

Encryption Reference 1.0.0

Encryption reference

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Auto-TLS Requirements and Limitations

Reference information for Auto-TLS requirements, limitations, and component support.

Requirements

- You must install the Cloudera Manager Agent software on the Cloudera Manager Server host.
- You can enable auto-TLS using certificates created and managed by a Cloudera Manager certificate authority (CA), or certificates signed by a trusted public CA or your own internal CA. If you want to use a trusted public CA or your own internal CA, you must obtain all of the host certificates before enabling auto-TLS. For instructions on obtaining certificates from a CA, see “Manually Configuring TLS Encryption for Cloudera Manager” > “On Each Cluster Host”.

Component support for Auto-TLS

The following CDP services support auto-TLS:

- Atlas
- Cloudera Manager Host Monitor Debug Interface
- Cloudera Manager Service Monitor Debug Interface
- HBase
- HDFS Client Configuration
- HDFS NameNode Web UI
- Hive-on-Tez
- HiveServer2
- HttpFS
- Hue Client
- Hue Load Balancer
- Hue Server
- Impala Catalog Server
- Impala Server
- Impala StateStore
- Java Keystore Key Management Server (KMS)
- Kafka Broker Server
- Kafka MirrorMaker
- Knox
- Kudu
- Livy
- Oozie
- Ozone
- Phoenix
- Ranger
- Safenet Luna Hardware Security Modules (HSM) KMS
- Solr
- Spark History Server
- Thales HSM KMS
- YARN Web UI
- Zeppelin
- ZooKeeper

For unlisted CDP services, you must enable TLS manually. See the applicable component guide for more information.

Related Information

[Manually Configuring TLS Encryption for Cloudera Manager](#)

Rotate Auto-TLS Certificate Authority and Host Certificates

Your cluster security requirements may require that you rotate the auto-TLS CA and certificates.

About this task



Note: When using a custom CA, you must first use the `/cm/commands/addCustomCerts` API command to replace the old certificates with new certificates before using the following procedure.

Procedure

1. Navigate to **Administration Security** . Click the **Rotate Auto-TLS Certificates** button to launch the wizard.
2. Complete the wizard.

Auto-TLS Agent File Locations

The certificates, keystores, and password files generated by auto-TLS are stored in `/var/lib/cloudera-scm-agent/agent-cert` on each Cloudera Manager Agent.

Filename

Table 1: Auto-TLS Agent Files

Filename	Description
cm-auto-global_cacerts.pem	CA certificate and other trusted certificates in PEM format
cm-auto-global_truststore.jks	CA certificate and other trusted certificates in JKS format
cm-auto-in_cluster_ca_cert.pem	CA certificate in PEM format
cm-auto-in_cluster_truststore.jks	CA certificate in JKS format
cm-auto-host_key_cert_chain.pem	Agent host certificate and private key in PEM format
cm-auto-host_cert_chain.pem	Agent host certificate in PEM format
cm-auto-host_key.pem	Agent host private key in PEM format
cm-auto-host_keystore.jks	Agent host private key in JKS format
cm-auto-host_key.pw	Agent host private key password file