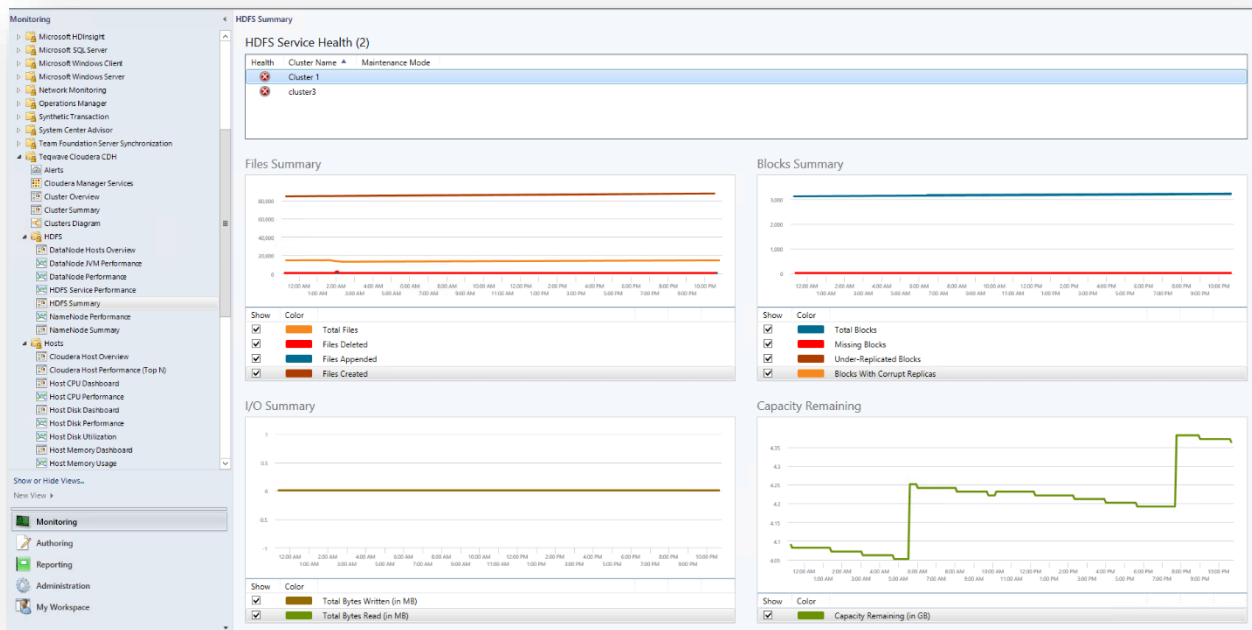
NAMENODE SUMMARY

This dashboard shows NameNode Host Component health state. User can choose the Cluster by clicking **Cluster Name**, after user can see intuitively visualization of:

- Memory Heap Utilization
- Thread Status
- Garbage Collection Time
- Average RPC Wait Time
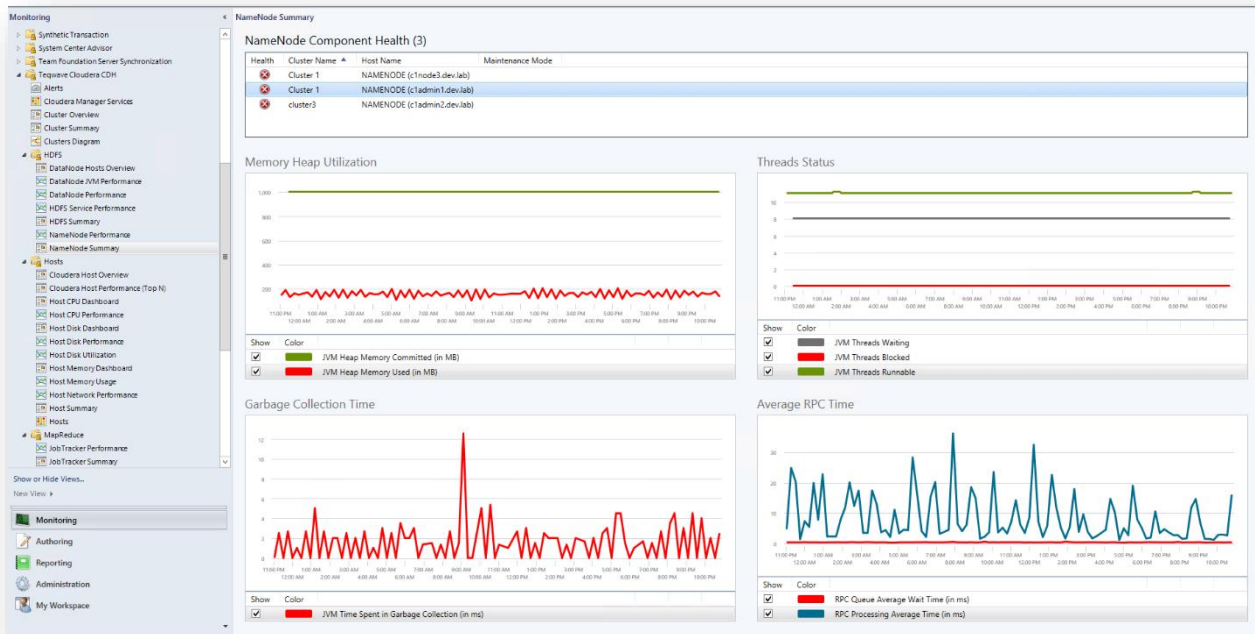
CLOUDERA HOST OVERVIEW

This dashboard shows health status overview across all Cloudera hosts. In top view the dashboard shows health state in aggregated way. It is possible to drill down from the top view to the Instance view in order to investigate the root cause of the issue. You can return to the home page from any Instance view by clicking the Home part of the navigation pane.

Note: Microsoft SQLServer Visualization Library MP version 6.6.0 is the prerequisite for this dashboard.
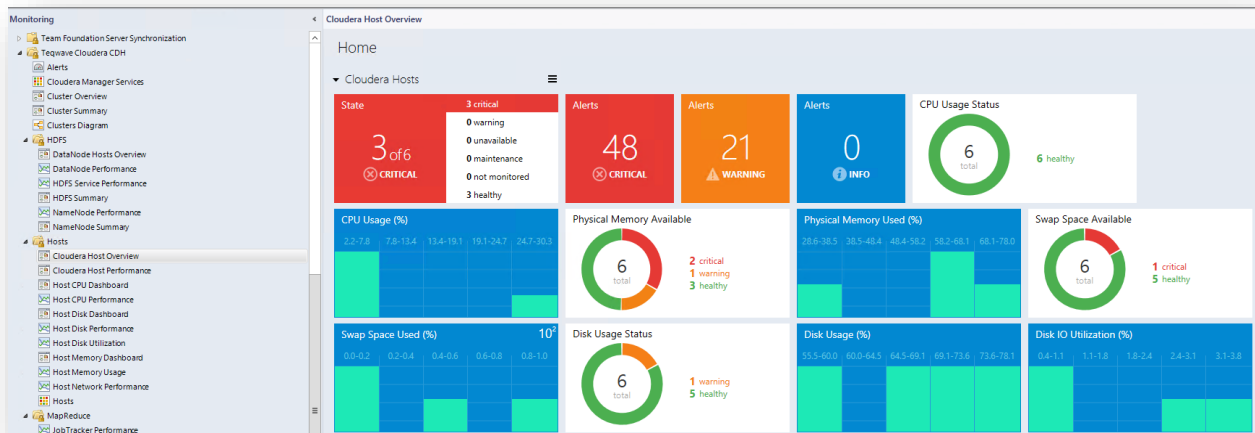
CLOUDERA HOST PERFORMANCE

Cloudera Host Performance top dashboard shows top Cloudera hosts for resource usage sorted by the cluster name. The dashboard shows top hosts by:

- Physical Memory Usage
- Swap Space Usage
- CPU Utilization
- CPU Load
- Disk Usage
- Disk IO Utilization
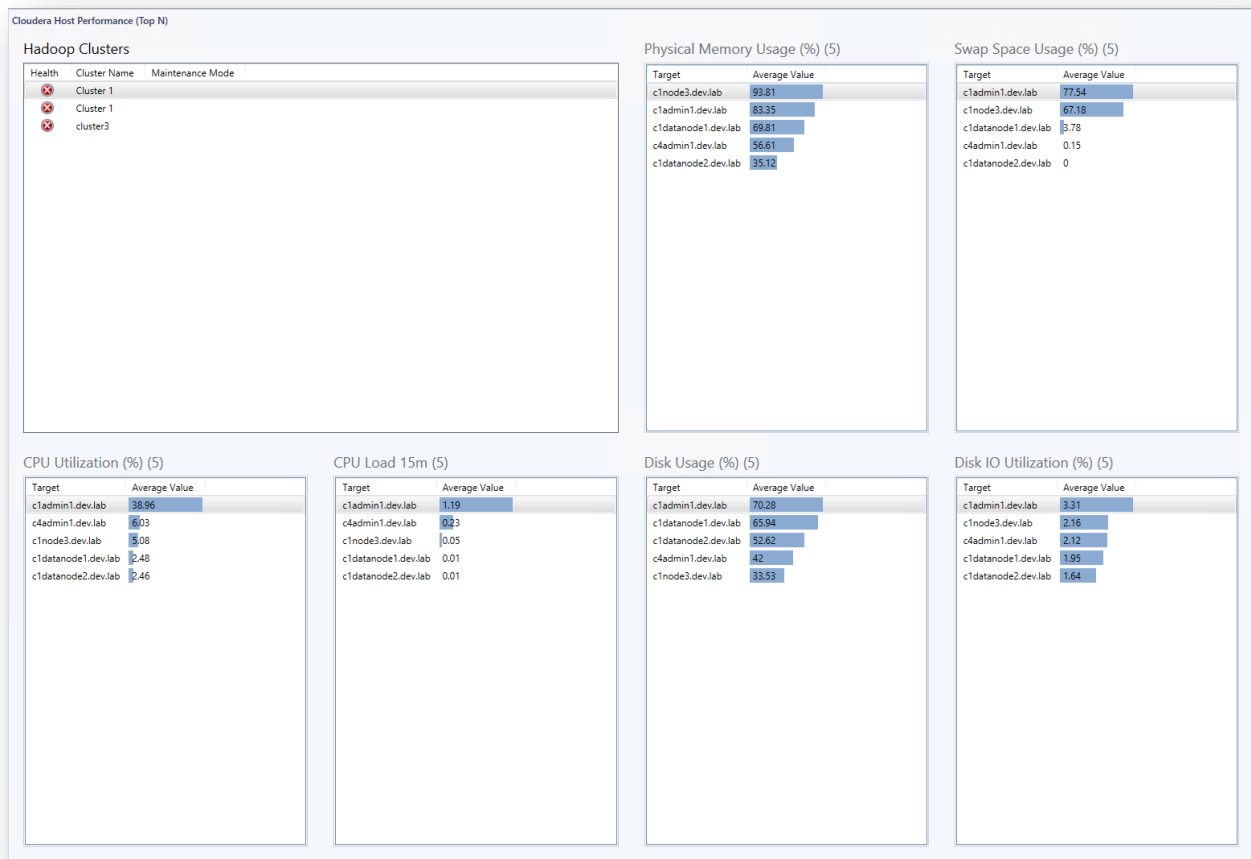
HOST CPU DASHBOARD

This dashboard shows CPU usage by host and includes performance graph that will help you understand how the metric was changed over time.
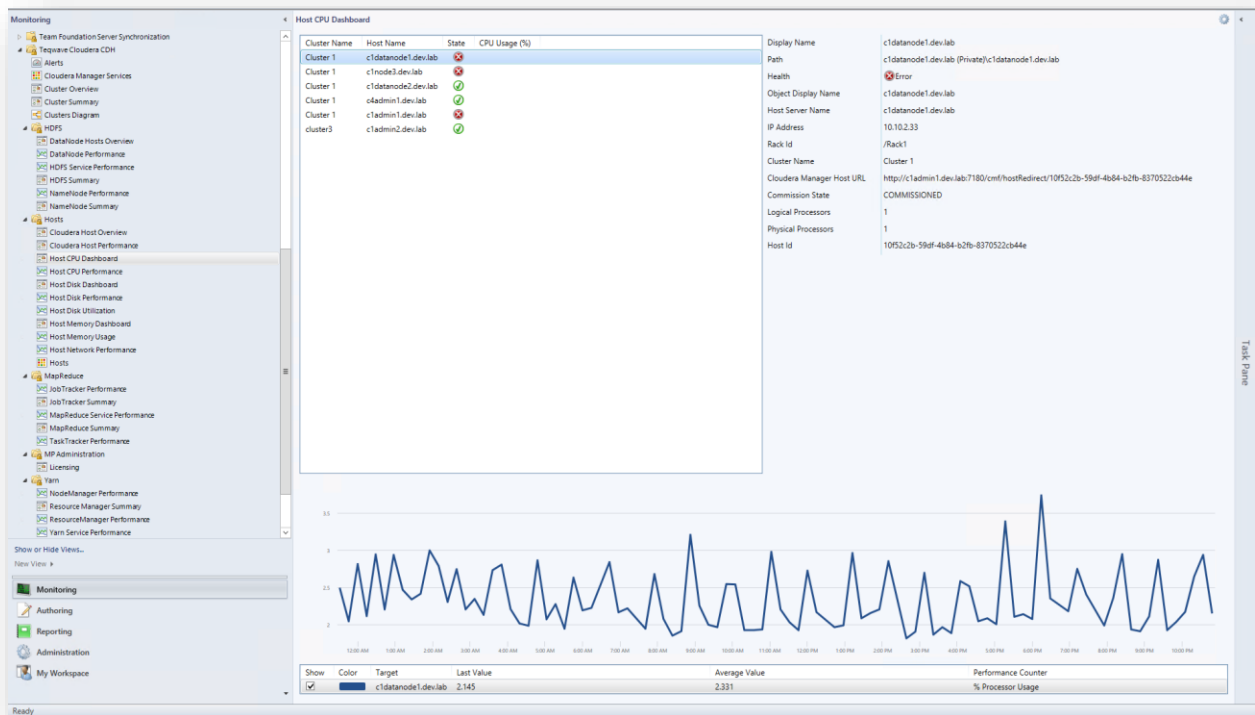
HOST DISK DASHBOARD

This dashboard shows disk usage and free space by host and includes performance graph that will help you understand how metrics were changed over time.
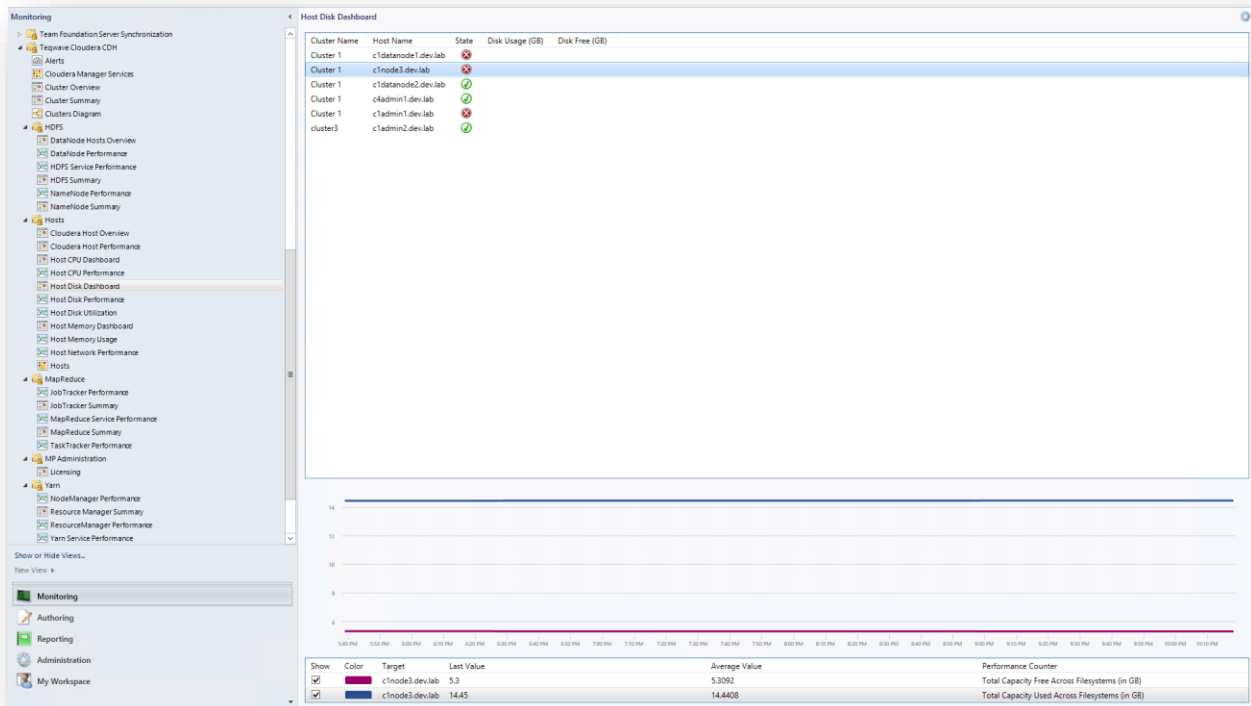
HOST MEMORY DASHBOARD

This dashboard shows used and available physical memory by host and includes performance graph that will help you understand how metrics were changed over time.
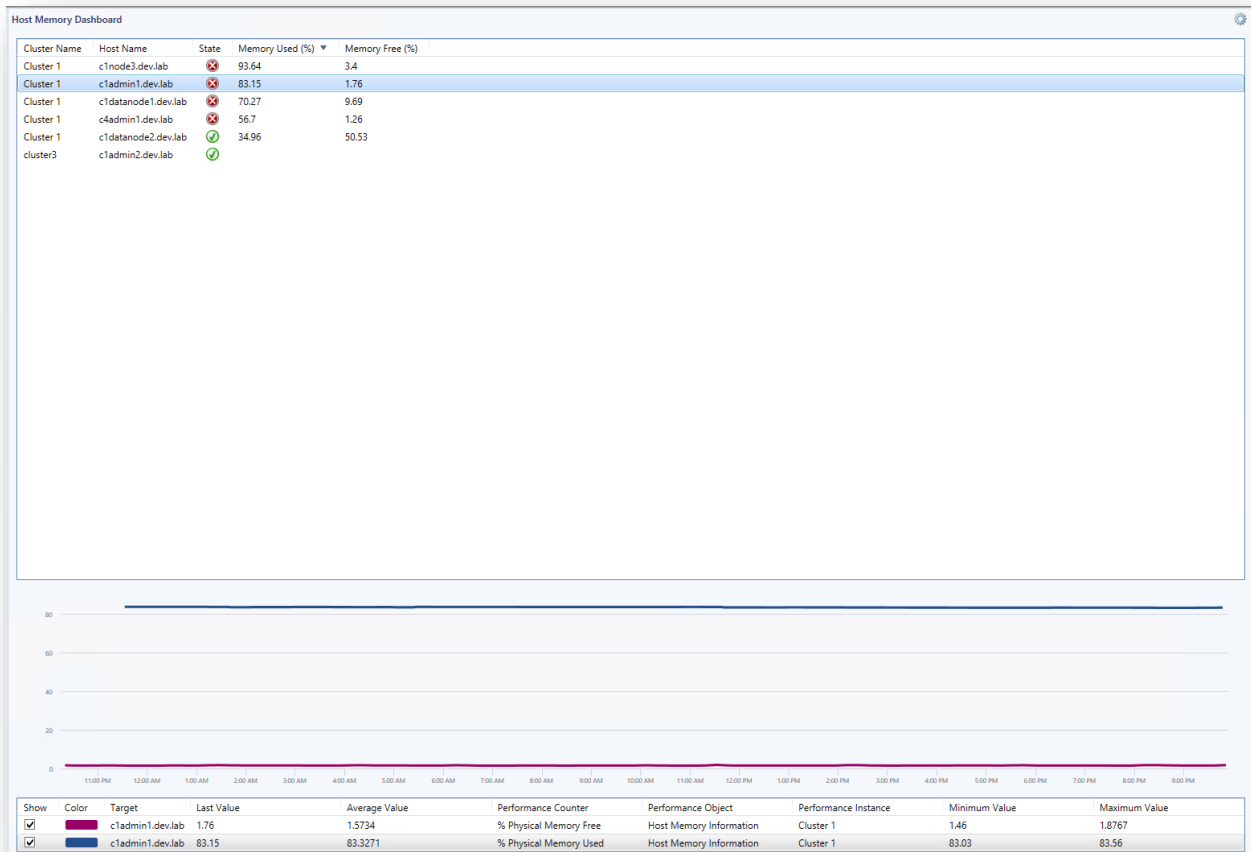
MAPREDUCE SUMMARY

This dashboard shows MapReduce Cluster Services health state. User can choose the Cluster by clicking **Cluster Name**, after user can see intuitively visualization of:

- Jobs Summary
- TaskTrackers Summary
- Slots Utilization
- Maps vs. Reducers
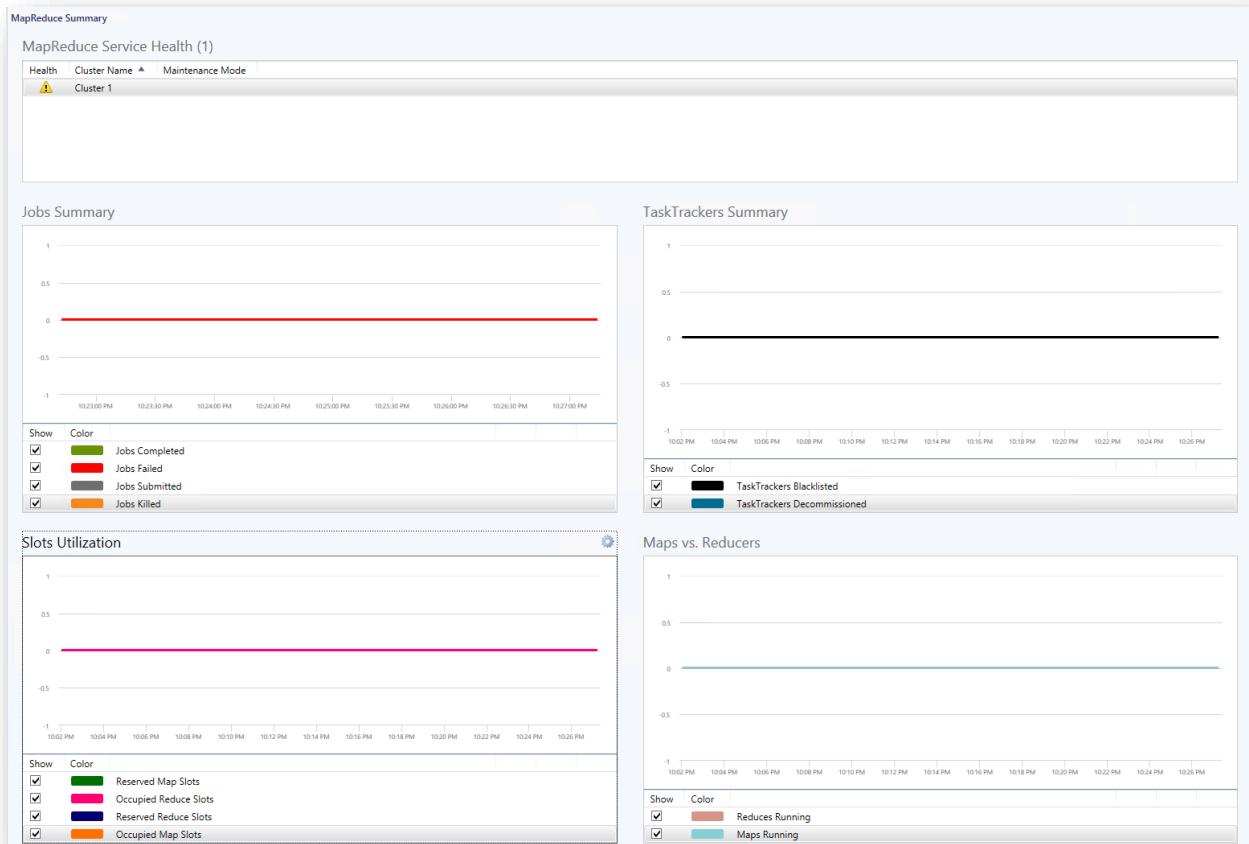
JOBTRACKER SUMMARY

This dashboard shows JobTracker Host Component health state. User can choose the Cluster by clicking **Cluster Name**, after user can see intuitively visualization of:

- Memory Heap Utilization
- Threads Status
- Garbage Collection Time
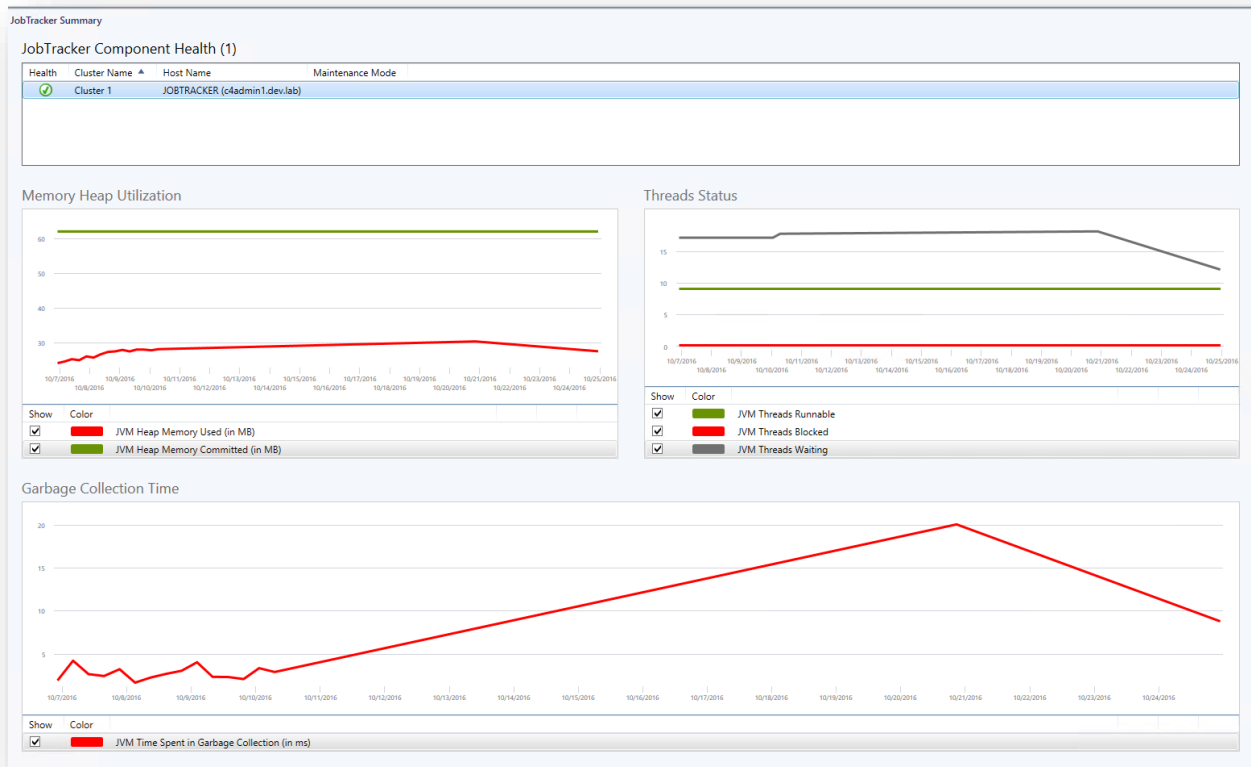
YARN SUMMARY

This dashboard shows Yarn Cluster Services health state. User can choose the Cluster by clicking **Cluster Name**, after user can see intuitively visualization of:

- Application Summary
- VCores Summary
- Containers Summary
- Memory Summary
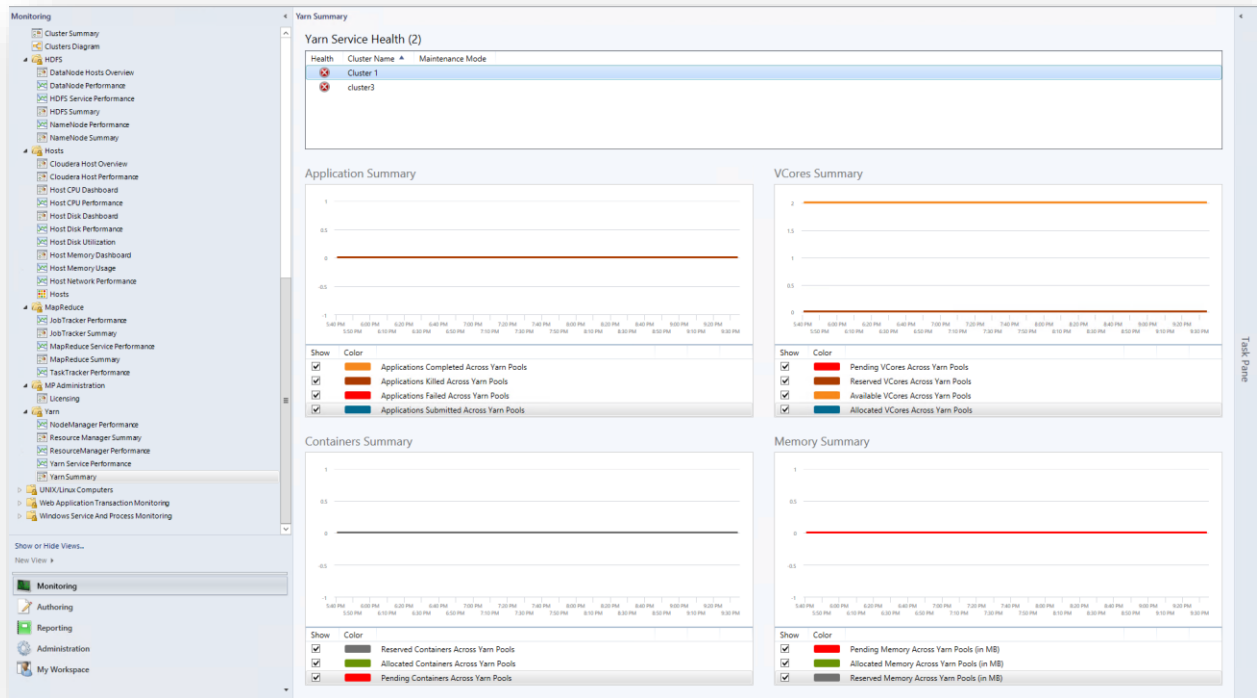
RESOURCE MANAGER SUMMARY

This dashboard shows Resource Manager Host Component health state. User can choose the Cluster by clicking **Cluster Name**, after User can see intuitively visualization of:

- Memory Heap Utilization
- Threads Status
- Garbage Collection Time
- Average RPC Time
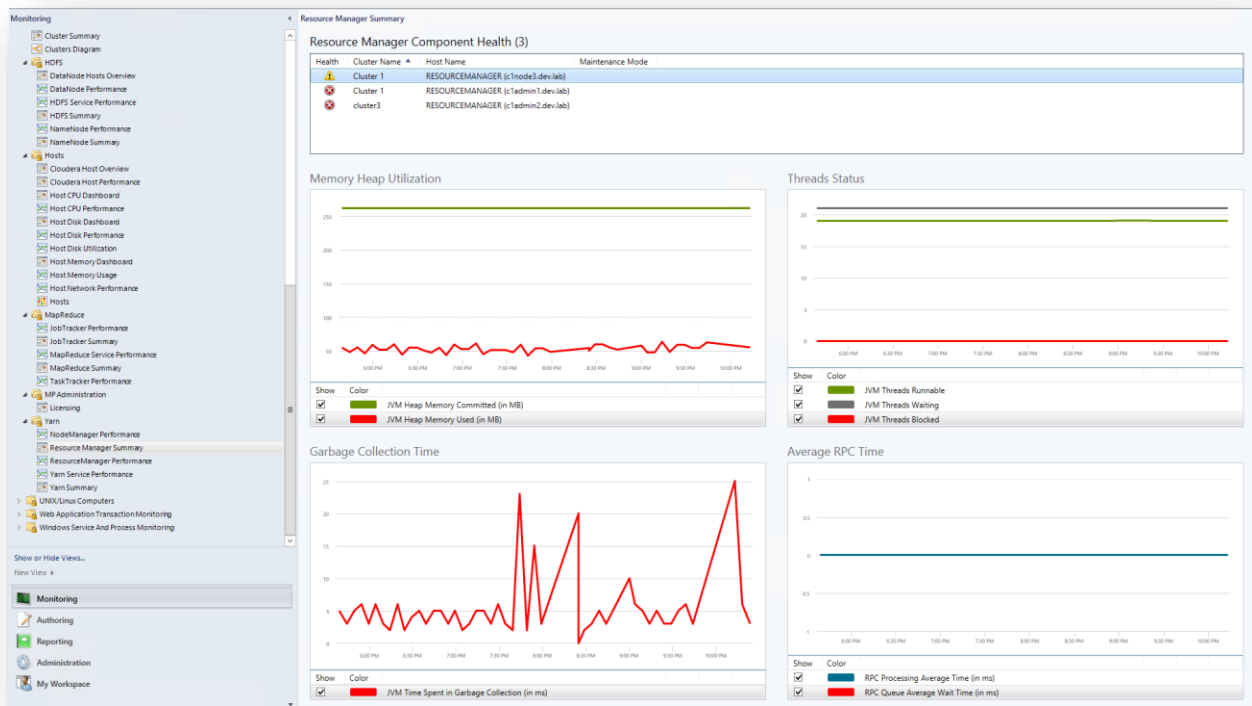
PERFORMANCE VIEWS

A set of performance views is available in view subfolders, showing the performance of discovered Cloudera clusters, hosts and services. The following performance views are available in the Teqwave Cloudera MP:

CLOUDERA HOST PERFORMANCE VIEWS

- **Host CPU Performance**
  Shows CPU usage and processor load performance statistics for Cloudera hosts.

- **Host Disk Performance**
  Shows statistics for disk utilization, disk latency, disk IOPS, and disk throughput on host local disks.

- **Host Disk Utilization**
  Shows statistics for disk usage, used capacity, free capacity and total capacity available on host local disks.

- **Host Memory Usage**
  Shows physical and virtual memory usage statistics on hosts.

- **Host Network Performance**
  Shows host network throughput statistics.

Example screenshot below shows Host CPU Performance view.
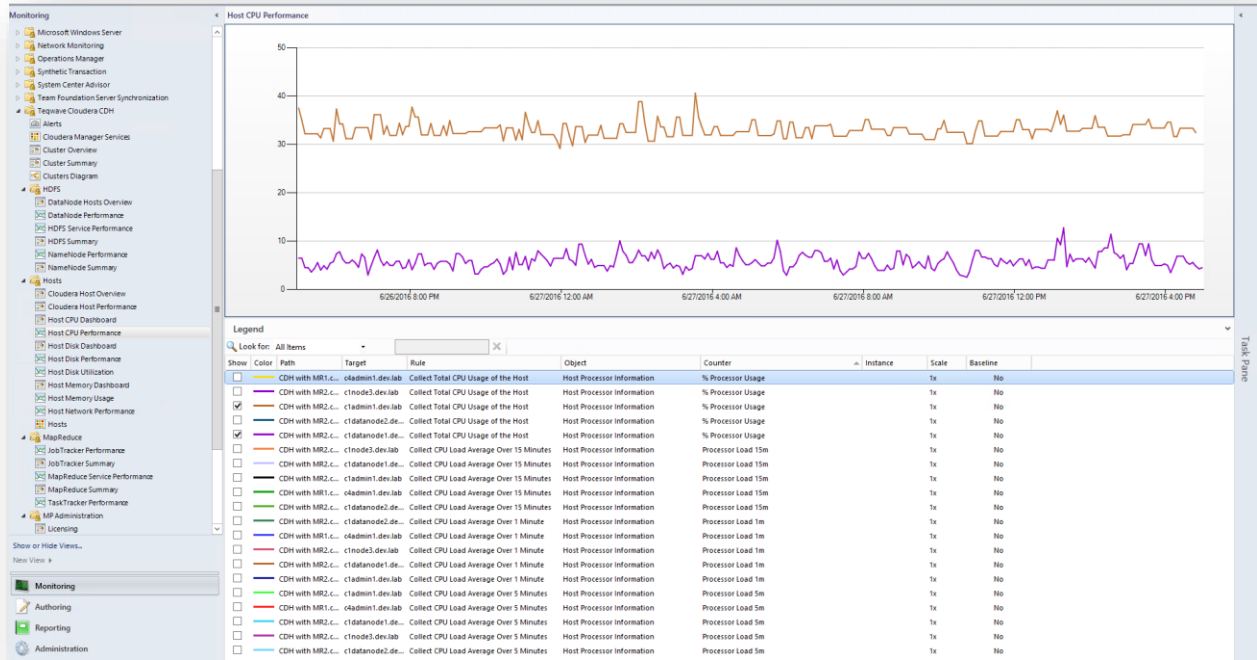
HDFS PERFORMANCE VIEWS

- **HDFS Service Performance**
  Shows the following HDFS metrics:
    o Total Capacity / Used Capacity / Remaining Capacity
    o Total Bytes Written / Total Bytes Read
    o Live DataNodes / Dead DataNodes / Decommissioned DataNodes
    o Total Files / Created Files / Deleted Files / Appended Files
    o Total Blocks / Under-Replicated Blocks / Missing Blocks / Blocks With Corrupt Replicas / Pending Replication Blocks / Pending Deletion Blocks

- **DataNode JVM Performance**
  Shows JVM performance statistics for the DataNodes, including:
    o Blocked / Terminated / Runnable / New / Waiting / Timed Waiting JVM Threads
    o JVM Heap Memory Used / Committed
    o Time spent in Garbage Collection

- **DataNode Performance**
  Shows the following DataNode metrics:

- Read / Written Bytes
- Number of Read / Written / Removed / Verified / Replicated Blocks
- Average processing time to Read / Write / Copy / Replace a Block

- **NameNode Performance**
  Shows JVM and RPC performance statistics for the NameNode hosts.

MAPREDUCE PERFORMANCE VIEWS

- **MapReduce Service Performance**
  Shows the following MapReduce metrics
    - Completed Jobs / Failed Jobs / Killed Jobs / Preparing Jobs / Running Jobs / Submitted Jobs
    - Completed Maps / Failed Maps / Killed Maps / Launched Maps / Running Maps / Waiting Maps
    - Occupied Map Slots / Reserved Map Slots
    - Occupied Reduce Slots / Reserved Reduce Slots
    - Completed Reduces / Failed Reduces / Killed Reduces / Launched Reduces / Running Reduces / Waiting Reduces
    - TaskTrackers Blacklisted / TaskTrackers Decommissioned
    - Total Shuffle Handler Successful Requests / Total Shuffle Handler Failed Requests / Total Shuffle Output

- **TaskTracker Performance**
  Shows the following metrics
    - JVM performance statistics
    - Map Slots / Reduce Slots
    - Running Map Tasks / Running Reduce Tasks
    - Shuffle Failed Outputs / Shuffle Success Outputs / Shuffle Output
    - Shuffle Exceptions Caught / Shuffle Handler Busy

- **JobTracker Performance**
  Shows JVM performance statistics for the JobTracker hosts.

Example screenshot below shows Host CPU Performance view.
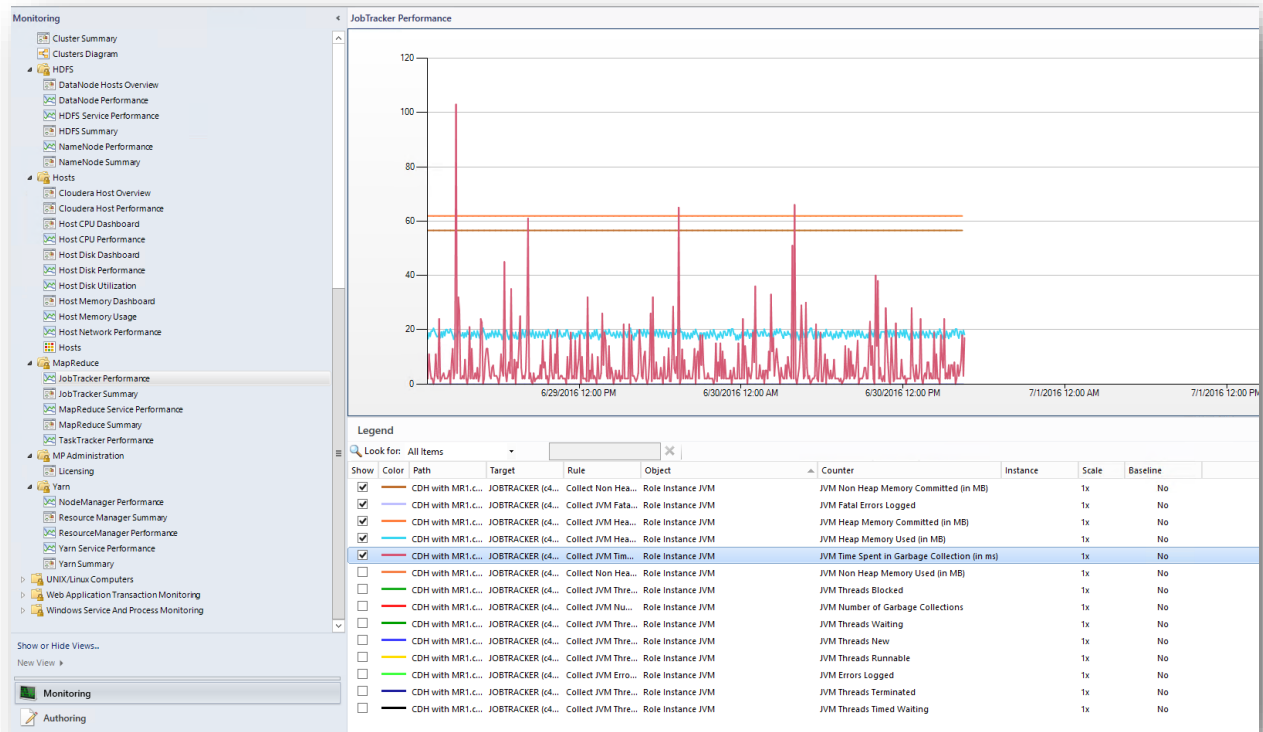
YARN PERFORMANCE VIEWS

- **Yarn Service Performance**
  Shows the following Yarn metrics:
    - Completed Applications / Failed Applications / Killed Applications / Active Applications / Running Applications / Submitted Applications
    - Reserved Memory / Allocated Memory / Pending Memory
    - Reserved VCores / Available VCores / Pending VCores / Allocated VCores
    - Reserved Containers / Pending Containers / Allocated Containers
    - Active Users

- **NodeManager JVM Performance**
  Shows JVM performance statistics for the DataNodes, including:
    - Blocked / Terminated / Runnable / New / Waiting / Timed Waiting JVM Threads
    - JVM Heap Memory Used / Committed
    - Time spent in Garbage Collection

- **NodeManager Performance**
  Shows the following NodeManager metrics:
    - Allocated / Available Memory

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- o Number of Allocated / Launched / Running / Completed / Failed / Killed Containers

- **ResourceManager Performance**
  Shows JVM and RPC performance statistics for the ResourceManager hosts.

STATE VIEWS

A set of state views is available in view subfolders, showing the state and properties of discovered Cloudera infrastructure components and services.

- Hosts state view shows the overview of all discovered Cloudera hosts.

- Cloudera Manager Services state view shows the status of Cloudera Manager Server services.

MONITORS

Teqwave Cloudera MP includes a set of availability and performance monitors to diagnose the state of Cloudera infrastructure components.

Monitoring scenario	Description	Associated rules and monitors	Alert
HDFS remaining capacity	This scenario monitors amount of available space in HDFS cluster. When space is running low warning and critical alerts will be raised.	Collect HDFS Capacity Total	False
		Collect HDFS Capacity Used	False
		Collect HDFS Capacity Non-HDFS Used	False
		Collect HDFS Capacity Remaining	False
		HDFS Capacity Remaining	True
DataNodes health state	This scenario monitors DataNodes health state. When significant amount of DataNodes are down you will receive warning and critical alerts.	Collect HDFS Dead DataNodes	False
		Collect HDFS Live DataNodes	False
		DataNodes Down	True
NameNode Safe Mode	This scenario monitors if NameNode operates in safe mode. This is a mode of HDFS when read-only access to file system is allowed, which significantly reduces	NameNode Operational Mode	True
Corrupted HDFS blocks	This scenario monitors number of corrupted blocks in the HDFS. When significant number of blocks are corrupted critical alert is raised.	Collect Blocks With Corrupt Replicas	False
		Corrupted Blocks	True
Under-replicated HDFS blocks	This scenario monitors number of under-replicated blocks in HDFS. When significant number of blocks are under-replicated you will receive warning and critical alerts.	Collect HDFS Under-Replicated Blocks	False
		Under-Replicated Blocks	True

MapReduce jobs	This scenario monitors number of submitted, preparing, running, completed, killed and failed MapReduce jobs. When significant number of submitted jobs are failing you will receive warning and critical alerts.	Collect MapReduce Jobs Submitted	False
		Collect MapReduce Jobs Preparing	False
		Collect MapReduce Jobs Running	False
		Collect MapReduce Jobs Completed	False
		Collect MapReduce Jobs Killed	False
		Collect MapReduce Jobs Failed	False
		Failed Jobs	True
Invalid (blacklisted) and decommissioned TaskTrackers	This scenario checks existence of blacklisted and decommissioned TaskTrackers. When they present alert is raised.	Collect MapReduce TaskTrackers Blacklisted	False
		Collect MapReduce TaskTrackers Decommissioned	False
		Invalid TaskTrackers	True
Yarn applications	This scenario monitors number of submitted, running, completed, killed and failed Yarn applications. When significant number of submitted applications are failing you will receive warning and critical alerts.	Collect Number of Submitted Applications	False
		Collect Number of Running Applications	False
		Collect Number of Completed Applications	False
		Collect Number of Killed Applications	False
		Collect Number of Failed Applications	False
		Failed Applications	True
NameNode, JobTracker and ResourceManager memory heap usage	This scenario checks memory usage of NameNode, JobTracker and ResourceManager processes.	Collect JVM Heap Memory Used	False
		Collect JVM Heap Memory Committed	False

Host Performance	This scenario checks host performance including CPU usage, disk free space, available memory and available swap space. Alert is raised if any metric performance metric is close to its limit.	Total CPU Utilization Percentage	True
		Disk Free Space (in GB)	True
		Disk Free Space (in %)	True
		Physical Memory Available (in GB)	True
		Physical Memory Available (in %)	True
		Swap Space Available (in GB)	True
		Swap Space Available (in %)	True
Cloudera Manager service accessibility	This scenario monitors accessibility of Cloudera Manager service by executing synthetic transactions. Whenever service is unavailable because of wrong URL, invalid credentials or due to any transient server issue critical alert is raised.	Cloudera Manager API Credentials	True
		Cloudera Manager API URL Check	True
		Cloudera Manager API Unavailable (Monitoring)	True
Role Instance process health state	This scenario checks health state of all role instance processes. Whenever role instance process is not running an alert is raised. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.	See the list of service role instance related monitors in **Appendix A: Monitors** chapter.	True
Role Instance health summary	This scenario checks cluster service role instance health summary. The health state is determined by the Cloudera Manager health tests performed for a role instance. See full description of health tests at http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html Warning alert is raised when role instance is in "CONCERNING" state and critical alert when role instance is in "BAD" state.	See the list of service role instance related monitors in **Appendix A: Monitors** chapter.	True

Cloudera Manager role instance process health state	This scenario checks health state of all Cloudera Manager role instance processes. Whenever role instance process is not running an alert is raised. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.	See the list of Cloudera Manager role instance related monitors in **Appendix A: Monitors** chapter.	True
Cloudera Manager role instance health summary	This scenario checks Cloudera Manager role instance health summary. Warning alert is raised when role instance is in "CONCERNING" state and critical alert when role instance is in "BAD" state.	See the list of Cloudera Manager role instance related monitors in **Appendix A: Monitors** chapter.	True

TROUBLESHOOTING

There are no known issues.

APPENDICES

APPENDIX A: MONITORS

CLUSTER MONITORS

Monitor	Interval	Alert	Enabled	Description
Service Health Summary	300	True	True	Monitors Cloudera Cluster Service health summary.
Service State	300	True	True	Monitors Cloudera Cluster Service running state.

HOST MONITORS

Monitor	Interval	Alert	Enabled	Description
Total CPU Utilization Percentage	300	True	True	Monitors the total CPU utilization of the host.
Disk Free Space (in GB)	300	True	True	Monitors disk free space on the host.
Disk Free Space (in %)	300	True	True	Monitors disk free space percentage on the host.
Physical Memory Available (in GB)	300	True	True	Monitors available physical memory on the host.
Physical Memory Available (in %)	300	True	True	Monitors available physical memory percentage on the host.
Swap Space Available (in GB)	300	True	True	Monitors available swap space on the host.

Monitor	Interv	Ale	Enabl	Description
Swap Space Available (in %)	300	True	True	Monitors available swap space percentage on the host.

HDFS MONITORS

Monitor	Interv	Ale	Enabl	Description
HDFS DataNode Role Instance State	300	True	True	Monitors HDFS DataNode service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HDFS NameNode Role Instance State	300	True	True	Monitors HDFS NameNode service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HDFS Secondary NameNode Role Instance State	300	True	True	Monitors HDFS Secondary NameNode service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HDFS Balancer Role Instance State	300	True	True	Monitors HDFS Balancer service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HDFS Gateway Role Instance State	300	True	True	Monitors HDFS Gateway service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HDFS HttpFs Role Instance State	300	True	True	Monitors HDFS HttpFs service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.

HDFS FailoverController Role Instance State	300	True	True	Monitors HDFS FailoverController service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HDFS JournalNode Role Instance State	300	True	True	Monitors HDFS JournalNode service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HDFS NfsGateway Role Instance State	300	True	True	Monitors HDFS NfsGateway service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HDFS DataNode Role Instance Health Summary	300	True	True	Monitors HDFS DataNode cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
HDFS NameNode Role Instance Health Summary	300	True	True	Monitors HDFS NameNode cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
HDFS Secondary NameNode Role Instance Health Summary	300	True	True	Monitors HDFS Secondary NameNode cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
HDFS Balancer Role Instance Health Summary	300	True	True	Monitors HDFS Balancer cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
HDFS Gateway Role Instance Health Summary	300	True	True	Monitors HDFS Gateway cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

Monitor	Interv	Ale	Enabl	Description
HDFS HttpFs Role Instance Health Summary	300	True	True	Monitors HDFS HttpFs cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
HDFS FailoverController Role Instance Health Summary	300	True	True	Monitors HDFS FailoverController cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
HDFS JournalNode Role Instance Health Summary	300	True	True	Monitors HDFS JournalNode cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
HDFS NfsGateway Role Instance Health Summary	300	True	True	Monitors HDFS NfsGateway cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

MAPREDUCE MONITORS

Monitor	Interv	Ale	Enabl	Description
MapReduce JobTracker Role Instance State	300	True	True	Monitors MapReduce JobTracker service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
MapReduce TaskTracker Role Instance State	300	True	True	Monitors MapReduce TaskTracker service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
MapReduce Gateway Role Instance State	300	True	True	Monitors MapReduce Gateway service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.

Monitor	Interv	Ale	Enabl	Description
MapReduce FailoverContro ller Role Instance State	300	True	True	Monitors MapReduce FailoverController service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
MapReduce JobTracker Role Instance Health Summary	300	True	True	Monitors MapReduce JobTracker cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
MapReduce TaskTracker Role Instance Health Summary	300	True	True	Monitors MapReduce TaskTracker cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
MapReduce Gateway Role Instance Health Summary	300	True	True	Monitors MapReduce Gateway cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
MapReduce FailoverContro ller Role Instance Health Summary	300	True	True	Monitors MapReduce FailoverController cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

YARN MONITORS

Monitor	Interv	Ale	Enabl	Description
YARN ResourceMana ger Role Instance State	300	True	True	Monitors YARN ResourceManager service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
YARN NodeManager Role Instance State	300	True	True	Monitors YARN NodeManager service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.

Monitor	Interv	Ale	Enable	Description
YARN JobHistory Role Instance State	300	True	True	Monitors YARN JobHistory service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
YARN Gateway Role Instance State	300	True	True	Monitors YARN Gateway service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
YARN ResourceManager Role Instance Health Summary	300	True	True	Monitors YARN ResourceManager cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
YARN NodeManager Role Instance Health Summary	300	True	True	Monitors YARN NodeManager cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
YARN JobHistory Role Instance Health Summary	300	True	True	Monitors YARN JobHistory cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
YARN Gateway Role Instance Health Summary	300	True	True	Monitors YARN Gateway cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

SPARK MONITORS

Monitor	Interv	Ale	Enable	Description
Spark On YARN History Server Role Instance State	300	True	True	Monitors Spark On YARN History Server service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.

Spark On YARN Gateway Role Instance State	300	True	True	Monitors Spark On YARN Gateway service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Spark (Standalone) Gateway Role Instance State	300	True	True	Monitors Spark (Standalone) Gateway service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Spark (Standalone) Master Role Instance State	300	True	True	Monitors Spark (Standalone) Master service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Spark (Standalone) Worker Role Instance State	300	True	True	Monitors Spark (Standalone) Worker service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Spark (Standalone) HistoryServer Role Instance State	300	True	True	Monitors Spark (Standalone) HistoryServer service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Spark On YARN History Server Role Instance Health Summary	300	True	True	Monitors Spark On YARN History Server cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

Spark On YARN Gateway Role Instance Health Summary	300	True	True	Monitors Spark On YARN Gateway cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Spark (Standalone) Gateway Role Instance Health Summary	300	True	True	Monitors Spark (Standalone) Gateway cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Spark (Standalone) Master Role Instance Health Summary	300	True	True	Monitors Spark (Standalone) Master cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Spark (Standalone) Worker Role Instance Health Summary	300	True	True	Monitors Spark (Standalone) Worker cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Spark (Standalone) HistoryServer Role Instance Health Summary	300	True	True	Monitors Spark (Standalone) HistoryServer cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

Monitor	Interv	Ale	Enable	Description
HBase Master Role Instance State	300	True	True	Monitors HBase Master service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HBase RegionServer Role Instance State	300	True	True	Monitors HBase RegionServer service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HBase Gateway Role Instance State	300	True	True	Monitors HBase Gateway service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HBase HBaseRestServer Role Instance State	300	True	True	Monitors HBase HBaseRestServer service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HBase HBaseThriftServer Role Instance State	300	True	True	Monitors HBase HBaseThriftServer service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
HBase Master Role Instance Health Summary	300	True	True	Monitors HBase Master cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
HBase RegionServer Role Instance Health Summary	300	True	True	Monitors HBase RegionServer cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
HBase Gateway Role Instance Health Summary	300	True	True	Monitors HBase Gateway cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

Monitor	Interval	Alert	Enabled	Description
HBase HBaseRestServer Role Instance Health Summary	300	True	True	Monitors HBase HBaseRestServer cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
HBase HBaseThriftServer Role Instance Health Summary	300	True	True	Monitors HBase HBaseThriftServer cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

ACCUMULO16 MONITORS

Monitor	Interv	Ale	Enabl	Description
Accumulo16 Master Role Instance State	300	True	True	Monitors Accumulo16 Master service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Accumulo16 TabletServer Role Instance State	300	True	True	Monitors Accumulo16 TabletServer service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Accumulo16 GarbageCollector Role Instance State	300	True	True	Monitors Accumulo16 GarbageCollector service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Accumulo16 Monitor Role Instance State	300	True	True	Monitors Accumulo16 Monitor service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Accumulo16 Tracer Role Instance State	300	True	True	Monitors Accumulo16 Tracer service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.

Accumulo16 Gateway Role Instance State	300	True	True	Monitors Accumulo16 Gateway service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Accumulo16 Master Role Instance Health Summary	300	True	True	Monitors Accumulo16 Master cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Accumulo16 TabletServer Role Instance Health Summary	300	True	True	Monitors Accumulo16 TabletServer cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Accumulo16 GarbageCollector Role Instance Health Summary	300	True	True	Monitors Accumulo16 GarbageCollector cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Accumulo16 Monitor Role Instance Health Summary	300	True	True	Monitors Accumulo16 Monitor cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Accumulo16 Tracer Role Instance Health Summary	300	True	True	Monitors Accumulo16 Tracer cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Accumulo16 Gateway Role Instance Health Summary	300	True	True	Monitors Accumulo16 Gateway cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

FLUME MONITORS

Monitor	Interval	Alert	Enabled	Description
Flume Agent Role Instance State	300	True	True	Monitors Flume Agent service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Flume Agent Role Instance Health Summary	300	True	True	Monitors Flume Agent cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

HIVE MONITORS

Monitor	Interv	Ale	Enable	Description
Hive Gateway Role Instance State	300	True	True	Monitors Hive Gateway service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Hive HiveMetastore Role Instance State	300	True	True	Monitors Hive HiveMetastore service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Hive WebHCat Role Instance State	300	True	True	Monitors Hive WebHCat service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Hive HiveServer2 Role Instance State	300	True	True	Monitors Hive HiveServer2 service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.

Monitor	Interv	Ale	Enable	Description
Hive Gateway Role Instance Health Summary	300	True	True	Monitors Hive Gateway cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Hive HiveMetastore Role Instance Health Summary	300	True	True	Monitors Hive HiveMetastore cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Hive WebHCat Role Instance Health Summary	300	True	True	Monitors Hive WebHCat cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Hive HiveServer2 Role Instance Health Summary	300	True	True	Monitors Hive HiveServer2 cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

IMPALA MONITORS

Monitor	Interv	Ale	Enable	Description
Impala Impalad Role Instance State	300	True	True	Monitors Impala Impalad service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Impala StateStore Role Instance State	300	True	True	Monitors Impala StateStore service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.

Monitor	Interval	Alert	Enabled	Description
Impala CatalogServer Role Instance State	300	True	True	Monitors Impala CatalogServer service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Impala Llama Role Instance State	300	True	True	Monitors Impala Llama service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Impala Impalad Role Instance Health Summary	300	True	True	Monitors Impala Impalad cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Impala StateStore Role Instance Health Summary	300	True	True	Monitors Impala StateStore cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Impala CatalogServer Role Instance Health Summary	300	True	True	Monitors Impala CatalogServer cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Impala Llama Role Instance Health Summary	300	True	True	Monitors Impala Llama cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

HUE MONITORS

Monitor	Interval	Alert	Enabled	Description
Hue Server Role Instance State	300	True	True	Monitors Hue Server service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.

Monitor	Interval	Alert	Enabled	Description
Hue KT Renewer Role Instance State	300	True	True	Monitors Hue KT Renewer service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Hue Server Role Instance Health Summary	300	True	True	Monitors Hue Server cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Hue KT Renewer Role Instance Health Summary	300	True	True	Monitors Hue KT Renewer cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Hue Load Balancer Role Instance State	300	True	True	Monitors Hue Load Balancer service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Hue Load Balancer Role Instance Health Summary	300	True	True	Monitors Hue Load Balancer cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

KAFKA MONITORS

Monitor	Interval	Alert	Enabled	Description
Kafka Broker Role Instance State	300	True	True	Monitors Kafka Broker service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.

Monitor	Interval	Alert	Enabled	Description
Kafka Mirror Maker Role Instance State	300	True	True	Monitors Kafka Mirror Maker service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Kafka Broker Role Instance Health Summary	300	True	True	Monitors Kafka Broker cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Kafka Mirror Maker Role Instance Health Summary	300	True	True	Monitors Kafka Mirror Maker cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

LILY MONITORS

Monitor	Interval	Alert	Enabled	Description
Lily HBase Indexer Role Instance State	300	True	True	Monitors Lily HBase Indexer service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Lily HBase Indexer Role Instance Health Summary	300	True	True	Monitors Lily HBase Indexer cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

ISILON MONITORS

Monitor	Interva	Aler	Enable	Description
Isilon Gateway Role Instance State	300	True	True	Monitors Isilon Gateway service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Isilon Gateway Role Instance Health Summary	300	True	True	Monitors Isilon Gateway cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

KMS MONITORS

Monitor	Interv	Aler	Enable	Description
KMS Role Instance State	300	True	True	Monitors KMS service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
KMS (Navigator Key Trustee) Proxy Role Instance State	300	True	True	Monitors KMS (Navigator Key Trustee) Proxy service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
KMS Role Instance Health Summary	300	True	True	Monitors KMS cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

Monitor	Inter	Aler	Enable	Description
KMS (Navigator Key Trustee) Proxy Role Instance Health Summary	300	True	True	Monitors KMS (Navigator Key Trustee) Proxy cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

SOLR MONITORS

Monitor	Inter	Aler	Enable	Description
Solr SolrServer Role Instance State	300	True	True	Monitors Solr SolrServer service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Solr Gateway Role Instance State	300	True	True	Monitors Solr Gateway service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Solr SolrServer Role Instance Health Summary	300	True	True	Monitors Solr SolrServer cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Solr Gateway Role Instance Health Summary	300	True	True	Monitors Solr Gateway cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

OOZIE MONITORS

Monitor	Interval	Alert	Enabled	Description
Oozie Server Role Instance State	300	True	True	Monitors Oozie Server service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Oozie Server Role Instance Health Summary	300	True	True	Monitors Oozie Server cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

SENTRY MONITORS

Monitor	Interval	Alert	Enabled	Description
Sentry Server Role Instance State	300	True	True	Monitors Sentry Server service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Sentry Server Role Instance Health Summary	300	True	True	Monitors Sentry Server cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

SQOOP MONITORS

Monitor	Interv	Ale	Enable	Description
Sqoop Server Role Instance State	300	True	True	Monitors Sqoop Server service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.

Monitor	Interval	Alert	Enable	Description
SqoopClient Gateway Role Instance State	300	True	True	Monitors SqoopClient Gateway service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
Sqoop Server Role Instance Health Summary	300	True	True	Monitors Sqoop Server cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
SqoopClient Gateway Role Instance Health Summary	300	True	True	Monitors SqoopClient Gateway cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

ZOOKEEPER MONITORS

Monitor	Interval	Alert	Enable	Description
ZooKeeper Server Role Instance State	300	True	True	Monitors ZooKeeper Server service role instance process state on a host. If the service instance has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the service instance process health state.
ZooKeeper Server Role Instance Health Summary	300	True	True	Monitors ZooKeeper Server cluster service role instance health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

Monitor	Interv	Ale	Enable	Description
Cloudera Manager API Availability	300	True	True	This monitor checks if Cloudera Manager API service is available for monitoring purposes.
Cloudera Management Service Monitor Instance State	300	True	True	Monitors Cloudera Management Service Monitor process state on a host. If the role has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the role process health state.
Cloudera Management Service Activity Monitor Instance State	300	True	True	Monitors Cloudera Management Service Activity Monitor process state on a host. If the role has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the role process health state.
Cloudera Management Service Host Monitor Instance State	300	True	True	Monitors Cloudera Management Service Host Monitor process state on a host. If the role has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the role process health state.
Cloudera Management Service Reports Manager Instance State	300	True	True	Monitors Cloudera Management Service Reports Manager process state on a host. If the role has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the role process health state.
Cloudera Management Service Event Server Instance State	300	True	True	Monitors Cloudera Management Service Event Server process state on a host. If the role has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the role process health state.

Cloudera Management Service Alert Publisher Instance State	300	True	True	Monitors Cloudera Management Service Alert Publisher process state on a host. If the role has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the role process health state.
Cloudera Management Service Navigator Instance State	300	True	True	Monitors Cloudera Management Service Navigator process state on a host. If the role has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the role process health state.
Cloudera Management Service Navigator Metaserver Instance State	300	True	True	Monitors Cloudera Management Service Navigator Metaserver process state on a host. If the role has been put into maintenance mode by a Cloudera cluster administrator the monitor will ignore the role process health state.
Cloudera Management Service Monitor Role Health Summary	300	True	True	Monitors Cloudera Management Service Monitor cluster service role health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Cloudera Management Service Activity Monitor Role Health Summary	300	True	True	Monitors Cloudera Management Service Activity Monitor cluster service role health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Cloudera Management Service Host Monitor Role Health Summary	300	True	True	Monitors Cloudera Management Service Host Monitor cluster service role health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

Cloudera Management Service Reports Manager Role Health Summary	300	True	True	Monitors Cloudera Management Service Reports Manager cluster service role health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Cloudera Management Service Event Server Role Health Summary	300	True	True	Monitors Cloudera Management Service Event Server cluster service role health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Cloudera Management Service Alert Publisher Role Health Summary	300	True	True	Monitors Cloudera Management Service Alert Publisher cluster service role health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Cloudera Management Service Navigator Role Health Summary	300	True	True	Monitors Cloudera Management Service Navigator cluster service role health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).
Cloudera Management Service Navigator Metaserver Role Health Summary	300	True	True	Monitors Cloudera Management Service Navigator Metaserver cluster service role health summary. Health of this monitor is determined by the Cloudera Manager Health Tests (http://www.cloudera.com/documentation/enterprise/latest/topics/cm_ht.html).

SELF-MONITORING

Monitor	Interval	Alert	Enabled	Description
License Availability	300	True	True	This monitor checks if Cloudera Monitoring license is applied and configured.

Check License Expiration Status	300	True	True	This monitor checks if Cloudera MP Monitoring license has expired or is about to expire.
Check Unlicensed Hosts	300	True	True	This monitor checks if enough Cloudera MP Monitoring licenses are assigned for the current number of Cloudera hosts in the cluster.

CLUSTER RULES

Rule	Interval	Alert	Enabled	Description
Collect CPU Usage Across All Hosts in Cluster	300	False	True	This rule collects CPU usage across all hosts in cluster (in %).
Collect Total Disk Bytes Read Across Disks in Cluster	300	False	True	This rule collects the sum of the Disk Bytes Read metric computed across all disks in cluster (in MB).
Collect Total Disk Bytes Written Across Disks in Cluster	300	False	True	This rule collects the sum of the Disk Bytes Written metric computed across all disks in cluster (in MB).
Collect Total Bytes Received Across Network Interfaces in Cluster	300	False	True	This rule collects the sum of the Bytes Received metric computed across all network interfaces in cluster.
Collect Total Bytes Transmitted Across Network Interfaces in Cluster	300	False	True	This rule collects the sum of the Bytes Transmitted metric computed across all network interfaces in cluster.

RACK RULES

Rule	Interval	Alert	Enabled	Description
Collect CPU Usage Across All Hosts in Rack	300	False	True	This rule collects CPU usage across all hosts in rack (in %).
Collect Total Disk Bytes Read Across Disks in Rack	300	False	True	This rule collects the sum of the Disk Bytes Read metric computed across all disks in rack (in MB).
Collect Total Disk Bytes Written Across Disks in Rack	300	False	True	This rule collects the sum of the Disk Bytes Written metric computed across all disks in rack (in MB).
Collect Total Bytes Received Across Network Interfaces in Rack	300	False	True	This rule collects the sum of the Bytes Received metric computed across all network interfaces in rack.
Collect Total Bytes Transmitted Across Network Interfaces in Rack	300	False	True	This rule collects the sum of the Bytes Transmitted metric computed across all network interfaces in rack.

HOST RULES

Rule	Interval	Alert	Enabled	Description
Collect Disk Usage	300	False	True	This rule collects disk usage (in %).
Collect Disk Free Space Across Filesystems	300	False	True	This rule collects disk free space across all filesystems (%).

Collect Physical Memory Used In Percentage	300	False	True	This rule collects info about physical memory used on host (in %).
Collect Used Swap Space In Percentage	300	False	True	This rule collects info about used swap space on host (in %).
Collect CPU Load Average Over 15 Minutes	300	False	True	This rule collects CPU load average over 15 minutes.
Collect CPU Load Average Over 1 Minute	300	False	True	This rule collects CPU load average over 1 minute.
Collect CPU Load Average Over 5 Minutes	300	False	True	This rule collects CPU load average over 5 minutes.
Collect Total CPU Usage of the Host	300	False	True	This rule collects total host CPU usage (in %).
Collect Total Disk Await Read Time Across Disks	300	False	True	This rule collects the sum of the Disk Await Read Time metric computed across all disks (in ms).
Collect Total Disk Await Time Across Disks	300	False	True	This rule collects the sum of the Disk Await Time metric computed across all disks (in ms).
Collect Total Disk Await Write Time Across Disks	300	False	True	This rule collects the sum of the Disk Await Write Time metric computed across all disks (in ms).
Collect Total Capacity Free Across Filesystems	300	False	True	This rule collects the sum of the Capacity Free metric computed across all filesystems (in GB).

Collect Total Capacity Used Across Filesystems	300	False	True	This rule collects the sum of the Capacity Used metric computed across all filesystems (in GB).
Collect Total Disk Bytes Read Across Disks	300	False	True	This rule collects the sum of the Disk Bytes Read metric computed across all disks (in MB).
Collect Total Disk Reads Across Disks	300	False	True	This rule collects the sum of the Disk Reads metric computed across all disks (in ios).
Collect Total Disk Service Time Across Disks	300	False	True	This rule collects the sum of the Disk Service Time metric computed across all disks (in ms).
Collect Total Capacity Across Filesystems	300	False	True	This rule collects the sum of the Capacity metric computed across all filesystems (in GB).
Collect Total Disk IO Utilization Across Disks	300	False	True	This rule collects the sum of the Disk IO Utilization metric computed across all disks (in %).
Collect Total Disk Bytes Written Across Disks	300	False	True	This rule collects the sum of the Disk Bytes Written metric computed across all disks (in MB).
Collect Total Disk Writes Across Disks	300	False	True	This rule collects the sum of the Disk Writes metric computed across all disks (in ios).
Collect Physical Memory Free	300	False	True	This rule collects info about physical memory free on host (in GB).
Collect Physical Memory Free In Percentage	300	False	True	This rule collects info about physical memory free on host (in %).
Collect Total Physical Memory Available	300	False	True	This rule collects info about total physical memory available (in GB).

Collect Physical Memory Used	300	False	True	This rule collects info about physical memory used on host (in GB).
Collect Total Bytes Received Across Network Interfaces	300	False	True	This rule collects the sum of the Bytes Received metric computed across all network interfaces (in MB).
Collect Total Bytes Transmitted Across Network Interfaces	300	False	True	This rule collects the sum of the Bytes Transmitted metric computed across all network interfaces (in MB).
Collect Free Swap Space	300	False	True	This rule collects info about free swap space on host (in GB).
Collect Total Swap Space	300	False	True	This rule collects info about total swap space on host (in GB).
Collect Used Swap Space	300	False	True	This rule collects info about used swap space on host (in GB).

BASIC ROLE RULES

Basic performance rules are applicable for all Role instances.

Rule	Interval	Alert	Enabled	Description
Collect JVM Time Spent in Garbage Collection	300	False	True	This rule collects time spent in garbage collection of Role Instance process (in ms).
Collect JVM Heap Memory Committed	300	False	True	This rule collects total amount of heap memory committed by Role Instance (in MB).
Collect JVM Heap Memory Used	300	False	True	This rule collects total amount of heap memory used by Role Instance (in MB).
Collect JVM Threads Blocked	300	False	True	This rule collects number of blocked threads for Role Instance process.

Collect JVM Threads New	300	False	True	This rule collects number of new threads for Role Instance process.
Collect JVM Threads Runnable	300	False	True	This rule collects number of runnable threads for Role Instance process.
Collect JVM Threads Terminated	300	False	True	This rule collects number of terminated threads for Role Instance process.
Collect JVM Threads Timed Waiting	300	False	True	This rule collects number of timed waiting threads for Role Instance process.
Collect JVM Threads Waiting	300	False	True	This rule collects number of waiting threads for Role Instance process.

MASTER ROLE RULES

Master role rules are applicable for the following Role instances:

- NameNode
- JobTracker
- ResourceManager

Rule	Interval	Alert	Enabled	Description
Collect JVM Number of Garbage Collections	300	False	True	This rule collects number of garbage collections performed for Role Instance process.
Collect JVM Errors Logged	300	False	True	This rule collects number of errors logged for Role Instance process.
Collect JVM Fatal Errors Logged	300	False	True	This rule collects number of fatal errors logged for Role Instance process.
Collect Non Heap Memory Committed (in MB)	300	False	True	This rule collects amount of non-heap memory committed to Role Instance (in MB).
Collect Non Heap Memory Used (in MB)	300	False	True	This rule collects amount of non-heap memory used by Role Instance (in MB).

Collect RPC Authorization Failures	300	False	True	This rule collects number of failed remote procedure call authorization attempts to Role Instance.
Collect RPC Processing Average Time (in ms)	300	False	True	This rule collects average processing time of remote procedure calls to Role Instance (in ms).
Collect RPC Processing Number of Operations	300	False	True	This rule collects number of processing remote procedure calls to Role Instance.
Collect Queue Average Wait Time (in ms)	300	False	True	This rule collects queue average time of remote procedure calls to Role Instance (in ms).
Collect RPC Queue Number of Operations	300	False	True	This rule collects number of queued remote procedure calls to Role Instance.
Collect RPC Received Bytes (in MB)	300	False	True	This rule collects RPC bytes received by Role Instance (in MB).
Collect RPC Sent Bytes (in MB)	300	False	True	This rule collects RPC bytes sent by Role Instance (in MB).

CLOUDERA MANAGER SERVICE RULES

Rule	Interval	Alert	Enabled	Description
Event Collection Rule	300	False	True	Collects events of alert type for the Cloudera Management Service instance.

HDFS CLUSTER SERVICE RULES

Rule	Interval	Alert	Enabled	Description
Collect HDFS Dead DataNodes	300	False	True	This rule collects number of dead DataNodes for the cluster.

Collect HDFS Decommissioned DataNodes	300	False	True	This rule collects number of decommissioned DataNodes for the cluster.
Collect HDFS Files Appended	300	False	True	This rule collects number of files appended in the HDFS.
Collect HDFS Files Created	300	False	True	This rule collects number of files created in the HDFS.
Collect HDFS Files Deleted	300	False	True	This rule collects number of files deleted in the HDFS.
Collect HDFS Live DataNodes	300	False	True	This rule collects number of live DataNodes for the cluster.
Collect Total Bytes Read	300	False	True	This rule collects number of bytes read from HDFS (in MB).
Collect Total Bytes Written	300	False	True	This rule collects number of bytes written from HDFS (in MB).
Collect HDFS Capacity Remaining	300	False	True	This rule collects remaining HDFS capacity (in GB).
Collect HDFS Capacity Total	300	False	True	This rule collects total HDFS capacity (in GB).
Collect Capacity Used Non-HDFS	300	False	True	This rule collects storage space used by non-HDFS files (in GB).
Collect HDFS Capacity Used	300	False	True	This rule collects used HDFS capacity (in GB).
Collect Blocks With Corrupt Replicas	300	False	True	This rule collects number of HDFS blocks with corrupt replicas.
Collect HDFS Total Files	300	False	True	This rule collects total number of files stored in the HDFS.
Collect HDFS Missing Blocks	300	False	True	This rule collects number of missing HDFS blocks.
Collect HDFS Pending Deletion Blocks	300	False	True	This rule collects number of HDFS blocks pending deletion.
Collect HDFS Pending Replication Blocks	300	False	True	This rule collects number of HDFS blocks pending replication.
Collect HDFS Total Blocks	300	False	True	This rule collects total number of HDFS blocks.

Rule	Interval	Alert	Enabled	Description
Collect HDFS Under-Replicated Blocks	300	False	True	This rule collects number of under-replicated HDFS blocks.

MAPREDUCE CLUSTER SERVICE RULES

Rule	Interval	Alert	Enabled	Description
Collect MapReduce Maps Completed	300	False	True	This rule collects number of completed map tasks.
Collect MapReduce Maps Failed	300	False	True	This rule collects number of failed map tasks.
Collect MapReduce Maps Killed	300	False	True	This rule collects number of killed map tasks.
Collect MapReduce Maps Launched	300	False	True	This rule collects number of launched map tasks.
Collect MapReduce Maps Running	300	False	True	This rule collects number of running map tasks.
Collect MapReduce Maps Waiting	300	False	True	This rule collects number of waiting map tasks.
Collect MapReduce Occupied Map Slots	300	False	True	This rule collects number of occupied map slots.
Collect MapReduce Occupied Reduce Slots	300	False	True	This rule collects number of occupied reduce slots.
Collect MapReduce Reduces Completed	300	False	True	This rule collects number of completed reduce tasks.
Collect MapReduce Reduces Failed	300	False	True	This rule collects number of failed reduce tasks.

Collect MapReduce Reduces Killed	300	False	True	This rule collects number of killed reduce tasks.
Collect MapReduce Reduces Launched	300	False	True	This rule collects number of launched reduce tasks.
Collect MapReduce Reduces Running	300	False	True	This rule collects number of running reduce tasks.
Collect MapReduce Reduces Waiting	300	False	True	This rule collects number of waiting reduce tasks.
Collect MapReduce Map Slots Reserved	300	False	True	This rule collects number of reserved map slots.
Collect MapReduce Reduce Slots Reserved	300	False	True	This rule collects number of reserved reduce slots.
Collect MapReduce TaskTrackers Blacklisted	300	False	True	This rule collects number of blacklisted TaskTrackers.
Collect MapReduce TaskTrackers Decommissioned	300	False	True	This rule collects number of decommissioned TaskTrackers.
Collect MapReduce Jobs Completed	300	False	True	This rule collects number of completed MapReduce jobs.
Collect MapReduce Jobs Failed (in %)	300	False	True	This rule collects percent of failed MapReduce jobs.
Collect MapReduce Jobs Failed	300	False	True	This rule collects number of failed MapReduce jobs.
Collect MapReduce Jobs Killed	300	False	True	This rule collects number of killed MapReduce jobs.
Collect MapReduce Jobs Preparing	300	False	True	This rule collects number of preparing MapReduce jobs.

Collect MapReduce Jobs Running	300	False	True	This rule collects number of running MapReduce jobs.
Collect MapReduce Jobs Submitted	300	False	True	This rule collects number of submitted MapReduce jobs.
Collect Total Shuffle Handler Failed Requests	300	False	True	This rule collects sum of shuffle handler failed requests across all TaskTrackers.
Collect Total Shuffle Output (in MB)	300	False	True	This rule collects total shuffle output aggregate computed across all TaskTrackers (in MB).
Collect Total Shuffle Handler Successful Requests	300	False	True	This rule collects sum of shuffle handler successful requests across all TaskTrackers.

YARN CLUSTER SERVICE RULES

Rule	Interval	Alert	Enabled	Description
Collect Active Applications Across Yarn Pools	300	False	True	This rule collects number of active applications across Yarn pools.
Collect Active Users Across Yarn Pools	300	False	True	This rule collects number of active users across Yarn pools.
Collect Allocated Containers Across Yarn Pools	300	False	True	This rule collects number of allocated containers across Yarn pools.
Collect Allocated Memory Across Yarn Pools	300	False	True	This rule collects number of allocated MB across Yarn pools.
Collect Allocated VCores Across Yarn Pools	300	False	True	This rule collects number of allocated VCores across Yarn pools.
Collect Number of Completed Applications	300	False	True	This rule collects number of completed applications across Yarn pools.

Collect Number of Failed Applications	300	False	True	This rule collects number of failed applications across Yarn pools.
Collect Number of Killed Applications	300	False	True	This rule collects number of killed applications across Yarn pools.
Collect Number of Running Applications	300	False	True	This rule collects number of running applications across Yarn pools.
Collect Number of Submitted Applications	300	False	True	This rule collects number of submitted applications across Yarn pools.
Collect Available VCores Across Yarn Pools	300	False	True	This rule collects number of available VCores across Yarn pools.
Collect Pending Containers Across Yarn Pools	300	False	True	This rule collects number of pending containers across Yarn pools.
Collect Pending Memory Across Yarn Pools	300	False	True	This rule collects number of pending MB across Yarn pools.
Collect Pending VCores Across Yarn Pools	300	False	True	This rule collects number of pending VCores across Yarn pools.
Collect Reserved Containers Across Yarn Pools	300	False	True	This rule collects number of reserved containers across Yarn pools.
Collect Reserved Memory Across Yarn Pools	300	False	True	This rule collects number of reserved MB across Yarn pools.
Collect Reserved VCores Across Yarn Pools	300	False	True	This rule collects number of reserved VCores across Yarn pools.

DATANODE RULES

Rule	Interval	Alert	Enabled	Description
Collect Block Checksum Average Time	300	False	True	This rule collects average time of block checksum calculation operations performed on DataNode (in ms).
Collect Blocks Read	300	False	True	This rule collects number of blocks read by DataNode.

Collect Blocks Removed	300	False	True	This rule collects number of blocks removed by DataNode.
Collect Blocks Replicated	300	False	True	This rule collects number of blocks replicated by DataNode.
Collect Blocks Verified	300	False	True	This rule collects number of blocks verified by DataNode.
Collect Blocks Written	300	False	True	This rule collects number of blocks written by DataNode.
Collect Block Verification Failures	300	False	True	This rule collects number of block verification failures by DataNode.
Collect Bytes Read	300	False	True	This rule collects number of bytes read by DataNode (in MB).
Collect Bytes Written	300	False	True	This rule collects number of bytes written by DataNode (in MB).
Collect Copy Block Average Time	300	False	True	This rule collects average time of block copy operations performed on DataNode (in ms).
Collect Heartbeat Average Time	300	False	True	This rule collects average heartbeat time of DataNode (in ms).
Collect Read Block Average Time	300	False	True	This rule collects average time of block read operations performed on DataNode (in ms).
Collect Replace Block Average Time	300	False	True	This rule collects average time of block replace operations performed on DataNode (in ms).
Collect Write Block Average Time	300	False	True	This rule collects average time of block write operations performed on DataNode (in ms).

NODEMANAGER RULES

Rule	Interval	Alert	Enabled	Description
Collect Number of Allocated Containers	300	False	True	This rule collects number of Allocated Containers.
Collect Allocated Memory	300	False	True	This rule collects Allocated Memory (in GB).

Collect Available Memory	300	False	True	This rule collects Available Memory (in GB).
Collect Number of Containers Completed	300	False	True	This rule collects number of containers completed.
Collect Number of Containers Failed	300	False	True	This rule collects number of containers failed.
Collect Number of Containers Killed	300	False	True	This rule collects number of containers killed.
Collect Number of Containers Launched	300	False	True	This rule collects number of containers launched.
Collect Number of Containers Running	300	False	True	This rule collects number of containers running.

TASKTRACKER RULES

Rule	Interval	Alert	Enabled	Description
Collect TaskTracker Map Slots	300	False	True	This rule collects number of available map slots on TaskTracker.
Collect TaskTracker Running Map Tasks	300	False	True	This rule collects number of running map tasks on TaskTracker.
Collect TaskTracker Reduce Slots	300	False	True	This rule collects number of available reduce slots on TaskTracker.
Collect TaskTracker Running Reduce Tasks	300	False	True	This rule collects number of running reduce tasks on TaskTracker.
Collect TaskTracker Shuffle Exceptions Caught	300	False	True	This rule collects number of caught exceptions for shuffle running on TaskTracker.

Collect TaskTracker Shuffle Failed Outputs	300	False	True	This rule collects number of failed outputs for shuffle running on TaskTracker.
Collect TaskTracker Shuffle Handler Busy (in %)	300	False	True	This rule collects percentage of busy shuffle handlers on TaskTracker.
Collect TaskTracker Shuffle Output (in MB)	300	False	True	This rule collects number of MB produced by shuffle running on TaskTracker.
Collect TaskTracker Shuffle Success Outputs	300	False	True	This rule collects number of successful outputs for shuffle running on TaskTracker.

SERVICE ROLE RULES

Rule	Interval	Alert	Enabled	Description
Event Collection Rule	300	False	True	Collects events of alert type for the Cloudera role instance.