

# *ACL (access controle lists) DOCUMENT*

## 1. Create a Test Topic

```
kafka-topics --bootstrap-server zool:9092 --create --topic acl-test --  
partitions 1 --replication-factor 1
```

In this command we are creating topic as acl-test for testing acl .

—

## 2. Enable ACL Authorization in `server.properties`

On all three brokers, we need to configure the `server.properties` file to enable ACL authorization.

```
sudo vi /etc/kafka/server.properties
```

Adding the following lines to enable authorization:

```
authorizer.class.name=kafka.security.auth.SimpleAclAuthorizer  
super.users=User:admin  
allow.everyone.if.no.acl.found=true  
ssl.principal.mapping.rules=RULE:^CN=(.??),OU=.*$/$1/,DEFAULT
```

—

## 3. Restarting Kafka Services

After editing the configuration, we have to restart the Kafka services on each broker:

```
sudo systemctl restart confluent-kafka
```

To check the status to confirm that Kafka is running without any issues

```
sudo systemctl status confluent-kafka
```

—

## 4. Write Data to the Topic

Now, write data to the `acl-test` topic. Since no ACL is set yet and `allow.everyone.if.no.acl.found` is set to `true`, this should succeed.

```
kafka-console-producer --broker-list zool:9093 --topic acl-test --  
producer.config client-ssl.properties
```

Here we are connecting to cluster with .9093 port which is secure port to connect kafka cluster so to connect to 9093 port we have to produce client ssl properties by using with command --producer.configg

—

## 5. Add an ACL for otheruser

```
kafka-acls --authorizer-properties zookeeper.connect=localhost:2181 --add -  
-allow-principal User:otheruser --operation Write --topic acl-test
```

Here we are using above command to create acl on kafka sources here we are we are creating acl on topic (which is kafka source) and we are mentioned that --allow-principal that User:Otheruser it's mans the acl permitted otheruser role to perform write to topic acl-test

—

## 6. Attempt to Write to the Topic as Another User

Now, attempt to write to the acl-test topic using a different user, such as kafkauser. Since the ACL only allows otheruser to write, this should fail.

```
kafka-console-producer --broker-list zool:9093 --topic acl-test --  
producer.config client-ssl.properties
```

.we have created acl on topic acl-test soo .If we would be producing messages to acl-test topic the kafka with 9093 port that willl throws AUTHORIZATION ERROR bcz acl has been created on that topic

—

## 7. Add an ACL for kafkauser

```
kafka-acls --authorizer-properties zookeeper.connect=localhost:2181 --add -  
-allow-principal User:kafkauser --operation Write --topic acl-test
```

Now we are adding another acl for kafkaUser principalname this acl is permitting kafkausr to write operation on acl-test topic . Here Kafka user is nothing but admin that now he can easily write to that toopic .—

## 8. Test Writing to the Topic Again

```
kafka-console-producer --broker-list zool:9093 --topic acl-test --  
producer.config client-ssl.properties
```

After adding the proper ACLs, kafkauser should now be able to produce messages to the acl-test topic.

—

