

Configuring and Using Ranger KMS

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Configuring Ranger KMS High Availability

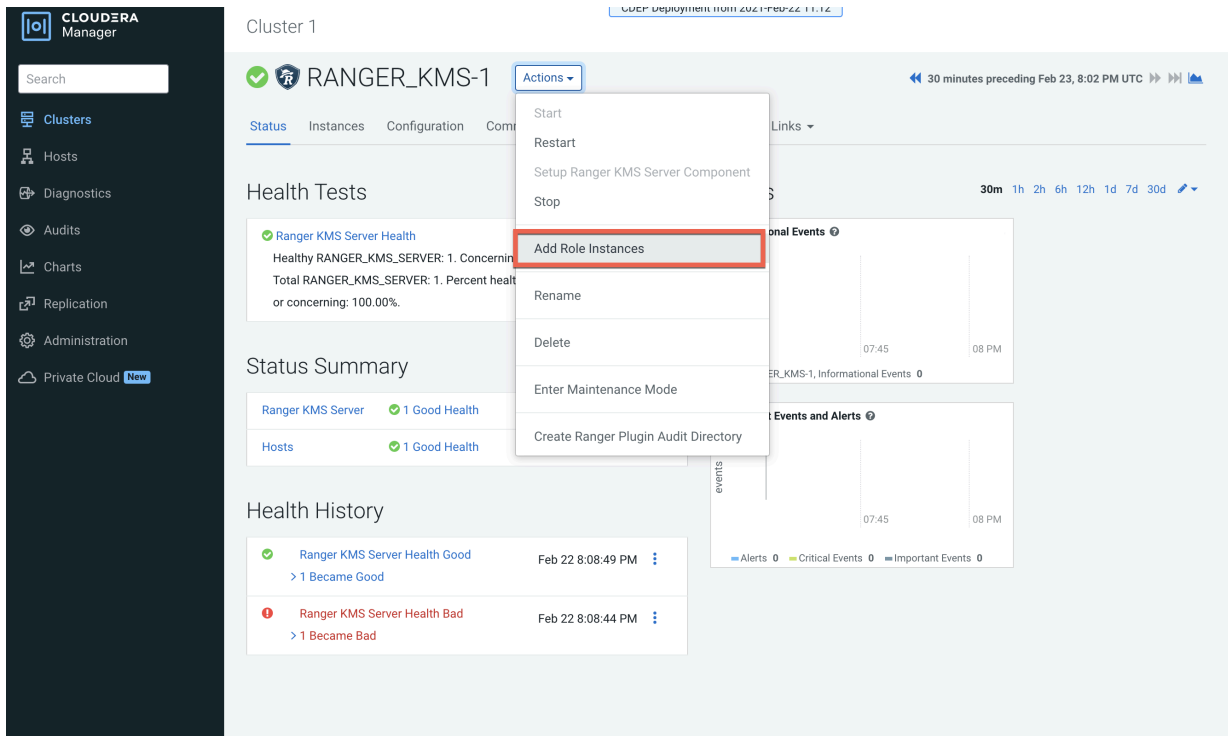
How to configure Ranger KMS high availability (HA) for Ranger KMS.

Configure High Availability for Ranger KMS with DB

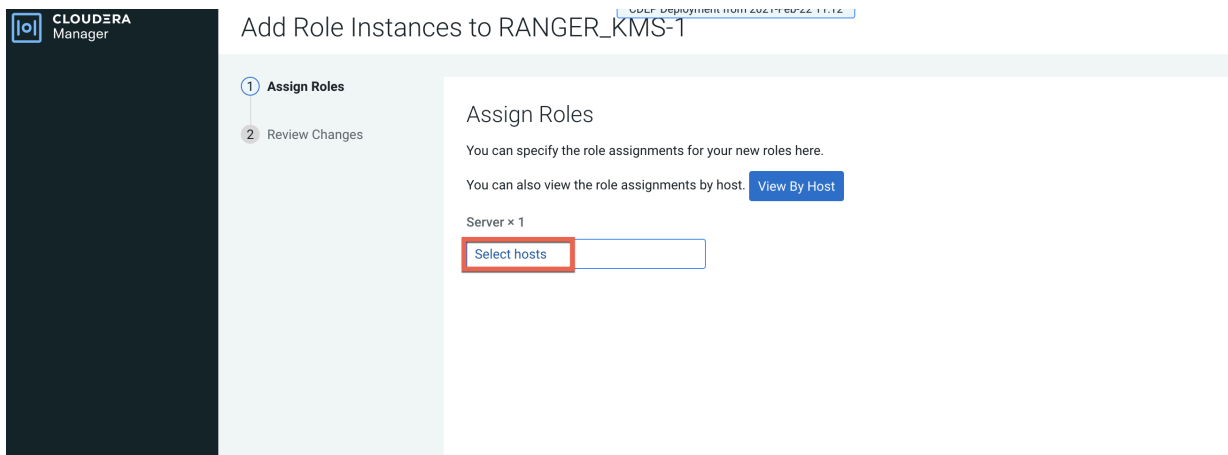
Use the following steps to configure high availability for Ranger KMS with an associated keystore database.

Procedure

1. In Cloudera Manager, select Ranger KMS, then select Actions > Add Role Instances.

The screenshot shows the Cloudera Manager interface for the 'RANGER_KMS-1' cluster. On the left is a dark sidebar with navigation links: Clusters, Hosts, Diagnostics, Audits, Charts, Replication, Administration, and Private Cloud. The main panel displays the 'RANGER_KMS-1' configuration page with tabs for Status, Instances, Configuration, and Components. The 'Status' tab is active, showing 'Health Tests' (Ranger KMS Server Health: 100.00%), 'Status Summary' (Ranger KMS Server: 1 Good Health, Hosts: 1 Good Health), and 'Health History'. An 'Actions' dropdown menu is open over the 'Status' tab, with 'Add Role Instances' highlighted in red. Other options in the menu include Start, Restart, Setup Ranger KMS Server Component, Stop, Rename, Delete, Enter Maintenance Mode, and Create Ranger Plugin Audit Directory.

2. On the Assign Roles page, click Select hosts.

The screenshot shows the 'Assign Roles' page in Cloudera Manager for the 'RANGER_KMS-1' cluster. The page has a breadcrumb 'Add Role Instances to RANGER_KMS-1'. On the left, there are two steps: '1 Assign Roles' and '2 Review Changes'. The main content area is titled 'Assign Roles' and contains instructions: 'You can specify the role assignments for your new roles here.' and 'You can also view the role assignments by host: View By Host'. Below this, it says 'Server x 1' and there is a 'Select hosts' button highlighted with a red box.

- On the selected hosts page, select a backup Ranger KMS host. A Ranger KMS (RK) icon appears in the Added Roles column for the selected host. Click OK to continue.



Note: These steps show how to add one additional backup Ranger KMS host, but you can use the same procedure to add multiple Ranger KMS hosts.

2 Hosts Selected

Select hosts for a new or existing role. The host list is filtered to remove hosts that are not valid candidates; these include hosts that are unhealthy, members of other clusters, or have an incompatible version of the software installed on them.

Enter hostnames: host01, IP addresses or rack

<input type="checkbox"/>	Hostname	IP Address	Rack	Cores	Physical Memory	Existing Roles	Added Roles
<input checked="" type="checkbox"/>	cloudera71-210...	172.27.0.1	/default	80	251.6 GiB	AS, CCS, G, HB..., RS, DN, G, G, G, ID, KB, KC, KG, M, L, G, LS, RA, RT, RU, RK..., SRS, G, G, SM..., SR..., SR..., G, G, NM, ZS	RK...
<input checked="" type="checkbox"/>	cloudera71-210...	172.27.0.1	/default	32	251.6 GiB	RS, DN, G, G, ID, KB, KC, TS, L, G, G, SR..., SR..., G, NM	RK...
<input type="checkbox"/>	cloudera71-210...	172.27.0.2	/default	32	251.6 GiB	M, B, NN, NF..., SNN, G, HMS, G, HS2, LB, HS, KTR, ICS, ISS, G, KB, KC, LHBI, TS, L, G, AP, ES, HM, RM, SM, OS, SS, G, HS, G, G, JHS, RM, S	

1 - 3 of 3

Cancel OK

- The Assign Roles page is redisplayed with the new backup host. Click Continue.

Add Role Instances to RANGER_KMS-1

1 Assign Roles

2 Review Changes

Assign Roles

You can specify the role assignments for your new roles here.

You can also view the role assignments by host. [View By Host](#)

Server x (1 + 1 New)

cloudera71-210... cloudera71-210...

Back Continue

5. Review the settings on the Review Changes page, then click Continue.

CloudERA
Manager

Parcels

Running Commands

Support

admin

7.3.0

Assign Roles

Review Changes

Review Changes

Ranger KMS Master Key Password ranger.db.encrypt.key.password ranger_kms_master_key_password	Ranger KMS Server Default Group	
Ranger KMS DB Auth Type ranger.ks.db.ssl.auth.type ranger_ks_db_ssl_auth_type	Ranger KMS Server Default Group <input checked="" type="radio"/> 1-way <input type="radio"/> 2-way	
Ranger KMS Database SSL Certificate File ranger.ks.db.ssl.certificateFile ranger_ks_db_ssl_certificateFile	Ranger KMS Server Default Group 	
Ranger KMS DB SSL Enabled ranger.ks.db.ssl.enabled ranger_ks_db_ssl_enabled	<input type="checkbox"/> Ranger KMS Server Default Group	
Ranger KMS DB SSL Required ranger.ks.db.ssl.required ranger_ks_db_ssl_required	<input type="checkbox"/> Ranger KMS Server Default Group	
Ranger KMS DB SSL Verify Server Certificate ranger.ks.db.ssl.verifyServerCertificate ranger_ks_db_ssl_verifyServerCertificate	<input type="checkbox"/> Ranger KMS Server Default Group	
Ranger KMS Keystore File ranger.ks.keystore.file ranger_ks_keystore_file	Ranger KMS Server Default Group 	
Ranger KMS Keystore Password ranger.ks.keystore.password ranger_ks_keystore_password	Ranger KMS Server Default Group 	
Ranger KMS Truststore File ranger.ks.truststore.file ranger_ks_truststore_file	Ranger KMS Server Default Group 	

Back

Continue

- CLOUDERA
Manager

Search

Clusters

Hosts

Diagnostics

Audits

Charts

Replication

Administration

Private Cloud New
- Cluster 1

RANGER_KMS-1

Actions

Up Arrow Icon
- StatusInstancesConfigurationCommandsCharts LibraryAuditsQuick Links
- This entity is currently running with an outdated configuration. Restart the service (or the instance) for the changes to take effect.
- Q Search

Filters

Last Updated: Feb 23, 8:24:09 PM UTCRefresh
- Filters
 - STATUS
 - Stopped1
 - Good Health1
 - COMMISSION STATE
 - MAINTENANCE MODE
 - RACK ID
 - ROLE GROUP
 - ROLE TYPE
 - STATE
 - HEALTH TEST

Actions for Selected

Add Role InstancesRole Groups

<input type="checkbox"/>	Status	Role Type	State	Hostname	Commission State	Role Group
<input type="checkbox"/>	⚙️	Ranger KMS Server	Stopped	dphdlsr7m3l... [hostname]@kms.mgmt.hq.site	Commissioned	Ranger KMS Server Default Group
<input type="checkbox"/>	✅	Ranger KMS Server	Started with Outdated Configuration	dphdlsr7m3l... [hostname]@kms.mgmt.hq.site	Commissioned	Ranger KMS Server Default Group
- 1 - 2 of 2

7. In Cloudera Manager, select the Ranger service, click Ranger Admin Web UI, then log in as the Ranger KMS user (the default credentials are keyadmin/admin123). Click the Edit icon for the cm_kms service, then update the KMS URL property.

- Add the new KMS host using the following format:
kms://http@<kms_host1>;http@<kms_host2>:<kms_port>/kms
- The default port is 9292. For example:
kms://http@kms_host1;http@kms_host2:9292/kms
- If SSL is enabled, use https and port 9494. For example:
kms://http@kms_host1;https@kms_host2:9494/kms

Click Test Connection to confirm the settings, then click Save to save your changes.

Ranger Access Manager Audit Encryption Settings keyadmin

Service Manager Edit Service

Edit Service

Service Details :

Service Name * cm_kms

Display Name cm_kms

Description KMS repo

Active Status ☒ Enabled ☐ Disabled

Select Tag Service Select Tag Service

Config Properties :

KMS URL * it.hwx.site;http@cloudera.com:kms-2.dhgw.kms.root.hwx

Username * keyadmin

Password *

Add New Configurations

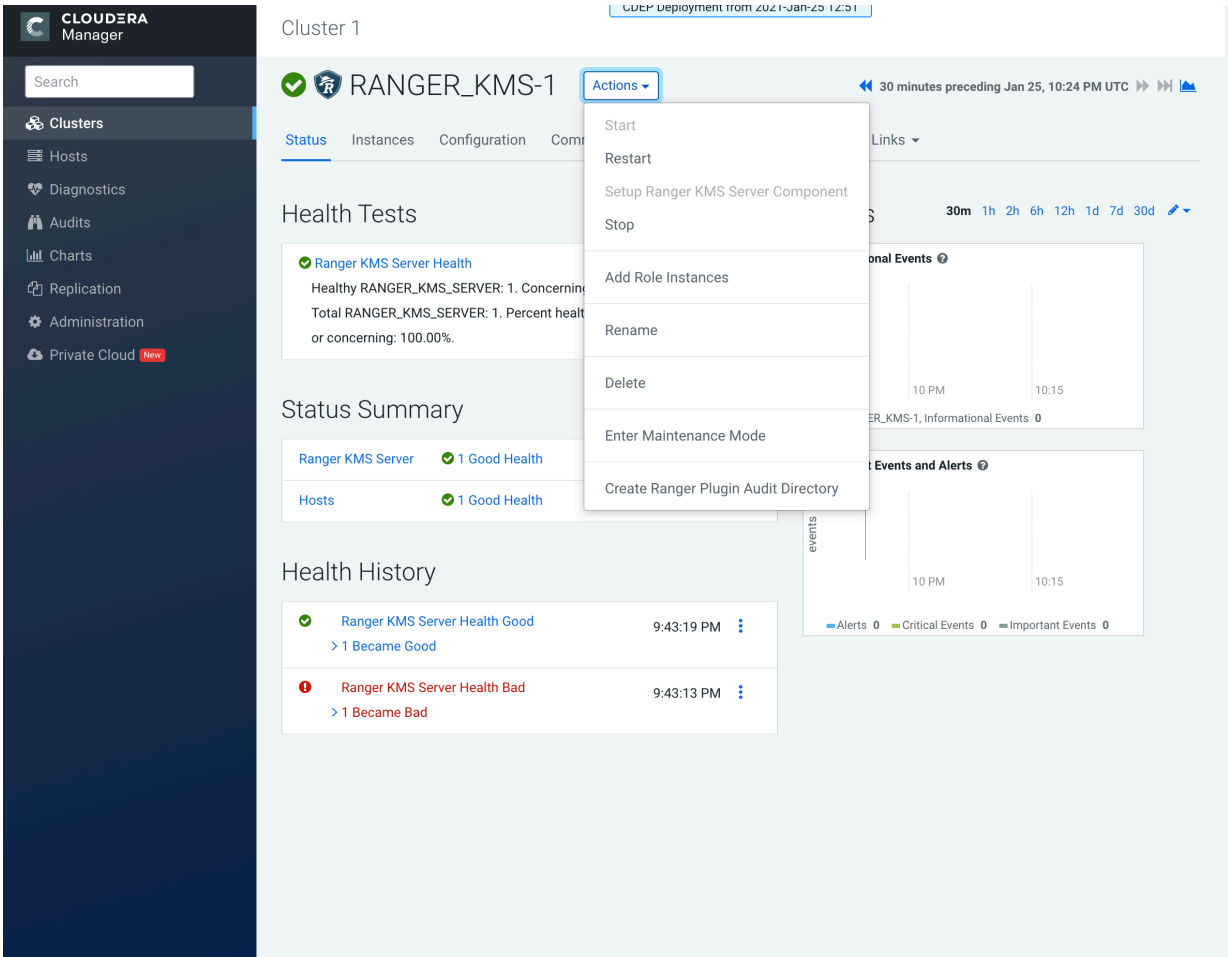
Name	Value	
cluster.name	Cluster 1	✕
policy.download.auth.users	keyadmin,rangerkms	✕

+

Test Connection

Save Cancel Delete

8. In Cloudera Manager click the Ranger KMS service, then select Actions > Create Ranger Plugin Audit Directory.



9. In Cloudera Manager, select Ranger KMS, then click Configuration.

a) Use the Add (+) icons for the Ranger KMS Server Advanced Configuration Snippet (Safety Valve) for conf/kms-site.xml property to add the following properties, then click Save Changes.

- `hadoop.kms.authentication.zk-dt-secret-manager.enable = true`
- `hadoop.kms.authentication.zk-dt-secret-manager.zkConnectionString = <Zookeeper hostname>:2181`



Note: In a cluster with multiple ZK hosts, include them as a comma-separated list.
For example: `hadoop.kms.authentication.zk-dt-secret-manager.zkConnectionString = <ZK_hostname1>:2181,<ZK_hostname2>:2181,....,<ZK_hostnameN>:2181` .

- `hadoop.kms.authentication.zk-dt-secret-manager.znodeWorkingPath = <provide a znode working path other than /zkdt-sm to avoid collision>`

For example:

`hadoop.kms.authentication.zk-dt-secret-manager.znodeWorkingPath = testzkms`



Note: Do not put a leading slash at the beginning of the znode working path.

- `hadoop.kms.authentication.zk-dt-secret-manager.zkAuthType = sasl`
- `hadoop.kms.authentication.zk-dt-secret-manager.kerberos.keytab = {{CMF_CONF_DIR}}/ranger_kms.keytab`

The screenshot shows the Cloudera Manager interface for configuring Ranger KMS. The left sidebar contains navigation links for Clusters, Hosts, Diagnostics, Audits, Charts, Replication, Administration, and Private Cloud. The main content area is titled 'Ranger KMS Server Advanced Configuration Snippet (Safety Valve) for conf/kms-site.xml'. It features a 'Filters' section on the left with categories like SCOPE, CATEGORY, and STATUS. The main table lists configuration properties with their names, values, and descriptions. The properties are:

Name	Value	Description
<code>hadoop.kms.authentication.zk-dt-secret-manager.enable</code>	<code>true</code>	
<code>hadoop.kms.authentication.zk-dt-secret-manager.zkConnectionString</code>	<code>hwx.site:2181</code>	
<code>hadoop.kms.authentication.zk-dt-secret-manager.znodeWorkingPath</code>	<code>testzkms</code>	
<code>hadoop.kms.authentication.zk-dt-secret-manager.zkAuthType</code>	<code>sasl</code>	
<code>hadoop.kms.authentication.zk-dt-secret-manager.kerberos.keytab</code>	<code>{{CMF_CONF_DIR}}/ranger_kms.keytab</code>	

At the bottom, there is a 'Save Changes (CTRL+S)' button and a status bar indicating '1 Edited Value'.

10. Update the following Ranger KMS configuration properties, then click Save Changes.

- `hadoop.kms.authentication.signer.secret.provider = zookeeper`
- `hadoop.kms.authentication.signer.secret.provider.zookeeper.auth.type = sasl`

Cluster 1

CDEP Deployment from 2021-Feb-22 11:12

RANGER_KMS-1

Feb 25, 7:06 PM UTC

Status Instances **Configuration** Commands Charts Library Audits Quick Links

Q `hadoop.kms.authentication.signer.secret.provider` Filters Role Groups History and Rollback

Filters

SCOPE

RANGER_KMS-1 (Service-Wide)	0
Ranger KMS Server	3

CATEGORY

Advanced	0
Database	0
Logs	0
Main	3
Monitoring	0
Performance	0
Ports and Addresses	0
Resource Management	0
Security	0
Stacks Collection	0

STATUS

Error	0
Warning	0
Edited	2
Non-default	2
Has Overrides	0

Hadoop KMS Authentication Signer Secret Provider

hadoop.kms.authentication.signer.secret.provider

hadoop_kms_authentication_signer_secret_provider

Ranger KMS Server Default Group [Undo](#)

☐ random

☐ string

☒ zookeeper

Hadoop KMS Authentication Signer Secret Provider Zookeeper Path

hadoop.kms.authentication.signer.secret.provider.zookeeper.path

hadoop_kms_authentication_signer_secret_provider_zookeeper_path

Ranger KMS Server Default Group

Hadoop KMS Authentication Signer Secret Provider Zookeeper Auth Type

hadoop.kms.authentication.signer.secret.provider.zookeeper.auth.type

hadoop_kms_authentication_signer_secret_provider_zookeeper_auth_type

☐ none

☐ kerberos

☒ sasl

Per Page 25 1 - 25 of 142

2 Edited Values Reason for change: Modified Hadoop KMS Authentication Signer Secret Provider, Hadoop KMS Auth

Save Changes (CTRL+S)

11. Verify that the `hadoop.kms.cache.enable` property is set to the default value of `true` (the check box is selected).

CLUSTER

CLUSTER

MANAGER

Search

Clusters

Hosts

Diagnostics

Audits

Charts

Replication

Administration

Private Cloud New

Parcels

Running Commands

Support

admin

Cluster 1

CDEP Deployment from 2021-Feb-22 11:12

RANGER_KMS-1

Actions

Feb 25, 9:39 PM UTC

Status

Instances

Configuration

Commands

Charts Library

Audits

Quick Links

Q

hadoop.kms.cache.enable

Filters

Role Groups

History and Rollback

Filters

SCOPE

RANGER_KMS-1 (Service-Wide) 0

Ranger KMS Server 1

CATEGORY

Advanced 0

Database 0

Logs 0

Main 1

Monitoring 0

Performance 0

Ports and Addresses 0

Resource Management 0

Security 0

Stacks Collection 0

STATUS

Error 0

Warning 0

Edited 0

Non-default 0

Has Overrides 0

Hadoop KMS Cache Enable

hadoop.kms.cache.enable

hadoop_kms_cache_enable

Ranger KMS Server Default Group

Show All Descriptions

Per Page 25

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12

12. Click the Stale Configuration Restart icon.

The screenshot shows the Cloudera Manager interface for Cluster 1. The 'Configuration' tab is selected for the RANGER_KMS-1 service. A search for 'hadoop.kms.cache.enable' is performed. The 'Filters' panel on the left shows the scope and category of the configuration. The main panel displays the configuration details for 'Hadoop KMS Cache Enable', including the 'Ranger KMS Server Default Group' checkbox. A 'Stale Configuration. Restart needed' tooltip is visible over the 'Actions' button.

13. On the Stale Configurations page, click Restart Stale Services.

14. On the Restart Stale Services page, select the Re-deploy client configuration checkbox, then click Restart Now.

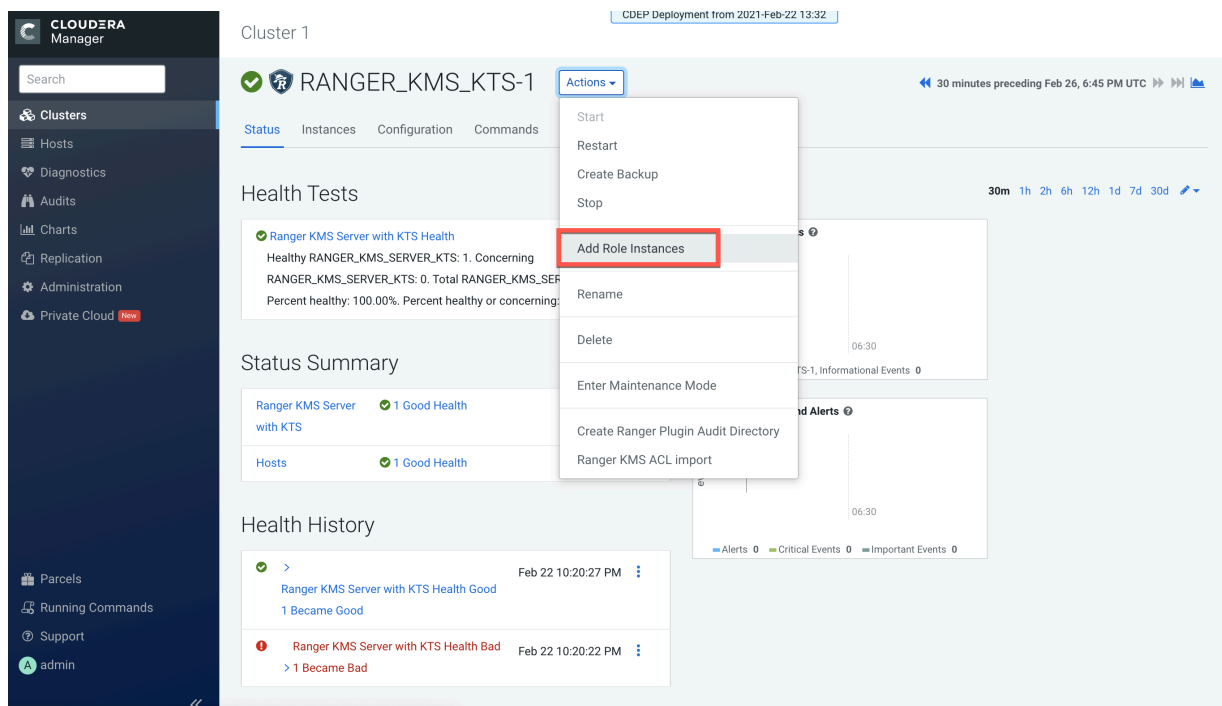
15. A progress indicator page appears while the services are being restarted. When the services have restarted, click Finish.

Configure High Availability for Ranger KMS with KTS

Use the following steps to configure high availability for Ranger KMS with Key Trustee Server as the backing key store.

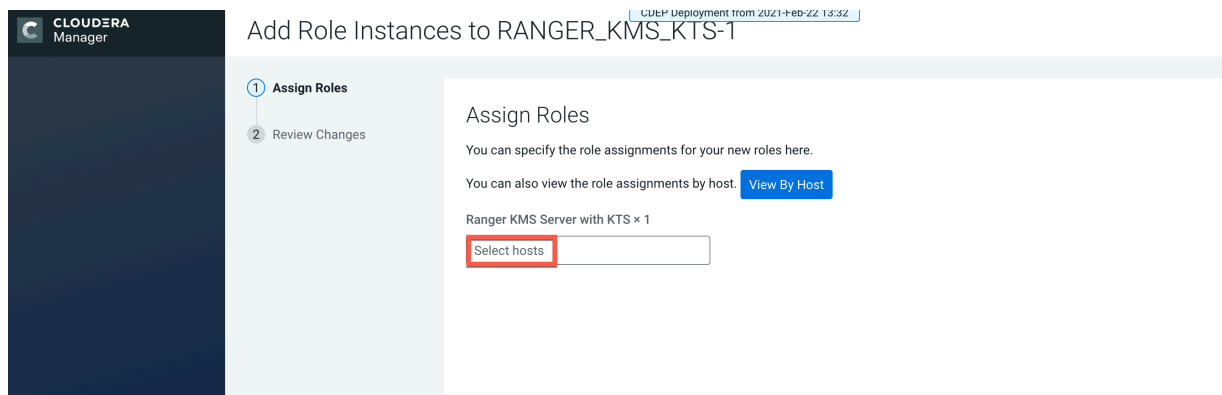
Procedure

1. In Cloudera Manager, select Ranger KMS KTS, then select Actions > Add Role Instances.



The screenshot shows the Cloudera Manager interface for a cluster named 'RANGER_KMS_KTS-1'. The left sidebar contains navigation links for Clusters, Hosts, Diagnostics, Audits, Charts, Replication, Administration, Private Cloud, Parcels, Running Commands, Support, and an admin user. The main panel displays the cluster's status, including Health Tests, Status Summary, and Health History. The 'Actions' dropdown menu is open, showing options like Start, Restart, Create Backup, Stop, Add Role Instances (highlighted with a red box), Rename, Delete, Enter Maintenance Mode, Create Ranger Plugin Audit Directory, and Ranger KMS ACL import.

2. On the Assign Roles page, click Select hosts.



The screenshot shows the 'Assign Roles' page in Cloudera Manager. The page title is 'Add Role Instances to RANGER_KMS_KTS-1'. The left sidebar shows the 'Assign Roles' step selected. The main panel contains the 'Assign Roles' section, which includes instructions on specifying role assignments and a 'View By Host' button. Below this, it shows 'Ranger KMS Server with KTS × 1' and a 'Select hosts' button (highlighted with a red box) next to an input field.

- On the selected hosts page, select a backup Ranger KMS KTS host. A Ranger KMS KTS (RK) icon appears in the Added Roles column for the selected host. Click OK to continue.



Note: These steps show how to add one additional backup Ranger KMS KTS host, but you can use the same procedure to add multiple Ranger KMS KTS hosts.

2 Hosts Selected

Select hosts for a new or existing role. The host list is filtered to remove hosts that are not valid candidates; these include hosts that are unhealthy, members of other clusters, or have an incompatible version of the software installed on them.

Q Enter hostnames: host01, IP addresses or rack

<input type="checkbox"/>	Hostname	IP Address	Rack	Cores	Physical Memory	Existing Roles	Added Roles
<input type="checkbox"/>	dh...71...site	172.27.130.1	/default	32	251.6 GiB	AS, CCS, G, HB..., RS, DN, G, G, G, ID, KB, KC, KG, M, LS, RA, RT, RU, SRS, G, G, SM..., SM..., SR..., SR..., G, G, NM, ZS	
<input checked="" type="checkbox"/>	dh...71...site	172.27.130.71	/default	32	251.6 GiB	RS, DN, G, G, ID, KB, KC, TS, G, RK..., G, G, NM	RK...
<input checked="" type="checkbox"/>	dh...71...site	172.27.130.09	/default	32	503.6 GiB	M, B, NN, NF..., SNN, G, HMS, G, HS2, LB, HS, KTR, ICS, ISS, G, KB, KC, LHBI, TS, G, AP, ES, HM, RM	RK...

Cancel

OK

- The Assign Roles page is redisplayed with the new backup host. Click Continue.

CLUSTER

CLUSTER NAME

CLUSTER STATUS

CLUSTER TYPE

CLUSTER VERSION

CLUSTER ID

1 Assign Roles

2 Review Changes

Add Role Instances to RANGER_KMS_KTS-1

CDEP Deployment from 2021-Feb-22 13:32

Assign Roles

You can specify the role assignments for your new roles here.

You can also view the role assignments by host. [View By Host](#)

Ranger KMS Server with KTS × (1 + 1 New)

dh...-3.d...mskts...

Back

Continue

15

5. Review the settings on the Review Changes page, then click Continue.

CLUSTER Deployment from 2021-Feb-22 13:32

Add Role Instances to RANGER_KMS_KTS-1

Assign Roles

2 Review Changes

Review Changes

Key Trustee Server Auth Code Ranger KMS Server with KTS Default Group ⓘ

cloudera.trustee.keyprovider.auth

Active Key Trustee Server Ranger KMS Server with KTS Default Group ⓘ

cloudera.trustee.keyprovider.hostname kts-cdep-server-1.vpc.cloudera.com

ame-ACTIVE

Passive Key Trustee Server Ranger KMS Server with KTS Default Group ⓘ

cloudera.trustee.keyprovider.hostname kts-cdep-server-2.vpc.cloudera.com

ame-PASSIVE

Key Trustee Server Org Name Ranger KMS Server with KTS Default Group ⓘ

cloudera.trustee.keyprovider.org kts

Key Trustee Server Key Provider Pool Timeout Ranger KMS Server with KTS Default Group ⓘ

cloudera.trustee.keyprovider.pool.abandoned.timeout 5 minute(s) v

Key Trustee Server Key Provider Max Connections Ranger KMS Server with KTS Default Group ⓘ

cloudera.trustee.keyprovider.pool.max 5

Key Trustee Server Key Provider Pool Max Idle Ranger KMS Server with KTS Default Group ⓘ

cloudera.trustee.keyprovider.pool.max.idle 2

Back Continue

6. The new role instance appears on the Ranger KMS KTS page. If the new Ranger KMS with KTS instance was not started by the wizard, you can start the service by clicking Actions > Start in the Ranger KMS with Key Trustee Server service.

CLUSTER Deployment from 2021-Feb-22 13:32

Cluster 1

✓ RANGER_KMS_KTS-1

Status Instances Configuration Commands

This entity is currently running with an outdated configuration. (Click here to refresh the configuration) for the changes to take effect.

Last Updated: Feb 26, 7:16:40 PM UTC

Filters

STATUS

Stopped 1

Good Health 1

COMMISSION STATE

MAINTENANCE MODE

RACK ID

ROLE GROUP

ROLE TYPE

STATE

HEALTH TEST

Actions for RANGER_KMS_KTS-1

- Start
- Restart
- Create Backup
- Stop
- Add Role Instances
- Rename
- Delete
- Enter Maintenance Mode
- Create Ranger Plugin Audit Directory
- Ranger KMS ACL import

Hostname	Commission State	Role Group
dhoyle715kmskts-1	Commissioned	Ranger KMS Server with KTS Default Group
3.dhoyle715kmskts.root.hwx.site	Commissioned	Ranger KMS Server with KTS Default Group
dhoyle715kmskts-2	Commissioned	Ranger KMS Server with KTS Default Group
2.dhoyle715kmskts.root.hwx.site	Commissioned	Ranger KMS Server with KTS Default Group

1 - 2 of 2

7. If necessary, synchronize the KMS KTS private key.

Check the catalina.out file in the Ranger KMS KTS log directory for the following error:

```
java.io.IOException: Unable to verify private key match between KMS hosts.  
Verify private key files have been synced  
between all KMS hosts. Aborting to prevent data inconsistency.
```

To determine whether the KMS KTS private keys are different, compare the MD5 hash of the private keys. On each Ranger KMS KTS host, run the following command:

```
md5sum /var/lib/kms-keytrustee/keytrustee/.keytrustee/secring.gpg
```

If the output is different on both instances, Cloudera recommends following security best practices and transferring the private key using offline media, such as a removable USB drive. For convenience (for example, in a development or testing environment where maximum security is not required), you can copy the private key over the network by running the following rsync command on the original Ranger KMS KTS host:

```
rsync -zav /var/lib/kms-keytrustee/keytrustee/.keytrustee root@kms02.e  
xample.com:/var/lib/kms-keytrustee/keytrustee/.
```

8. Restart the Ranger KMS KTS service.

9. In Cloudera Manager, select the Ranger service, click Ranger Admin Web UI, then log in as the Ranger KMS user (the default credentials are keyadmin/admin123). Click the Edit icon for the cm_kms service, then update the KMS URL property.

- Add the new KMS host using the following format:
kms://http@<kms_kts_host1>;http@<kms_kts_host2>:<kms_port>/kms
- The default port is 9292. For example:
kms://http@kms_kts_host1;http@kms_kts_host2:9292/kms
- If SSL is enabled, use https and port 9494. For example:
kms://https@kms_kts_host1;https@kms_kts_host2:9494/kms

Click Test Connection to confirm the settings, then click Save to save your changes.

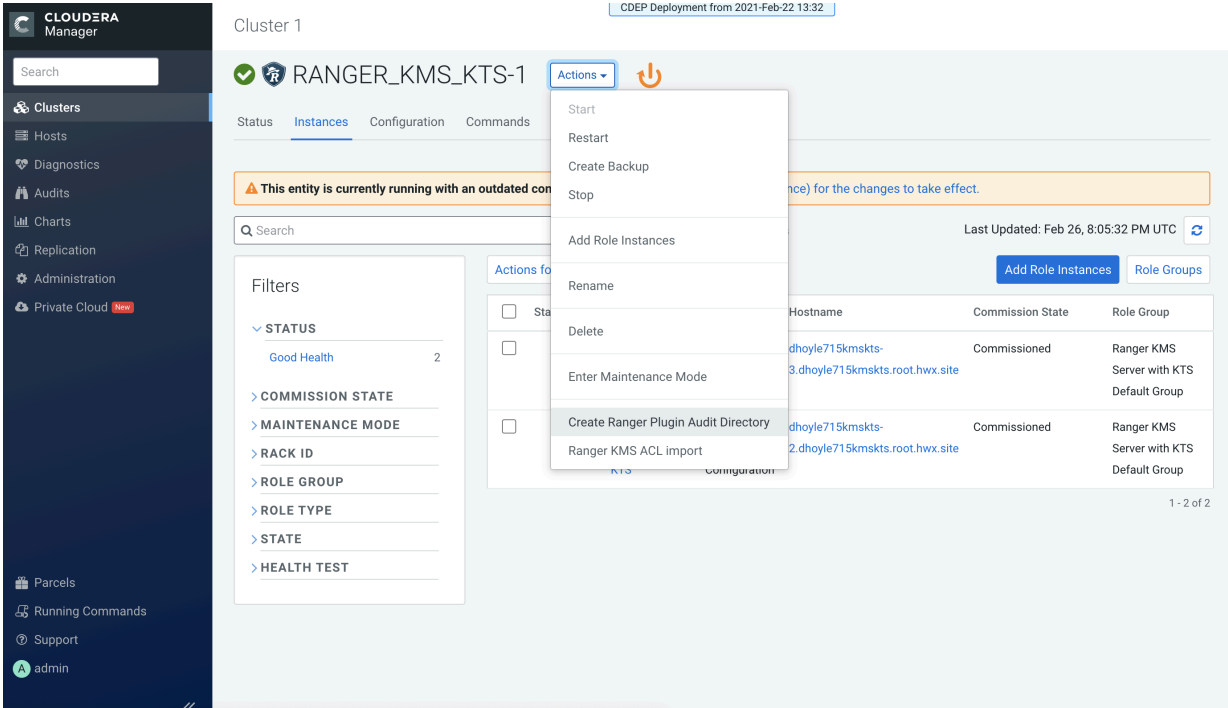
The screenshot shows the Ranger Admin Web UI interface for editing the cm_kms service. The top navigation bar includes links for Access Manager, Audit, Encryption, and Settings. The main content area is titled 'Edit Service' and contains the following elements:

- Active Status:** Radio buttons for 'Enabled' (selected) and 'Disabled'.
- Select Tag Service:** A dropdown menu with the text 'Select Tag Service'.
- Config Properties:**
 - KMS URL *:** A text input field containing 'jhoyier:rkmskts-3.djhoyier:rkmskts:root:mx.site:9292/kms'.
 - Username *:** A text input field containing 'keyadmin'.
 - Password *:** A text input field with masked characters '.....'.
- Add New Configurations:** A table with two columns: 'Name' and 'Value'.

Name	Value
policy.download.auth.users	keyadmin,rangerkms

 Below the table is a '+' button to add new configurations.
- Test Connection:** A button to verify the KMS URL settings.
- Bottom Bar:** Buttons for 'Save', 'Cancel', and 'Delete'.

10. In Cloudera Manager click the Ranger KMS KTS service, then select Actions > Create Ranger Plugin Audit Directory.



11. In Cloudera Manager, select Ranger KMS KTS, then click Configuration.

- a) Use the Add (+) icons for the Ranger KMS Server with KTS Advanced Configuration Snippet (Safety Valve) for conf/kms-site.xml property to add the following properties, then click Save Changes.

- `hadoop.kms.authentication.zk-dt-secret-manager.enable = true`
- `hadoop.kms.authentication.zk-dt-secret-manager.zkConnectionString = <Zookeeper hostname>:2181`
- `hadoop.kms.authentication.zk-dt-secret-manager.znodeWorkingPath = <provide a znode working path other than /zkdtsm to avoid collision>`

For example:

```
hadoop.kms.authentication.zk-dt-secret-manager.znodeWorkingPath = testzkkms
```



Note: Do not put a leading slash at the beginning of the znode working path.

- `hadoop.kms.authentication.zk-dt-secret-manager.zkAuthType = sasl`
- `hadoop.kms.authentication.zk-dt-secret-manager.kerberos.keytab = {{CMF_CONF_DIR}}/ranger_kms_kts.keytab`

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RANGER_KMS_KTS-1

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Ranger KMS Server with KTS Advanced Configuration Snippet (Safety Valve) for conf/km

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CATEGORY

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Warning 0

Edited 1

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Ranger KMS Server with KTS Advanced Configuration Snippet (Safety Valve) for conf/kms-site.xml

Ranger KMS Server with KTS Default Group Undo

Show All Descriptions

View as XML

Name

hadoop.kms.authentication.zk-dt-secret-manager.enable

Value

true

Description

☐ Final

Name

hadoop.kms.authentication.zk-dt-secret-manager.zkConnectionString

Value

hadoop.kms.authentication.zk-dt-secret-manager.zkConnectionString:site:2181

Description

☐ Final

Name

hadoop.kms.authentication.zk-dt-secret-manager.znodeWorkingPath

Value

testzkcms

Description

☐ Final

Name

hadoop.kms.authentication.zk-dt-secret-manager.zkAuthType

Value

sasl

Description

☐ Final

Name

hadoop.kms.authentication.zk-dt-secret-manager.kerberos.keytab

Value

{{CMF_CONF_DIR}}/ranger_kms_kts.keytab

1 Edited Value Reason for change: Modified Ranger KMS Server with KTS Advanced Configuration Snippet (Safety Valve...

Save Changes (CTRL+S)

12. Update the following Ranger KMS configuration properties, then click Save Changes.

- `hadoop.kms.authentication.signer.secret.provider.zookeeper.auth.type = sasl`

The screenshot shows the Cloudera Manager interface for Cluster 1, specifically the Configuration page for RANGER_KMS_KTS-1. The configuration property `hadoop.kms.authentication.signer.secret.provider.zookeeper.auth.type` is highlighted, and its value is set to `sasl`. The interface includes a sidebar with navigation options like Clusters, Hosts, Diagnostics, Audits, Charts, Replication, Administration, and Private Cloud. The main content area shows the configuration details, including filters for SCOPE, CATEGORY, and STATUS. A 'Save Changes (CTRL+S)' button is visible at the bottom right.

13. Click the Stale Configuration Restart icon.

This screenshot shows the same Cloudera Manager configuration page for RANGER_KMS_KTS-1. A dark button labeled 'Stale Configuration. Restart needed' is now visible above the configuration table. The configuration property `hadoop.kms.authentication.signer.secret.provider.zookeeper.auth.type` remains set to `sasl`. The 'Save Changes (CTRL+S)' button is still present at the bottom right.

14. On the Stale Configurations page, click Restart Stale Services.

15. On the Restart Stale Services page, select the Re-deploy client configuration checkbox, then click Restart Now.

16. A progress indicator page appears while the services are being restarted. When the services have restarted, click Finish.

Overriding custom keystore alias on a Ranger KMS Server

Use this procedure to override the custom keystore alias on a Ranger KMS server.

About this task

The custom keystore alias may need to be overridden in the following scenarios:

- User has manually enabled TLS/SSL during fresh installations of Ranger KMS and Ranger KMS with Key Trustee Server (KTS), and the keystore alias was not added to the hostname.
- User has upgraded from CDP-DC 7.0.3 with Key Trustee KMS and Ranger to CDP-DC 7.1.1 (where Ranger KMS with KTS is added during the upgrade) in a TLS/SSL environment in which TLS/SSL was manually enabled, and the keystore alias was not added to the hostname.

Overriding custom keystore alias while configuring TLS/SSL on a single instance of Ranger KMS Server

Procedure

1. In Cloudera Manager, select Ranger KMS > Configuration, and search for `ranger.service.https.attrib.keystore.keyalias` to set the custom alias value for the Ranger KMS Server TLS/SSL Keystore File Alias configuration parameter.
2. Click Save Changes.
3. Restart the Ranger KMS service.

Overriding custom keystore alias while configuring TLS/SSL on multiple instances of Ranger KMS Server

Procedure

1. In Cloudera Manager, select Ranger KMS > Instances and select Ranger KMS Server role > Configuration. Use the Add (+) icons for the Ranger KMS Server Advanced Configuration Snippet (Safety valve) for `conf/ranger-kms-site.xml` property to add the following property:

```
ranger.service.https.attrib.keystore.keyalias = <expected alias>
```

This overrides the configuration on the host on which the current Ranger KMS Server role is available.

2. Repeat Step 1 for all the other Ranger KMS Servers to override the configuration by using the Ranger KMS Server Advanced Configuration Snippet (Safety valve) for `conf/ranger-kms-site.xml` property.
3. Restart the Ranger KMS service.



Note: When high-availability has been enabled for Ranger KMS, the keystore may not have the same alias for different KMS instances. In such cases, use FQDN as the alias or add the custom key alias configuration in the Ranger KMS Server Advanced Configuration Snippet (Safety valve) for `conf/ranger-kms-site.xml` property of each host.