

Cloudera Runtime 7.1.7

Configuring Infra Solr

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CLOUDERA

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Enable Ranger authorization on the Solr service used by Ranger for auditing

Add a Ranger service to enable access control on the Solr service that is used by Ranger to index and store audit logs (Infra Solr).

Before you begin

- Ranger authorization requires that Kerberos authentication is enabled in Solr.

Procedure

1. In Cloudera Manager select the Infra Solr service that is used by Ranger to index and store audit logs.
2. Select Configuration and find the Enable Ranger Authorization for the Infrastructure Solr Service property.
3. Select Enable Ranger Authorization for the Infrastructure Solr Service.
4. Click Save Changes.
5. Restart the Solr service.

Results

Ranger authorization is enabled. The Solr service depends on the selected Ranger service for authorization.

Related Information

[Configure a resource-based service: Solr](#)

[Configure a resource-based policy: Solr](#)

Configuring custom Kerberos principals and custom system users for Solr

In a Kerberos enabled cluster, the Solr service uses the solr principal by default. Changing the default principal and using custom principals is supported. Principals can be configured on a service-wide level in Cloudera Manager with the Kerberos Principal property. To configure a custom system user, you need to modify the System User property.

Before you begin

Make sure you have the following privileges:

- SSH access to the cluster where you want to enable the custom principal
- administrative privileges in Cloudera Manager
- HDFS super user access

About this task



Important: Cloudera Manager configures CDP services to use the default Kerberos principal names.

Cloudera recommends that you do not change the default Kerberos principal names. If it is unavoidable to do so, contact Cloudera Professional Services because it requires extensive additional custom configuration.



Important: Currently the names of system users which are impersonating users with Solr should match with the names of their respective Kerberos principals. If changing both the user name and the principal is not possible, you must add the user name you want to associate with the custom Kerberos principal to Solr configuration via the Solr Service Environment Advanced Configuration Snippet (Safety Valve) environment variable in Cloudera Manager.

Procedure

1. Stop the Solr service.
2. Disable ZooKeeper ACL checking temporarily.
 - a) In Cloudera Manager, navigate to ZooKeeper Configuration .
 - b) Find the Java Configuration Options for ZooKeeper Server property.
 - c) Add the following value:

```
-Dzookeeper.skipACL=yes
```

 - d) Click Save Changes.
 - e) Restart the ZooKeeper service.
3. In Cloudera Manager, navigate to Clusters Solr service Configuration and find the Kerberos Principal property.
4. Provide the custom Kerberos principal.
5. Click Save Changes.
6. To be able to interact with the Solr service, you must either change the System User name to match the custom Kerberos principal, or add the existing System User name to Solr Service Environment Advanced Configuration Snippet (Safety Valve).

Select one of the following options:

Option

Change the System User name to match the custom Kerberos principal

- a. In Cloudera Manager, navigate to Clusters Solr service Configuration and find the System User property.
- b. Change the user name to match the custom Kerberos principal you have set.
- c. Click Save Changes.

Keep the original System User name

- a. In Cloudera Manager navigate to Clusters Solr service Configuration and find the Solr Service Environment Advanced Configuration Snippet (Safety Valve) property.
- b. Look for the SOLR_SECURITY_PROXY_JAVA_OPTS key.
- c. Append its value with:

```
-Dsolr.security.proxyuse
r./***SYSTEM_USER***/groups=*
-Dsolr
.security.proxyuser./***SYSTEM_USER***/hos
ts=*
```

Replace `/***SYSTEM_USER***/` with the service user name you want to associate with the custom Kerberos principal.

- d. Click Save Changes.

7. Create a jaas.conf file containing the following:

```
Client {
    com.sun.security.auth.module.Krb5LoginModule required
    useKeyTab=false
    useTicketCache=true
    principal
    = " [ ***CUSTOM_SOLR_KERBEROS_PRINCIPAL@KERBEROS_REALM_NAME*** ] ";
```

```
};
```

Replace `[***CUSTOM_SOLR_KERBEROS_PRINCIPAL@KERBEROS_REALM_NAME***]` with your Kerberos principal and realm name.

- Set the `LOG4J_PROPS` environment variable to a `log4j.properties` file:

```
export LOG4J_PROPS=/etc/zookeeper/conf/log4j.properties
```

- Set the `ZKCLI_JVM_FLAGS` environment variable:

```
export ZKCLI_JVM_FLAGS="-Djava.security.auth.login.config=/path/to/jaas.conf \
-DZkACLProvider=org.apache.solr.common.cloud.SaslZkACLProvider \
-Droot.logger=INFO,console \
-Dsolr.authorization.superuser=[***CUSTOM_SOLR_KERBEROS_PRINCIPAL*** ]"
```

- Authenticate as the `[***CUSTOM_SOLR_KERBEROS_PRINCIPAL***]`:

```
kinit [***CUSTOM_SOLR_KERBEROS_PRINCIPAL@KERBEROS_REALM_NAME*** ]
```

Replace `[***CUSTOM_SOLR_KERBEROS_PRINCIPAL@KERBEROS_REALM_NAME***]` with your Kerberos principal and realm name.

- Run the `zkcli.sh` script as follows:

```
/opt/cloudera/parcels/CDH/lib/solr/bin/zkcli.sh -zkhost [***ZOOKEEPER_SERVER_HOSTNAME***]:[***ZOOKEEPER_SERVER_PORT***] -cmd updateacls /solr
```

Replace `[***ZOOKEEPER_SERVER_HOSTNAME***]` and `[***ZOOKEEPER_SERVER_PORT***]` with the hostname and port of a ZooKeeper server.

For example:

```
/opt/cloudera/parcels/CDH/lib/solr/bin/zkcli.sh -zkhost zk01.example.com:2181 -cmd updateacls /solr
```

- Check ACLs in Zookeeper:

```
zookeeper-client -server ${HOSTNAME}:2181 getAcl /solr
```

- Change ownership of Solr's HDFS Data Directory. Check the value in Cloudera Manager under Solr Configuration HDFS Data Directory .

- Execute the following command as the HDFS superuser:

```
hdfs dfs -chown -R [***CUSTOM_SOLR_KERBEROS_PRINCIPAL***] [***HDFS_DATA_DIRECTORY***]
```

- Re-enable ZooKeeper ACL check.

- In Cloudera Manager, navigate to ZooKeeper Configuration .
- Find the Java Configuration Options for ZooKeeper Server property.
- Remove the following value:

```
-Dzookeeper.skipACL=yes
```

- Click Save Changes.
- Restart the ZooKeeper service.