Restore cassandra cluster data when acccidentally drop table

Asked 7 years, 7 months ago Active 1 year, 9 months ago Viewed 4k times



As you know, Cassandra cluster have replication to prevent data loss even if some node in the cluster down. But in the case that an admin accidentally drop a table with big amount of data, and that command had already executed by all the replica in cluster, is this means you lost that table and cannot restore it? Is there any suggestion to cope with this kind of disaster with short server down time?

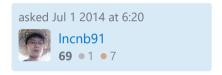


cassandra backup restore

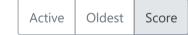


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edited Jul 4 2014 at 10:08



3 Answers





From cassandra docs:

5

auto_snapshot (Default: true) Enable or disable whether a snapshot is taken of the data before keyspace truncation or dropping of tables. To prevent data loss, using the default setting is strongly advised. If you set to false, you will lose data on truncation or drop.



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answered Jul 1 2014 at 14:57



3.060 • 13 • 26

Thanks for the answer. Isn't it take long time recovery for big amount of data? - Incnb91 Jul 2 2014 at 1:35

No actual data is being copied on recovery, so it's pretty fast. But I also recommend to run rather slow nodetool repair task after that to be sure that recovered data is fully consistent. - shutty Jul 4 2014 at 7:54



Step-1: I created one table by using the below command

0



```
CREATE TABLE Cricket (
PlayerID uuid,
LastName varchar,
FirstName varchar,
City varchar,
State varchar,
PRIMARY KEY (PlayerID));
```

Step-2: Insert 3 records by using below command

```
INSERT INTO Cricket (PlayerID, LastName, FirstName, City, State)
VALUES (now(), 'Pendulkar', 'Sachin', 'Mumbai','Maharastra');
INSERT INTO Cricket (PlayerID, LastName, FirstName, City, State)
VALUES (now(), 'Vholi', 'Virat', 'Delhi','New Delhi');
INSERT INTO Cricket (PlayerID, LastName, FirstName, City, State)
VALUES (now(), 'Sharma', 'Rohit', 'Berhampur','Odisha');
```

Step-3: Accidentally I deleted Cricket table

```
drop table Cricket;
```

Step-4: Need to recover that table by using auto snapshotbackup Note: auto_snapshot (Default: true) Enable or disable whether a snapshot is taken of the data before keyspace truncation or dropping of tables. To prevent data loss, using the default setting is strongly advised.

Step-5: Find the snapshot locations and files

```
cassandra@nodel:~/data/students_details$ cd cricket-88128dc0960d11ea947b39646348bb4f cassandra@nodel:~/data/students_details/cricket-88128dc0960d11ea947b39646348bb4f$ ls -lrth total 0 drwxrwxr-x 2 cassandra cassandra 6 May 14 18:05 backups drwxrwxr-x 3 cassandra cassandra 43 May 14 18:06 snapshots Step-6: You will get one .cql file in that snapshot location which having tables DDL.
```

```
cassandra@node1:~/data/students_details/cricket-88128dc0960d11ea947b39646348bb4f/snapshots/dropped-1589479603749-cricket$ ls -lrth
total 44K
-rw-rw-r-- 1 cassandra cassandra 92 May 14 18:06 md-1-big-Summary.db
-rw-rw-r-- 1 cassandra cassandra 61 May 14 18:06 md-1-big-Index.db
-rw-rw-r-- 1 cassandra cassandra 16 May 14 18:06 md-1-big-Filter.db
-rw-rw-r-- 1 cassandra cassandra 179 May 14 18:06 md-1-big-Data.db
-rw-rw-r-- 1 cassandra cassandra 92 May 14 18:06 md-1-big-TOC.txt
-rw-rw-r-- 1 cassandra cassandra 4.7K May 14 18:06 md-1-big-Statistics.db
-rw-rw-r-- 1 cassandra cassandra
                                   9 May 14 18:06 md-1-big-Digest.crc32
-rw-rw-r-- 1 cassandra cassandra 43 May 14 18:06 md-1-big-CompressionInfo.db
-rw-rw-r-- 1 cassandra cassandra 891 May 14 18:06 schema.cgl
-rw-rw-r-- 1 cassandra cassandra 31 May 14 18:06 manifest.json
cassandra@node1:~/data/students_details/cricket-88128dc0960d11ea947b39646348bb4f/snapshots/dropped-1589479603749-cricket$
more schema.cql
cassandra@node1:~/data/students_details/cricket-88128dc0960d11ea947b39646348bb4f/snapshots/dropped-1589479603749-cricket$ more
schema.cgl
CREATE TABLE IF NOT EXISTS students_details.cricket (
        playerid uuid PRIMARY KEY,
        city text,
       firstname text,
        lastname text,
        state text)
       WITH ID = 88128dc0-960d-11ea-947b-39646348bb4f
        AND bloom_filter_fp_chance = 0.01
        AND dclocal_read_repair_chance = 0.1
        AND crc_check_chance = 1.0
        AND default_time_to_live = 0
        AND gc_grace_seconds = 864000
        AND min index interval = 128
```

Step-7: Login to the database and create table using that DDL.

```
AND crc check chance = 1.0
                                    AND default time to live = 0
                                    AND gc_grace_seconds = 864000
                                    AND min_index_interval = 128
                                    AND max index interval = 2048
                                    AND memtable_flush_period_in_ms = 0
                                    AND read_repair_chance = 0.0
                                    AND speculative retry = '99PERCENTILE'
                                    AND comment = ''
                                    AND caching = { 'keys': 'ALL', 'rows_per_partition': 'NONE' }
                                    AND compaction = { 'max_threshold': '32', 'min_threshold': '4', 'class':
'org.apache.cassandra.db.compaction.SizeTieredCompactionStrategy' }
                                    AND compression = { 'chunk_length_in_kb': '64', 'class':
'org.apache.cassandra.io.compress.LZ4Compressor' }
                                    AND cdc = false
                                    AND extensions = { }:
apiadmin@cglsh:students_details>
```

Step-8: copy all the files on snapshot folder to existing cricket table folder

```
cassandra@node1:~/data/students_details/cricket-88128dc0960d11ea947b39646348bb4f/snapshots/dropped-1589479603749-cricket$ pwd
/home/cassandra/data/students_details/cricket-88128dc0960d11ea947b39646348bb4f/snapshots/dropped-1589479603749-cricket
cassandra@node1:~/data/students_details/cricket-88128dc0960d11ea947b39646348bb4f/snapshots/dropped-1589479603749-cricket$ cp *
/home/cassandra/data/students details/cricket-88128dc0960d11ea947b39646348bb4f
cassandra@node1:~/data/students_details/cricket-88128dc0960d11ea947b39646348bb4f/snapshots/dropped-1589479603749-cricket$ cd
/home/cassandra/data/students_details/cricket-88128dc0960d11ea947b39646348bb4f
cassandra@node1:~/data/students_details/cricket-88128dc0960d11ea947b39646348bb4f$ ls -lrth
total 44K
drwxrwxr-x 2 cassandra cassandra
                                    6 May 14 18:05 backups
drwxrwxr-x 3 cassandra cassandra 43 May 14 18:06 snapshots
-rw-rw-r-- 1 cassandra cassandra 891 May 14 18:11 schema.cgl
-rw-rw-r-- 1 cassandra cassandra
                                 92 May 14 18:11 md-1-big-TOC.txt
-rw-rw-r-- 1 cassandra cassandra
                                  92 May 14 18:11 md-1-big-Summary.db
-rw-rw-r-- 1 cassandra cassandra 4.7K May 14 18:11 md-1-big-Statistics.db
-rw-rw-r-- 1 cassandra cassandra
                                  61 May 14 18:11 md-1-big-Index.db
-rw-rw-r-- 1 cassandra cassandra
                                 16 May 14 18:11 md-1-big-Filter.db
                                   9 May 14 18:11 md-1-big-Digest.crc32
-rw-rw-r-- 1 cassandra cassandra
-rw-rw-r-- 1 cassandra cassandra 179 May 14 18:11 md-1-big-Data.db
-rw-rw-r-- 1 cassandra cassandra
                                 43 May 14 18:11 md-1-big-CompressionInfo.db
-rw-rw-r-- 1 cassandra cassandra
                                  31 May 14 18:11 manifest.json
cassandra@node1:~/data/students_details/cricket-88128dc0960d11ea947b39646348bb4f$
```

Step-9: start restore table data using sstableloader by using below command

cassandra@nodel:~\$ sstableloader -d 10.213.61.21 -username cassandra --password cassandra/home/cassandra/data/students_details/cricket-d3576f60960f11ea947b39646348bb4f/snapshots
 Established connection to initial hosts
 Opening sstables and calculating sections to stream

Summary statistics:

Connections per host : 1 Total files transferred : 0

Total bytes transferred : 0.000KiB
Total duration : 2920 ms
Average transfer rate : 0.000KiB/s
Peak transfer rate : 0.000KiB/s

Step-10: Table restored successfully. Please verify.

playerid	city	firstname lastname	state
d7b12c90-960f-11ea-947b-39646348bb4f	Delhi	Rohit Sharma	Odisha
d7594890-960f-11ea-947b-39646348bb4f		Virat Vholi	New Delhi
d7588540-960f-11ea-947b-39646348bb4f		Sachin Pendulkar	Maharastra

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answered May 14 2020 at 18:50

