**SM Setup Steps for Kafka and Redis**

1. **Redis server Installing and Configuration:**

First, update your local apt package cache (if not done recently).

$ sudo apt update

1. Install Redis by typing:

$ sudo apt install redis-server

2. Open this file with your preferred text editor:

$ sudo nano /etc/redis/redis.conf

Inside the file, find the supervised directive. The supervised directive is set to no by default. Since you are running Ubuntu, which uses the systemd init system, change this to systemd:

# supervision tree. Options:

# supervised no - no supervision interaction

# supervised upstart - signal upstart by putting Redis into SIGSTOP mode

# supervised systemd - signal systemd by writing READY=1 to $NOTIFY\_SOCKET

# supervised auto - detect upstart or systemd method based on

supervised systemd

3. Restart the Redis service to reflect the changes you made to the configuration file:

$ sudo systemctl restart redis.service

With that, you’ve installed and configured Redis and it’s running on your machine. Before you begin using it, check whether Redis is functioning correctly.

Testing Redis:

4. Start by checking that the Redis service is running:

$ sudo systemctl status redis

If it is running without any errors, this command will produce output:

Output:

● redis-server.service - Advanced key-value store

Loaded: loaded (/lib/systemd/system/redis-server.service; enabled; vendor preset: enabled)

Active: active (running) since Wed 2018-06-27 18:48:52 UTC; 12s ago

Docs: http://redis.io/documentation,

man:redis-server(1)

Process: 2421 ExecStop=/bin/kill -s TERM $MAINPID (code=exited, status=0/SUCCESS)

Process: 2424 ExecStart=/usr/bin/redis-server /etc/redis/redis.conf (code=exited, status=0/SUCCESS)

Main PID: 2445 (redis-server)

Tasks: 4 (limit: 4704)

CGroup: /system.slice/redis-server.service

└─2445 /usr/bin/redis-server 127.0.0.1:6379

Redis is running and is already enabled, it is set to start up every time the server boots.

5. To test Redis is functioning correctly, connect to the server using the command-line client:

$ redis-cli

 test connectivity with the ping command:

* 127.0.0.1:6379> ping

 Output:

PONG

This output confirms that the server connection is still alive. To exit now:

* 127.0.0.1:6379> exit

Redis installation is fully operational and ready for you to use.

Binding to localhost

6. Open the Redis configuration file for editing:

$ sudo nano /etc/redis/redis.conf

Locate this line and make sure it is uncommented (remove the # if it exists):

bind 127.0.0.1 ::1

 Save and close the file when finished

7. Restart the service to ensure that systemd reads your changes:

$ sudo systemctl restart redis

8. To check that this change has gone into effect, run the following netstat command:

$ sudo netstat -lnp | grep redis

Output

tcp 0 0 127.0.0.1:6379 0.0.0.0:\* LISTEN 14222/redis-server

tcp6 0 0 ::1:6379 :::\* LISTEN 14222/redis-server

This output shows that the redis-server program is bound to **localhost** (127.0.0.1), reflecting the bind setting in the Redis configuration file. If you see another IP address in that column (0.0.0.0, for example), then you should double check that you uncommented the correct line and restart the Redis service again.

1. **Install hiredis (C redis client)**
2. Copy the tar file hiredis-1.0.2.tar.gz to SM and un-tar it with below command:

tar -zxvf hiredis-1.0.2.tar.gz

1. $ cd hiredis-1.0.2
2. $ make
3. $ sudo make install
4. **Install librdkafka (Kafka client)**
5. Copy the zip file librdkafka-master.zip to SM and un-tar it with below command:

unzip librdkafka-master.zip

1. $ cd librdkafka-master
2. $ ./configure --prefix=/usr/local
3. $ make
4. $ sudo make install

NOTE: Links to download hiredis and librdkafka:

Hiredis: [https://github.com/redis/hiredis/](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgithub.com%2Fredis%2Fhiredis%2F&data=04%7C01%7Csujit.diwakar%40wipro.com%7C00a185a2036c4976fa7708d9a41c8f76%7C258ac4e4146a411e9dc879a9e12fd6da%7C1%7C0%7C637721264857511622%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=%2Be%2BMqUYyF6p1aGUntLTV0RvQXOpI3en6AWdd6bAyhE0%3D&reserved=0)

(Download hiredis-1.0.2.tar.gz)

Librdkafka: [https://github.com/edenhill/librdkafka](https://apc01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgithub.com%2Fedenhill%2Flibrdkafka&data=04%7C01%7Csujit.diwakar%40wipro.com%7C00a185a2036c4976fa7708d9a41c8f76%7C258ac4e4146a411e9dc879a9e12fd6da%7C1%7C0%7C637721264857531538%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C1000&sdata=NJkx%2FEb%2F9W4xaWaI4nt%2FVN5afNq%2Febx5y3Y14toLqvI%3D&reserved=0)

(Download librdkafka-master.zip)