

Deployment Kafka [kafka_2.13-3.5.1](#)

1.Install Kafka

```
root@server-cp-zidhan-2:/home/kafka_2.13-3.5.1# ls -ltrh
total 64K
-rw-rw-r-- 1 root root 28K Jul 14 2023 NOTICE
-rw-rw-r-- 1 root root 15K Jul 14 2023 LICENSE
drwxr-xr-x 2 root root 4.0K Jul 14 2023 licenses
drwxr-xr-x 3 root root 4.0K Jul 14 2023 config
drwxr-xr-x 3 root root 4.0K Jul 14 2023 bin
drwxr-xr-x 2 root root 4.0K Jul 14 2023 site-docs
drwxr-xr-x 2 root root 4.0K Jul 25 13:38 libs
root@server-cp-zidhan-2:/home/kafka_2.13-3.5.1# cd ../
root@server-cp-zidhan-2:/home# ls -ltrh
total 102M
drwxr-xr-x 7 root root 4.0K Jul 14 2023 kafka_2.13-3.5.1
drwxr-x--- 4 infra infra 4.0K Jul 23 15:38 infra
-rwxr-x--- 1 root root 102M Jul 25 13:38 kafka_2.13-3.5.1.tgz
root@server-cp-zidhan-2:/home#
```

2. mv Kafka to /usr/local/kafka

```
root@server-cp-zidhan-2:/usr/local# mv kafka_2.13-3.5.1/ kafka
root@server-cp-zidhan-2:/usr/local# ls -ltrh
total 36K
drwxr-xr-x 2 root root 4.0K Apr 23 09:37 src
lrwxrwxrwx 1 root root 9 Apr 23 09:37 man -> share/man
drwxr-xr-x 2 root root 4.0K Apr 23 09:37 include
drwxr-xr-x 2 root root 4.0K Apr 23 09:37 games
drwxr-xr-x 2 root root 4.0K Apr 23 09:37 etc
drwxr-xr-x 2 root root 4.0K Apr 23 09:37 bin
drwxr-xr-x 2 root root 4.0K Apr 23 09:40 sbin
drwxr-xr-x 3 root root 4.0K Apr 23 09:40 lib
drwxr-xr-x 7 root root 4.0K Jul 23 12:11 share
drwxr-xr-x 3 root root 4.0K Jul 25 13:44 kafka
root@server-cp-zidhan-2:/usr/local# cd kafka/
root@server-cp-zidhan-2:/usr/local/kafka# ls -ltrh
total 4.0K
drwxr-xr-x 7 root root 4.0K Jul 14 2023 kafka_2.13-3.5.1
root@server-cp-zidhan-2:/usr/local/kafka#
```

3. Isi zookeeper.service

```
[Unit]
Description=Apache Zookeeper server
Documentation=http://zookeeper.apache.org
Requires=network.target remote-fs.target
After=network.target remote-fs.target

[Service]
Type=simple
ExecStart=/usr/bin/bash /usr/local/kafka/bin/zookeeper-server-start.sh /usr/local/kafka/config/zookeeper.properties
ExecStop=/usr/bin/bash /usr/local/kafka/bin/zookeeper-server-stop.sh
Restart=on-abnormal

[Install]
WantedBy=multi-user.target
```

"zookeeper.service" 14L, 430B

4. Isi kafka.service [ada perubahan di param Environment terkait JDK yang terinstall]

```
[Unit]
Description=Apache Kafka Server
Documentation=http://kafka.apache.org/documentation.html
Requires=zookeeper.service

[Service]
Type=simple
Environment="JAVA_HOME=/usr/lib/jvm/java-17-openjdk-amd64"
ExecStart=/usr/bin/bash /usr/local/kafka/bin/kafka-server-start.sh /usr/local/kafka/config/server.properties
ExecStop=/usr/bin/bash /usr/local/kafka/bin/kafka-server-stop.sh

[Install]
WantedBy=multi-user.target
```

"kafka.service" 13L, 417B

5. Status Zookeeper-kafka & Kafa setelah reload daemon, enable service, start service dengan default Configuration system.

```

root@server-cp-zidhan-2:~# systemctl status zookeeper kafka
● zookeeper.service - Apache Zookeeper server
   Loaded: loaded (/etc/systemd/system/zookeeper.service; enabled; preset: enabled)
   Active: active (running) since Thu 2024-07-25 14:08:22 UTC; 1min 6s ago
     Docs: http://zookeeper.apache.org
   Main PID: 17279 (java)
    Tasks: 41 (limit: 19049)
  Memory: 71.2M (peak: 71.9M)
     CPU: 1.419s
   CGroup: /system.slice/zookeeper.service
           └─17279 java -Xms512M -Xmx512M -server -XX:+UseG1GC -XX:MaxGCPauseMillis=20 -XX:InitiatingHeapOccupancyPercent=35 -XX:+ExplicitGCInvokesConcurrent -X

Jul 25 14:08:23 server-cp-zidhan-2 bash:[17279]: [2024-07-25 14:08:23.104] INFO Reading snapshot /tmp/zookeeper/version-2/snapshot.0 (org.apache.zookeeper.server.P
Jul 25 14:08:23 server-cp-zidhan-2 bash:[17279]: [2024-07-25 14:08:23.107] INFO The digest value is empty in snapshot (org.apache.zookeeper.server.DataTree)
Jul 25 14:08:23 server-cp-zidhan-2 bash:[17279]: [2024-07-25 14:08:23.109] INFO Snapshot loaded in 8 ms, highest zxid is 0x0, digest is 1371985504 (org.apache.zook
Jul 25 14:08:23 server-cp-zidhan-2 bash:[17279]: [2024-07-25 14:08:23.109] INFO Snapshottting: 0x0 to /tmp/zookeeper/version-2/snapshot.0 (org.apache.zookeeper.serv
Jul 25 14:08:23 server-cp-zidhan-2 bash:[17279]: [2024-07-25 14:08:23.110] INFO Snapshot taken in 1 ms (org.apache.zookeeper.server.ZooKeeperServer)
Jul 25 14:08:23 server-cp-zidhan-2 bash:[17279]: [2024-07-25 14:08:23.119] INFO PrepRequestProcessor (sid:0) started, reconfigEnabled=false (org.apache.zookeeper.s
Jul 25 14:08:23 server-cp-zidhan-2 bash:[17279]: [2024-07-25 14:08:23.119] INFO Zookeeper.request.throttler.shutdownTimeout = 10000 (org.apache.zookeeper.server.Re
Jul 25 14:08:23 server-cp-zidhan-2 bash:[17279]: [2024-07-25 14:08:23.135] INFO Using checkIntervalMs=60000 maxPerMinute=10000 maxNeverUsedIntervalMs=0 (org.apache
Jul 25 14:08:23 server-cp-zidhan-2 bash:[17279]: [2024-07-25 14:08:23.136] INFO ZooKeeper audit is disabled. (org.apache.zookeeper.audit.ZKAuditProvider)
Jul 25 14:08:50 server-cp-zidhan-2 bash:[17279]: [2024-07-25 14:08:50.288] INFO Creating new log file: log.1 (org.apache.zookeeper.server.persistence.FileTxnLog)

● kafka.service - Apache Kafka Server
   Loaded: loaded (/etc/systemd/system/kafka.service; enabled; preset: enabled)
   Active: active (running) since Thu 2024-07-25 14:08:49 UTC; 39s ago
     Docs: http://kafka.apache.org/documentation.html
   Main PID: 18039 (java)
    Tasks: 74 (limit: 19049)
  Memory: 310.7M (peak: 315.7M)
     CPU: 3.888s
   CGroup: /system.slice/kafka.service
           └─18039 /usr/lib/jvm/java-17-openjdk-amd64/bin/java -Xmx1G -Xms1G -server -XX:+UseG1GC -XX:MaxGCPauseMillis=20 -XX:InitiatingHeapOccupancyPercent=35

Jul 25 14:08:51 server-cp-zidhan-2 bash:[18039]: [2024-07-25 14:08:51.399] INFO [controller id=0, targetBrokerId=0] Node 0 disconnected. (org.apache.Kafka.clients
Jul 25 14:08:51 server-cp-zidhan-2 bash:[18039]: [2024-07-25 14:08:51.401] WARN [Controller id=0, targetBrokerId=0] Connection to node 0 (server-cp-zidhan-2/127.0.0
Jul 25 14:08:51 server-cp-zidhan-2 bash:[18039]: [2024-07-25 14:08:51.403] INFO Awaiting socket connections on 0.0.0.0:9092. (kafka.network.DataPlaneAcceptor)

```

6. Modify configuration server.properties

Isinya : [Saya ubah zk-connectnya ke IP server yang digunakan dan Logdirs nya ke /data/kafka-logs]

```
# from the end of the log.

# The minimum age of a log file to be eligible for deletion due to age
log.retention.hours=168

# A size-based retention policy for logs. Segments are pruned from the log unless the remaining
# segments drop below log.retention.bytes. Functions independently of log.retention.hours.
#log.retention.bytes=1073741824

# The maximum size of a log segment file. When this size is reached a new log segment will be created.
#log.segment.bytes=1073741824

# The interval at which log segments are checked to see if they can be deleted according
# to the retention policies
log.retention.check.interval.ms=300000

##### Zookeeper #####

# Zookeeper connection string (see zookeeper docs for details).
# This is a comma separated host:port pairs, each corresponding to a zk
# server. e.g. "127.0.0.1:3000,127.0.0.1:3001,127.0.0.1:3002".
# You can also append an optional chroot string to the urls to specify the
# root directory for all kafka znodes.
zookeeper.connect=10.100.13.211:2181

# Timeout in ms for connecting to zookeeper
zookeeper.connection.timeout.ms=18000

##### Group Coordinator Settings #####

# The following configuration specifies the time, in milliseconds, that the GroupCoordinator will delay the initial consumer rebalance.
# The rebalance will be further delayed by the value of group.initial.rebalance.delay.ms as new members join the group, up to a maximum of max.poll.interval.ms.
# The default value for this is 3 seconds.
# We override this to 0 here as it makes for a better out-of-the-box experience for development and testing.
# However, in production environments the default value of 3 seconds is more suitable as this will help to avoid unnecessary, and potentially expensive, rebalances
# during application startup.
group.initial.rebalance.delay.ms=0
"server.properties" 138L, 6901B

132,0-1 Bot
```

7. Modify configuration zookeeper.properties

[Saya ubah dataDirnya ke /data/zookeeper]

[illegible]

8. After modify configuration systemctl restart zookeeper & kafka

```
● zookeeper.service - Apache Zookeeper server
   Loaded: loaded (/etc/systemd/system/zookeeper.service; enabled; preset: enabled)
   Active: active (running) since Thu 2024-07-25 14:34:09 UTC; 4s ago
     Docs: http://zookeeper.apache.org
  Main PID: 21167 (java)
    Tasks: 40 (limit: 19049)
   Memory: 73.2M (peak: 73.9M)
      CPU: 1.392s
  CGroup: /system.slice/zookeeper.service
          └─21167 java -Xmx512M -Xms512M -server -XX:+UseG1GC -XX:MaxGCPauseMillis=20 -XX:InitiatingHeapOccupancyPercent=35 -XX:+ExplicitGCInvokesConcurrent -XX:

Jul 25 14:34:09 server-cp-zidhan-2 bash[21167]: [2024-07-25 14:34:09,983] INFO The digest in the snapshot has digest version of 2, . with zxid as 0x30, and digest 2
Jul 25 14:34:09 server-cp-zidhan-2 bash[21167]: [2024-07-25 14:34:09,995] INFO ZooKeeper audit is disabled. (org.apache.zookeeper.audit.ZKAuditProvider)
Jul 25 14:34:09 server-cp-zidhan-2 bash[21167]: [2024-07-25 14:34:09,996] INFO 18 txns loaded in 6 ms (org.apache.zookeeper.server.persistence.FileTxnSnapLog)
Jul 25 14:34:09 server-cp-zidhan-2 bash[21167]: [2024-07-25 14:34:09,996] INFO Snapshot loaded in 19 ms, highest zxid is 0x42, digest is 54076356811 (org.apache.zoo
Jul 25 14:34:09 server-cp-zidhan-2 bash[21167]: [2024-07-25 14:34:09,996] INFO Snapshotting: 0x42 to /data/zookeeper/version-2/snapshot.42 (org.apache.zookeeper.s
Jul 25 14:34:09 server-cp-zidhan-2 bash[21167]: [2024-07-25 14:34:09,997] INFO Snapshot taken in 1 ms (org.apache.zookeeper.server.ZookeepersServer)
Jul 25 14:34:10 server-cp-zidhan-2 bash[21167]: [2024-07-25 14:34:10,005] INFO PrepRequestProcessor (sid:0) started, reconfigEnabled=false (org.apache.zookeeper.s
Jul 25 14:34:10 server-cp-zidhan-2 bash[21167]: [2024-07-25 14:34:10,005] INFO zookeeper.requestThrottler.shutdownTimeout = 10000 (org.apache.zookeeper.server.Re
Jul 25 14:34:10 server-cp-zidhan-2 bash[21167]: [2024-07-25 14:34:10,019] INFO Using checkIntervalMs=60000 maxPerMinute=10000 maxNeverUsedIntervalMs=0 (org.apache
Jul 25 14:34:10 server-cp-zidhan-2 bash[21167]: [2024-07-25 14:34:10,956] INFO Creating new log file: log.43 (org.apache.zookeeper.server.persistence.FileTxnLog)

● kafka.service - Apache Kafka Server
   Loaded: loaded (/etc/systemd/system/kafka.service; enabled; preset: enabled)
   Active: active (running) since Thu 2024-07-25 14:34:08 UTC; 5s ago
     Docs: http://kafka.apache.org/documentation.html
  Main PID: 20793 (java)
    Tasks: 73 (limit: 19049)
   Memory: 313.6M (peak: 317.6M)
      CPU: 3.575s
  CGroup: /system.slice/kafka.service
          └─20793 /usr/lib/jvm/java-17-openjdk-amd64/bin/java -Xmx1G -Xms1G -server -XX:+UseG1GC -XX:MaxGCPauseMillis=20 -XX:InitiatingHeapOccupancyPercent=35

Jul 25 14:34:11 server-cp-zidhan-2 bash[20793]: [2024-07-25 14:34:11,944] WARN [Controller id=0, targetBrokerId=0] Connection to node 0 (server-cp-zidhan-2/127.0.0.1)
Jul 25 14:34:11 server-cp-zidhan-2 bash[20793]: [2024-07-25 14:34:11,947] INFO [Controller id=0, targetBrokerId=0] Client requested connection close from node 0 (
Jul 25 14:34:11 server-cp-zidhan-2 bash[20793]: [2024-07-25 14:34:11,954] INFO [SocketServer listenerType=ZK_BROKER, nodeId=0] Enabling request processing. (kafka
Jul 25 14:34:11 server-cp-zidhan-2 bash[20793]: [2024-07-25 14:34:11,956] INFO Awaiting socket connections on 0.0.0.0:9092. (kafka.network.DataPlaneAcceptor)
Jul 25 14:34:11 server-cp-zidhan-2 bash[20793]: [2024-07-25 14:34:11,971] INFO Kafka version: 3.5.1 (org.apache.kafka.common.utils.AppInfoParser)
ifconfig=1=38
```

```
root@server-cp-zidhan-2:~# jcmd | grep kafka
20793 kafka.Kafka /usr/local/kafka/config/server.properties
21167 org.apache.zookeeper.server.quorum.QuorumPeerMain /usr/local/kafka/config/zookeeper.properties
root@server-cp-zidhan-2:~#
```