

# KIP-555: Deprecate Direct Zookeeper access in Kafka Administrative Tools

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## Master KIP

[KIP-500: Replace ZooKeeper with a Self-Managed Metadata Quorum](#) (Accepted)

## Status

**Current state:** *Accepted*

**Discussion thread:**

**JIRA:** [KAFKA-9397](#)

## Motivation

As part of KIP-500, we would like to remove direct ZooKeeper access from the Kafka Administrative tools. We have many motivations for doing this. It improves security, decouples the server-side metadata format from the client, and is a necessary first step towards storing Kafka metadata in Kafka.

Before we can remove the `--zookeeper` flag from these tools, however, we need to first deprecate it. This KIP is about that deprecation process.

## Public Interfaces

Command Name	Status	Changes Needed
<code>kafka-acls.sh</code>	Does not support <code>--zookeeper</code>	none
<code>kafka-broker-api-versions.sh</code>	Does not support <code>--zookeeper</code>	none
<code>kafka-configs.sh</code>	Supports both <code>--zookeeper</code> and <code>--bootstrap-server</code>	deprecate <code>--zookeeper</code>
<code>kafka-consumer-groups.sh</code>	Does not support <code>--zookeeper</code>	none
<code>kafka-delegation-tokens.sh</code>	Does not support <code>--zookeeper</code>	none
<code>kafka-delete-records.sh</code>	Does not support <code>--zookeeper</code>	none
<code>kafka-dump-log.sh</code>	Does not support <code>--zookeeper</code>	none
<code>kafka-leader-election.sh</code>	Supports both <code>--zookeeper</code> and <code>--bootstrap-server</code> , but <code>--zookeeper</code> is already deprecated	none
<code>kafka-log-dirs.sh</code>	Does not support <code>--zookeeper</code>	none
<code>kafka-preferred-leader-election.sh</code>	Supports both <code>--zookeeper</code> and <code>--bootstrap-server</code> , but <code>--zookeeper</code> is already deprecated	none
<code>kafka-reassign-partitions.sh</code>	Supports only <code>--zookeeper</code> now, but <code>--bootstrap-server</code> support is planned as part of the accepted KIP-455	deprecate <code>--zookeeper</code>
<code>kafka-replica-verification.sh</code>	Does not support <code>--zookeeper</code>	none
<code>kafka-topics.sh</code>	Supports both <code>--zookeeper</code> and <code>--bootstrap-server</code> , but <code>--zookeeper</code> is already deprecated	none
<code>zookeeper-security-migration.sh</code>	Supports only <code>zookeeper</code>	none

zookeeper-shell.sh	Supports only zookeeper	none
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## Proposed Changes

For the `kafka-configs.sh` and `kafka-reassign-partitions.sh` commands, the `--zookeeper` option description should begin with "DEPRECATED".

If the `--zookeeper` option is used, the following should be printed on the console:

```
Warning: --zookeeper is deprecated and will be removed in a future version of Kafka.  
Use --bootstrap-server instead to specify a broker to connect to.
```

`zookeeper-security-migration.sh` and `zookeeper-shell.sh` won't be changed, since their functions are tightly tied to administering ZooKeeper itself.

## Compatibility, Deprecation, and Migration Plan

Adding the new deprecations is a compatible operation.

## Rejected Alternatives

There is no rejected alternatives.