CDP Private Cloud Data Services 1.5.3

Managing the Embedded Container Service (ECS)

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The Embedded Container Service (ECS)

Cloudera Manager provides tools for managing and monitoring the CDP Private Cloud Embedded Container Service.

The Embedded Container Service (ECS) service enables you to run CDP Private Cloud Data Services by creating container-based clusters in your data center. In addition to the option to use OpenShift, which requires that you deploy and manage the Kubernetes infrastructure, you can also deploy a Embedded Container Service cluster, which creates and manages an embedded Kubernetes infrastructure for use with CDP Private Cloud Data Services. Installing, configuring, and managing OpenShift is not required. You only need to provide hosts on which to install the service and Cloudera Manager sets up the Embedded Container Service cluster and also provides management and monitoring of the cluster.

When you create an Embedded Container Service cluster, two new services are added to the cluster:

- Embedded Container Service (ECS) service. The ECS service has two roles:
- ECS Server -- runs on a single host in the Embedded Container Service cluster.
- ECS Agent -- runs on all hosts except the host running the Server role in the Embedded Container Service Cluster.
- Docker service. The Docker service has a single role:
 - Docker Server -- runs on all hosts in the Embedded Container Service Cluster.

Configuring the Embedded Container Service

You use Cloudera Manager to configure the Embedded Container Service and clusters.

Procedure

- 1. Open the Cloudera Manager Admin Console
- 2. From the Home page, Click on the Embedded Container Service Cluster
- 3. Click the Hosts, ECS service, or the Docker service links.
- 4. Click the Configuration tab.
- 5. Use the Filters or Search functions to locate the configuration property you are looking for.
- **6.** Enter your change.
- 7. Click Save Changes.

Related Information

Modifying Configuration Properties Using Cloudera Manager

Adding hosts to a Embedded Container Service Cluster

You can add hosts to a Embedded Container Service (ECS) cluster to increase capacity and performance.

About this task

Procedure

1. On the Cloudera Manager home page, click the ECS Cluster, then select Actions > Add Hosts.



2. On the Add Hosts page, click Add Hosts to Cluster and select the ECS Cluster, then click Continue.

CLOUDERA Manager	Add Hosts	CDEP Deployment from 2023-Oct-23 11:55	
		The Add Hosts Wizard allows you to install the Cloudera Manager Agent on new hosts hosts available to be added to a cluster in the future, or you can add new hosts to an e Add hosts to Cloudera Manager You can use these hosts later to create new clusters or expand existing clusters.	. You can either keep the new xisting cluster
🛱 Parcels			
🕱 Running Commands			
🛞 Support			
A admin			
7.11.3 《			← Back Continue →

3. On the Specify Hosts page, hosts that have already been added to Cloudera Manager are listed on the Currently Managed Hosts tab. You can select one or more of these hosts to add to the ECS cluster.

CLOUDERA Manager	Add Hosts	CDEP Deployment from 20	23-0ct-23 11:55			
	 Specify Hosts Install Parcels Inspect Hosts 	luster.				
	4 Select Host Template	☐ Hostname (FQDN) ↑	IP Address	Rack	Version	Cores
	5 Deploy Client Config	dh-centos79m-1.vpc.cloudera.com	10.65.202.225	/default	None	8
		dh-centos79m-2.vpc.cloudera.com	10.65.203.223	/default	None	8
		dh-centos79m-3.vpc.cloudera.com	10.65.202.91	/default	None	8
		 ecst-2.vpc.cloudera.com 	10.65.203.79	/default	None	8
						1 - 4 of 4
🛱 Parcels						
🕱 Running Commands						
🐯 Support						
(A) admin						
7.11.3 《		Cancel			← Back	Continue →

You can also click the New Hosts tab to specify one or more hosts that have not been added to Cloudera Manager. Enter a Fully Qualified Domain Name in the Hostname box, then click Search.

Note: Click the pattern link under the Hostname box to display more information about allowed FQDN patterns.

CLOUDERA Manager	Add Hosts	CDEP Deployment from 2023-Oct-23 11:55	
Manager	 Specify Hosts Select Repository Select JDK Enter Login Credentials Install Agents Install Parcels 	Specify Hosts Currently Managed Hosts (1/4 Selected) New Hosts (1 Selected) Hosts should be specified using the same hostname (FQDN) that they will identify them Hostname gsst-[1-2].vpc.cloudera.com Hint: Search for hostnames or IP addresses using pattern ssst Port 22 Search	selves with.
	7 Inspect Hosts	2 hosts scanned, 2 running SSH.	
	8 Select Host Template	Expanded Query Hostname (FQDN) ↑ IP Address Currently Mana	ged Result
🛱 Parcels	9 Deploy Client Config	ecst- ecst- 10.65.196.65 No I.vpc.cloudera.com	Host was successfully scanned.
🕱 Running Commands		ecst- ecst- 10.65.203.79 Yes 2.vpc.cloudera.com 2.vpc.cloudera.com	Host was successfully scanned.
🐯 Support			1 - 2 of 2
A admin			
7.11.3		Cancel	← Back Continue →

After you have finished specifying the ECS hosts, click Continue.

4. On the Select Repository page, the applicable Cloudera Manager Agent repository location is selected by default. Click Continue.

CLOUDERA Manager	Add Hosts	CDEP Deployment from 2023-Oct-23 11:55
	 Specify Hosts Select Repository Select JDK Enter Login Credentials Install Agents Install Parcels Inspect Hosts Select Host Template Deploy Client Config 	Select Repository Cloudera Manager Agent Cloudera Manager Agent 7.11.3 (#46431848) needs to be installed on all new hosts. Repository Location Cloudera Repository (© Custom Repository http://cloudera-build-4-us-west-1.vpc.cloudera.com/s3/build/46431848/cm7/7.11.3.2 Example: http://LOCAL_SERVER/cloudera-repos/cm7/7.11.3 Do not include operating system-specific paths in the URL. The path will be automatically derived. Learn more at How to set up a custom repository.
 Running Commands Support admin 		
7.11.3 《		Cancel ← Back Continue →

5. Select a JDK option on the Select JDK page, then click Continue.

CLOUDERA Manager	Add Hosts	CDEP Dep	Joyment from 2023-Oct-23 11:55				
	Specify Hosts	Select JDK					
		CDH Version	Supported JDK Version				
	3 Select JDK	7.1.9 and above	OpenJDK 8, 11, 17 or Oracle JDK 8, 11, 17				
	4 Enter Login Credentials	7.1.1 to 7.1.8	OpenJDK 8, 11 or Oracle JDK 8, 11				
	5 Install Agents	7.0 and above	OpenJDK 8 or Oracle JDK 8				
	6 Install Parcels	6.3 and above	OpenJDK 8 or Oracle JDK 8				
		6.2	OpenJDK 8 or Oracle JDK 8				
	1 inspect rosts	6.1 or 6.0	Oracle JDK 8				
	8 Select Host Template	5.16 and above	OpenJDK 8 or Oracle JDK 8				
	9 Deploy Client Config	5.7 to 5.15	Oracle JDK 8				
			۲-۶ ot More details on supported JDK version. G	8			
		If you plan to use JDK 11 with CDH all hosts and then select the Manua	7.1.x and above or JDK 17 with CDH 7.1.9 and above , you will need to install it manually on ally manage JDK option below.				
		O Manually manage JDK					
		Please ensure that a supp unlimited strength JCE po	ported JDK is already installed on all hosts. You will need to manage installing the blicy file, if necessary.				
		Install a Cloudera-provided versi	ion of OpenJDK				
🛱 Parcels		By proceeding, Cloudera will inst	tall a supported version of OpenJDK version 8.				
🕱 Running Commands		By proceeding, Cloudera will inst	tall the default version of OpenJDK version 8 provided by the Operating System.				
😵 Support							
A admin							
7.11.3		Cancel	← Back Continue →				

6. On the Enter Login Credentials page, All hosts accept the same password is selected by default. Enter the user name in the SSH Username box, and type in and confirm the password. You can also select the All hosts accept the same private key option and provide the Private Key and passphrase.

CLOUDERA Manager	Add Hosts	l	CDEP Deployment from 2023-Oct-23 11:55		
 Parcels Running Commands Support admin 	 Specify Hosts Select Repository Select JDK Enter Login Credentials Install Agents Install Parcels Inspect Hosts Select Host Template Deploy Client Config 	Enter Login Cre Root access to your host either directly as root or a SSH Username Authentication Method Password Confirm Password SSH Port Simultaneous Installations	edentials s is required to install the Cloudera packages. This installer will comr s another user with password-less sudo/pbrun privileges to become root All hosts accept same password All hosts accept same private key 22 10 (Running a large number of installations at once can consume large and other system resources)	ect to your host	ts via SSH and log in
7.11.3 《		Cancel		← Back	Continue →

7. The Cloudera Manager agents are installed, and then the Install Parcels page appears. The selected parcel is downloaded to the Cloudera Manager server host, distributed, unpacked, and activated on the ECS cluster hosts. Click Continue.



8. Review the Validations list on the Inspect Hosts page. If issues are detected, you can fix the issues, then click Run Again to repeat the host inspection. Click Continue.

CLOUDERA Manager	Add Hosts		CDEP Deployment from 2023-Oct-23 11:55	
	Specify Hosts			
	Salaat Papasitary	Inspect	Hosts	
	Select Repusitory	Validatior	าร	Run Again
	Select JDK	Status	Description	
	Enter Login Credentials	0	Inspector ran on all 4 hosts.	
		٢	Individual hosts resolved their own hostnames correctly.	
	Install Agents	0	No errors were found while looking for conflicting init scripts.	
	Install Parcels	•	No errors were found while checking /etc/hosts.	
		0	All hosts resolved localhost to 127.0.0.1.	
	7 Inspect Hosts	0	All hosts checked resolved each other's hostnames correctly and in a timely manner.	
		0	Host clocks are approximately in sync (within ten minutes).	
8 Select	8 Select Host Template	0	Host time zones are consistent across the cluster.	
	9 Deploy Client Config	0	No users or groups are missing.	
		0	No conflicts detected between packages and parcels.	
		0	No kernel versions that are known to be bad are running.	
		0	No problems were found with /proc/sys/vm/swappiness on any of the hosts.	
		A	Transparent Huge Page Compaction is enabled and can cause significant performance problems. Run 'ec /sys/kernel/mm/transparent_hugepage/defrag" and "echo never > /sys/kernel/mm/transparent_hugepage disable this, and then add the same command to an init script such as /etc/rc.local so it will be set on sys The following hosts are affected: > View Details	ho never > e/enabled" to tem reboot.
		0	Hue Python version dependency is satisfied.	
		٨	Starting with CDH 6, PostgreSQL-backed Hue requires Psycopg2 version to be at least 2.5.4, see the docur more information. The following hosts are missing a compatible version of the Psycopg2 library: > View Details	mentation for
Support		•	A compatible version of the operating system is installed on the hosts in a Private Cloud Containerized Clu	uster.
Support		0	Ports 80 and 443 are available for use on the hosts in a Private Cloud Containerized Cluster.	
(A) admin				
7.11.3	«	Cancel	← Back	Continue →

9. The Select Host Template page lists available host templates. Click Create.



The following three steps describe how to create a host template to assign the Docker Server and Ecs Agent role groups to the new host. You can also select None and add these role instances after adding the new host to the cluster, as described at the end of this topic.



10. On the Create New Host Template pop-up, enter a template name and select the Docker Server and Ecs Agent role groups, then click Create.

CLOUDERA Manager	Add Hosts		CDEP Deployment from 2023-Oct-23 11.55			
	Create New Host T	emplate For 152-b883		:		
	Template Name	ecsworker				
	Select Role Groups to Inclu	ude:				
	Service Name	Role Groups				
	₩ 🖷 DOCKER					
	V Docker Server	Docker Server Default Group	~			
	V 🛱 ECS					
	Ccs Agent	Ecs Agent Default Group	~			
	Ecs Server					
					1 - 2 of 2	
🛱 Parcels				Cancel	Create	
🗶 Running Commands						,
🛞 Support						
A admin						
7.11.3	«					- Back Continue →

11. On the Select Host Template page, select the new template, then click Continue.

CLOUDERA Manager	Add Hosts	CDEP Deployment from 2023-Oct-23 11:55	
	 Specify Hosts 		
		Select Host Template	
	Select Repository	Select a host template to apply to the new hosts in order to populate them with role instant	es.
	Select JDK	○ None	
		• ecsworker	
	 Enter Login Credentials 	Create	
	Install Agents	Start newly created roles after applying the host template	
	Install Parcels		
	Inspect Heats		
	Inspect Hosts		
	8 Select Host Template		
	9 Apply Host Template		
	10 Deploy Client Config		
🛱 Parcels			
🕱 Running Commands			
Support			
Sapport			
A admin			
7.11.3 《		Cancel	← Back Continue →

12. The Apply Host Template page appears. After the roles have successfully started, click Continue.

CLOUDERA Manager	Add Hosts	CDEP Deployment from 2023	3-Oct-23 11:55		
 Parcels 风unning Commands Support admin 	 Specify Hosts Select Repository Select JDK Enter Login Credentials Install Agents Install Parcels Inspect Hosts Select Hosts Template Apply Host Template Deploy Client Config 	Apply Host Template Start Roles on Hosts When Free Com Status I finished Dec 12, 10:20:41 PM Successfully started all the roles on sele Completed 3 of 3 step(s). Show All Steps Show Only Failed Steps O Wait for Service Commands O Wait for Service Commands O Starts all the roles on the selected hosts.	mand © 48.4s sected hosts. © Show Only Running Steps © DOCKER © © ECS © © ©	Dec 12, 10:20:41 PM Dec 12, 10:20:41 PM Dec 12, 10:20:41 PM	99ms 100ms 48.25s
7.11.3 《		Cancel		← Back	Continue →

- CDEP Deployment from 2023-Oct-23 11:55 CLOUDERA Manager Add Hosts Specify Hosts Deploy Client Config Select Repository Deploy Client Configuration Command Select JDK Status 🛇 Finished Context 152-b883 🗗 🛗 Dec 12, 10:26:12 PM 🥝 59ms Successfully deployed all client configurations. Enter Login Credentials Completed 1 of 1 step(s). Install Agents Show All Steps
 Show Only Failed Steps O Show Only Running Steps > 📀 Execute DeployClusterClientConfig for {} in parallel. Dec 12, 10:26:12 PM 57ms Install Parcels Inspect Hosts 这 Select Host Template Apply Host Template 10 Deploy Client Config 🛱 Parcels 🕱 Running Commands 🔺 admin Cancel ← Back
- **13.** The Deploy Client Config page appears. After all client configurations have been successfully deployed, click Finish.

14. The new host is listed on the ECS cluster Hosts page.

CLOUDERA Manager	152-b883				CDEP Deployment from 2023-Oct-23	11:55				
Search	Hosts	Configu	iration	Add Host	s Review Upgrade Status	Inspect Hosts ir	Cluster	Inspect Clust	er Network Perforn	nance
뛷 Clusters										
맥 Hosts	Q Search				C Filters		L	ast Updated: Deo.	c 12, 10:29:36 PM l	JTC 🖸
- Diagnostics	Filters		Action	s for Selec	eted -				Columns: 11 Se	lected -
😰 Audits	✓ STATUS			Status	Name	IP	Roles	Tags C	ommission State	Last He
Charts	© Good Health	4		۲	dh-centos79-1.vpc.cloudera.com	10.65.203.160	2 Roles	с	ommissioned	
ැ ^න Replication	> CLUSTERS			•	dh-centos79-2.vpc.cloudera.com	10.65.194.119	2 Roles	С	ommissioned	
😥 Administration	> CORES			•	dh-centos79-3.vpc.cloudera.com	10.65.194.114	2 Roles	с	ommissioned	
🛆 Data Services New	> COMMISSION STATE			۲	ecst-1.vpc.cloudera.com	10.65.217.129	2 Roles	1 Tag C	ommissioned	
	> LAST HEARTBEAT									1 - 4 of 4
	> LOAD (1 MINUTE)									
	> LOAD (5 MINUTES)									
	> LOAD (15 MINUTES)									
	> MAINTENANCE MODE									
	> UPGRADE DOMAIN									
	> RACK									
	> SERVICE									

15. If your ECS hosts are running the CentOS 8.4, OEL 8.4, RHEL 7.9, or RHEL 8 operating systems, you must install iptables on all the ECS hosts.

For CentOS 8.4, OEL 8.4, or RHEL 8, run the following command on each ECS host:

yum --setopt=tsflags=noscripts install -y iptables

For RHEL 7.9, run the following command on each ECS host:

yum install -y iptables

16. If you did not apply a host template to assign roles, perform the following steps to assign the Docker Server and Ecs Agent role groups to the new host.

To assign the Docker Server role group:

a. Click DOCKER on the ECS cluster home page, select Instances, then click Add Role Instances.

CLOUDERA Manager	152-b883				орег рерюутнени	IIUIII 2023°000°23 11.3	<u>.</u>		
Search	📀 🖷 DOCKER	Actions 🔻							
뮫 Clusters	Status Instances Configur	ation C	Commands	Charts	Library Audits	Quick Links 👻			
興 Hosts									
还 Diagnostics	Q Enter search terms (hostnam	e, host ID,	IP address,	cluster n	ame, rack, health	Filters	I	Last Updated: Dec 13, (5:40:46 PM UTC 📿
😰 Audits	Eller.	Actions	for Selec	ted -			Add Role Instar	nces Role Groups	
Charts	Filters			Status	Role Type	Tags State	Hostname	Commission State	Role Group
Replication آهے	✓ STATUS								
🔅 Administration	Good Health	4		•	Docker Server	Started	dh-centos79- 3.vpc.cloudera.com	Commissioned	Docker Server Default Group
🛆 Data Services New	> COMMISSION STATE			0	Docker Server	Started	dh-centos79-	Commissioned	Docker Server
	> MAINTENANCE MODE						1.vpc.cloudera.com		Default Group
	> RACK ID			0	Docker Server	Started	dh-centos79-	Commissioned	Docker Server
	> ROLE GROUP						2.vpc.cloudera.com		Default Group
	> ROLE TYPE			0	Docker Server	Started	ecst-	Commissioned	Docker Server
	> STATE						1.vpc.cloudera.com		Default Group
	> HEALTH TEST								1 - 4 of 4

b. On the Add Role Instances to DOCKER page, click Select hosts.

CLOUDERA Manager	Add Role Instance	s to DOCKER							
	 Assign Roles 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 Docker Server × 4 Select hosts							

c. On the Hosts Selected pop-up, select the new host, then click OK.

Q En	ter hostnames: host01, IP addresses or	rack							
~	Hostname	IP Address	Rack	Cores Ph	ysical Memory	Existing R	oles	Added Ro	les
~	dh-centos79-1.vpc.cloudera.com	10.65.203.160	/default	8	30.8 Gi	B 👖 DS	Ö ES	de DS	
~	dh-centos79-2.vpc.cloudera.com	10.65.194.119	/default	8	30.5 Gi	B ₫ DS	Ö EA	<mark>₫</mark> DS	
~	dh-centos79-3.vpc.cloudera.com	10.65.194.114	/default	8	30.8 Gi	B 🛃 DS	C EA	de DS	
~	ecst-1.vpc.cloudera.com	10.65.217.129	/default	8	30.8 Gi	B 료 DS	C EA	de DS	
	ecst-2.vpc.cloudera.com	10.65.221.113	/default	8	30.8 Gi	в		료 DS	
									1-

d. On the Assign Roles page, click Continue.

CLOUDERA Manager	Add Role Instances to DOCKER							
	 Assign Roles 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 Docker Server × (4 + 1 New) ecst-2.vpc.cloudera.com +						
🛱 Parcels								
🕱 Running Commands								
🛞 Support								
A admin								
7.11.3 《		Cancel	← Back Continue →					

e. On the Review Changes page, click Finish.

CLOUDERA Manager	Add Role Instance	es to DOCKER	
	 Assign Roles Review Changes 	Review Changes i No additional configurations are required.	
🛱 Parcels			
Running Commands			
Support A admin			
7.11.3 《		Cancel	← Back Finish →

f. The new host is listed on the Docker Instances page.

CLOUDERA Manager	152-b883				CDEP Deployment from 20	JZ3-UCT-Z3 1:5	2		
Search	📀 🖷 DOCKER 🛛 🗚	ctions 🗸							
号 Clusters	Status Instances Configura	tion Co	ommands	Charts	Library Audits Quicl	k Links 👻			
堲 Hosts									
🐼 Diagnostics	Q Enter search terms (hostname	, host ID, I	P address,	, cluster na	me, rack, health s	Filters		Last Updated: Dec 13,	7:00:56 PM UTC 2
😰 Audits	Filtere		Actions	s for Select	ted 🗸			Add Role Insta	nces Role Groups
🗠 Charts	FILEIS			Status	Role Type Tags	State	Hostname	Commission State	Role Group
면 Replication	✓ STATUS			0	Docker Server	Started	dh-centos79-	Commissioned	Docker Server
🔅 Administration	Good Health Stopped	4					3.vpc.cloudera.com		Default Group
🛆 Data Services New	> COMMISSION STATE			۲	Docker Server	Started	dh-centos79-	Commissioned	Docker Server
	> MAINTENANCE MODE						1.vpc.cloudera.com		Default Group
	> RACK ID			•	Docker Server	Started	dh-centos79- 2 vpc cloudera.com	Commissioned	Docker Server
🛱 Parcels	> ROLE GROUP			-			2.100.000000000000000000000000000000000		Deruun oroup
🕱 Running Commands	> ROLE TYPE			0	Docker Server	Stopped	ecst- 2 vpc cloudera.com	Commissioned	Docker Server
Support	> STATE			•					
	> HEALTH TEST			8	Docker Server	Started	ecst- 1.vpc.cloudera.com	Commissioned	Docker Server Default Group
A) admin									1 - 5 of 5
7.11.3 《									

To assign the ECS Agent role group:

a. Click ECS on the ECS cluster home page, select Instances, then click Add Role Instances.

CLOUDERA Manager	152-b883				CDEP Deployment from :	2023-Oct-23 11:55			
Search	● CCS Actions -	Ъ							
邑 Clusters	Status Instances Configuration	n Coi	mmands	Charts	Library Audits Web	UI 👻 Quick Link	.s •		
即 Hosts									
Diagnostics 🔒 This entity is currently running with an outdated configuration. Restart the service (or the instance) for the changes to take effect.									
😰 Audits 🖸 Enter search terms (hostname, host ID, IP address, cluster name, rack, health st: 💽 Filters Last Updated: Dec 13, 7:07:48 PM UTC 🥃									
🗠 Charts			Action	s for Selec	ted 🗸			Add Role Instan	es Role Groups
آت ھ Replication	Filters			0.00.00000					
🚱 Administration	✓ STATUS			Status	Role Type Tags	State	Hostname	Commission State	Role Group
🛆 Data Services New	Good Health 4	4		0	Ecs Agent	Started	dh-centos79- 3.vpc.cloudera.com	Commissioned	Ecs Agent Default Group
	> COMMISSION STATE			0	Ecs Agent	Started	dh-centos79-	Commissioned	Ecs Agent
	> MAINTENANCE MODE						2.vpc.cloudera.com		Default Group
	> RACK ID			0	Ecs Agent	Started	ecst-	Commissioned	Ecs Agent
🛱 Parcels	> ROLE GROUP						1.vpc.cloudera.com		Default Group
🕱 Running Commands	> STATE			0	Ecs Server	Started with Outdated	dh-centos79- 1.vpc.cloudera.com	Commissioned	Ecs Server Default Group
🐯 Support	> HEALTH TEST					Configuration			
A admin									1 - 4 of 4
7.11.3 《									

b. On the Add Role Instances to ECS page, in the Ecs Agent box, click Select hosts.



Important: Be sure to click Select hosts in the Ecs Agent box – do not click the link in the Ecs Server box.

CLOUDERA Manager	Add Role Instances to ECS								
	1 Assign Roles	Assign Roles							
	Z Nevew Granges	You can specify the role assignments for your new roles here. You can also view the role assignments by host. View By Host							
		Ecs Server × 1 Select hosts	Ecs Agent × 3 Select hosts						

c. On the Hosts Selected pop-up, select the new host, then click OK.

Q Er	nter hostnames: host01, IP addresses or	rack					
	Hostname	IP Address	Rack	Cores Physica	al Memory Ex	cisting Roles	Added Roles
	dh-centos79-1.vpc.cloudera.com	10.65.203.160	/default	8	30.8 GiB	🗄 DS 🛛 🛱 ES	
~	dh-centos79-2.vpc.cloudera.com	10.65.194.119	/default	8	30.5 GiB	🗄 DS 🛛 🗘 EA	C EA
~	dh-centos79-3.vpc.cloudera.com	10.65.194.114	/default	8	30.8 GiB	🗄 DS 🛛 🗘 EA	C EA
~	ecst-1.vpc.cloudera.com	10.65.217.129	/default	8	30.8 GiB	🗄 DS 🛛 EA	C EA
~	ecst-2.vpc.cloudera.com	10.65.221.113	/default	8	30.8 GiB	DS DS	C EA
							1 - 5

d. On the Assign Roles page, click Continue.

CLOUDERA Manager	Add Role Instance	es to ECS	nent from 2023-Oct-23 11:55	
	 Assign Roles Review Changes 	Assign Roles You can specify the role assignments for y You can also view the role assignments by Ecs Server × 1 Select hosts	our new roles here. host. View By Host Ecs Agent × (3 + 1 New) ecst-2.vpc.cloudera.com ▼	
 Support admin 				
7.11.3 《		Cancel		← Back Continue →

e. On the Review Changes page, click Finish.

CLOUDERA Manager	Add Role Instance	es to ECS								
 The Parcels X Running Commands Support 	Assign Roles Review Changes 	Review Changes Image: The second s								
7.11.3 «		Cancel	← Back	Finish →						

f. The new host is listed on the ECS Instances page.

CLOUDERA Manager	152-b883				CDEP Deplo	ment from :	2023-Oct-23 11:55				
Search	● CCS Actions -	ப									
号 Clusters	Status Instances Configura	ation Co	ommands	Charts	Library Audit	s Webl	JI 👻 Quick Links	*			
晛 Hosts											
🖸 Diagnostics	Diagnostics										
😰 Audits	💈 Audits 🔍 Enter search terms (hostname, host ID, IP address, cluster name, rack, health stat										
🗠 Charts			Actions	for Selec	ted 🗸				Add Role Instan	ces Role Groups	
Replication آهے	Filters										
🚱 Administration	✓ STATUS			Status	Role Type	Tags	State	Hostname	Commission State	Role Group	
🛆 Data Services New	Good Health Stopped	4 1		•	Ecs Agent		Started	dh-centos79- 3.vpc.cloudera.com	Commissioned	Ecs Agent Default Group	
	> COMMISSION STATE			0	Ecs Agent		Started	dh-centos79-	Commissioned	Ecs Agent	
	> MAINTENANCE MODE			•				2.4pc.cloudera.com			
	> RACK ID			0	Ecs Agent		Stopped	ecst- 2.vpc.cloudera.com	Commissioned	Ecs Agent Default Group	
🛱 Parcels	> ROLE GROUP			0	Ecs Agent		Started	ecst-	Commissioned	Ecs Agent	
E Punning Commande	> ROLE TYPE				Los Agent		Started	1.vpc.cloudera.com	Commissioned	Default Group	
Support	> STATE > HEALTH TEST			0	Ecs Server		Started with	dh-centos79-	Commissioned	Ecs Server	
A admin							Outdated Configuration	1.vpc.cloudera.com		Default Group	
7.11.3 《										1 - 5 of 5	

17. Restart the ECS cluster by clicking the ECS Restart icon, or by selecting Actions > Restart on the ECS cluster home page.

CLOUDERA Manager	● 152-b883 Actions -	CDEP Deployment from 2023-Oct-23 11:55	
Search	Status Health Issues Configuration -		
 Clusters			
면 Hosts	Status	Charts 🖾 Edit Layout	30m 1h 2h 6h 12h 1d 7d 30d ♂▼
☑ Diagnostics	ECS 1.5.2 (Parcels)	Cluster CPU	
🚯 Audits	📀 🧮 4 Hosts	100%	
🗠 Charts	Stale Configuration: Restar	50%	
ھی Replication	• 🛱 ECS • • 2 · U	10:15 10:30	
🚱 Administration	Stale Config	uration: Restart needed -b883, Host CPU Usage Across Hosts 5%	
▲ Data Services (New)	_cldr_cm_ek8s_control_plane=e3645176-6c22-4158-99af-88ead8bf49 _cldr_cm_ek8s_datalake=Cluster 1	Cluster Disk IO 22 22 22 22 22 22 22 22 22 2	
🛱 Parcels			
🕱 Running Commands			

18. Click ECS on the ECS cluster home page, then select Actions > Unseal Vault.

CLOUDERA Manager	152-b883		CDEP Deployn	nent from 2023-Oct-23 11:55
Search	🛑 🛱 ECS	Actions -		📢 30 minutes preceding Dec 12, 10:47 PM UTC 🕨 💓 🕍
ۍ Clusters	Status Instances	Start Stop	ibrary Au.	udits Web UI ← Quick Links ←
睅 Hosts 丞 Diagnostics	Health Tests	Restart Rolling Restart	eate Trigger	Charts 🛛 Edit Layout 30m 1h 2h 6h 12h 1d 7d 30d 🏞
😰 Audits	Kubernetes Health Firing alerts for Kub	Add Role Instances	uppress	Informational Events @
යු Replication	DaemonSet rollout i	Rename	uppress	
Administration	Firing alerts for Lon over 90% of the cap	Delete	ume is me is	10.30 10:45
	over 90% of the cap rollout is stuck., Dae	Enter Maintenance Mode	emonSet stuck.	Important Events and Alerts @
	Show 5 Good	Unseal Vault	or Vault compose	2
	Status Summ	Refresh ECS		
	Ecs Agent	Create Environment S Good Health		Alerts 0 Critical Events 0 Important Events 0
	Ecs Server	I Good Health		
	Hosts	4 Good Health		

Starting, stopping, restarting, and refreshing Embedded Container Service Clusters

Procedures to start, stop, restart, and refresh Private Cloud Experience clusters

Starting a Embedded Container Service Cluster

Procedure

- 1. On the HomeStatus tab, click the Actions Menu to the right of the Embedded Container Service cluster name and select Start.
- 2. Click the Start button that appears in the next screen to confirm. The Command Details window shows the progress of starting services.

Results

When the All services successfully started message appears, the task is complete and you can close the Command Details window.

Stopping a CDP Private Cloud Data Services Cluster

Procedure

- 1. On the HomeStatus tab, click the Actions Menu to the right of the Embedded Container Service cluster name and select Stop.
- **2.** Click the Stop button in the confirmation screen. The Command Details window shows the progress of stopping services.

Results

When the All services successfully stopped message appears, the task is complete and you can close the Command Details window.



Note: The cluster-level Stop action does not stop the Cloudera Management Service. You must stop the Cloudera Management Service separately.

Restarting a Embedded Container Service Cluster

Procedure

- 1. On the HomeStatus tab, click the Actions Menu to the right of the cluster name and select Restart.
- 2. Click the Restart button that appears in the next screen to confirm. The Command Details window shows the progress of stopping services. When the All services successfully started message appears, the task is complete and you can close the Command Details window.
- 3. Click ActionsUnseal Vault

Refreshing a Embedded Container Service Cluster

Procedure

To refresh a cluster, in the HomeStatus tab, click the Actions Menu to the right of the cluster name and select Refresh Cluster.

Monitoring Embedded Container Service Clusters

Procedures to monitor Embedded Container Service clusters Related Information Monitoring Services Monitoring Clusters Docker Server Health Tests ECS Health Tests ECS Agent Health Tests ECS Server Health Tests Docker Server Metrics ECS Agent Metrics ECS Server Metrics

Viewing Health Status

Procedure

- 1. Open the Cloudera Manager Admin Console.
- 2. From the Home page, Click on the Embedded Container Service cluster.
- 3. Click on the ECS or Docker service.

Results

The Service status page displays the Health Test, Status Summary and Health History of the services.

Viewing the Kubernetes Dashboard

About this task

The Kubernetes Dashboard displays configuration and other information about the embedded Kubernetes infrastructure used in the Embedded Container Service cluster. Although you can make configuration changes using the dashboard (if you have the appropriate permissions), you should not make any changes using the dashboard. Cloudera Support may use the dashboard to diagnose problems with the cluster.

Procedure

- 1. In the Cloudera Manager Admin Console, go to the ECS service.
- **2.** Click Web UIECS Web UI

Results

The Kubernetes Dashboard displays.

Viewing the Private Cloud Management Console

Procedure

- 1. In the Cloudera Manager Admin Console, go to the ECS service.
- 2. Click Web UIConsole

Results

The CDP Management Console displays.

Performing maintenance on an Embedded Container Service cluster

You can perform maintenance on the nodes in your ECS cluster by shutting down the nodes one at a time while keeping your Data Services running with slightly diminished capacity.

Before you begin

- The containerized cluster must be configured for ECS Server high availability. Contact Cloudera Professional Services for assistance in setting up high availability.
- You must be able to log into the nodes as root or have sudo privileges.
- The node to be maintained must have a status of Ready. A status of NotReady may suggest the node is having other complicating issues. Run the following command on an ECS server node to verify status of the nodes.

```
/var/lib/rancher/rke2/bin/kubectl --kubeconfig=/etc/rancher/rke2/rke2.yaml
get nodes
```

Procedure

- 1. Inform Kubernetes that it should no longer use this node for any new pods. This process is called cordon and Kubernetes tracks the node status as Ready,SchedulingDisabled.
 - a) Run the following command to list the nodes:

```
/var/lib/rancher/rke2/bin/kubectl --kubeconfig=/etc/rancher/rke2/rke2.ya
ml get nodes
```

b) Run the following command for the node you are taking off line:

/var/lib/rancher/rke2/bin/kubectl --kubeconfig=/etc/rancher/rke2/rke2.ya
ml cordon **node-name**

c) Run the following command to verify the node status shows Ready, Scheduling Disabled:

```
/var/lib/rancher/rke2/bin/kubectl --kubeconfig=/etc/rancher/rke2/rke2.ya
ml get nodes
```

2. Inform Kubernetes to evict this node's Data Services pods and cleanly detach any storage volumes. This allows the pods to be started up on other Ready nodes in the cluster and any replica volumes are migrated. The process is invoked by the drain command:

```
/var/lib/rancher/rke2/bin/kubectl --kubeconfig=/etc/rancher/rke2/rke2.yaml
drain *node-name* --delete-emptydir-data --ignore-daemonsets --pod-select
or='app!=csi-attacher,app!=csi-provisioner,app!=longhorn-admission-webho
ok,app!=longhorn-conversion-webhook,app!=longhorn-driver-deployer'
```

You will see a message

"WARNING: ignoring DaemonSet-managed Pods:....

You can ignore this warning.

You will see repeating messages like this:

```
error when evicting pods/"instance-manager-r-xxxxxxx" -n "longhorn-syst
em" (will retry after 5s): Cannot evict pod as it would violate the pod's
disruption budget.
```

This is normal, after several iterations those pods will be evicted and the drain is completed.

- 3. Log in to the Cloudera Manager Admin Console.
- **4.** Go to the ECS service page and verify that the Vault is not sealed. This information displays in the Health Tests section.
- 5. If the Vault is sealed, click ActionsUnseal Vault.
- **6.** Click the Action menu next to the ECS cluster and select Stop.

- 7. Shutdown ECS roles.
 - a) Click the Instances tab.
 - b) Select the hosts where the ECS Agent role is running and click ActionsStop.
 - c) Select two of the hosts running the ECS Server role is running and click ActionsStop.
- **8.** Perform the maintenance.
- **9.** Reboot the hosts.
- 10. Log in to the Cloudera Manager Admin Console.
- **11.** Click the Action menu next to the ECS cluster and select Start.
- 12. Uncordon the node to start the Data Services by running the following command:

```
/var/lib/rancher/rke2/bin/kubectl --kubeconfig=/etc/rancher/rke2/rke2.yaml
uncordon **node-name**
```

13. Run the following command to verify that the node status is Ready:

```
/var/lib/rancher/rke2/bin/kubectl get nodes
```

14. Click ActionsRefresh ECS Cluster.

Configuring a containerized cluster with SELinux

You can configure a containerized cluster with SELinux to enable it to run the Embedded Container Service (ECS).

Procedure

- 1. Ensure that the hosts you use for the containerized cluster meet all hardware and software requirements for use with CDP Private Cloud Data Services.
- 2. Enable SELinux in Permissive mode by updating the /etc/selinux/config file on all ECS hosts by running the following commands:

```
sed -i 's/SELINUX=disabled/SELINUX=permissive/' /etc/selinux/config
reboot
```

3. Add the SELinux policies provided by RKE2 by installing the RPMs on all ECS hosts. Use the following commands:

```
yum localinstall -y http://mirror.centos.org/centos/7/extras/x86_64/Pack
ages/container-selinux-2.107-3.el7.noarch.rpm
wget https://github.com/rancher/rke2-selinux/releases/download/v0.8.stable
.2/rke2-selinux-0.8-2.el7.noarch.rpm
yum install -y rke2-selinux-0.8-2.el7.noarch.rpm
```

4. Uninstall the nscd service by running the following command on all ECS hosts :

yum erase -y nscd

- 5. Install a containerized cluster on all hosts. See Adding a CDP Private Cloud Data Services cluster.
- 6. Enable SELinux in Enforced mode by running the following commands on all ECS hosts:

setenforce 1

You can confirm that SELinux is running in Enforced mode by running the following command:

getenforce

- 7. Verify that the ECS cluster hosts are sending heartbeats to the Cloudera Manager server.
 - a) Open the Cloudera Manager Admin Console.
 - b) Click Hosts All Hosts .
 - c) Check the Last Heartbeat column for heartbeat status.
- 8. Verify that your workloads are functioning as expected.

Decommissioning ECS Hosts

You can decommission ECS hosts and remove them from the cluster.

About this task

1. Cordon the node. Longhorn will automatically disable the node scheduling when a Kubernetes node is cordoned. Run the following command on any ECS Server host:

kubectl cordon [***node***]

2. Drain the node to move the workload to somewhere else. Run the following command on any ECS Server host:

```
kubectl drain [***node***] --ignore-daemonsets --pod-selector='app!=csi-at
tacher,app!=csi-provisioner' --delete-emptydir-data
```

3. Detach all the volumes on the node. Navigate to the ECS Service page on Cloudera Manager UI.

a. In the Web UI dropdown, select Storage UI to open the Longhorn UI.

b. Under the Volume tab in Longhorn UI, select the volumes on this node. Click Detach and select Yes on the screen prompt.

If the node has been drained, all the workloads should be migrated to another node already.

If there are any other volumes remaining attached, detach them before continuing.

4. Remove the node from Longhorn using the Delete in the Node tab. Or, remove the node from Kubernetes. Run the following command on any ECS Server host:

kubectl delete node [***node-name***]

Longhorn will automatically remove the node from the cluster.

5. Uninstall ECS and Docker artifacts from the host. Run below commands on the host:

```
cd /opt/cloudera/parcels/ECS/bin
./rke2-killall.sh # usually 2 times is sufficient
./rke2-uninstall.sh
rm -rf /ecs/* # assumes the default defaultDataPath and lsoDataPath
rm -rf /var/lib/docker_server/* # deletes the auth and certs
rm -rf /etc/docker/certs.d/* # delete the ca.crt
rm -rf /docker # assumes the default defaultDataPath for docker
```

6. Go to the Hosts page for the ECS Cluster, select that host, and under Actions for Selected, click Begin Maintenance (Suppress Alerts/Decommission)

Dedicating ECS nodes for specific workloads

You use Cloudera Manager to dedicate Embedded Container Service (ECS) cluster nodes for specific workloads. You can dedicate GPU nodes for CML workloads, and NVME nodes for CDW workloads.

Dedicating ECS nodes when creating a new cluster

- 1. Check the ECS installation requirements.
- 2. Add the new hosts to Cloudera Manager.
- 3. In Cloudera Manager, click Hosts > All Hosts, then select one or more of the new ECS hosts.
- 4. Click the Configuration tab, then use the Search box to locate the node_taint configuration property.
- 5. Select Dedicated GPU Node to dedicate the node for CML workloads, or select Dedicated NVME node to dedicate the node for CDW workloads.

When either of these options are selected, no other workload pods will be allowed to run on the dedicated node.

CLOUDERA Manager	Hosts Configura	tion	CDEP Deployment from	1 2023-5ep-20 08:24	
Search	Q node taint				C Filters History & Rollback
臣 Clusters					
 興 Hosts	Filters				Show All Descriptions
✓ Diagnostics	✓ SCOPE		Data Services: Restrict workloads types	Dedicated GPU Node Opedicated NVME Node	0
😰 Audits	All Hosts	1	© node_taint	○ None	
<mark>⊿</mark> Charts	✓ CATEGORY			C Undo	
ح ے Replication	Advanced	1			1 - 1 of 1
🔅 Administration	Parcels Resource Management	0			
🛆 Data Services New	✓ STATUS				
	ErrorWarning	0			
	I Edited I Mon-Default	1 1			
	ل Include Overrides	0			
🕱 Running Commands					
🐯 Support					
A admin					
7.11.3 《	1 Edited Value Reason for cha	nge: Mod	lified Data Services: Restrict worklo	oads types	Save Changes(CTRL+S)

- 6. Click Save Changes.
- 7. Repeat the previous steps to add the other ECS hosts to Cloudera Manager and assign workload types.
- **8.** Follow the ECS installation procedure. When you reach the Specify Hosts page in the installation wizard, the hosts you added to Cloudera Manager appear. Select the hosts, click Continue, then proceed through the rest of the installation wizard.
- 9. After the installation is complete, the applicable workloads will only run on the specified dedicated nodes.

Dedicating ECS nodes in an existing cluster

- 1. Open the Cloudera Manager Admin Console.
- **2.** On the Home page, click the ECS Cluster.
- 3. Click Hosts, select one or more of the ECS hosts, then click the Configuration tab.
- 4. Click the Configuration tab, then use the Search box to locate the node_taint configuration property.

5. Select Dedicated GPU Node to dedicate the node for CML workloads, or select Dedicated NVME node to dedicate the node for CDW workloads.

When either of these options are selected, no other workload pods will be allowed to run on the dedicated node.

	Hosts Configurat	on	CDEP Deployment from	1 2023-Seb-20 08:23	
Crearch	Ŭ				
Search	Q node_taint				C Filters History & Rollback
臣 Clusters					
 興 Hosts	Filters				Show All Descriptions
			Data Services: Restrict	Dedicated GPU Node	0
M Diagnostics	V SCOPE		© node_taint	Dedicated NVME Node	
😰 Audits	All Hosts	1		⊖ None	
🗠 Charts	✓ CATEGORY			O Undo	
-7 Replication	Advanced	1		Add Host overhues	
E. Replication	Monitoring	0			1 - 1 of 1
🐼 Administration	Resource Management	0			
🛆 Data Services New	STATUS				
	V STATUS				
	S Error	0			
	F Edited	1			
	* Non-Default	1			
	Include Overrides	0			
🛱 Parcels					
🕱 Running Commands					
Support					
A admin					
7.11.3 《	1 Edited Value Reason for chang	e: Modif	ied Data Services: Restrict workl	oads types	Save Changes(CTRL+S)

- 6. Click Save Changes.
- 7. Repeat the previous steps to assign workload types to the other ECS hosts.
- 8. On the ECS Cluster landing page, click Actions > Refresh Cluster.
- 9. After the Refresh is complete, click Actions > Rolling Restart.

Specifying racks for ECS clusters

You use Cloudera Manager to assign Embedded Container Service (ECS) cluster hosts to a specific rack.

About this task

- All hosts in an ECS cluster must have the same assigned rack name and path structure. A configuration error will occur if the rack names do not match.
- ECS cluster hosts with no specified rack name are assigned the default rack name value. The default value means that no rack name has been specified for the ECS cluster hosts.

Specifying a rack name for an ECS cluster

1. In Cloudera Manager, select the ECS cluster, then click Hosts.

2. In the Hosts list, click the top checkbox to select all of the cluster hosts.

CLOUDERA Manager	152-b813		CDEF	P Deployment from 2023-Sep-26	08:29			Cus
Search	Hosts Configuration Ac	ld Hosts	Review U	Jpgrade Status Inspect	t Hosts in Cluster	Inspect Clus	ter Network	< Performance
臣 Clusters								
睅 Hosts	Q Search Image: Filters Last Updated: Oct 1, 7:41:54 PM UTC Image: Columns: 11 Selected Filters Actions for Selected (3) + Columns: 11 Selected Status Name IP Roles Tags Commission Selected Social Health 3 CLUSTERS Image: Columns: 10.65.194.34 2 Roles Commission Selected CORES Commission STATE Image: Columns: 20.3, specific co		:54 PM UTC 🤁					
☑ Diagnostics	Filters	Act	ions for Sele	cted (3) -			Column	s: 11 Selected -
😰 Audits	× STATUS		Status	Name	IP	Roles	Tags	Commission Stat
🗠 Charts	© Good Health 3		•	dh-centos79-1.vpc.cloude	era.com 10.65.201	209 2 Roles		Commissioned
ピ ^コ Replication	> CLUSTERS		•	dh-centos79-2.vpc.cloud	era.com 10.65.194	34 2 Roles		Commissioned
😥 Administration	> CORES		•	dh-centos79-3.vpc.cloude	era.com 10.65.200	38 2 Roles		Commissioned
🛆 Data Services New	> COMMISSION STATE							1 - 3 of 3
	> LAST HEARTBEAT							
	> LOAD (1 MINUTE)							
	> LOAD (5 MINUTES)							
	> LOAD (15 MINUTES)							
	> MAINTENANCE MODE							
	> UPGRADE DOMAIN							
	> RACK							
	> SERVICE							

3. Click Actions for Selected, then click Assign Rack.

CLOUDERA Manager	152-b813		CDEP Deployment from 2023-Sep-26 08:29				
Search	Hosts Configuration	Add H	Hosts Review Upgrade Status Inspect Hosts in Clust	er In	nspect Clust	er Network F	Performance
문 Clusters							
₽₽ Hosts	Q Search		Filters	Las	st Updated:	Oct 1, 7:47:5	4 PM UTC 🔁
☑ Diagnostics	Filters		Actions for Selected (3) -			Columns:	11 Selected -
😰 Audits			Assign Rack		Roles	Tags	Commission Stat
🗠 Charts	✓ STATUS	2	Assign Upgrade Domain	.201.209	2 Roles		Commissioned
ہے Replication	Good Health	3	Regenerate Keytab	.194.34	2 Roles		Commissioned
Administration	> CLUSTERS		Apply Host Template	.200.38	2 Roles		Commissioned
C Data Services New	> COMMISSION STATE		Start Roles on Hosts				1 - 3 of 3
	> LAST HEARTBEAT		Stop Roles on Hosts				
	> LOAD (1 MINUTE)						
	> LOAD (5 MINUTES)		End Maintenance (Suppress Alerts/Decommission)				
	> LOAD (15 MINUTES)		End Maintenance (Enable Alerts/Recommission)				
	> MAINTENANCE MODE		Edit Tags				
	> UPGRADE DOMAIN						
	> RACK		Remove From Cluster				
	> SERVICE		Remove From Cloudera Manager				

4. On the Assign Rack popup, enter a rack name in the New Rack box, then click Confirm.

CLOUDERA Manager	152-b813		CDEP Deployment	from 2023-Sep-26 08:29				
Search	Host	Assign Rack		×	ster Ir	spect Clus	ter Network F	erformance
🖶 Clusters								
민민 Hosts	Q Search	Host		Current Rack	La	st Updated:	Oct 1, 7:55:5	4 PM UTC 🔁
Diagnostics	Filter	dh-centos79-[1-3].vpc.clc	oudera.com	/default			Columns:	11 Selected -
😰 Audits	✓ STA	New Rack	/testcab2/rack3]		Roles	Tags	Commission Stat
🗠 Charts	♥ Gr		Dealerson and also have sented	identificant liter their method	5.201.209			Commissioned
حم ا Replication	> CLUS		For example, "/rack1" and "/cabir	net3/rack4" are both valid.	5.194.34			Commissioned
😥 Administration	> CORI		Changing the rack configuration	might result in a transient	5.200.38			Commissioned
🛆 Data Services New	> COM > LAST		state of mis-replicated blocks in are correctly placed using this ne	HDFS until the old blocks w rack configuration.				
	> LOAE > LOAE > LOAE		Ca	ncel Confirm				
	> MAINTI	ENANCE MODE						
	> UPGRA	DE DOMAIN						
	> RACK							
	> SERVIC	E						

5. Cloudera Manager detects this configuration change, and displays a Stale Configuration warning. You must restart the cluster in order for the updated configuration to take effect.

CLOUDERA Manager	● 152-b813 Actions -	CDEP Deployment from 2023-Sep-26 08:29
Search	Status Health Issues Configuration -	
뮫 Clusters		
睅 Hosts	Status	Charts ⊠ Edit Layout 30m 1h 2h 6h 12h 1d 7d 30d 2マ
🐼 Diagnostics	ECS 1.5.2 (Parcels)	Cluster CPU
😰 Audits	S 🗮 3 Hosts	ti live
🗠 Charts	Stale Configuration: Resta	t 20 50%
ළු Replication	🔴 🛱 ECS 🛛 🔒 1 🖖	07:45
🚱 Administration	Stale Config	uration: Restart needed b813, Host CPU Usage Across Hosts 4.6%
🛆 Data Services New	Tays	Cluster Disk IO
	_cldr_cm_ek8s_control_plane=6060a72c-eed1-4915-8b8c-ad0a8eca3 _cldr_cm_ek8s_datalake=Cluster 1	63 07:45
		Total Disk Byt 25.6K/s Total Disk Byte 1.5M/s
		Cluster Network IO
		Pege 2.9M/8 1.9M/8 eg 977K/8 07:45
Parcels		Total Bytes Rec 3.1M/s Total Bytes Tra 3.7M/s
🕱 Running Commands		
🕲 Support		

6. Click the Stale Configuration icon, then click Restart Stale Services and click through the Restart wizard.



7. When the Restart is complete, you can use the Assign Rack popup to confirm that the new rack name has been applied to the ECS cluster hosts.

CLOUDERA Manager	152-b813		CDEP Deplo	yment from 2023	-Sep-26 08:29				
Search	Hosts	Assign Rack			×	Cluste	r Insp		Network Performance
🗄 Clusters									
興 Hosts	Q Search	Host		Current Rack			Last U	Ipdated: Oo	ct 2, 3:58:12 PM UTC 🥃
⊡ Diagnostics	Filters	dh-centos79-[1-3].vpc.cld	oudera.com	/testcab2/ra	ick3				Columns: 11 Selected -
🐻 Audits	✓ STATUS	New Rack					Roles	Tags	Commission State
🗠 Charts	🕑 Good I					1.209			Commissioned
ප් ^ධ Replication	> CLUSTE		Rack names are slash-sepa For example, "/rack1" and "/	rated identifiers cabinet3/rack4	s, like Unix paths. 1" are both valid.	4.34			Commissioned
🔅 Administration	> CORES		Changing the rack configure	tion might resu	ult in a transient	0.38			Commissioned
🛆 Data Services New	> COMMIS		state of mis-replicated bloc	ks in HDFS unti	il the old blocks				
	> LAST HE		are correctly placed using the	nis new rack co	nfiguration.				
	> LOAD (1								
	> LOAD (5			Cancel	Confirm				
	> LOAD (1			ounder	0011111				
	> MAINTENA	NCE MODE							
	> UPGRADE I	OMAIN							
	> RACK								

8. You can also use the ECS Web UI to view cluster hose rack assignments. Select the ECS cluster, click ECS, then click Web UI > ECS Web UI . In the Web UI, select the CDP namespace, then click Nodes.

Note that in Kubernetes periods are used as separators (rather than slashes) in the rack name path. The leading slash is also not used in Kubernetes.

🛞 kubernetes	cdp – Q	Search					+	٠	θ
≡ Cluster > Nodes									
Daemon Sets									
Deployments	Nodes								
Jobs			CPU	CPU limits	CPU	Memory	Memory	Memory	
Pods	Name	Labels	Ready requests (cores)	(cores)	capacity (cores)	requests (bytes)	limits (bytes)	capacity (bytes)	Pods
Replica Sets		beta.kubernetes.io/arch: amd 64							
Replication Controllers		beta.kubernetes.io/os: linux							
Stateful Sets		kubernetes.io/arch: amd64							39 (7.8
Service	dh-centos79-3.vpc.cloudera.cor	n kubernetes.io/hostname: dh-	6.07 True (75.91%)	6.95	8.00	8.82Gi	29.13Gi	30.81Gi	
Ingresses N		centos79-3.vpc.cloudera.com	(75.81%)	(80.88%)		(28.01%)	(94.54%)		
Ingress Classes		kubernetes.io/os: linux							
Services N		rack: testcab2.rack3							
Config and Storage		Show less							
Config Mans		beta.kubernetes.io/arch: amd 64							
Persistent Volume Claims		beta.kubernetes.io/os: linux							
Secrets		kubernetes.io/arch: amd64							
Storage Classes	dh-centos79-2.vpc.cloudera.cor	h kubernetes.io/hostname: dh-	True 7.92 (99.01%)	7.55 (94.38%)	8.00	13.78Gi (45.21%)	28.98Gi (95.07%)	30.48Gi	48 (9.6
Cluster		kuborpotos io/os: linux							
Cluster		kubernetes.io/os. iniux							
Cluster Role Bindings		rack: testcad2.rack3							
Cluster Roles		beta.kubernetes.io/arch: amd							
Events N		64							
Namespaces		beta.kubernetes.io/os: linux							
Network Policies N		ecs_role: master							
Nodes		kubernetes.io/arch: amd64							
Persistent Volumes		kubernetes.io/hostname: dh- centos79-1.vpc.cloudera.com							
Role Bindings N	dh-centos79-1.vpc.cloudera.cor	kubernetes.io/os: linux	True 7.97	11.35	8.00	11.36Gi (36.88%)	29.85Gi (96.90%)	30.81Gi	57 (11.40)
Service Accounts N		node-role.kubernetes.io/contr ol-plane: true	(55.00.0)	(111.00.0)		(00.00.0)	(50.50.0)		(11.10
Custom Resource Definitions		node-role.kubernetes.io/etc d: true							
Settings		node-role.kubernetes.io/mast er: true							
464		rack: testcab2.rack3							
About		Show less							_

Specifying a rack name when creating a new ECS cluster

Currently the ECS installation wizard does not enable you to assign rack names when creating a new ECS cluster. Therefore, you should first add the new set of ECS hosts to Cloudera Manager, and then assign the rack name in Cloudera Manager. You can then use the ECS installation wizard to create a new ECS cluster using these hosts.

- 1. Check the ECS installation requirements.
- 2. Add the new hosts to Cloudera Manager.

3. In Cloudera Manager, click Hosts > All Hosts, then select the hosts you just added.

CLOUDERA Manager	Home		l	CDEP Deployme	nt from 2023-Sep-26 08:29				
Search	All Hosts	Configu	uration	Add Hosts	Review Upgrade Status	Inspect All Host	ts Insp	ect Network F	Performance
뛷 Clusters									
興 Hosts	Q Search				Filters	La	ist Updated	: Oct 2, 8:03:0	IS PM UTC 🥑
抷 Diagnostics	Filters	Action	ns for Sele	cted (3) 🗸				Columns:	11 Selected -
🔞 Audits			Status	Name		IP	Roles	Tags	Commission State
🛃 Charts	© Good Health 9		0	dh-centos79	-1.vpc.cloudera.com	10.65.201.209	2 Roles		Commissioned
Replication آج	> CLUSTERS		۲	dh-centos79	-2.vpc.cloudera.com	10.65.194.34	2 Roles		Commissioned
🔅 Administration	> CORES		۲	dh-centos79	-3.vpc.cloudera.com	10.65.200.38	2 Roles		Commissioned
🛆 Data Services New	> COMMISSION STATE		0	dh-centos79	t-1.vpc.cloudera.com	10.65.199.15			Commissioned
	> LAST HEARTBEAT		0	dh-centos79	t-2.vpc.cloudera.com	10.65.205.101			Commissioned
	> LOAD (1 MINUTE)		0	dh-centos79	t-3.vpc.cloudera.com	10.65.200.0			Commissioned
	> LOAD (5 MINUTES)	Π	0	dhoyle7113	18-1.dhoyle711318.root.hwx.site	172.27.173.77	55 Roles		Commissioned
	> MAINTENANCE MODE		0	dboyle7113	18-2 dboyle711318 root hwy site	172 27 76 66	23 Poles		Commissioned
	> UPGRADE DOMAIN			unoyierris	10 2.diloyie/11010.tottinwx.site	172.27.70.00	23 10163		commissioned
	> RACK		v	dhoyle/113	18-3.dhoyle/11318.root.hwx.site	172.27.203.76	18 Roles		Commissioned
	> SERVICE								1 - 9 of 9

4. Click Actions for Selected, then click Assign Rack.

CLOUDERA Manager	152-b813		CDEP Deployment from 2	023-Sep-26 08:29				
Search	Hosts Configuration	Add H	Review Upgrade Status	Inspect Hosts in Clust	er Ir	nspect Clust	er Network	Performance
뮫 Clusters								
 叩 Hosts	Q Search			Filters	La	st Updated:	Oct 1, 7:47:	54 PM UTC 🖸
☑ Diagnostics	Filters		Actions for Selected (3) -				Columns	11 Selected -
😰 Audits			Assign Rack			Roles	Tags	Commission Stat
🗠 Charts	STATUS	3	Assign Upgrade Domain		.201.209	2 Roles		Commissioned
Replication آهي		0	Regenerate Keytab		.194.34	2 Roles		Commissioned
🚱 Administration	> CORES		Apply Host Template		.200.38	2 Roles		Commissioned
🛆 Data Services New	> COMMISSION STATE		Start Roles on Hosts					1 - 3 of 3
	> LAST HEARTBEAT		Stop Roles on Hosts					
	> LOAD (1 MINUTE)		Begin Maintenance (Suppress A	lerts/Decommission)				
	> LOAD (5 MINUTES)		End Maintenance (Enable Alerts	(Recommission)				
	> LOAD (15 MINUTES)			, Recontinuedicity				
	> MAINTENANCE MODE		Edit Tags					
	> UPGRADE DOMAIN							
	> RACK		Remove From Cluster					
	> SERVICE		Remove From Cloudera Manage	er.				

5. On the Assign Rack popup, enter a rack name in the New Rack box, then click Confirm.

CLOUDERA Manager	Home		L	CDEP Deployment fro	om 2023-Sep-26 08:29				
Search	All Host	Assign Rack			×	Inspect All Host		ct Network	Performance
E Clusters									
叩 Hosts	Q Search	Host			Current Rack	La		Oct 2, 8:07:	DS PM UTC 2
- Iniagnostics	Filters	dh-centos79t-[1-3].vpc.c	loudera.com		/default			Columns	11 Selected +
Audits	✓ STATUS	New Rack	/testcab2/rack4	4		IP	Roles	Tags	Commission State
🖂 Charts	Sood He		Pack names are	slash-senarated id	antifiare like l Iniv nathe	10.65.201.209			Commissioned
ය ^ත Replication	> CLUSTER		For example, */ra	ick1" and "/cabinet	3/rack4" are both valid.	10.65.194.34			Commissioned
😥 Administration	> CORES		Changing the rac	k configuration mi	abt result in a transient	10.65.200.38			Commissioned
🛆 Data Services New	> COMMISS		state of mis-repli	icated blocks in HE	FS until the old blocks	10.65.199.15			Commissioned
	> LAST HEA		are concerty place	sed using this new	ack configuration.	10.65.205.101			Commissioned
	> LOAD (5 N					10.65.200.0			Commissioned
	> LOAD (15			Canc	el Confirm	172.27.173.77			Commissioned
	> MAINTENAN	CEMODE			dhoyle711318.root.hwx.site	172.27.76.66			Commissioned
	> UPGRADE DO	MAIN			dhoyle711318.root.hwx.site	172.27.203.76			Commissioned
	> RACK								
	> SERVICE								

6. Follow the ECS installation procedure. When you reach the Specify Hosts page in the installation wizard, the hosts you added to Cloudera Manager appear. Select the hosts, click Continue, then proceed through the rest of the installation wizard.

CLOUDERA Manager	Add Private Clou	d Conta	inerized Cluster	m 2023-Sep-26 08:29			
	Catting Ctarted						
	Getting Started	Specif	fv Hosts				
	Cluster Basics	opeen					
	(3) Specify Hosts	Currently	Managed Hosts (3/3 Selected)	New Hosts			
	Ú.	These hos	sts do not belong to any clusters. S	elect some to form your	cluster.		
	4 Assign Roles	и на	ostname (FQDN) ↑	IP Address	Rack	Version	Cores
	5 Configure Docker Repository	dł	h-centos79t-1.vpc.cloudera.com	10.65.199.15	/testcab2/rack4	None	8
		dł	h-centos79t-2.vpc.cloudera.com	10.65.205.101	/testcab2/rack4	None	8
	6 Configure Data Services	dł 🔽	h-centos79t-3.vpc.cloudera.com	10.65.200.0	/testcab2/rack4	None	8
	7 Configure Databases						1 - 3 of 3
	8 Install Parcels						
	9 Inspect Cluster						
	10 Install Data Services						
	11 Summary						
🛱 Parcels							
🕱 Running Commands							
Support							
(A) admin							
7.11.3 《		Cance	2		[← Back C	ontinue →

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7. After the installation is complete, you can use the Assign Rack popup or the ECS Web UI to view the rack assignments for the ECS cluster hosts.

CLOUDERA Manager	152-b813t		CDEP Deplo	yment from 2023	-Sep-26 08:29				
Search	Hosts	Assign Rack			×	in Cluster		ster Network Performa	nce
── Clusters	Q Search	Host		Current Rack	s		Last Updated	d: Oct 2, 9:38:58 PM UT	c 😦
5月 Hosts 		dh-centos79t-[1-3].vpc.c	loudera.com	/testcab2/ra	ack4			Columns: 11 Sele	cted 🗸
🔁 Audits	Filters	New Rack				Roles	Tags	Commission State	Las
🛃 Charts	© Good He		Destaurantestaura		- Illes Dates addes	.15 2 Roles		Commissioned	
ح ے Replication	> CLUSTERS		For example, "/rack1" and "	rated identifier (cabinet3/rack4	s, like Unix paths. 4" are both valid.	.101 2 Roles		Commissioned	
🔅 Administration	> CORES		Changing the rack configur	ation might res	ult in a transient	.0 2 Roles		Commissioned	
🛆 Data Services New	> COMMISS		state of mis-replicated bloc are correctly placed using t	ks in HDFS unt his new rack co	il the old blocks onfiguration.				
	> LOAD (1 M > LOAD (5 M > LOAD (15			Cancel	Confirm				
	> MAINTENANC	EMODE							
	> UPGRADE DO	MAIN							
	> SERVICE								

le kubernetes	cdp 👻	Q Search							+	¢	θ
Daemon Sets Deployments	Nodes										Ŧ
Jobs Pods	Name	Labels	Ready	CPU requests (cores)	CPU limits (cores)	CPU capacity (cores)	Memory requests (bytes)	Memory limits (bytes)	Memor capacit (bytes)	/ y F	Pods
Replica Sets		beta.kubernetes.io/arch: amd 64									
Replication Controllers Stateful Sets		beta.kubernetes.io/os: linux kubernetes.io/arch: amd64									
Service	• dh-centos79t- 2.vpc.cloudera.com	kubernetes.io/hostname: dh- centos79t-2.vpc.cloudera.co m	True	7.44 (93.03%)	5.10 (63.75%)	8.00	26.18Gi (85.88%)	21.64Gi (70.99%)	30.48G	4	49 (9.80%)
Ingresses N Ingress Classes Services N		kubernetes.io/os: linux rack: testcab2.rack4 Show less									
Config and Storage Config Maps (N) Persistent Volume Claims (N) Secrets (N) Storage Classes Cluster Cluster Role Bindings Cluster Roles	 dh-centos79t- 3.vpc.cloudera.com 	beta.kubernetes.io/arch: amd 64 beta.kubernetes.io/os: linux kubernetes.io/arch: amd64 kubernetes.io/arch: amd64 kubernetes.io/arch: amd64 kubernetes.io/os: linux rack: testcab2.rack4 Show less	True	7.62 (95.26%)	8.35 (104.38%)	8.00	10.48Gi (34.40%)	36.83Gi (120.83%)	30.48G	5	52 (10.40%)
Events N Namespaces Network Policies N Nodes Persistent Volumes Role Bindings N Roles N Service Accounts N Custom Resource Definitions	 dh-centos79t- 1.vpc.cloudera.com 	beta.kubernetes.io/arch: amd 64 beta.kubernetes.io/as: linux ecs_role: master kubernetes.io/arch: amd64 kubernetes.io/hostname: dh- centos79t-1.vpc.cloudera.co m kubernetes.io/os: linux node-role.kubernetes.io/etc d: true node-role.kubernetes.io/etc d: true rack: testcab2.rack4	True	6.40 (79.94%)	9.40 (117.50%)	8.00	8.91Gi (28.93%)	25.66Gi (83.30%)	30.81G	2	47 (9.40%)

Adding a host to an ECS cluster with a previously specified rack name

When you add a host directly to an ECS cluster, there is no way to specify a rack name for the new host, so it will be assigned the default rack name. A configuration error will occur if you try to add a new host directly to an ECS cluster with a previously specified rack name, since the default rack name of the new host does not match the rack name previously assigned to the other cluster hosts.

Therefore, you should first add the new ECS host to Cloudera Manager, and then use Cloudera Manager to assign the same rack name as the other ECS cluster hosts to the new host. You can then add the new host to the ECS cluster.

1. Check the ECS installation requirements.

2. Add the new hosts to Cloudera Manager. You can also access the Add Hosts wizard by clicking Hosts in the ECS cluster, and then clicking Add Hosts. Select Add hosts to Cloudera Manager.

CLOUDERA Manager	Add Hosts	CDEP Deployment from 2023-Sep-26 08:29
		The Add Hosts Wizard allows you to install the Cloudera Manager Agent on new hosts. You can either keep the new hosts available to be added to a cluster in the future, or you can add new hosts to an existing cluster Add hosts to Cloudera Manager You can use these hosts later to create new clusters or expand existing clusters. Add hosts to Cluster 152-b813t
 Parcels Running Commands Support admin 		
7.11.3 《		← Back Continue →

3. In Cloudera Manager, click Hosts, then select the host you just added.

CLOUDERA Manager	Home				CDEP Deployment from 2023-Sep-26 08:29			
Search	All Hosts		Config	uration	Add Hosts Review Upgrade Status	Inspect All Ho	sts Inspect N	letwork Performance
臣 Clusters								
興 Hosts	Q Search				Filters	L	.ast Updated: Oct	3, 6:16:28 PM UTC 2
☑ Diagnostics	Filters		Actions	for Seleo	sted (1) ▼		C	Columns: 11 Selected -
😰 Audits	× STATUS			tatus	Name	IP	Roles Tags	Commission State
<mark>⊿</mark> Charts	C Good Health	10		0	dh-centos79-1.vpc.cloudera.com	10.65.201.209	2 Roles	Commissioned
طع Replication	> CLUSTERS			۲	dh-centos79-2.vpc.cloudera.com	10.65.194.34	2 Roles	Commissioned
🔅 Administration	> CORES			0	dh-centos79-3.vpc.cloudera.com	10.65.200.38	2 Roles	Commissioned
🛆 Data Services New	> COMMISSION STATE			0	dh-centos79a-1.vpc.cloudera.com	10.65.192.56		Commissioned
	> LAST HEARTBEAT			•	dh-centos79t-1.vpc.cloudera.com	10.65.199.15	2 Roles	Commissioned
	> LOAD (1 MINUTE)			۲	dh-centos79t-2.vpc.cloudera.com	10.65.205.101	2 Roles	Commissioned
	> LOAD (15 MINUTES)			0	dh-centos79t-3.vpc.cloudera.com	10.65.200.0	2 Roles	Commissioned
	> MAINTENANCE MODE			0	dhoyle711318-1.dhoyle711318.root.hwx.site	172.27.173.77	55 Roles	Commissioned
	> UPGRADE DOMAIN			•	dhoyle711318-2.dhoyle711318.root.hwx.site	172.27.76.66	23 Roles	Commissioned
	> RACK			۲	dhoyle711318-3.dhoyle711318.root.hwx.site	172.27.203.76	18 Roles	Commissioned
								1 - 10 of 10

4. Click Actions for Selected, then click Assign Rack.

CLOUDERA Manager	Home	CDEP Deployment from 2023-Sep-26 08:29	
Search	All Hosts	Configuration Add Hosts Review Upgrade Statu	Inspect All Hosts Inspect Network Performance
号 Clusters			
叩 Hosts	Q Search	C Filters	Last Updated: Oct 3, 6:21:58 PM UTC 🤤
🔀 Diagnostics	Filters	Actions for Selected (1) -	Columns: 11 Selected -
🔞 Audits		Assign Rack	IP Roles Tags Commission State
└↗ Charts	Scood Health	Assign Upgrade Domain	10.65.201.209 2 Roles Commissioned
ہے Replication		Regenerate Reytab	10.65.194.34 2 Roles Commissioned
🔅 Administration	> CORES	Apply Host Template	10.65.200.38 2 Roles Commissioned
🛆 Data Services New	> COMMISSION STATE	Start Roles on Hosts	10.65.192.56 Commissioned
	> LAST HEARTBEAT	Stop Roles on Hosts	10.65.199.15 2 Roles Commissioned
	> LOAD (1 MINUTE)	Begin Maintenance (Suppress Alerts/Decommission)	10.65.205.101 2 Roles Commissioned
	> LOAD (5 MINUTES)	End Maintenance (Enable Alerts/Recommission)	10.65.200.0 2 Roles Commissioned
	> MAINTENANCE MODE	Edit Tags	172.27.173.77 55 Roles Commissioned
	> UPGRADE DOMAIN		172.27.76.66 23 Roles Commissioned
	> RACK	Remove From Clouders Manager	172.27.203.76 18 Roles Commissioned
	> SERVICE	Kentove From bloddera Manager	1 - 10 of 10

5. On the Assign Rack popup, enter the same rack name assigned to the other ECS cluster hosts in the New Rack box, then click Confirm.

CLOUDERA Manager	Home			CDEP Deployment	rom 2023-Sep-26 08:29				
Search	All Hosts	Assign Rack			×	Inspect Al		Inspect Netw	vork Performance
E Clusters									
即 Hosts	Q Search	Host			Current Rack		Last Upo	dated: Oct 3, 6	:25:58 PM UTC 2
💀 Diagnostics	Filters	dh-centos79a-1.vpc.clou	idera.com		/default			Colu	mns: 11 Selected 🗸
🛃 Audits	✓ STATUS	New Rack	/testcab2/	rack3			Roles	Tags	Commission State
<u>∽</u> Charts	🗢 Good Hea					55.201.209			Commissioned
Replication	> CLUSTERS		Rack names For example	are slash-separated , "/rack1" and "/cabin	dentifiers, like Unix path et3/rack4" are both valid	s. . 55.194.34			Commissioned
🔅 Administration	> CORES		Changing th	o rock configuration r	aight regult in a transient	55.200.38			Commissioned
🛆 Data Services New	> COMMISSI		state of mis-	replicated blocks in F	IDFS until the old blocks	55.192.56			Commissioned
	> LAST HEAR		are correctly	placed using this new	v rack configuration.	55.199.15			Commissioned
	> LOAD (1 M					55.205.101			Commissioned
	> LOAD (5 M			Car	Confirm	55.200.0			Commissioned
	> MAINTENANO	CE MODE		dhovle711318-1.dh	ovle711318.root.hwx.site	172.27.173.77			Commissioned
	> UPGRADE DO	MAIN				172 27 76 66			Commissioned
	> RACK					172.27.70.00			Commissioned
	> SERVICE				oyle711318.root.hwx.site	172.27.203.76			Commissioned

6. In the ECS cluster, click Hosts, then click Add Hosts. Select Add hosts to Cluster, then click Continue.



7. On the Specify Hosts page, select the new host, then click through the rest of the Add Hosts wizard.

CLOUDERA Manager	Add Hosts		CDEP Deployment	t from 2023-Sep-26 08:29			
	 Specify Hosts Install Parcels 	Spe	cify Hosts	New Hosts			
	3 Inspect Hosts	These	hosts do not belong to any clusters.	Select some to form your c	luster.		
	(4) Select Host Template		Hostname (FQDN) ↑	IP Address	Rack	Version	Cores
	5 Deploy Client Config		dh-centos79a-1.vpc.cloudera.com	10.65.192.56	/testcab2/rack3	None	8
 Parcels Running Commands 							
🛞 Support							
A admin							
7.11.3 《		Ca	incel			← Back	Continue →

8. After the Add Host wizard is completed, the new host appears on the ECS cluster Hosts page.

CLOUDERA Manager	152-b813				CDEP Deployment from 2023-Sep-26	08:29			
Search	Hosts	Configur	ation	Add Hosts	s Review Upgrade Status I	nspect Hosts in	Cluster	Inspect Cluster Network Perf	ormance
号 Clusters									
與 Hosts	Q Search				C Filters			Last Updated: Oct 3, 6:56:46 P	м итс 🙎
☑ Diagnostics	Filters		Acti	ons for Sele	ected (1) -			Columns: 11	Selected -
😰 Audits				Status	Name	IP	Roles	Tags Commission State	Last H
🗠 Charts	© Good Health	4		٢	dh-centos79-1.vpc.cloudera.com	10.65.201.209	2 Roles	Commissioned	
آمی Replication	> CLUSTERS			۲	dh-centos79-2.vpc.cloudera.com	10.65.194.34	2 Roles	Commissioned	
🔅 Administration	> CORES			0	dh-centos79-3.vpc.cloudera.com	10.65.200.38	2 Roles	Commissioned	
🛆 Data Services New	> COMMISSION STATE			۲	dh-centos79a-1.vpc.cloudera.com	10.65.192.56		Commissioned	
	> LAST HEARTBEAT								1 - 4 of 4
	> LOAD (1 MINUTE)								
	> LOAD (5 MINUTES)								
	> LOAD (15 MINUTES)								
	> MAINTENANCE MODE								
	> UPGRADE DOMAIN								
	> RACK								
	> SERVICE								

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9. You can use the Assign Rack popup to view the rack assignments for the ECS cluster hosts and confirm that the rack name for the new host matches the rack name of the other cluster hosts.

CLOUDERA Manager	152-b813		CDEP Deployment fro	m 2023-Sep-26 08:29				
Search	Hosts	Assign Rack		~	in Cluster		luster Network Perform	nance
呈 Clusters				^				
睅 Hosts	Q Search	Host		Current Rack		Last Updat	ted: Oct 3, 6:58:46 PM U	лтс 😂
☑ Diagnostics	Filters	dh-centos79-[1-3].vpc.cloude 1.vpc.cloudera.com	ra.com; dh-centos79a-	/testcab2/rack3			Columns: 11 Se	lected +
🗟 Audits	✓ STATUS	_			Roles	Tags	Commission State	Last H
🛃 Charts	© Good Hea	New Rack			09 2 Roles		Commissioned	
E ²⁷ Replication	> CLUSTERS	Ra	ck names are slash-separated ide	entifiers, like Unix paths.	4 2 Roles		Commissioned	
🚯 Administration	> CORES	Fo	r example, "/rack1" and "/cabinet	3/rack4" are both valid.	8 2 Roles		Commissioned	
🛆 Data Services New	> COMMISSI	Ch	anging the rack configuration mig	ght result in a transient	6		Commissioned	
	> LAST HEAP	sta	ate of mis-replicated blocks in HD e correctly placed using this new i	FS until the old blocks ack configuration.				1 - 4 of 4
	> LOAD (1 M							
	> LOAD (5 M							
			Cance	el Confirm				
	> UPGRADE DO	MAIN						
	> RACK							

ECS unified time zone

You can synchronize the Embedded Container Service (ECS) cluster time zone with the Cloudera Manager Base time zone.

In CDP Private Cloud Data Services versions earlier than 1.5.2, containers running on an ECS Kubernetes cluster did not inherit the time zone settings from the Cloudera Manager Base host. In most cases, Kubernetes containers use Coordinated Universal Time (UTC) by default.

In Private Cloud Data Services 1.5.2 and higher versions, you can unify the time zone in the ECS cluster with the Cloudera Manager Base time zone. All workload pods in the ECS cluster run under the Cloudera Manager time zone, and workload logs on the ECS cluster are correlated with the Cloudera Manager Base logs. Timestamp-related SQL queries are also correlated.

- Unified time zone is enabled by default for new CDP Private Cloud Data Services 1.5.2+ installs.
- When upgrading from earlier versions of CDP Private Cloud Data Services to 1.5.2+, unified time zone is disabled by default to avoid affecting timestamp-sensitive logic.

You can enable or disable unified time zone using the following script in the ECS parcel:

bash /opt/cloudera/parcels/ECS/k8tz-webhook/configure-k8tz-webhook.sh -h

This script modifies the k8tz webhook settings.

Syntax:

configure-k8tz-webhook.sh [-i|-h]

Options:

- i This option enables the unified time zone feature
- No options To disable the unified time zone feature, run the configure-k8tz-webhook.sh script without any options.
- Use the -h flag to print Help information

To complete the process of enabling the unified time zone feature:

• Restart the workload pods where you want the Cloudera Manager Server timezone to be applied.

-OR-

• Initiate an ECS cluster rolling restart. This will inject the time zone information into all workload pods.

When the unified time zone feature is disabled, all running pods are not affected. To apply the new disabled setting so they run with the default UTC time zone, a pod restart or a rolling restart is required.

Adjusting the expiration time of ECS cluster certificates

The RKE Kubernetes, Vault, and ECS webbook certificate expiration times are set to one year by default. To avoid certificate expiration errors, you may want to extend the expiration times.

About this task



This topic only applies to internal certificates within ECS. It does not apply to the ingress controller certificate.

- These steps describe how to adjust the expiration time of internal cluster certificates in an existing ECS cluster.
- For a new cluster, if the nodes have been added to Cloudera Manager before creating the ECS cluster, you can edit the cluster_signing_duration configuration property in Cloudera Manager before creating the ECS cluster.

Adjusting the expiration time of the RKE Kubernetes cluster certificate

- 1. In Cloudera Manager, select the ECS cluster, then click ECS.
- 2. Click the Configuration tab, then use the Search box to locate the cluster_signing_duration configuration property.

3. The the cluster_signing_duration configuration property sets the expiration time for the RKE Kubernetes, Vault, and ECS webbook certificates, and is set to 1 year (365 days) by default. In the example below, the certificate expiration has been reset to 5 years (1825 days):

CLOUDERA Manager	153-b278		CDEP Deployment from 2024-	Feb-13 10:50	
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🖸 Diagnostics	Q cluster_signing_duration			C Filters Role G	roups History & Rollback
😰 Audits					
🗠 Charts	Filters		Cluster Signing Duration	ECS (Service-Wide) 🍤 Undo	Show All Descriptions
ھی Replication	✓ SCOPE		Cluster_signing_duration	1825	
😥 Administration	ECS (Service-Wide) Ecs Agent	1 0			1 - 1 of 1
🛆 Data Services New	Ecs Server	0			
	✓ CATEGORY				
	Main	1			
	Advanced	0			
	Performance	0			
	Ports and Addresses	0			
	Resource Management	0			
	Security	0			
	✓ STATUS				
	S Error	0			
<u> </u>	A Warning	0			
H Parceis	C Edited	1			
Running Commands	* Non-Default	1			
		U			
🐯 Support					
A admin					
7.11.3 《	1 Edited Value Reason for change	e: Modif	ied Cluster Signing Duration		Save Changes(CTRL+S)

- 4. Click Save Changes.
- **5.** On the ECS Cluster landing page, click Actions > Refresh Cluster.
- 6. After the Refresh is complete, click Actions > Rolling Restart.
- 7. After the restart is complete, the certificate expiration time is reset to the new value. You can also use the CLI to verify the new certificate expiration setting:

```
[root@host-1 ~]# cat /proc/47803/environ
CDH_PIG_HOME=/usr/lib/pigLD_LIBRARY_PATH=:/opt/cloudera/cm-agent/libCMF
_AGENT_ARGS=CDH_KAFKA_HOME=/usr/lib/kafka
CONF_DIR=/var/run/cloudera-scm-agent/process/1546342871-ecs-ECS_SERVERCDH_
PARQUET_HOME=/usr/lib/parquet
PARCELS_ROOT=/opt/cloudera/parcelsPARCEL_DIRNAMES=ECS-1.5.2-b866-ecs-1.5.2
-b866.p0.46395126LANG=en_US.UTF-8
CDH_HADOOP_BIN=/usr/bin/hadoopCDH_KMS_HOME=/usr/lib/hadoop-kmsCGROUP_GROUP
_CPU=CMF_PACKAGE_DIR=/opt/cloudera/cm-agent/service
ORACLE_HOME=/usr/share/oracle/instantclientMGMT_HOME=/opt/cloudera/cmINV
OCATION_ID=04c94a229a2b4684a95f8ec63783c81e
JSVC_HOME=/usr/libexec/bigtop-utilsCDH_IMPALA_HOME=/usr/lib/impalaKRB5_C
ONFIG=/etc/krb5.conf
CDH_YARN_HOME=/usr/lib/hadoop-yarnCLOUDERA_POSTGRESQL_JDBC_JAR=/opt/clo
udera/cm/lib/postgresgl-42.5.1.jar
CDH_SOLR_HOME=/usr/lib/solrHIVE_DEFAULT_XML=/etc/hive/conf.dist/hive-defa
ult.xml
CLOUDERA_ORACLE_CONNECTOR_JAR=/usr/share/java/oracle-connector-java.jarC
GROUP_GROUP_BLKIO=system.slice/cloudera-scm-agent.service
```

```
CGROUP_ROOT_BLKIO=/sys/fs/cgroup/blkioCGROUP_ROOT_CPU=/sys/fs/cgroup/cpu,c
  puacctKEYTRUSTEE_KP_HOME=/usr/share/keytrustee-keyprovider
  CLOUDERA_MYSQL_CONNECTOR_JAR=/usr/share/java/mysql-connector-java.jarCMF_
  SERVER_ROOT=/opt/cloudera/cm
  CGROUP_ROOT_CPUACCT=/sys/fs/cgroup/cpu,cpuacctCDH_FLUME_HOME=/usr/lib/f
  lume-ng
  CATTLE_NEW_SIGNED_CERT_EXPIRATION_DAYS=1825
  <snip!>
[root@host-1 ~]# openssl x509 -in /var/lib/rancher/rke2/agent/serving-kubele
t.crt -noout -text
Certificate:
   Data:
       Version: 3 (0x2)
        Serial Number: 4005696761303552502 (0x379717fb376e51f6)
        Signature Algorithm: ecdsa-with-SHA256
        Issuer: CN = rke2-server-ca@1697759349
        Validity
            Not Before: Oct 19 23:49:09 2023 GMT
            Not After : Oct 17 23:49:10 2028 GMT
        Subject: CN = host-1.rke-1019.kcloud.cloudera.com
        Subject Public Key Info:
            Public Key Algorithm: id-ecPublicKey
                Public-Key: (256 bit)
                pub:
                    04:92:81:74:b8:fb:aa:6c:c5:9a:40:2c:5f:91:60:
                    35:16:9a:d5:41:b2:bf:d8:29:f4:ed:68:ed:cd:3d:
                    87:0e:59:db:27:26:c5:d8:a7:79:c7:23:8f:0b:71:
                    c2:f5:d4:36:fe:97:a9:b5:62:ee:9d:9b:6d:ed:25:
                    60:fd:26:3a:08
                ASN1 OID: prime256v1
                NIST CURVE: P-256
       X509v3 extensions:
           X509v3 Key Usage: critical
                Digital Signature, Key Encipherment
            X509v3 Extended Key Usage:
                TLS Web Server Authentication
            X509v3 Authority Key Identifier:
                keyid:26:8F:9F:A1:04:CE:2D:04:3A:03:11:87:9D:DF:5A:B7:5C:0
6:72:32
            X509v3 Subject Alternative Name:
                DNS:host-1.rke-1019.kcloud.cloudera.com, DNS:localhost, IP
Address:127.0.0.1, IP Address:10.17.130.15
    Signature Algorithm: ecdsa-with-SHA256
         30:46:02:21:00:fc:5c:89:ab:99:a6:79:33:a9:28:da:a8:47:
         52:cf:1f:43:13:8c:06:2e:23:67:4c:b4:b0:d6:e3:f9:b6:ad:
         50:02:21:00:c7:64:aa:86:97:5a:f3:12:7e:3f:a2:f1:ab:93:
         17:6c:3a:37:34:01:ef:ba:7f:08:85:70:2c:c9:40:e0:30:f5
```

Adjusting the expiration time of the Vault certificate

1. In Cloudera Manager, select the ECS cluster, then click ECS.

2. Click the Configuration tab, then use the Search box to locate the cluster_signing_duration configuration property.

3. The the cluster_signing_duration configuration property sets the expiration time for the RKE Kubernetes, Vault, and ECS webbook certificates, and is set to 1 year (365 days) by default. In the example below, the certificate expiration has been reset to 5 years (1825 days):

CLOUDERA Manager	153-b278		CDEP Deployment from 2024	-Feb-13 10:50	
Search	CONTRACTIONS				Feb 13, 9:17 PM UTC
뮫 Clusters	Status Instances Configu	ration Co	ommands Charts Library Au	idits Web UI 👻 Quick Links 👻	
- 興 Hosts					
ഹ Diagnostics	Q cluster_signing_duration			C Filters Role Gro	ups History & Rollback
😰 Audits					
🗠 Charts	Filters		Cluster Signing Duration	ECS (Service-Wide) 🖱 Undo	Show All Descriptions
ැනි Replication	✓ SCOPE		Cluster_signing_duration	1825	
🚱 Administration	ECS (Service-Wide) Ecs Agent	1 0			1 - 1 of 1
🛆 Data Services New	Ecs Server	0			
	✓ CATEGORY				
	Main	1			
	Advanced	0			
	Monitoring	0			
	Performance	0			
	Ports and Addresses	0			
	Resource Management	0			
	Security	0			
	✓ STATUS				
	S Error	0			
24	A Warning	0			
Parcels	C Edited	1			
THE DIA D	✤ Non-Default	1			
X Running Commands	Include Overrides	0			
🛞 Support					
A admin					
7.11.3	1 Edited Value Reason for char	ige: Modi	fied Cluster Signing Duration		Save Changes(CTRL+S)

- 4. Click Save Changes.
- 5. Contact Cloudera support and ask them to provide you with a copy of the rotate-vault-cert.sh file.
- 6. Copy the rotate-vault-cert.sh file to the ECS master host. Set JAVA_HOME if needed.
- 7. Run the following command:

./rotate-vault-cert.sh APP_DOMAIN

- 8. Unseal Vault.
- **9.** Restart all of the pods in the CDP namespace.
- **10.** If you are using a default self-signed ingress controller certificate, update the ingress controller certificate (follow the steps in the script output).
- **11.** You can use the CLI to verify the new certificate expiration setting:

```
root 49076 48970 2 16:49 ? 00:00:10 kube-controller-mana
ger
--flex-volume-plugin-dir=/var/lib/kubelet/volumeplugins --terminated-pod-
gc-threshold=1000 --permit-port-sharing=true
--allocate-node-cidrs=true --authentication-kubeconfig=/var/lib/rancher/
rke2/server/cred/controller.kubeconfig
--authorization-kubeconfig=/var/lib/rancher/rke2/server/cred/controller.
kubeconfig --bind-address=127.0.0.1
--cluster-cidr=10.42.0.0/16 --cluster-signing-duration=43800h
```

```
<snip!>
[root@host-1 ~]# openssl x509 -in vault.pem -noout -text
Certificate:
    Data:
        Version: 3 (0x2)
        Serial Number:
            db:b7:a7:c3:79:86:4c:54:e8:97:49:bf:99:3d:df:a9
        Signature Algorithm: ecdsa-with-SHA256
        Issuer: CN = rke2-server-ca@1697759349
        Validity
           Not Before: Oct 19 23:46:38 2023 GMT
            Not After : Oct 17 23:46:38 2028 GMT
        Subject: 0 = system:nodes, CN = "system:node:vault.vault-system.svc
; "
        Subject Public Key Info:
            Public Key Algorithm: rsaEncryption
                RSA Public-Key: (2048 bit)
                Modulus:
                    00:94:93:2e:9d:5c:01:5a:95:46:b2:9d:aa:23:c4:
                    4e:0f:92:07:7e:0e:3a:21:7d:ef:95:e8:09:d3:88:
                    38:ac:e9:9f:c2:36:37:04:56:43:87:3a:6f:34:08:
                    09:8f:3f:df:31:79:d6:12:db:78:f6:1c:9b:0e:c2:
                    d0:f5:25:50:86:37:d5:ff:f7:a0:82:6f:55:d1:ff:
                    03:54:f8:ce:8b:02:87:2d:af:3f:71:f8:c4:a9:f0:
                    24:50:7b:07:70:3d:7a:be:9d:41:f0:15:2f:56:c3:
                    d3:0d:1a:e1:87:8e:69:89:ff:bf:1b:f2:84:87:6c:
                    5e:f9:13:8b:2c:5c:de:64:9e:ae:de:6a:f0:7c:ae:
                    d9:01:41:aa:39:00:b3:2d:4f:5c:db:fb:2b:80:31:
                    88:b5:40:24:e1:06:08:c4:ad:82:70:a1:9e:4c:3e:
                    00:0d:61:d9:1a:5c:c7:11:a7:79:68:66:34:b2:c2:
                    e9:63:a8:5d:d1:13:be:e6:f1:8f:03:87:3d:be:eb:
                    b7:ce:a5:eb:56:81:37:5b:9d:ce:82:34:15:99:16:
                    4c:65:20:d9:df:e6:63:56:c2:49:79:e8:66:ce:c1:
                    01:9d:87:a2:ba:02:c0:7c:2b:e5:37:30:c5:23:bd:
                    87:a1:c8:2b:a9:49:be:67:31:22:8d:a4:68:f9:bd:
                    be:23
                Exponent: 65537 (0x10001)
       X509v3 extensions:
            X509v3 Key Usage: critical
                Digital Signature, Key Encipherment
            X509v3 Extended Key Usage:
                TLS Web Server Authentication
            X509v3 Basic Constraints: critical
                CA: FALSE
            X509v3 Authority Key Identifier:
                keyid:26:8F:9F:A1:04:CE:2D:04:3A:03:11:87:9D:DF:5A:B7:5C:0
6:72:32
            X509v3 Subject Alternative Name:
                DNS:vault, DNS:vault.vault-system, DNS:vault.vault-system.
svc, DNS:vault.vault-system.svc.cluster.local, DNS:vault.localhost.localdoma
in, DNS:*.apps.host-1.rke-1019.kcloud.cloudera.com, IP Address:127.0.0.1
    Signature Algorithm: ecdsa-with-SHA256
         30:46:02:21:00:d9:5e:38:fc:31:9b:5a:eb:fc:7d:c2:8f:b3:
         54:5e:28:f0:8f:00:eb:36:65:9f:d3:70:ae:a2:79:77:ee:b5:
         f7:02:21:00:f4:e8:6f:c9:bd:bb:92:9d:63:81:69:55:67:8b:
         8a:f3:a4:5d:c1:67:66:b0:40:ff:22:a6:c3:6f:4f:8e:b2:8e
```

Adjusting the expiration time of the ECS webhook certificate

1. In Cloudera Manager, select the ECS cluster, then click ECS.

2. Click the Configuration tab, then use the Search box to locate the cluster_signing_duration configuration property.

3. The the cluster_signing_duration configuration property sets the expiration time for the RKE Kubernetes, Vault, and ECS webbook certificates, and is set to 1 year (365 days) by default. In the example below, the certificate expiration has been reset to 5 years (1825 days):

CLOUDERA Manager	CDEP Deployment from 2024-Feb-13 10:50					
Search	CONTRACTIONS -				Feb 13, 9:17 PM UTC	
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興 Hosts						
☑ Diagnostics	Q cluster_signing_duration			C Filters Role Gr	oups History & Rollback	
😰 Audits	Filters					
🗠 Charts	Filters		Cluster Signing Duration	ECS (Service-Wide) 🍤 Undo	Show All Descriptions	
」 Replication	✓ SCOPE		© cluster_signing_duration	1825		
🔅 Administration	ECS (Service-Wide) Ecs Agent	1 0			1 - 1 of 1	
🛆 Data Services New	Ecs Server	0				
	✓ CATEGORY					
	Main	1				
	Advanced	0				
	Performance	0				
	Ports and Addresses	0				
	Resource Management	0				
	Security	0				
	✓ STATUS					
	😆 Error	0				
₩ D	A Warning	0				
	Carley Edited	1				
🕱 Running Commands	Ron-Default	1				
_		0				
🐯 Support						
A admin						
7.11.3 《	1 Edited Value Reason for change	Modif	ied Cluster Signing Duration		Save Changes(CTRL+S)	

- 4. Click Save Changes.
- 5. Contact Cloudera support and ask them to provide you with a copy of the rotate-webhook-cert.sh file.
- 6. Copy the rotate-webhook-cert.sh file to the ECS master host.
- 7. Run the following command:

./rotate-webhook-cert.sh APP_DOMAIN

- **8.** Check for any pods in the Pending state whose status shows that they cannot tolerate the node-role.kubernetes.io/ control-plane toleration. Restart those pods.
- 9. You can use the CLI to verify the new certificate expiration setting:

```
root 49076 48970 2 16:49 ? 00:00:10 kube-controller-mana
ger
--flex-volume-plugin-dir=/var/lib/kubelet/volumeplugins --terminated-pod-
gc-threshold=1000 --permit-port-sharing=true
--allocate-node-cidrs=true --authentication-kubeconfig=/var/lib/rancher/
rke2/server/cred/controller.kubeconfig
--authorization-kubeconfig=/var/lib/rancher/rke2/server/cred/controller.
kubeconfig --bind-address=127.0.0.1
--cluster-cidr=10.42.0.0/16 --cluster-signing-duration=43800h
<snip!>
```

[root@host-1 ~]# openssl x509 -in ecs-tolerations-webhook-cert.pem -noout -t
ext
Certificate:

```
Data:
       Version: 3 (0x2)
       Serial Number:
           a5:31:94:f4:84:bb:3b:a2:a4:63:8d:ec:de:b5:37:53
       Signature Algorithm: ecdsa-with-SHA256
       Issuer: CN = rke2-server-ca@1697759349
       Validity
           Not Before: Oct 19 23:45:48 2023 GMT
           Not After : Oct 17 23:45:48 2028 GMT
       Subject: 0 = system:nodes, CN = "system:node:ecs-tolerations-webhook
.ecs-webhooks.svc;"
       Subject Public Key Info:
           Public Key Algorithm: rsaEncryption
               RSA Public-Key: (2048 bit)
               Modulus:
                    00:cc:12:e1:54:b8:aa:42:94:aa:11:a5:f7:35:0e:
                    0c:de:76:5b:d5:c6:c1:34:0b:b8:b7:2b:15:08:1d:
                    02:44:0f:2e:e1:17:dc:73:6a:e4:6c:df:5b:ac:43:
                    97:2e:34:73:f7:c9:6f:cf:c2:a8:52:79:b1:89:ea:
                    51:22:e1:41:b8:6a:ba:fd:22:a2:bf:a2:46:a4:8e:
                    f5:c6:2d:05:c3:a5:1d:6b:60:da:e8:40:a5:e1:e1:
                    5a:55:0e:94:2d:91:dd:71:d1:e9:aa:27:5d:e6:fc:
                    ea:5f:ea:c6:8e:52:71:27:ce:c2:a7:1b:10:ca:db:
                   db:27:c8:46:6d:14:d1:d0:b3:f5:ab:74:a9:63:8b:
                    71:83:31:eb:ad:87:1b:3b:8d:ff:ce:d0:7f:d1:1b:
```

Configuring multiple Base clusters with one ECS cluster

You can configure one Embedded Container Service (ECS) cluster to work with multiple CDP Private Cloud Base clusters managed by separate instances of Cloudera Manager. In order to do this you must first create a combined truststore .pem file that contains the ECS Control Plane truststore .pem file appended with the certificate files of each of the CDP Private Cloud Base clusters.

About this task

Use the following steps to configure one ECS cluster to work with multiple CDP Private Cloud Base clusters:

- 1. Append the ECS Control Plane truststore .pem file with the certificate files from the additional CDP Private Cloud Base clusters.
- 2. Register an ECS environment with each of the additional CDP Private Cloud Base clusters.
- 3. Create data services within each environment.

Step 1: Append the ECS Control Plane truststore .pem file with the certificate files from the Base clusters

1. On the ECS Control Plane, run the following kubectl command to get the contents of the configmap:

kubectl get configmap cdp-private-installer-truststore -n cdp -o yaml >
cdp-private-installer-truststore.yaml

2. Copy the truststorePEM content, decode it, and store it in a file. For example:

echo LS0tLS1CRUdJTiBDRVJUSUZJQ0FURS0tLS0tCk1JSURhakNDQWxJQ0NRRG5iNnhmK0d QR116QU5CZ2txaGtpRz13MEJBUXNGQURCWk1Rc3dDUV lEV1FRR0V3S1YKVXpFTE1Ba0dBMVVFQ0F3Q1EwRXhDekFKQmdOVkJBY01BbE5ETVEwd0N3WU RWUVFLREFSRFRFU1NNUXd3Q2dZRApWUVFMREFOQ1RGS XhFekFSQmdOVkJBTU1DaW91YUhkNExuTnBkR1V3SGhjTk1qTXhNVEV3TVRRME1qUXdXaGNOC k1qUXhNVEE1TVRRME1qUXdXakFWTVJNd0VRWURWUVFE REFvcUxtaDN1QzV6YVhSbE1JSUJvakF0QmdrcWhraUcKOXcwQkFRRUZBQU9DQVk4QU1JSUJp Z0tDQV1FQS91ZkJtK05IQTdWUTF1M05qK3ZoRGFRV0p

JcUhFbVcxOFlpYqpBQUdiYmlvYi9YYnY0aTRINU81MXV3SjJ1cWowaktUM3dBU310UG0yS0p 1RE9vVXMveWhJc0xuK3VOW1Mzd292CkNxSk5RcWpRT3 N2RUVITU5ZZ3JOWExMclhlbHZHTX14aG16bVFlSEhHTkZhcldENVkwd1laMVVIaG00a0pUUT UKTFhoZm1JVjJ1TUJieE4ySVB2WU1TV1AvYmo4ekF3a k500HQvVUhhaFRTeWljUktEWitsMGxoeGt0cHpzdmxmcQo4eXNCVTBBQ2MvbWp2bGNWS0xyN VVRSTRadVNFb2ZRK1QyaEpITEZNQ0N4bFJvcWN5aFo0 QmtlZmZwaUhIOGJHCm9kd2tSaHRRMVFJcFFxSklCLytCOWNZbkFjYlBFaHlXekh1TGlqak15 VTZOYWZ3SmpoTG1SVmptRmpWNzNvZmgKanJ4V1BtVyt FSDJZODRWK3RpOVdIZE5LQW9KNzU4bzZaSmJsc3ZBRVBNVytBVmw2c1FMTTFPZXN1UTNtczc xMwpWOENObFBWVEQ0UGdpaythOG1YV3FWZkVZN2F1V3 N1YnIwUkIyeFliWHBHd21WdWxrSjdYRURHOEpmN2hFNzRqCkRhMlJaeWN5YXdScGF3SXV2V1 kwWGtoSktOOTNBZ01CQUFFd0RRWUpLb1pJaHZjTkFRR UxCUUFEZ2dFQkFDcTcKSDU5R21nKy9iUVB3enhmUmF6d1hXM09mT3M1UjNnU0hGeDRmS1BXV lN5TjEwaW5Obmdxejd4R2dYVnBpRDdWNApQRGVXZFRZ MjdHN2w3ZHBjek1FS2ptN25XOUp3RW05S3dyRndWRWh00WEzNjVvUnhqTzA3Y09VanZYaEwy dkx1Cnk1eHRYZlJyZXlPalNmZDVxcnlKVlBoMDBHb0N UWTViMy9wK25saWJUUmNkY29mQkFTU0VhbnhaVDJoc1B2V3kKSG9PVkVGSm1rTnVxRHJhS2Y ySlFxRnR4aGs0MFIvUW9LVUpKUTgzUWIxZHBmWWVCdE 91WXRVNExmQWV3Y0RuRwpFWUQvYVp1b1gwU2cxRTRoRS9NaUNFN2R6ZzY4TVVPeWVBV1pCe1 JuMHBEZ1VtanpTOUNndi9GQ240MjV0QnR5Cis5anY1W it3TVNkd1VZL2VudEE9Ci0tLS0tRU5EIENFUlRJRk1DQVRFLS0tLS0KLS0tLS1CRUdJTiBDR VJUSUZJQ0FURS0tLS0tCk1JSURlekNDQW1PZ0F3SUJB Z01VQWRidE11Q3JycVRMY1UzRzhPakZRUW5YNGY4d0RRWUpLb1pJaHZjTkFRRUwKQ1FBd1dU RUxNQWtHQTFVRUJoTUNWVk14Q3pBSkJnTlZCQWdNQWt 00k1Rc3dDUV1EV1FRSERBS1RRekVOTUFzRwpBMVVF02d3RVEweEVVakVNTUFvR0ExVUVDd3d EUWt4U01STXdFUV1EV1FRRERBb3FMbWqzZUM1emFYUm xNOjRYCkRUSXpNVEV4TURFek1UTXpOVm9YRFRJMU1URXdPVEV6TVRNek5Wb3dXVEVMTUFrR0 ExVUVCaE1DV1ZNeEN6QUoKQmdOVkJBZ01Ba05CTVFzd 0NRWURWUVFIREFKVFF6RU5NQXNHQTFVRUNnd0VRMHhFVWpFTU1Bb0dBMVVFQ3d3RApRa3hTT VJNd0VRWURWUVFEREFvcUxtaDNlQzV6YVhSbE1JSUJJ akFOQmdrcWhraUc5dzBCQVFFRkFBT0NBUThBCk1JSUJDZ0tDQVFFQXczQXBYeXg4dkxXSVZq SlpLZzNpb29XcGdtNjZwN2gxWCtRWUVVZ0Q0VEc3dkZ 20GNUckkKdzlaZ1VpcW1zUTVJR1ZxRk51cEFpSFBteUxscD11d1RhTEthdm9IZ2pXU0p1K2d waUdiMHJiR1hkM3ltYkw5Rwp2Sm1pNmtPZW9SeHpQbk N5SVVEa3NmU3kzdE5pWlNRRFRubmhUWk9Zc2tmbDdZK1VYaVJVS2NBNExkWTBWSTVJCnpmR1 R0cW5qM0o4SnJ6d0dJd1NoK0ZNdHRyWFQ5WFI5bzVpL 0M2cWh0L1JwbEx3QTB6ZVlYSDhkNjl2Ykw4T1EKemREeXZ1cmptRXZjS3F1bGo4NU1CSTZwc VRGb21QcEp5VV1xS0cwN2U1WDN0QmZiVzk2QXdYT1BT SFd0QlpndwpyeTVFbzRxWVRJMGZmYlFCS3ZIVElzYTd3T0xmRzAvK3J3SURBUUFCb3pzd09U QUxCZ05WSFE4RUJBTUNCREF3CkV3WURWUjBsQkF3d0N nWUlLd1lCQlFVSEF3RXdGUVlEVlIwUkJBNHdESUlLS2k1b2QzZ3VjMmwwWlRBTkJna3EKaGt pRzl3MEJBUXNGQUFPQ0FRRUFtKzFZUlg5M2k1Q1FPQ1 FIVVZ2Y2M10WFMb2Y3SnJxcGNaN0NOaGJXMzc4Zgo3RTNpTjhBY1BNQ0dvZ11TeWFrblQxV1 kwdDNiVXhtSTFSdXdEUXNDU3U1MmlhYnhIVUhrOFBEQ jk5NTRxL3RtCkh4MXpVR0VURkZaZHdkb0dDMk14Ui9WdU9wbExza2hEc0ZJZmpaZC81clVrL 1QvMUxUaC8zMExBbGhPVzNtek8KZFJWWC9LR2QyWGZ3 SFNzQ3FRTFk4WGZQM0d3WHqrTmVUY09vTEQycXYvYW1kMnY1d1VtdXpONzErZjR3bXVvbwpa Z1JiYk9OSkMvdzVzV3MvWVRaODd1M1JNUWExd2qvckl YMk1QMzNTMG1SeHJkSX1peGMxamF6ZTYxWmRUUnk5Ck9NQ2RmZEpGNFE1RndmODdWSWpYZXd PemdOVnFJVGVNVW1vcy9HR0p0UT09Ci0tLS0tRU5EIE NFUlRJRklDQVRFLS0tLS0= | base64 -d > cdp-private-installer-truststore.pem

- **3.** Obtain the truststore .pem file from the first additional Cloudera Manager host from /var/lib/cloudera-scm-agent/ agent-cert/cm-auto-global_cacerts.pem or /opt/cloudera/CMCA/trust-store/cm-auto-global_cacerts.pem and copy the contents.
- **4.** Append the cdp-private-installer-truststore.pem file created previously with the contents of the Cloudera Manager .pem file.
- **5.** Repeat the previous two steps for all additional Cloudera Manager hosts you would like to register environments with.

6. Log in to the ECS cluster Management Console and click Administration > CA Certificates. Select Datalake in the CA Certificate Type drop-down, click Choose File, then select the appended cdp-private-installer-truststore.pem file and click Upload. Click Save to save your changes.

You can also use the following CLI commands to upload the cdp-private-installer-truststore.pem file and update the global truststore with the encoded certificate file content:

```
cat cdp-private-installer-truststore.pem | base64
cdp environments --set-environment-setting --settings truststorePEM=<base6
4 encoded CM cert> --no-verify-tls
```

Step 2: Register an ECS environment with each of the additional Base clusters

- 1. Log in to the ECS cluster Management Console and Register an environment for the first additional Base cluster using the applicable Cloudera Manager URL and credentials.
- 2. Repeat the previous step for the rest of the additional Base clusters.

Step 3: Create data services within each environment

Refer to the following topics to create the data services of your choice in each environment:

- Adding a Cloudera Data Engineering service
- Activate ECS environments (CDW)
- Provision an ML Workspace