

Cassandra Fundamentals

Module 7

Troubleshooting



Troubleshooting Process

1	Ask what changed
2	Examine bottlenecks
3	Determine which nodes have problems
4	Find and understand errors
5	Determine root cause
6	Take corrective action



What changed?

Did it work before?

Does it work in another environment?

What's different?

- Settings
- Application Code
- Read/Write Load
- Data Volume
- Hardware
- Network

Did you upgrade?

- Cassandra
- Kernel
- JVM
- Driver
- What metrics changed?
 - OpsCenter
 - Graphite, etc.
- Change one thing at a time!



System Resources

CPU

- Single Core utilization
- Multi Core utilization

Memory

- Heap space
- Off-heap space
- Linux page cache

Disk

- Disk space
- I/O bandwidth
- Network
- OS Resources/Limits
 - File Handles
 - Processes
 - Mapped Memory

Linux monitoring commands

Command	What it tells you
top	CPU utilization and memory use per process
top -H	CPU utilization per thread, memory use is still per process
df	Free disk space
iostat -x	I/O bandwidth utilization
free -m	Memory and cache usage
netstat -an	Network connections established
iftop	Network bandwidth utilization
sar	All (most) of the above, with history!



Java monitoring commands

Command	What it tells you
jstack -l	Status and stack trace of each thread
jmap -histo	Types of objects on the heap (optionally only live objects)
jmap -heap	Size and usage of each java heap generation
jstat -gccause	Causes of gc activity
jmap -dump	Take a heap dump for further analysis
MemoryAnalyzer	Post-mortem heap-dump analysis



Cassandra Architecture

Request coordination

Read & write path

Data structures

- Memtables
- SSTables
- Tombstones
- Caches
- Bloom filters
- Index summaries

Background Processes

- Flushes
- Compactions
- Garbage collections
- Gossip
- Hinted Handoff
- Read Repair
- Repair

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nodetool commands

Command	What it tells you
status / ring	Overall cluster status
info	Status, memory usage, and caches for a single node
tpstats	Statistics about each thread pool on a single node
cfstats	Summary statistics for all tables and keyspaces on a single node
cfhistograms	Detailed statistics for a specific table on the local node
proxyhistograms	Latency statistics for requests coordinated the local node
netstats	Network activity: streams, read repair, and in-flight commands
compactionstats	Compactions pending and in progress
compactionhistory	Historical compaction information
describecluster	Basic cluster information and schema versions



nodetool status

Datacenter: us-east

54.153.39.203

22.67 MB

Note: Ownership information does not include topology; for complete information, specify a keyspace

```
Status=Up/Down
|/ State=Normal/Leaving/Joining/Moving
                               Tokens
                                                                                    Rack
    Address
                    Load
                                       Owns
                                              Host ID
   54.173.171.164 22.78 MB
                                                                                    1h
                                       16.7%
                                             67b3823f-6663-47d0-a04f-5914081e275c
   54.174.19.98
                    22.82 MB
                                       16.7% 48d6f717-017b-4868-a525-b396d3f899aa
DN
                                                                                    1b
   54.174.245.247 22.68 MB
                                       16.7% 6817e9ca-e79d-4fed-946e-7318bcfd5343
                                                                                    1h
Datacenter: us-west
Status=Up/Down
|/ State=Normal/Leaving/Joining/Moving
   Address
                               Tokens
                                                                                    Rack
                    Load
                                       Owns
                                              Host TD
   54.153.107.100 22.72 MB
                                       16.7%
                                             4abf0a7a-00ef-441a-9f70-046cd9fe1c0c
                                                                                    1a
   54.153.108.157
                   22.79 MB
                                       16.7% 303f08dd-2a19-4175-98e7-97920232855b
UN
                                                                                    1a
```

16.7%



1a

d1a57a91-7aef-4878-a056-88949920724c

nodetool status - data centers

Note: Ownership information does not include topology; for complete information, specify a keyspace

```
Datacenter: us-east
Status=Up/Down
// State=Normal/Leaving/Joining/Moving
   Address
                   Load
                              Tokens
                                                                                   Rack
                                      0wns
                                             Host ID
   54.173.171.164 22.78 MB
                                                                                   1h
                                      16.7%
                                             67b3823f-6663-47d0-a04f-5914081e275c
  54.174.19.98 22.82 MB
                                      16.7% 48d6f717-017b-4868-a525-b396d3f899aa
                                                                                   1h
DN
   54.174.245.247 22.68 MB
                                      16.7% 6817e9ca-e79d-4fed-946e-7318bcfd5343
                                                                                   1h
```

Datacenter: us-west

```
Status=Up/Down
```

|/ State=Normal/Leaving/Joining/Moving

	Address	Load	Tokens	Owns	Host ID	Rack
UN	54.153.107.100	22.72 MB	1	16.7%	4abf0a7a-00ef-441a-9f70-046cd9fe1c0c	1a
UN	54.153.108.157	22.79 MB	1	16.7%	303f08dd-2a19-4175-98e7-97920232855b	1a
UN	54.153.39.203	22.67 MB	1	16.7%	d1a57a91-7aef-4878-a056-88949920724c	1a

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nodetool status - up or down?

Note: Ownership information does not include topology; for complete information, specify a keyspace

Datacenter: us-east

Status=Up/Down

```
|/ State=Normal/Leaving/Joining/Moving
   Address
                   Load
                              Tokens
                                                                                  Rack
                                      0wns
                                            Host ID
   54.173.171.164 22.78 MB
                                                                                  1h
                                      16.7%
                                            67b3823f-6663-47d0-a04f-5914081e275c
  54.174.19.98 22.82 MB
                                     16.7% 48d6f717-017b-4868-a525-b396d3f899aa
                                                                                  1h
DN
   54.174.245.247 22.68 MB
                                      16.7% 6817e9ca-e79d-4fed-946e-7318bcfd5343
                                                                                  1h
```

Datacenter: us-west

Status=Up/Down

|/ State=Normal/Leaving/Joining/Moving

	Address	Load	Tokens	0wns	Host ID	Rack
UN	54.153.107.100	22.72 MB	1	16.7%	4abf0a7a-00ef-441a-9f70-046cd9fe1c0c	1a
UN	54.153.108.157	22.79 MB	1	16.7%	303f08dd-2a19-4175-98e7-97920232855b	1a
UN	54.153.39.203	22.67 MB	1	16.7%	d1a57a91-7aef-4878-a056-88949920724c	1a

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nodetool status - streaming state

Note: Ownership information does not include topology; for complete information, specify a keyspace

```
Status=Up/Down
|/ State=Normal/Leaving/Joining/Moving
   Address
                              Tokens
                                                                                   Rack
                   Load
                                      0wns
                                             Host ID
   54.173.171.164 22.78 MB
                                                                                   1h
                                      16.7%
                                             67b3823f-6663-47d0-a04f-5914081e275c
   54.174.19.98
                   22.82 MB
                                      16.7%
                                             48d6f717-017b-4868-a525-b396d3f899aa
                                                                                   1h
DN
   54.174.245.247 22.68 MB
                                            6817e9ca-e79d-4fed-946e-7318bcfd5343
                                      16.7%
                                                                                   1h
Datacenter: us-west
_____
Status=Up/Down
|/ State=Normal/Leaving/Joining/Moving
                                                                                   Rack
   Address
                   Load
                              Tokens
                                      Owns
                                             Host ID
   54.153.107.100
                   22.72 MB
                                      16.7%
                                             4abf0a7a-00ef-441a-9f70-046cd9fe1c0c
                                                                                   1a
   54.153.108.157
                   22.79 MB
                                      16.7%
                                             303f08dd-2a19-4175-98e7-97920232855b
                                                                                   1a
   54.153.39.203
                   22.67 MB
                                      16.7%
                                             d1a57a91-7aef-4878-a056-88949920724c
UN
                                                                                   1a
```

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nodetool status - ip address

Note: Ownership information does not include topology; for complete information, specify a keyspace

```
Status=Up/Down
  State=Normal/Leaving/Joining/Moving
   Address
                               Tokens
                                                                                    Rack
                   Load
                                       0wns
                                              Host ID
    54.173.171.164
                   22.78 MB
                                                                                    1h
                                       16.7%
                                              67b3823f-6663-47d0-a04f-5914081e275c
   54.174.19.98
                   22.82 MB
                                       16.7%
                                             48d6f717-017b-4868-a525-b396d3f899aa
                                                                                    1h
DN
   54.174.245.247 22.68 MB
                                             6817e9ca-e79d-4fed-946e-7318bcfd5343
UN
                                       16.7%
                                                                                    1h
Datacenter: us-west
_____
Status=Up/Down
|/ State=Normal/Leaving/Joining/Moving
                                                                                    Rack
   Address
                   Load
                               Tokens
                                       Owns
                                              Host ID
UN
    54.153.107.100
                   22.72 MB
                                       16.7%
                                              4abf0a7a-00ef-441a-9f70-046cd9fe1c0c
                                                                                    1a
IIN
   54.153.108.157
                    22.79 MB
                                       16.7%
                                             303f08dd-2a19-4175-98e7-97920232855b
                                                                                    1a
   54.153.39.203
                   22.67 MB
                                       16.7%
                                             d1a57a91-7aef-4878-a056-88949920724c
UN
                                                                                    1a
```

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nodetool status - disk usage

Note: Ownership information does not include topology; for complete information, specify a keyspace

```
Status=Up/Down
  State=Normal/Leaving/Joining/Moving
   Address
                    Load
                               Tokens
                                                                                    Rack
                                      0wns
                                              Host ID
   54.173.171.164
                    22.78 MB
                                                                                    1h
                                       16.7%
                                              67b3823f-6663-47d0-a04f-5914081e275c
   54.174.19.98
                    22.82 MB
                                       16.7%
                                             48d6f717-017b-4868-a525-b396d3f899aa
                                                                                    1h
DN
                                             6817e9ca-e79d-4fed-946e-7318bcfd5343
UN
   54.174.245.247 22.68 MB
                                       16.7%
                                                                                    1h
Datacenter: us-west
_____
Status=Up/Down
|/ State=Normal/Leaving/Joining/Moving
                                                                                    Rack
   Address
                    Load
                               Tokens
                                      Owns
                                              Host ID
UN
   54.153.107.100
                   22.72 MB
                                       16.7%
                                              4abf0a7a-00ef-441a-9f70-046cd9fe1c0c
                                                                                    1a
                    22.79 MB
IIN
   54.153.108.157
                                       16.7%
                                             303f08dd-2a19-4175-98e7-97920232855b
                                                                                    1a
   54.153.39.203
                   22.67 MB
                                       16.7%
                                             d1a57a91-7aef-4878-a056-88949920724c
UN
                                                                                    1a
```

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nodetool status - token count

Note: Ownership information does not include topology; for complete information, specify a keyspace

```
Status=Up/Down
  State=Normal/Leaving/Joining/Moving
   Address
                   Load
                               Tokens
                                                                                    Rack
                                      0wns
                                             Host ID
   54.173.171.164
                   22.78 MB
                                                                                    1h
                                       16.7%
                                             67b3823f-6663-47d0-a04f-5914081e275c
   54.174.19.98
                   22.82 MB
                                      16.7%
                                             48d6f717-017b-4868-a525-b396d3f899aa
                                                                                    1h
DN
   54.174.245.247 22.68 MB
                                             6817e9ca-e79d-4fed-946e-7318bcfd5343
UN
                                       16.7%
                                                                                    1h
Datacenter: us-west
_____
Status=Up/Down
|/ State=Normal/Leaving/Joining/Moving
                                                                                    Rack
   Address
                   Load
                               Tokens
                                      Owns
                                             Host ID
UN
   54.153.107.100
                   22.72 MB
                                       16.7%
                                              4abf0a7a-00ef-441a-9f70-046cd9fe1c0c
                                                                                    1a
IIN
   54.153.108.157
                   22.79 MB
                                      16.7%
                                             303f08dd-2a19-4175-98e7-97920232855b
                                                                                    1a
   54.153.39.203
                   22.67 MB
                                       16.7%
                                             d1a57a91-7aef-4878-a056-88949920724c
UN
                                                                                    1a
```

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nodetool status - data ownership

Note: Ownership information does not include topology; for complete information, specify a keyspace

```
Datacenter: us-east
Status=Up/Down
  State=Normal/Leaving/Joining/Moving
   Address
                   Load
                              Tokens
                                                                                   Rack
                                      0wns
                                             Host ID
   54.173.171.164
                   22.78 MB
                                                                                   1h
                                      16.7%
                                             67b3823f-6663-47d0-a04f-5914081e275c
   54.174.19.98
                   22.82 MB
                                      16.7%
                                             48d6f717-017b-4868-a525-b396d3f899aa
                                                                                   1h
DN
   54.174.245.247 22.68 MB
                                             6817e9ca-e79d-4fed-946e-7318bcfd5343
UN
                                      16.7%
                                                                                   1h
Datacenter: us-west
_____
Status=Up/Down
|/ State=Normal/Leaving/Joining/Moving
                              Tokens
                                                                                   Rack
   Address
                   Load
                                      Owns
                                             Host ID
UN
   54.153.107.100
                   22.72 MB
                                      16.7%
                                             4abf0a7a-00ef-441a-9f70-046cd9fe1c0c
                                                                                   1a
IIN
   54.153.108.157
                   22.79 MB
                                      16.7%
                                             303f08dd-2a19-4175-98e7-97920232855b
                                                                                   1a
   54.153.39.203
                   22.67 MB
                                      16.7%
                                             d1a57a91-7aef-4878-a056-88949920724c
UN
                                                                                   1a
```

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nodetool status - host id

Datacenter: us-east

Note: Ownership information does not include topology; for complete information, specify a keyspace

```
Status=Up/Down
  State=Normal/Leaving/Joining/Moving
   Address
                   Load
                               Tokens
                                                                                    Rack
                                       0wns
                                              Host ID
   54.173.171.164
                   22.78 MB
                                                                                    1h
                                       16.7%
                                              67b3823f-6663-47d0-a04f-5914081e275c
   54.174.19.98
                    22.82 MB
                                       16.7%
                                              48d6f717-017b-4868-a525-b396d3f899aa
                                                                                    1h
DN
   54.174.245.247 22.68 MB
UN
                                       16.7%
                                             6817e9ca-e79d-4fed-946e-7318bcfd5343
                                                                                    1h
Datacenter: us-west
_____
Status=Up/Down
|/ State=Normal/Leaving/Joining/Moving
                                                                                    Rack
   Address
                   Load
                               Tokens
                                       Owns
                                              Host TD
UN
   54.153.107.100
                   22.72 MB
                                       16.7%
                                              4ahf0a7a-00ef-441a-9f70-046cd9fe1c0c
                                                                                    1a
IIN
   54.153.108.157
                    22.79 MB
                                       16.7%
                                              303f08dd-2a19-4175-98e7-97920232855b
                                                                                    1a
   54.153.39.203
                   22.67 MB
                                       16.7%
                                             d1a57a91-7aef-4878-a056-88949920724c
UN
                                                                                    1a
```

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nodetool status - racks

22.67 MB

Note: Ownership information does not include topology; for complete information, specify a keyspace

```
Datacenter: us-east
Status=Up/Down
  State=Normal/Leaving/Joining/Moving
   Address
                   Load
                              Tokens
                                      0wns
                                             Host ID
                                                                                   Rack
   54.173.171.164
                   22.78 MB
                                                                                   1h
                                      16.7%
                                             67b3823f-6663-47d0-a04f-5914081e275c
   54.174.19.98
                   22.82 MB
                                      16.7%
                                             48d6f717-017b-4868-a525-b396d3f899aa
                                                                                   1b
DN
   54.174.245.247 22.68 MB
                                            6817e9ca-e79d-4fed-946e-7318bcfd5343
UN
                                      16.7%
                                                                                   1b
Datacenter: us-west
_____
Status=Up/Down
|/ State=Normal/Leaving/Joining/Moving
   Address
                   Load
                              Tokens
                                      Owns
                                             Host ID
                                                                                   Rack
UN
   54.153.107.100
                   22.72 MB
                                      16.7%
                                             4abf0a7a-00ef-441a-9f70-046cd9fe1c0c
                                                                                   1a
IIN
   54.153.108.157
                   22.79 MB
                                      16.7%
                                             303f08dd-2a19-4175-98e7-97920232855b
                                                                                   1a
```

16.7%

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1a

UN

54.153.39.203

d1a57a91-7aef-4878-a056-88949920724c

nodetool status - down node

Note: Ownership information does not include topology; for complete information, specify a keyspace

```
Status=Up/Down
  State=Normal/Leaving/Joining/Moving
   Address
                   Load
                               Tokens
                                                                                    Rack
                                      0wns
                                             Host ID
   54.173.171.164
                   22.78 MB
                                                                                    1h
                                       16.7%
                                             67b3823f-6663-47d0-a04f-5914081e275c
   54.174.19.98
                   22.82 MB
                                      16.7%
                                             48d6f717-017b-4868-a525-b396d3f899aa
                                                                                   1b
   54.174.245.247 22.68 MB
                                            6817e9ca-e79d-4fed-946e-7318bcfd5343
UN
                                       16.7%
                                                                                   1h
Datacenter: us-west
_____
Status=Up/Down
|/ State=Normal/Leaving/Joining/Moving
                                                                                    Rack
   Address
                   Load
                               Tokens
                                      Owns
                                             Host ID
UN
   54.153.107.100
                   22.72 MB
                                       16.7%
                                             4abf0a7a-00ef-441a-9f70-046cd9fe1c0c
                                                                                    1a
IIN
   54.153.108.157
                   22.79 MB
                                       16.7%
                                             303f08dd-2a19-4175-98e7-97920232855b
                                                                                    1a
   54.153.39.203
                   22.67 MB
                                       16.7%
                                             d1a57a91-7aef-4878-a056-88949920724c
UN
                                                                                    1a
```

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nodetool ring - every token

Note: Ownership information does not include topology; for complete information,

specify a keyspace

Datacenter: us-east

	_			
	_			

Address	Rack	Status	State	Load	0wns	Token
						-3074457345618258603
54.174.19.98	1b	Down	Normal	22.82 MB	16.67%	-9223372036854775808
54.174.245.247	1b	Up	Normal	22.68 MB	16.67%	-6148914691236517206
54.173.171.164	1b	Up	Normal	22.78 MB	16.67%	-3074457345618258603

 	_	_	_	_	_	_

Address	Rack	Status	State	Load	0wns	Token 6148914691236517205
54.153.39.203	1a	Up	Normal	22.67 MB	16.67%	0
54.153.107.100	1a	Up	Normal	22.72 MB	16.67%	3074457345618258602
54.153.108.157	1a	Up	Normal	22.79 MB	16.67%	6148914691236517205



nodetool info

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11
Data Center : us-east
Rack : 1b
Exceptions : 0

Key Cache : entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate, 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788



nodetool info - status info

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11

Data Center : us-east
Rack : 1b

Exceptions : 0

Key Cache : entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate, 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788



nodetool info - transport info

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11
Data Center : us-east
Rack : 1b
Exceptions : 0

Key Cache : entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate, 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788

nodetool info - gossip generation

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11
Data Center : us-east
Rack : 1b
Exceptions : 0

Key Cache : entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate. 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788

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nodetool info - uptime

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11
Data Center : us-east
Rack : 1b
Exceptions : 0

Key Cache : entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate, 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788



nodetool info - memory usage

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11
Data Center : us-east
Rack : 1b
Exceptions : 0

Key Cache : entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate. 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788

nodetool info - exception count

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11
Data Center : us-east
Rack : 1b
Exceptions : 0

Key Cache : entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate, 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788

nodetool info - key cache

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11
Data Center : us-east
Rack : 1b
Exceptions : 0

Key Cache: entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate, 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788

nodetool info - row cache

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11
Data Center : us-east
Rack : 1b
Exceptions : 0

Key Cache : entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate, 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788

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nodetool info - counter cache

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11
Data Center : us-east
Rack : 1b
Exceptions : 0

Key Cache : entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate, 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788

nodetool info - cache size

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11
Data Center : us-east
Rack : 1b
Exceptions : 0

Key Cache : entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate, 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788

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nodetool info - cache hit rate

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11
Data Center : us-east
Rack : 1b
Exceptions : 0

Key Cache : entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate, 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788

nodetool info - cache save period

ID : 6817e9ca-e79d-4fed-946e-7318bcfd5343

Gossip active : true
Thrift active : true
Native Transport active: true
Load : 22.68 MB
Generation No : 1426523950

Uptime (seconds) : 1557

Heap Memory (MB) : 270.85 / 1842.00

Off Heap Memory (MB) : 0.11
Data Center : us-east
Rack : 1b
Exceptions : 0

Key Cache : entries 156962, size 12.83 MB, capacity 100 MB, 649 hits, 713 requests,

0.910 recent hit rate, 14400 save period in seconds

Row Cache : entries 0, size 0 bytes, capacity 0 bytes, 0 hits, 0 requests,

NaN recent hit rate, 0 save period in seconds

Counter Cache : entries 0, size 0 bytes, capacity 50 MB, 0 hits, 0 requests,

NaN recent hit rate, 7200 save period in seconds

Token : 80372383360720788

nodetool tpstats

Pool Name	Active	Pending	Completed	Blocked	All time blocked	
MutationStage	0	0	10637419	0	0	
ReadStage	0	0	146995	0	0	
RequestResponseStage	0	0	7645246	0	0	
ReadRepairStage	0	0	1494	0	0	
CounterMutationStage	0	0	0	0	0	
MiscStage	0	0	0	0	0	
AntiEntropySessions	1	1	166	0	0	
HintedHandoff	0	1	131	0	0	
GossipStage	0	0	198095	0	0	
CacheCleanupExecutor	0	0	0	0	0	
InternalResponseStage	0	0	16	0	0	
CommitLogArchiver	0	0	0	0	0	
CompactionExecutor	0	0	63008726	0	0	
ValidationExecutor	0	0	5186	0	0	
MigrationStage	0	0	16	0	0	
AntiEntropyStage	0	0	13711	0	0	
PendingRangeCalculator	0	0	12	0	0	
Sampler	0	0	0	0	0	
MemtableFlushWriter	0	0	1755	0	10	00
MemtablePostFlush	0	0	7660	0	0	
MemtableReclaimMemory	0	0	1755	0	0	

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nodetool tpstats – dropped messages

Message type	Dropped
READ	0
RANGE_SLICE	0
_TRACE	0
MUTATION	18542
COUNTER_MUTATION	0
BINARY	0
REQUEST_RESPONSE	0
PAGED_RANGE	0
READ_REPAIR	0



nodetool tpstats - reads

Pool Name	Active	Pending	Completed	Blocked	All time blocked
MutationStage	0	0	10637419	0	0
ReadStage	0	0	146995	0	0
RequestResponseStage	0	0	7645246	0	0

. . .

Message type	Dropped
READ	0
RANGE_SLICE	0
_TRACE	0
MUTATION	18542
COUNTER_MUTATION	0
BINARY	0
REQUEST_RESPONSE	0
PAGED_RANGE	0
READ_REPAIR	0



nodetool tpstats - writes

Pool Name	Active	Pending	Completed	Blocked	All time blocked
MutationStage	0	0	10637419	0	0
ReadStage	0	0	146995	0	0
RequestResponseStage	0	0	7645246	0	0
ReadRepairStage	0	0	1494	0	0
CounterMutationStage	0	0	0	0	0
MiscStage	0	0	0	0	0

. . .

Message type	Dropped
READ	(
RANGE_SLICE	(
_TRACE	(
MUTATION	18542
COUNTER_MUTATION	
BINARY	(
REQUEST_RESPONSE	(
PAGED_RANGE	(
READ REPAIR	(

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nodetool tpstats - responses to coordinator

Pool Name	Active	Pending	Completed	Blocked	All time blocked
MutationStage	0	0	10637419	0	0
ReadStage	0	0	146995	0	0
RequestResponseStage	0	0	7645246	0	0
ReadRepairStage	0	0	1494	0	0

. . .

Message type	Dropped
READ	0
RANGE_SLICE	0
_TRACE	0
MUTATION	18542
COUNTER_MUTATION	0
BINARY	0
REQUEST_RESPONSE	0
PAGED_RANGE	0
READ REPAIR	0

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nodetool tpstats - flushes

Pool Name	Active	Pending	Completed	Blocked	All time blocked
Sampler	0	0	0	0	0
MemtableFlushWriter	0	0	1755	0	100
MemtablePostFlush	0	0	7660	0	0
MemtableReclaimMemory	0	0	1755	0	0

Message type	Dropped
READ	0
RANGE_SLICE	0
_TRACE	0
MUTATION	18542
COUNTER_MUTATION	0
BINARY	0
REQUEST_RESPONSE	0
PAGED_RANGE	0
READ REPATR	0



pool Name etool	tpstats	Pending	mpact	Qns	All time blocked
MutationStage	0	0	10637419	0	0
ReadStage	0	0	146995	0	0
RequestResponseStage	0	0	7645246	0	0
ReadRepairStage	0	0	1494	0	0
CounterMutationStage	0	0	0	0	0
MiscStage	0	0	0	0	0
AntiEntropySessions	1	1	166	0	0
HintedHandoff	0	1	131	0	0
GossipStage	0	0	198095	0	0
CacheCleanupExecutor	0	0	0	0	0
InternalResponseStage	0	0	16	0	0
CommitLogArchiver	0	0	0	0	0
CompactionExecutor	0	0	63008726	0	0
ValidationExecutor	0	0	5186	0	0
MigrationStage	0	0	16	0	0
AntiEntropyStage	0	0	13711	0	0
PendingRangeCalculato	r 0	0	12	0	0
Sampler	0	0	0	0	0
MemtableFlushWriter	0	0	1755	0	0
MemtablePostFlush	0	0	7660	0	0
MemtableReclaimMemory	0	0	1755	0	0

Message type	Dropped
READ	0
RANGE_SLICE	0
_TRACE	0
MUTATION	18542
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0



Pool Name etool	tnetate	- rea	d rena	ire	
Pool Name	Active	Pending	Completed	Blocked	All time blocked
MutationStage	0	0	10637419	0	0
ReadStage	0	0	146995	0	0
RequestResponseStage	0	0	7645246	0	0
ReadRepairStage	0	0	1494	0	0
CounterMutationStage	0	0	0	0	0
MiscStage	0	0	0	0	0
AntiEntropySessions	1	1	166	0	0
HintedHandoff	0	1	131	0	0
GossipStage	0	0	198095	0	0
CacheCleanupExecutor	0	0	0	0	0
InternalResponseStage	0	0	16	0	0
CommitLogArchiver	0	0	0	0	0
CompactionExecutor	0	0	63008726	0	0
ValidationExecutor	0	0	5186	0	0
MigrationStage	0	0	16	0	0
AntiEntropyStage	0	0	13711	0	0
PendingRangeCalculator	_ 0	0	12	0	0
Sampler	0	0	0	0	0
MemtableFlushWriter	0	0	1755	0	0
MemtablePostFlush	0	0	7660	0	0
MemtableReclaimMemory	0	0	1755	0	0

Message type	Dropped
READ	0
RANGE_SLICE	0
_TRACE	0
MUTATION	18542
[™] COUNTER_MUTATION	0

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Pool Name etool tpstats - hinted handoff All time blocked MutationStage 10637419 ReadStage 146995 RequestResponseStage 7645246 ReadRepairStage 1494 CounterMutationStage MiscStage AntiEntropySessions 166 HintedHandoff 131 GossipStage 198095 CacheCleanupExecutor InternalResponseStage 16 CommitLogArchiver CompactionExecutor 63008726 ValidationExecutor 5186 MigrationStage 16 AntiEntropyStage 13711 PendingRangeCalculator 12 Sampler

1755

7660

1755

Message type	Dropped
READ	0
RANGE_SLICE	0
_TRACE	0
MUTATION	18542
WCOUNTER_MUTATION	0

MemtableFlushWriter

MemtableReclaimMemory

MemtablePostFlush



pool Name etool	tpstats	Pending	)SSID completed	Blocked	All time blocked
MutationStage	ACCIVE	0	10637419	D COCKCO	Acc cline blocked
ReadStage	0	0	146995	0	ő
RequestResponseStage	0	0	7645246	0	0
ReadRepairStage	0	0	1494	0	0
CounterMutationStage	0	0	0	0	0
MiscStage	0	0	0	0	0
AntiEntropySessions	1	1	166	0	0
HintedHandoff	0	1	131	0	0
GossipStage	0	0	198095	0	0
CacheCleanupExecutor	0	0	0	0	0
InternalResponseStage	0	0	16	0	0
CommitLogArchiver	0	0	0	0	0
CompactionExecutor	0	0	63008726	0	0
ValidationExecutor	0	0	5186	0	0
MigrationStage	0	0	16	0	0
AntiEntropyStage	0	0	13711	0	0
PendingRangeCalculato	r 0	0	12	0	0
Sampler	0	0	0	0	0
MemtableFlushWriter	0	0	1755	0	0
MemtablePostFlush	0	0	7660	0	0
MemtableReclaimMemory	0	0	1755	0	0

Message type	Dropped
READ	0
RANGE_SLICE	0
_TRACE	0
MUTATION	18542
WCOUNTER_MUTATION	0

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pool Name etool	tpstats	-SC Pending	hema	migrati	ons time btocked
MutationStage	0	ŏ	10637419	0	0
ReadStage	0	0	146995	0	0
RequestResponseStage	0	0	7645246	0	0
ReadRepairStage	0	0	1494	0	0
CounterMutationStage	0	0	0	0	0
MiscStage	0	0	0	0	0
AntiEntropySessions	1	1	166	0	0
HintedHandoff	0	1	131	0	0
GossipStage	0	0	198095	0	0
CacheCleanupExecutor	0	0	0	0	0
InternalResponseStage	0	0	16	0	0
CommitLogArchiver	0	0	0	0	0
CompactionExecutor	0	0	63008726	0	0
ValidationExecutor	0	0	5186	0	0
MigrationStage	0	0	16	0	0
AntiEntropyStage	0	0	13711	0	0
PendingRangeCalculato	r 0	0	12	0	0
Sampler	0	0	0	0	0
MemtableFlushWriter	0	0	1755	0	0
MemtablePostFlush	0	0	7660	0	0
MemtableReclaimMemory	0	0	1755	0	0

Message type	Dropped
READ	0
RANGE_SLICE	0
_TRACE	0
MUTATION	18542
™COUNTER MUTATION	0

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pool Name etool	tostats	- re	pairs	D1lo-d	A11 +:  -1
	Active	Pending		втоскеа	All time blocked
MutationStage	0	0	10637419	0	0
ReadStage	0	0	146995	0	0
RequestResponseStage	0	0	7645246	0	0
ReadRepairStage	0	0	1494	0	0
CounterMutationStage	0	0	0	0	0
MiscStage	0	0	0	0	0
<b>AntiEntropySessions</b>	1	1	166	0	0
HintedHandoff	0	1	131	0	0
GossipStage	0	0	198095	0	0
CacheCleanupExecutor	0	0	0	0	0
InternalResponseStage	0	0	16	0	0
CommitLogArchiver	0	0	0	0	0
CompactionExecutor	0	0	63008726	0	0
ValidationExecutor	0	0	5186	0	0
MigrationStage	0	0	16	0	0
AntiEntropyStage	0	0	13711	0	0
PendingRangeCalculato	r 0	0	12	0	0
Sampler	0	0	0	0	0
MemtableFlushWriter	0	0	1755	0	0
MemtablePostFlush	0	0	7660	0	0
MemtableReclaimMemory	0	0	1755	0	0

Message type	Dropped
READ	0
RANGE_SLICE	0
_TRACE	0
MUTATION	18542
₩ĊŨŴĨŒR_MUTATION	0

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#### nodetool cfstats

```
Keyspace: foo
          Read Count: 9413
          Read Latency: 1.2054603208328907 ms.
         Write Count: 6287
          Write Latency: 0.18585780181326547 ms.
          Pending Flushes: 0
                    Table: bar
                    SSTable count: 2
                    Space used (live): 15646502
                    Space used (total): 15646502
                    Space used by snapshots (total): 105396159
                    Off heap memory used (total): 23435
                    SSTable Compression Ratio: 0.39842540307866203
                    Number of keys (estimate): 10588
                    Memtable cell count: 3707
                    Memtable data size: 292754
                    Memtable off heap memory used: 0
                    Memtable switch count: 74
                    Local read count: 3145
                    Local read latency: 0.606 ms
                    Local write count: 1253
                    Local write latency: 0.289 ms
                    Pending flushes: 0
```

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### nodetool cfstats (2)

```
Bloom filter false positives: 0
Bloom filter false ratio: 0.00000
Bloom filter space used: 13192
Bloom filter off heap memory used: 13176
Index summary off heap memory used: 4403
Compression metadata off heap memory used: 5856
Compacted partition minimum bytes: 125
Compacted partition maximum bytes: 43388628
Compacted partition mean bytes: 4774
Average live cells per slice (last five minutes): 6.699523052464229
Maximum live cells per slice (last five minutes): 464.0
Average tombstones per slice (last five minutes): 2.5837837837837836
Maximum tombstones per slice (last five minutes): 180.0
```

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#### nodetool cfstats - read/write counts

```
Keyspace: foo
         Read Count: 9413
          Read Latency: 1.2054603208328907 ms.
          Write Count: 6287
         Write Latency: 0.18585780181326547 ms.
          Pending Flushes: 0
                    Table: bar
                    SSTable count: 2
                    Space used (live): 15646502
                    Space used (total): 15646502
                    Space used by snapshots (total): 105396159
                    Off heap memory used (total): 23435
                    SSTable Compression Ratio: 0.39842540307866203
                    Number of keys (estimate): 10588
                    Memtable cell count: 3707
                    Memtable data size: 292754
                    Memtable off heap memory used: 0
                    Memtable switch count: 74
                    Local read count: 3145
                    Local read latency: 0.606 ms
                    Local write count: 1253
                    Local write latency: 0.289 ms
                    Pending flushes: 0
```

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#### nodetool cfstats - read/write latency

```
Keyspace: foo
          Read Count: 9413
          Read Latency: 1.2054603208328907 ms.
          Write Count: 6287
          Write Latency: 0.18585780181326547 ms.
          Pending Flushes: 0
                    Table: bar
                    SSTable count: 2
                    Space used (live): 15646502
                    Space used (total): 15646502
                    Space used by snapshots (total): 105396159
                    Off heap memory used (total): 23435
                    SSTable Compression Ratio: 0.39842540307866203
                    Number of keys (estimate): 10588
                    Memtable cell count: 3707
                    Memtable data size: 292754
                    Memtable off heap memory used: 0
                    Memtable switch count: 74
                    Local read count: 3145
                    Local read latency: 0.606 ms
                    Local write count: 1253
                    Local write latency: 0.289 ms
                    Pending flushes: 0
```

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### kyrodetool,cfstats - off heap memory

```
Read Latency: 1.2054603208328907 ms.
Write Count: 6287
Write Latency: 0.18585780181326547 ms.
Pending Flushes: 0
         Table: bar
          SSTable count: 2
          Space used (live): 15646502
          Space used (total): 15646502
          Space used by snapshots (total): 105396159
          Off heap memory used (total): 23435
          SSTable Compression Ratio: 0.39842540307866203
          Number of keys (estimate): 10588
          Memtable cell count: 3707
         Memtable data size: 292754
          Memtable off heap memory used: 0
          Memtable switch count: 74
          Local read count: 3145
          Local read latency: 0.606 ms
          Local write count: 1253
          Local write latency: 0.289 ms
          Pending flushes: 0
          Bloom filter false positives: 0
          Bloom filter false ratio: 0.00000
          Bloom filter space used: 13192
          Bloom filter off heap memory used: 13176
          Index summary off heap memory used: 4403
          Compression metadata off heap memory used: 5856
          Compacted partition minimum bytes: 125
          Compacted partition maximum bytes: 43388628
          Compacted partition mean bytes: 4774
          Average live cells per slice (last five minutes): 6.699523052464229
```

Maximum live cells per slice (last five minutes): 464 0



# nodetool cfhistograms

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foo/bar his	tograms				
Percentile	SSTables	Write Latency	Read Latency	Partition Size	Cell Count
		(micros)	(micros)	(bytes)	
50%	3.00	124.00	924.00	29521	149
75%	3.00	215.00	1331.00	61214	310
95%	3.00	642.00	2299.00	219342	924
98%	3.00	1109.00	3311.00	379022	1331
99%	3.00	1331.00	3973.00	454826	1916
Min	0.00	43.00	51.00	1332	11
Max	3.00	2759.00	42510.00	2346799	6866



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# nodetool cfhistograms - keyspace/table

foo/bar his	tograms				
Percentile	SSTables	Write Latency	Read Latency	Partition Size	Cell Count
		(micros)	(micros)	(bytes)	
50%	3.00	124.00	924.00	29521	149
75%	3.00	215.00	1331.00	61214	310
95%	3.00	642.00	2299.00	219342	924
98%	3.00	1109.00	3311.00	379022	1331
99%	3.00	1331.00	3973.00	454826	1916
Min	0.00	43.00	51.00	1332	11
Max	3.00	2759.00	42510.00	2346799	6866



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# nodetool cfhistograms - percentiles

foo/bar his	tograms		_		
<b>Percentile</b>	SSTables	Write Latency	Read Latency	Partition Size	Cell Count
		(micros)	(micros)	(bytes)	
50%	3.00	124.00	924.00	29521	149
<b>75</b> %	3.00	215.00	1331.00	61214	310
95%	3.00	642.00	2299.00	219342	924
98%	3.00	1109.00	3311.00	379022	1331
99%	3.00	1331.00	3973.00	454826	1916
Min	0.00	43.00	51.00	1332	11
Max	3.00	2759.00	42510.00	2346799	6866



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## nodetool cfhistograms - sstables per read

foo/bar his	tograms				
Percentile	SSTables	Write Latency	Read Latency	Partition Size	Cell Count
F.00	2 00	(micros)	(micros)	(bytes)	1.40
50%	3.00	124.00	924.00	29521	149
75%	3.00	215.00	1331.00	61214	310
95%	3.00	642.00	2299.00	219342	924
98%	3.00	1109.00	3311.00	379022	1331
99%	3.00	1331.00	3973.00	454826	1916
Min	0.00	43.00	51.00	1332	11
Max	3.00	2759.00	42510.00	2346799	6866



## nodetool cfhistograms - read/write latency

foo/bar his	tograms	_			
Percentile	•	Write Latency (micros)	Read Latency (micros)	Partition Size (bytes)	Cell Count
50%	3.00	124.00	924.00	29521	149
75%	3.00	215.00	1331.00	61214	310
95%	3.00	642.00	2299.00	219342	924
98%	3.00	1109.00	3311.00	379022	1331
99%	3.00	1331.00	3973.00	454826	1916
Min	0.00	43.00	51.00	1332	11
Max	3.00	2759.00	42510.00	2346799	6866



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## nodetool cfhistograms - partition size

foo/bar his	tograms				
Percentile	•	Write Latency	Read Latency	Partition Size	Cell Count
		(micros)	(micros)	(bytes)	
50%	3.00	124.00	924.00	29521	149
75%	3.00	215.00	1331.00	61214	310
95%	3.00	642.00	2299.00	219342	924
98%	3.00	1109.00	3311.00	379022	1331
99%	3.00	1331.00	3973.00	454826	1916
Min	0.00	43.00	51.00	1332	11
Max	3.00	2759.00	42510.00	2346799	6866



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# nodetool cfhistograms - cell count

foo/bar his	tograms				
Percentile	SSTables	Write Latency	Read Latency	Partition Size	<b>Cell Count</b>
		(micros)	(micros)	(bytes)	
50%	3.00	124.00	924.00	29521	149
75%	3.00	215.00	1331.00	61214	310
95%	3.00	642.00	2299.00	219342	924
98%	3.00	1109.00	3311.00	379022	1331
99%	3.00	1331.00	3973.00	454826	1916
Min	0.00	43.00	51.00	1332	11
Max	3.00	2759.00	42510.00	2346799	6866



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# nodetool proxyhistograms

proxy histogr	ams		
Percentile	Read Latency	Write Latency	Range Latency
	(micros)	(micros)	(micros)
50%	3311.00	179.00	1331.00
75%	3311.00	258.00	2759.00
95%	3311.00	3973.00	29521.00
98%	3311.00	3973.00	219342.00
99%	3311.00	3973.00	219342.00
Min	2760.00	87.00	536.00
Max	3311.00	3973.00	219342.00



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# nodetool proxyhistograms - percentiles

proxy histogr	ams		
Percentile	Read Latency	Write Latency	Range Latency
	(micros)	(micros)	(micros)
50%	3311.00	179.00	1331.00
<b>75</b> %	3311.00	258.00	2759.00
95%	3311.00	3973.00	29521.00
98%	3311.00	3973.00	219342.00
99%	3311.00	3973.00	219342.00
Min	2760.00	87.00	536.00
Max	3311.00	3973.00	219342.00



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# nodetool proxyhistograms - read latency

proxy histograms					
Percentile	<b>Read Latency</b>	Write Latency	Range Latency		
	(micros)	(micros)	(micros)		
50%	3311.00	179.00	1331.00		
75%	3311.00	258.00	2759.00		
95%	3311.00	3973.00	29521.00		
98%	3311.00	3973.00	219342.00		
99%	3311.00	3973.00	219342.00		
Min	2760.00	87.00	536.00		
Max	3311.00	3973.00	219342.00		



## nodetool proxyhistograms - write

## plateing ms

p. o.,	J 5		
Percentile	Read Latency	Write Latency	Range Latency
	(micros)	(micros)	(micros)
50%	3311.00	179.00	1331.00
75%	3311.00	258.00	2759.00
95%	3311.00	3973.00	29521.00
98%	3311.00	3973.00	219342.00
99%	3311.00	3973.00	219342.00
Min	2760.00	87.00	536.00
Max	3311.00	3973.00	219342.00



# nodetool proxyhistograms - range latency

proxy histogr	ams		
Percentile	Read Latency	Write Latency	Range Latency
	(micros)	(micros)	(micros)
50%	3311.00	179.00	1331.00
75%	3311.00	258.00	2759.00
95%	3311.00	3973.00	29521.00
98%	3311.00	3973.00	219342.00
99%	3311.00	3973.00	219342.00
Min	2760.00	87.00	536.00
Max	3311.00	3973.00	219342.00



#### nodetool netstats

```
Mode: NORMAL
Repair 028763b0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.174.19.98
        Receiving 6 files, 117949006 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-162-Data.db
                    851792/17950738 bytes(4%) received from /54.174.19.98
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    3786324/46561942 bytes(8%) sent to /54.174.19.98
Repair 020ed850-cc1e-11e4-a20c-a1d01a3fbf30
   /54.174.245.247
        Receiving 4 files, 93304584 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-161-Data.db
                    6094594/46561942 bytes(13%) received from /54.174.245.247
        Sending 2 files. 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    34195028/46561942 bytes(73%) sent to /54.174.245.247
Repair 018c88f0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.153.39.203 (using /172.31.10.65)
        Receiving 3 files, 49959102 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-160-Data.db
                    9371380/46561942 bytes(20%) received from /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-159-Data.db
                    2533414/2533414 bytes(100%) received from /54.153.39.203
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-158-Data.db
                    1147584/1147584 bytes(100%) sent to /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    46561942/46561942 bytes(100%) sent to /54.153.39.203
```



## nodetool netstats (2)

Read Repair Statistics:

Attempted: 39576

Mismatch (Blocking): 0
Mismatch (Background): 746

Pool Name	Active	Pending	Completed
Commands	n/a	58	2545817
Responses	n/a	0	2833081



## nodetool netstats - streaming mode



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#### nodetool netstats - active streams

```
Mode: NORMAL
Repair 028763b0-ccle-11e4-a20c-a1d01a3fbf30
    /54.174.19.98
        Receiving 6 files. 117949006 bytes total
            /var/lib/cassandra/data/Kevspace1/Standard1/Kevspace1-Standard1-tmp-ib-162-Data.db
                    851792/17950738 bytes(4%) received from /54.174.19.98
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    3786324/46561942 bytes(8%) sent to /54.174.19.98
Repair 020ed850-ccle-11e4-a20c-a1d01a3fbf30
    /54.174.245.247
        Receiving 4 files, 93304584 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-161-Data.db
                    6094594/46561942 bytes(13%) received from /54.174.245.247
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    34195028/46561942 bytes(73%) sent to /54.174.245.247
Repair 018c88f0-ccle-11e4-a20c-a1d01a3fbf30
    /54.153.39.203 (using /172.31.10.65)
        Receiving 3 files, 49959102 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-160-Data.db
                    9371380/46561942 bytes(20%) received from /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-159-Data.db
                    2533414/2533414 bytes(100%) received from /54.153.39.203
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-158-Data.db
                    1147584/1147584 bytes(100%) sent to /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    46561942/46561942 bytes(100%) sent to /54.153.39.203
```



# nodetool netstats - read repairs

Read Repair Statistics: Attempted: 39576

Mismatch (Blocking): 0

Mismatch (Background): 746

Pool Name	Active	Pending	Completed
Commands	n/a	58	2545817
Responses	n/a	0	2833081



#### nodetool netstats - coordinator stats

Read Repair Statistics:

Attempted: 39576 Mismatch (Blocking): 0

Mismatch (Background): 746

Pool NameActivePendingCompletedCommandsn/a582545817Responsesn/a02833081



## nodetool netstats - repair id

```
Mode: NORMAL
Repair 028763b0-ccle-11e4-a20c-a1d01a3fbf30
    /54.174.19.98
        Receiving 6 files, 117949006 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-162-Data.db
                    851792/17950738 bytes(4%) received from /54.174.19.98
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    3786324/46561942 bytes(8%) sent to /54.174.19.98
Repair 020ed850-ccle-11e4-a20c-a1d01a3fbf30
   /54.174.245.247
        Receiving 4 files, 93304584 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-161-Data.db
                    6094594/46561942 bytes(13%) received from /54.174.245.247
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    34195028/46561942 bytes(73%) sent to /54.174.245.247
Repair 018c88f0-ccle-11e4-a20c-a1d01a3fbf30
   /54.153.39.203 (using /172.31.10.65)
        Receiving 3 files, 49959102 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-160-Data.db
                    9371380/46561942 bytes(20%) received from /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-159-Data.db
                    2533414/2533414 bytes(100%) received from /54.153.39.203
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-158-Data.db
                    1147584/1147584 bytes(100%) sent to /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    46561942/46561942 bytes(100%) sent to /54.153.39.203
```



#### nodetool netstats - node IP

```
Mode: NORMAL
Repair 028763b0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.174.19.98
        Receiving 6 files, 117949006 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-162-Data.db
                    851792/17950738 bytes(4%) received from /54.174.19.98
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    3786324/46561942 bytes(8%) sent to /54.174.19.98
Repair 020ed850-cc1e-11e4-a20c-a1d01a3fbf30
   /54.174.245.247
        Receiving 4 files, 93304584 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-161-Data.db
                    6094594/46561942 bytes(13%) received from /54.174.245.247
        Sending 2 files. 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    34195028/46561942 bytes(73%) sent to /54.174.245.247
Repair 018c88f0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.153.39.203 (using /172.31.10.65)
        Receiving 3 files, 49959102 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-160-Data.db
                    9371380/46561942 bytes(20%) received from /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-159-Data.db
                    2533414/2533414 bytes(100%) received from /54.153.39.203
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-158-Data.db
                    1147584/1147584 bytes(100%) sent to /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    46561942/46561942 bytes(100%) sent to /54.153.39.203
```



### nodetool netstats - local ip

```
Mode: NORMAL
Repair 028763b0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.174.19.98
        Receiving 6 files, 117949006 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-162-Data.db
                    851792/17950738 bytes(4%) received from /54.174.19.98
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    3786324/46561942 bytes(8%) sent to /54.174.19.98
Repair 020ed850-cc1e-11e4-a20c-a1d01a3fbf30
   /54.174.245.247
        Receiving 4 files, 93304584 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-161-Data.db
                    6094594/46561942 bytes(13%) received from /54.174.245.247
        Sending 2 files. 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    34195028/46561942 bytes(73%) sent to /54.174.245.247
Repair 018c88f0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.153.39.203 (using /172.31.10.65)
        Receiving 3 files, 49959102 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-160-Data.db
                    9371380/46561942 bytes(20%) received from /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-159-Data.db
                    2533414/2533414 bytes(100%) received from /54.153.39.203
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-158-Data.db
                    1147584/1147584 bytes(100%) sent to /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    46561942/46561942 bytes(100%) sent to /54.153.39.203
```



## nodetool netstats - files/bytes being received

```
Mode: NORMAL
Repair 028763b0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.174.19.98
        Receiving 6 files. 117949006 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-162-Data.db
                   851792/17950738 bytes(4%) received from /54.174.19.98
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    3786324/46561942 bytes(8%) sent to /54.174.19.98
Repair 020ed850-cc1e-11e4-a20c-a1d01a3fbf30
   /54.174.245.247
        Receiving 4 files, 93304584 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-161-Data.db
                    6094594/46561942 bytes(13%) received from /54.174.245.247
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    34195028/46561942 bytes(73%) sent to /54.174.245.247
Repair 018c88f0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.153.39.203 (using /172.31.10.65)
        Receiving 3 files, 49959102 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-160-Data.db
                    9371380/46561942 bytes(20%) received from /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-159-Data.db
                    2533414/2533414 bytes(100%) received from /54.153.39.203
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-158-Data.db
                    1147584/1147584 bytes(100%) sent to /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    46561942/46561942 bytes(100%) sent to /54.153.39.203
```



# nodetool netstats - files/bytes being sent

```
Mode: NORMAL
Repair 028763b0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.174.19.98
        Receiving 6 files, 117949006 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-162-Data.db
                    851792/17950738 bytes(4%) received from /54.174.19.98
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    3786324/46561942 bytes(8%) sent to /54.174.19.98
Repair 020ed850-cc1e-11e4-a20c-a1d01a3fbf30
   /54.174.245.247
        Receiving 4 files, 93304584 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-161-Data.db
                    6094594/46561942 bytes(13%) received from /54.174.245.247
        Sending 2 files. 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    34195028/46561942 bytes(73%) sent to /54.174.245.247
Repair 018c88f0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.153.39.203 (using /172.31.10.65)
        Receiving 3 files, 49959102 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-160-Data.db
                    9371380/46561942 bytes(20%) received from /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-159-Data.db
                    2533414/2533414 bytes(100%) received from /54.153.39.203
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-158-Data.db
                    1147584/1147584 bytes(100%) sent to /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    46561942/46561942 bytes(100%) sent to /54.153.39.203
```



## nodetool netstats - sstable names

```
Mode: NORMAL
Repair 028763b0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.174.19.98
        Receiving 6 files, 117949006 bytes total
            /var/lib/cassandra/data/Kevspace1/Standard1/Kevspace1-Standard1-tmp-ib-162-Data.db
                    851792/17950738 bytes(4%) received from /54.174.19.98
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    3786324/46561942 bytes(8%) sent to /54.174.19.98
Repair 020ed850-cc1e-11e4-a20c-a1d01a3fbf30
   /54.174.245.247
        Receiving 4 files, 93304584 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-161-Data.db
                    6094594/46561942 bytes(13%) received from /54.174.245.247
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    34195028/46561942 bytes(73%) sent to /54.174.245.247
Repair 018c88f0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.153.39.203 (using /172.31.10.65)
        Receiving 3 files, 49959102 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-160-Data.db
                    9371380/46561942 bytes(20%) received from /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-159-Data.db
                    2533414/2533414 bytes(100%) received from /54.153.39.203
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-158-Data.db
                    1147584/1147584 bytes(100%) sent to /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    46561942/46561942 bytes(100%) sent to /54.153.39.203
```



# nodetool netstats - streaming progress

```
Mode: NORMAL
Repair 028763b0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.174.19.98
        Receiving 6 files, 117949006 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-162-Data.db
                    851792/17950738 bytes(4%) received from /54.174.19.98
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    3786324/46561942 bytes(8%) sent to /54.174.19.98
Repair 020ed850-cc1e-11e4-a20c-a1d01a3fbf30
   /54.174.245.247
        Receiving 4 files, 93304584 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-161-Data.db
                    6094594/46561942 bytes(13%) received from /54.174.245.247
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    34195028/46561942 bytes(73%) sent to /54.174.245.247
Repair 018c88f0-cc1e-11e4-a20c-a1d01a3fbf30
    /54.153.39.203 (using /172.31.10.65)
        Receiving 3 files, 49959102 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-160-Data.db
                    9371380/46561942 bytes(20%) received from /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-tmp-jb-159-Data.db
                    2533414/2533414 bytes(100%) received from /54.153.39.203
        Sending 2 files, 47709526 bytes total
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-158-Data.db
                    1147584/1147584 bytes(100%) sent to /54.153.39.203
            /var/lib/cassandra/data/Keyspace1/Standard1/Keyspace1-Standard1-jb-157-Data.db
                    46561942/46561942 bytes(100%) sent to /54.153.39.203
```



# nodetool netstats - read repairs attempted

Read Repair Statistics:

Attempted: 39576
Mismatch (Blocking): 0

Mismatch (Background): 746

Pool Name	Active	Pending	Completed
Commands	n/a	58	2545817
Responses	n/a	0	2833081



## nodetool compactionstats

pending tasks: 7 compaction type completed table total unit keyspace progress Standard1 65967769 Compaction Keyspace1 154639724 bytes 42.66% Compaction Keyspace1 Standard1 53880334 227493794 bytes 23.68% Active compaction remaining time: 0h00m15s

pending tasks: 1 compaction type table completed keyspace total unit progress Keyspace1 Standard1 74684443 95178582 Validation bytes 78.47% Active compaction remaining time: n/a

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# nodetool compactionstats - pending tasks

### pending tasks: 7

completed compaction type table total unit keyspace progress 65967769 Compaction Keyspace1 Standard1 154639724 bytes 42.66% Compaction Keyspace1 Standard1 53880334 227493794 bytes 23.68% Active compaction remaining time: 0h00m15s

#### pending tasks: 1

compaction type keyspace table completed total unit progress Validation Keyspace1 Standard1 74684443 95178582 bytes 78.47% Active compaction remaining time: n/a



# nodetool compactionstats - active compactions

pending tasks: 7

compaction type table completed total unit keyspace progress 42.66% Compaction Keyspace1 Standard1 65967769 154639724 bytes **Keyspacel Standard1** Compaction 53880334 23.68% 227493794 bytes

Active compaction remaining time: 0h00m15s

pending tasks: 1

compaction type keyspace table completed total unit progress

Validation Keyspacel Standardl 74684443 95178582 bytes 78.47%

Active compaction remaining time: n/a

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# nodetool compactionstats - compaction type

pending tasks: 7

compaction type completed table total unit keyspace progress 65967769 Compaction Keyspace1 Standard1 154639724 bytes 42.66% Compaction Keyspace1 Standard1 53880334 227493794 bytes 23.68%

Active compaction remaining time: 0h00m15s

pending tasks: 1

compaction type keyspace table completed total unit progress
 Validation Keyspace1 Standard1 74684443 95178582 bytes 78.47%
Active compaction remaining time: n/a

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# nodetool compactionstats - keyspace/table

pending tasks: 7 completed compaction type table total unit keyspace progress Standard1 65967769 Compaction Keyspace1 154639724 bytes 42.66% Compaction **Keyspacel Standard1** 53880334 227493794 bytes 23.68% Active compaction remaining time: 0h00m15s

pending tasks: 1 compaction type completed keyspace table total unit progress Validation **Keyspace1 Standard1** 74684443 95178582 bytes 78.47% Active compaction remaining time: n/a

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# nodetool compactionstats - completed/total bytes

pending tasks: 7 compaction type table completed total unit keyspace progress Standard1 Compaction Keyspace1 65967769 154639724 bytes 42.66% Compaction Keyspace1 Standard1 53880334 23.68% 227493794 bytes Active compaction remaining time: 0h00m15s

pending tasks: 1 table completed compaction type keyspace total unit progress Keyspace1 Standard1 Validation 74684443 95178582 78.47% bvtes Active compaction remaining time: n/a

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# nodetool compactionstats - progress

pending tasks: 7 compaction type completed table total unit keyspace progress Standard1 65967769 Compaction Keyspace1 154639724 bytes 42.66% Compaction Keyspace1 Standard1 53880334 227493794 bytes 23.68% Active compaction remaining time: 0h00m15s

pending tasks: 1 compaction type table completed keyspace total unit progress Keyspace1 Standard1 74684443 95178582 Validation bytes 78.47% Active compaction remaining time: n/a

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# nodetool compactionstats - time left

pending tasks: 7 keyspace table completed compaction type total unit progress Standard1 65967769 42.66% Compaction Keyspace1 154639724 bytes Compaction Keyspace1 Standard1 53880334 227493794 bytes 23.68% Active compaction remaining time : 0h00m15s

```
pending tasks: 1
  compaction type
                             table
                                        completed
                  keyspace
                                                       total
                                                               unit
                                                                     progress
                  Keyspace1 Standard1
                                        74684443
                                                     95178582
                                                                        78.47%
      Validation
                                                               bytes
Active compaction remaining time :
                                         n/a
```

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# nodetool compactionhistory

```
Compaction History:
id
                                       keyspace name columnfamily name
                                                                         compacted_at
                                                                                        bytes in
                                                                                                    bytes out
                                                                         1426523260044
                                                                                        1101
5d4adcc0-cbf9-11e4-9f32-098a653a7013
                                       svstem
                                                     local
                                                                                                    543
654f31c0-cc01-11e4-a84d-098a653a7013
                                                                                        53518892
                                                                                                    53518892
                                       Keyspace1
                                                     Standard1
                                                                         1426526709468
59a7b070-cc1c-11e4-a84d-098a653a7013
                                       system
                                                     hints
                                                                         1426538286327
                                                                                        106483
4b8e2b10-cbf2-11e4-bb39-098a653a7013
                                                     schema_keyspaces
                                                                         1426520223809
                                                                                        909
                                                                                                    264
                                       system
68429440-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426537022340
                                                                                        59878420
                                                                                                   59109472
                                       Keyspace1
f06de4a0-cc19-11e4-a84d-098a653a7013
                                       Kevspace1
                                                     Standard1
                                                                         1426537250794
                                                                                        227493794
                                                                                                   133487816
3bec3ee0-cbf2-11e4-bb39-098a653a7013
                                                     local
                                                                         1426520197582
                                                                                        720
                                                                                                    550
                                       system
e263a080-cbfa-11e4-87be-098a653a7013
                                                                                        27224
                                                                                                   11517
                                       system
                                                     schema columns
                                                                         1426523912832
54741560-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426536989110
                                                                                        70198058
                                                                                                   61572552
                                       Keyspace1
c67f8c90-cc08-11e4-a84d-098a653a7013
                                       system
                                                                         1426529879001
                                                                                        2219
                                                                                                    778
                                                     peers
1edb6bf0-cc1a-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426537328687
                                                                                        19723822
                                                                                                   16552676
                                       Keyspace1
```

```
rows_merged {1:247562, 2:67934, 3:2945, 4:2042, 5:824, 6:232, 7:2, 8:1}
```



# nodetool compactionhistory - unique id

```
Compaction History:
id
                                       keyspace name columnfamily name
                                                                         compacted_at
                                                                                        bytes in
                                                                                                    bytes out
                                                                         1426523260044
                                                                                        1101
5d4adcc0-cbf9-11e4-9f32-098a653a7013
                                       svstem
                                                     local
                                                                                                    543
654f31c0-cc01-11e4-a84d-098a653a7013
                                                                                        53518892
                                                                                                    53518892
                                       Keyspace1
                                                     Standard1
                                                                         1426526709468
59a7b070-cc1c-11e4-a84d-098a653a7013
                                                                                        106483
                                       system
                                                     hints
                                                                         1426538286327
4b8e2b10-cbf2-11e4-bb39-098a653a7013
                                                     schema_keyspaces
                                                                         1426520223809
                                                                                        909
                                                                                                    264
                                       system
68429440-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426537022340
                                                                                        59878420
                                                                                                   59109472
                                       Keyspace1
f06de4a0-cc19-11e4-a84d-098a653a7013
                                       Kevspace1
                                                     Standard1
                                                                         1426537250794
                                                                                        227493794
                                                                                                   133487816
3bec3ee0-cbf2-11e4-bb39-098a653a7013
                                                     local
                                                                         1426520197582
                                                                                        720
                                                                                                    550
                                       system
e263a080-cbfa-11e4-87be-098a653a7013
                                                                                        27224
                                                                                                   11517
                                       system
                                                     schema columns
                                                                         1426523912832
54741560-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426536989110
                                                                                        70198058
                                                                                                   61572552
                                       Kevspace1
c67f8c90-cc08-11e4-a84d-098a653a7013
                                                                         1426529879001
                                                                                        2219
                                                                                                    778
                                       system
                                                     peers
                                                                         1426537328687
                                                                                        19723822
                                                                                                   16552676
ledb6bf0-ccla-11e4-a84d-098a653a7013
                                       Keyspace1
                                                     Standard1
```

```
rows_merged {1:247562, 2:67934, 3:2945, 4:2042, 5:824, 6:232, 7:2, 8:1}
```



# nodetool compactionhistory - keyspace/table

```
Compaction History:
id
                                       keyspace name columnfamily name
                                                                         compacted at
                                                                                        bytes in
                                                                                                    bytes out
                                                                         1426523260044
                                                                                        1101
5d4adcc0-cbf9-11e4-9f32-098a653a7013
                                       svstem
                                                     local
                                                                                                    543
654f31c0-cc01-11e4-a84d-098a653a7013
                                                                         1426526709468
                                                                                        53518892
                                                                                                    53518892
                                       Keyspace1
                                                     Standard1
59a7b070-cc1c-11e4-a84d-098a653a7013
                                                     hints
                                                                         1426538286327
                                                                                        106483
                                       system
4b8e2b10-cbf2-11e4-bb39-098a653a7013
                                       system
                                                     schema keyspaces
                                                                         1426520223809
                                                                                        909
                                                                                                    264
68429440-cc19-11e4-a84d-098a653a7013
                                       Keyspace1
                                                     Standard1
                                                                         1426537022340
                                                                                        59878420
                                                                                                    59109472
f06de4a0-cc19-11e4-a84d-098a653a7013
                                       Kevspace1
                                                     Standard1
                                                                         1426537250794
                                                                                        227493794
                                                                                                    133487816
3bec3ee0-cbf2-11e4-bb39-098a653a7013
                                                     local
                                                                         1426520197582
                                                                                        720
                                                                                                    550
                                       system
e263a080-cbfa-11e4-87be-098a653a7013
                                                                         1426523912832
                                                                                        27224
                                                                                                    11517
                                       system
                                                     schema columns
54741560-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426536989110
                                                                                        70198058
                                                                                                    61572552
                                       Keyspace1
                                                                                                    778
c67f8c90-cc08-11e4-a84d-098a653a7013
                                       system
                                                                         1426529879001
                                                                                        2219
                                                     peers
1edb6bf0-cc1a-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426537328687
                                                                                        19723822
                                                                                                    16552676
                                       Kevspace1
```

```
rows_merged {1:247562, 2:67934, 3:2945, 4:2042, 5:824, 6:232, 7:2, 8:1}
```



# nodetool compactionhistory - timestamp

```
Compaction History:
id
                                       keyspace name columnfamily name
                                                                         compacted at
                                                                                        bytes in
                                                                                                    bytes out
                                                                         1426523260044
                                                                                        1101
5d4adcc0-cbf9-11e4-9f32-098a653a7013
                                       svstem
                                                     local
                                                                                                    543
654f31c0-cc01-11e4-a84d-098a653a7013
                                                                                        53518892
                                                                                                    53518892
                                       Keyspace1
                                                     Standard1
                                                                         1426526709468
59a7b070-cc1c-11e4-a84d-098a653a7013
                                                                                        106483
                                       system
                                                     hints
                                                                         1426538286327
4b8e2b10-cbf2-11e4-bb39-098a653a7013
                                                     schema_keyspaces
                                                                         1426520223809
                                                                                        909
                                                                                                    264
                                       system
68429440-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426537022340
                                                                                        59878420
                                                                                                   59109472
                                       Keyspace1
f06de4a0-cc19-11e4-a84d-098a653a7013
                                       Kevspace1
                                                     Standard1
                                                                         1426537250794
                                                                                        227493794
                                                                                                   133487816
3bec3ee0-cbf2-11e4-bb39-098a653a7013
                                                     local
                                                                                        720
                                       system
                                                                         1426520197582
                                                                                                    550
e263a080-cbfa-11e4-87be-098a653a7013
                                                                                        27224
                                                                                                   11517
                                       system
                                                     schema columns
                                                                         1426523912832
54741560-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426536989110
                                                                                        70198058
                                                                                                   61572552
                                       Keyspace1
c67f8c90-cc08-11e4-a84d-098a653a7013
                                       system
                                                                         1426529879001
                                                                                        2219
                                                                                                    778
                                                     peers
1edb6bf0-cc1a-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426537328687
                                                                                        19723822
                                                                                                   16552676
                                       Keyspace1
```

```
rows_merged {1:247562, 2:67934, 3:2945, 4:2042, 5:824, 6:232, 7:2, 8:1}
```



# nodetool compactionhistory - input bytes

```
Compaction History:
id
                                       keyspace name columnfamily name
                                                                         compacted at
                                                                                        bytes in
                                                                                                    bytes out
                                       svstem
                                                                         1426523260044
                                                                                        1101
5d4adcc0-cbf9-11e4-9f32-098a653a7013
                                                     local
                                                                                                    543
654f31c0-cc01-11e4-a84d-098a653a7013
                                                                         1426526709468
                                                                                        53518892
                                                                                                    53518892
                                       Keyspace1
                                                     Standard1
59a7b070-cc1c-11e4-a84d-098a653a7013
                                                     hints
                                                                         1426538286327
                                       system
                                                                                        106483
4b8e2b10-cbf2-11e4-bb39-098a653a7013
                                       system
                                                     schema_keyspaces
                                                                         1426520223809
                                                                                        909
                                                                                                    264
68429440-cc19-11e4-a84d-098a653a7013
                                       Keyspace1
                                                     Standard1
                                                                         1426537022340
                                                                                        59878420
                                                                                                   59109472
f06de4a0-cc19-11e4-a84d-098a653a7013
                                       Kevspace1
                                                     Standard1
                                                                         1426537250794
                                                                                        227493794
                                                                                                   133487816
3bec3ee0-cbf2-11e4-bb39-098a653a7013
                                                     local
                                                                         1426520197582
                                                                                        720
                                                                                                    550
                                       system
e263a080-cbfa-11e4-87be-098a653a7013
                                                                         1426523912832
                                                                                        27224
                                                                                                   11517
                                       system
                                                     schema columns
54741560-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426536989110
                                                                                        70198058
                                                                                                   61572552
                                       Keyspace1
                                                                                                    778
c67f8c90-cc08-11e4-a84d-098a653a7013
                                       system
                                                                         1426529879001
                                                                                        2219
                                                     peers
1edb6bf0-cc1a-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426537328687
                                                                                        19723822
                                                                                                   16552676
                                       Keyspace1
```

```
rows_merged {1:247562, 2:67934, 3:2945, 4:2042, 5:824, 6:232, 7:2, 8:1}
```



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# nodetool compactionhistory - output bytes

```
Compaction History:
id
                                       keyspace name columnfamily name
                                                                         compacted at
                                                                                        bytes in
                                                                                                    bytes out
                                                                         1426523260044
                                                                                        1101
5d4adcc0-cbf9-11e4-9f32-098a653a7013
                                       svstem
                                                     local
                                                                                                    543
654f31c0-cc01-11e4-a84d-098a653a7013
                                                                                        53518892
                                       Keyspace1
                                                     Standard1
                                                                         1426526709468
                                                                                                    53518892
59a7b070-cc1c-11e4-a84d-098a653a7013
                                                                                        106483
                                       system
                                                     hints
                                                                         1426538286327
4b8e2b10-cbf2-11e4-bb39-098a653a7013
                                                     schema_keyspaces
                                                                         1426520223809
                                                                                        909
                                                                                                    264
                                       system
68429440-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426537022340
                                                                                        59878420
                                                                                                    59109472
                                       Keyspace1
f06de4a0-cc19-11e4-a84d-098a653a7013
                                       Kevspace1
                                                     Standard1
                                                                         1426537250794
                                                                                        227493794
                                                                                                    133487816
3bec3ee0-cbf2-11e4-bb39-098a653a7013
                                                     local
                                                                         1426520197582
                                                                                        720
                                       system
                                                                                                    550
e263a080-cbfa-11e4-87be-098a653a7013
                                                                                        27224
                                       system
                                                     schema columns
                                                                         1426523912832
                                                                                                    11517
54741560-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426536989110
                                                                                        70198058
                                                                                                    61572552
                                       Keyspace1
c67f8c90-cc08-11e4-a84d-098a653a7013
                                       system
                                                                         1426529879001
                                                                                        2219
                                                                                                    778
                                                     peers
1edb6bf0-cc1a-11e4-a84d-098a653a7013
                                                                         1426537328687
                                                                                        19723822
                                                                                                    16552676
                                       Keyspace1
                                                     Standard1
```

```
rows_merged {1:247562, 2:67934, 3:2945, 4:2042, 5:824, 6:232, 7:2, 8:1}
```



# nodetool compactionhistory - merge counts

```
Compaction History:
id
                                       keyspace name columnfamily name
                                                                         compacted at
                                                                                        bytes in
                                                                                                    bytes out
                                                                         1426523260044
                                                                                        1101
5d4adcc0-cbf9-11e4-9f32-098a653a7013
                                       svstem
                                                     local
                                                                                                    543
654f31c0-cc01-11e4-a84d-098a653a7013
                                                                                        53518892
                                                                                                    53518892
                                       Keyspace1
                                                     Standard1
                                                                         1426526709468
59a7b070-cc1c-11e4-a84d-098a653a7013
                                                     hints
                                                                                        106483
                                       system
                                                                         1426538286327
4b8e2b10-cbf2-11e4-bb39-098a653a7013
                                                     schema_keyspaces
                                                                         1426520223809
                                                                                        909
                                                                                                    264
                                       system
68429440-cc19-11e4-a84d-098a653a7013
                                       Keyspace1
                                                     Standard1
                                                                         1426537022340
                                                                                        59878420
                                                                                                   59109472
f06de4a0-cc19-11e4-a84d-098a653a7013
                                       Kevspace1
                                                     Standard1
                                                                         1426537250794
                                                                                        227493794
                                                                                                   133487816
3bec3ee0-cbf2-11e4-bb39-098a653a7013
                                                     local
                                                                         1426520197582
                                                                                        720
                                                                                                    550
                                       system
e263a080-cbfa-11e4-87be-098a653a7013
                                                                                        27224
                                                                                                   11517
                                       system
                                                     schema columns
                                                                         1426523912832
54741560-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426536989110
                                                                                        70198058
                                                                                                   61572552
                                       Keyspace1
c67f8c90-cc08-11e4-a84d-098a653a7013
                                       system
                                                                         1426529879001
                                                                                        2219
                                                                                                    778
                                                     peers
1edb6bf0-cc1a-11e4-a84d-098a653a7013
                                                                         1426537328687
                                                                                        19723822
                                                                                                   16552676
                                       Keyspace1
                                                     Standard1
```

```
rows_merged {1:247562, 2:67934, 3:2945, 4:2042, 5:824, 6:232, 7:2, 8:1}
```



# nodetool compactionhistory - # of sstables

```
Compaction History:
id
                                       keyspace name columnfamily name
                                                                         compacted at
                                                                                        bytes in
                                                                                                    bytes out
                                                                         1426523260044
                                                                                        1101
5d4adcc0-cbf9-11e4-9f32-098a653a7013
                                       svstem
                                                     local
                                                                                                    543
654f31c0-cc01-11e4-a84d-098a653a7013
                                                                                        53518892
                                                                                                    53518892
                                       Keyspace1
                                                     Standard1
                                                                         1426526709468
59a7b070-cc1c-11e4-a84d-098a653a7013
                                                                                        106483
                                       system
                                                     hints
                                                                         1426538286327
4b8e2b10-cbf2-11e4-bb39-098a653a7013
                                                     schema_keyspaces
                                                                         1426520223809
                                                                                        909
                                                                                                    264
                                       system
68429440-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426537022340
                                                                                        59878420
                                                                                                   59109472
                                       Keyspace1
f06de4a0-cc19-11e4-a84d-098a653a7013
                                       Kevspace1
                                                     Standard1
                                                                         1426537250794
                                                                                        227493794
                                                                                                   133487816
3bec3ee0-cbf2-11e4-bb39-098a653a7013
                                                     local
                                                                         1426520197582
                                                                                        720
                                                                                                    550
                                       system
e263a080-cbfa-11e4-87be-098a653a7013
                                                                                        27224
                                                                                                   11517
                                       system
                                                     schema columns
                                                                         1426523912832
54741560-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426536989110
                                                                                        70198058
                                                                                                   61572552
                                       Keyspace1
c67f8c90-cc08-11e4-a84d-098a653a7013
                                       system
                                                                         1426529879001
                                                                                        2219
                                                                                                    778
                                                     peers
1edb6bf0-cc1a-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426537328687
                                                                                        19723822
                                                                                                   16552676
                                       Keyspace1
```

```
rows_merged {1:247562, 2:67934, 3:2945, 4:2042, 5:824, 6:232, 7:2, 8:1}
```



# nodetool compactionhistory - # of partitions

```
Compaction History:
id
                                       keyspace name columnfamily name
                                                                         compacted at
                                                                                        bytes in
                                                                                                    bytes out
                                                                         1426523260044
                                                                                        1101
5d4adcc0-cbf9-11e4-9f32-098a653a7013
                                       svstem
                                                     local
                                                                                                    543
654f31c0-cc01-11e4-a84d-098a653a7013
                                                                                        53518892
                                                                                                    53518892
                                       Keyspace1
                                                     Standard1
                                                                         1426526709468
59a7b070-cc1c-11e4-a84d-098a653a7013
                                                                                        106483
                                       system
                                                     hints
                                                                         1426538286327
4b8e2b10-cbf2-11e4-bb39-098a653a7013
                                                     schema_keyspaces
                                                                         1426520223809
                                                                                        909
                                                                                                    264
                                       system
68429440-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426537022340
                                                                                        59878420
                                                                                                   59109472
                                       Keyspace1
f06de4a0-cc19-11e4-a84d-098a653a7013
                                       Kevspace1
                                                     Standard1
                                                                         1426537250794
                                                                                        227493794
                                                                                                   133487816
3bec3ee0-cbf2-11e4-bb39-098a653a7013
                                                     local
                                                                         1426520197582
                                                                                        720
                                                                                                    550
                                       system
e263a080-cbfa-11e4-87be-098a653a7013
                                                                                        27224
                                                                                                   11517
                                       system
                                                     schema columns
                                                                         1426523912832
54741560-cc19-11e4-a84d-098a653a7013
                                                     Standard1
                                                                         1426536989110
                                                                                        70198058
                                                                                                   61572552
                                       Keyspace1
c67f8c90-cc08-11e4-a84d-098a653a7013
                                       system
                                                                         1426529879001
                                                                                        2219
                                                                                                    778
                                                     peers
1edb6bf0-cc1a-11e4-a84d-098a653a7013
                                                                         1426537328687
                                                                                        19723822
                                                                                                   16552676
                                       Keyspace1
                                                     Standard1
```

```
rows_merged {1:247562, 2:67934, 3:2945, 4:2042, 5:824, 6:232, 7:2, 8:1}
```



## nodetool describecluster

Cluster Information:

Name: test cluster

Snitch: org.apache.cassandra.locator.DynamicEndpointSnitch Partitioner: org.apache.cassandra.dht.Murmur3Partitioner Schema versions: 620ccc95-23ac-328c-8c94-b9554f19af4c: [54.173.171.164, 54.153.107.100, 54.174.19.98, 54.153.108.157, 54.153.39.203, 54.174.245.247] Cluster Information: Name: test cluster Snitch: org.apache.cassandra.locator.DynamicEndpointSnitch Partitioner: org.apache.cassandra.dht.Murmur3Partitioner Schema versions: a2cee91b-67c2-3656-baa8-2521904305da: [54.174.19.98] 620ccc95-23ac-328c-8c94-b9554f19af4c: [54.173.171.164, 54.153.107.100. 54.153.108.157, 54.153.39.203, 54.174.245.247]

## nodetool describecluster - basic info

Snitch: org.apache.cassandra.locator.DynamicEndpointSnitch

Cluster Information:

Name: test cluster

Partitioner: org.apache.cassandra.dht.Murmur3Partitioner Schema versions: 620ccc95-23ac-328c-8c94-b9554f19af4c: [54.173.171.164, 54.153.107.100, 54.174.19.98, 54.153.108.157, 54.153.39.203, 54.174.245.247] Cluster Information: Name: test cluster Snitch: org.apache.cassandra.locator.DynamicEndpointSnitch Partitioner: org.apache.cassandra.dht.Murmur3Partitioner Schema versions: a2cee91b-67c2-3656-baa8-2521904305da: [54.174.19.98] 620ccc95-23ac-328c-8c94-b9554f19af4c: [54.173.171.164, 54.153.107.100. 54.153.108.157, 54.153.39.203, 54.174.245.247]

## nodetool describecluster - schema versions

```
Snitch: org.apache.cassandra.locator.DynamicEndpointSnitch
      Partitioner: org.apache.cassandra.dht.Murmur3Partitioner
      Schema versions:
              620ccc95-23ac-328c-8c94-b9554f19af4c: [54.173.171.164, 54.153.107.100,
                  54.174.19.98, 54.153.108.157, 54.153.39.203, 54.174.245.247]
Cluster Information:
      Name: test cluster
      Snitch: org.apache.cassandra.locator.DynamicEndpointSnitch
      Partitioner: org.apache.cassandra.dht.Murmur3Partitioner
      Schema versions:
              a2cee91b-67c2-3656-baa8-2521904305da: [54.174.19.98]
              620ccc95-23ac-328c-8c94-b9554f19af4c: [54.173.171.164, 54.153.107.100,
                  54.153.108.157, 54.153.39.203, 54.174.245.247]
```

Cluster Information:

Name: test cluster

# nodetool describecluster - schema agreement

Snitch: org.apache.cassandra.locator.DynamicEndpointSnitch

Partitioner: org.apache.cassandra.dht.Murmur3Partitioner Schema versions: 620ccc95-23ac-328c-8c94-b9554f19af4c: [54.173.171.164, 54.153.107.100, 54.174.19.98, 54.153.108.157, 54.153.39.203, 54.174.245.247] Cluster Information: Name: test cluster Snitch: org.apache.cassandra.locator.DynamicEndpointSnitch Partitioner: org.apache.cassandra.dht.Murmur3Partitioner Schema versions: a2cee91b-67c2-3656-baa8-2521904305da: [54.174.19.98] 620ccc95-23ac-328c-8c94-b9554f19af4c: [54.173.171.164, 54.153.107.100, 54.153.108.157, 54.153.39.203, 54.174.245.247]

97

Cluster Information:

Name: test cluster

# nodetool describecluster - schema disagreement

Cluster Information:

Schema versions:

Name: test_cluster
Snitch: org.apache.cassandra.locator.DynamicEndpointSnitch
Partitioner: org.apache.cassandra.dht.Murmur3Partitioner
Schema versions:
620ccc95-23ac-328c-8c94-b9554f19af4c: [54.173.171.164, 54.153.107.100,
54.174.19.98, 54.153.108.157, 54.153.39.203, 54.174.245.247]

Cluster Information:
Name: test_cluster
Snitch: org.apache.cassandra.locator.DynamicEndpointSnitch

a2cee91b-67c2-3656-baa8-2521904305da: [54.174.19.98]

Partitioner: org.apache.cassandra.dht.Murmur3Partitioner

620ccc95-23ac-328c-8c94-b9554f19af4c: [54.173.171.164, 54.153.107.100, 54.153.108.157, 54.153.39.203, 54.174.245.247]

# system.log (2.1 and later)

#### **Default Location**

/var/log/cassandra/system.log

## **Configuration File**

/etc/dse/cassandra/logback.xml

**Log Settings** 

Location	<file>/var/log/cassandra/system.log</file>
Logging Level	<root level="INFO"></root>
Class Override	<logger level="DEBUG" name="org.apache.cassandra.package.Class"></logger>

#### **Basic Format**

Level	Thread Type & ID	Date & Time	Source File	Line No.
INFO	[CompactionExecutor:155]	2015-02-13 02:18:40,986	CompactionTask.java	:287
WARN	[GossipTasks:1]	2015-02-17 19:47:37,331	Gossiper.java	:648
ERROR	[AntiEntropySessions:1]	2015-02-17 20:32:11,959	CassandraDaemon.java	:199
DEBUG	[OptionalTasks:1]	2015-02-20 11:29:14,056	ColumnFamilyStore.java	:298

# system.log (2.0 and earlier)

#### **Default Location**

/var/log/cassandra/system.log

## **Configuration File**

/etc/dse/cassandra/log4j-server.properties

**Log Settings** 

Location	log4j.appender.R.File=/var/log/cassandra/system.log
Logging Level	log4j.rootLogger=INFO,stdout,R
Class Override	log4j.logger.org.apache.cassandra.package.Class=DEBUG

#### **Basic Format**

Level	Thread Type & ID	Date & Time	Source File	Line No.
INFO	[CompactionExecutor:155]	2015-02-13 02:18:40,986	CompactionTask.java	(line 287)
WARN	[GossipTasks:1]	2015-02-17 19:47:37,331	Gossiper.java	(line 648)
ERROR	[AntiEntropySessions:1]	2015-02-17 20:32:11,959	CassandraDaemon.java	(line 199)
DEBUG	[OptionalTasks:1]	2015-02-20 11:29:14,056	ColumnFamilyStore.java	(line 298)

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# **Startup**

What to look for	What it tells you
Loading DSE module	Node just restarted
<ul><li>DSE version:</li><li>Cassandra version:</li></ul>	Versions of major components
Loading settings from file:	Settings file locations
Node configuration:	Settings read from cassandra.yaml
JVM vendor/version:	JVM vendor and version
<ul> <li>Heap size:</li> <li>Par Eden Space Heap memory:</li> <li>Par Survivor Space Heap memory:</li> <li>CMS Old Gen Heap memory:</li> <li>CMS Perm Gen Non-heap memory:</li> </ul>	Heap settings for each generation
Classpath:	Classpath (jar files and directories)
JNA mlockall successful	JNA is installed (make sure it is!)
<ul><li>Starting listening for CQL clients on</li><li>Listening for thrift clients</li></ul>	Node is serving requests

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## **Flushes**

INFO [SlabPoolCleaner] 2015-09-17 12:11:53,982 ColumnFamilyStore.java: 904 -

Enqueuing flush of ticket_events: 235618425 (22%) on-heap, 0 (0%) off-heap

INFO [MemtableFlushWriter:3] 2015-09-17 12:11:53,983 Memtable.java:347 - Writing Memtable-ticket_events@2130198656(45.995MiB serialized bytes, 248591 ops, 22%/0% of on/off-heap limit)

INFO [MemtableFlushWriter:3] 2015-09-17 12:11:55,050 Memtable.java:382 - Completed flushing /opt/dse-4.7.3/data/zendesk/ticket_events-a223cdc00b9b11e5b06bef9f87394



# Compactions

```
INFO [CompactionExecutor:633] 2015-09-05 07:34:55,115 CompactionTask.java:141 -
    Compacting [SSTableReader(path='/data/ax/user/ax-user-ka-13684-Data.db'),
    SSTableReader(path='/data/ax/user/ax-user-ka-13674-Data.db'),
    SSTableReader(path='/data/ax/user/ax-user-ka-13670-Data.db'),
    SSTableReader(path='/data/ax/user/ax-user-ka-13687-Data.db'),
    SSTableReader(path='/data/ax/user/ax-user-ka-13680-Data.db'),
    SSTableReader(path='/data/ax/user/ax-user-ka-13685-Data.db')]
WARN [CompactionExecutor:633] 2015-09-05 07:45:25,016 SSTableWriter.java:240 -
    Compacting large partition ax/user:root (2503794228 bytes)
INFO [CompactionExecutor:633] 2015-09-05 07:45:25,114 CompactionTask.java:274 -
    Compacted 6 sstables to [/data/ax/user/ax-user-ka-13691,].
    400,997,778 bytes to 276,263,497 (~68% of original) in 629,997ms = 0.418201MB/s.
    21 total partitions merged to 5. Partition merge counts were {3:3, 6:2, }
```

# **Garbage Collections**

INFO [Service Thread] 2015-09-05 07:43:49,714 GCInspector.java:252 - ParNew GC in 520ms. CMS Old Gen: 13501336496 -> 13535384776; Par Eden Space: 1718091776 -> 0; Par Survivor Space: 34196808 -> 23257856

INFO [Service Thread] 2015-09-05 08:14:15,633 GCInspector.java:252 -

ConcurrentMarkSweep GC in 298ms. CMS Old Gen: 14495521568 -> 648005496;

Code Cache: 68215872 -> 68203712; Metaspace: 69789088 -> 69790848;

Par Eden Space: 38399344 -> 86816904; Par Survivor Space: 228848 -> 335328

INFO [Service Thread] 2015-08-30 10:29:39,295 GCInspector.java:252 -

G1 Young Generation GC in 421ms. G1 Eden Space: 12264144896 -> 0;

G1 Old Gen: 5012193272 -> 5276434432; G1 Survivor Space: 620756992 -> 1610612736;

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# **Garbage Collections - duration**

INFO [Service Thread] 2015-09-05 07:43:49,714 GCInspector.java:252 - ParNew GC in **520ms**. CMS Old Gen: 13501336496 -> 13535384776; Par Eden Space: 1718091776 -> 0; Par Survivor Space: 34196808 -> 23257856

INFO [Service Thread] 2015-09-05 08:14:15,633 GCInspector.java:252 -

ConcurrentMarkSweep GC in **298ms**. CMS Old Gen: 14495521568 -> 648005496;

Code Cache: 68215872 -> 68203712; Metaspace: 69789088 -> 69790848;

Par Eden Space: 38399344 -> 86816904; Par Survivor Space: 228848 -> 335328

INFO [Service Thread] 2015-08-30 10:29:39,295 GCInspector.java:252 -

G1 Young Generation GC in 421ms. G1 Eden Space: 12264144896 -> 0;

G1 Old Gen: 5012193272 -> 5276434432; G1 Survivor Space: 620756992 -> 1610612736;

# **Garbage Collections - timestamps**

```
INFO [Service Thread] 2015-09-05 07:43:49,714 GCInspector.java:252 - ParNew GC in 520ms. CMS Old Gen: 13501336496 -> 13535384776; Par Eden Space: 1718091776 -> 0; Par Survivor Space: 34196808 -> 23257856
```

INFO [Service Thread] **2015-09-05 08:14:15,633** GCInspector.java:252 - ConcurrentMarkSweep GC in 298ms. CMS Old Gen: 14495521568 -> 648005496; Code Cache: 68215872 -> 68203712; Metaspace: 69789088 -> 69790848; Par Eden Space: 38399344 -> 86816904; Par Survivor Space: 228848 -> 335328

INFO [Service Thread] 2015-08-30 10:29:39,295 GCInspector.java:252 - G1 Young Generation GC in 421ms. G1 Eden Space: 12264144896 -> 0; G1 Old Gen: 5012193272 -> 5276434432; G1 Survivor Space: 620756992 -> 1610612736;

# Garbage Collections - space before/after

```
INFO [Service Thread] 2015-09-05 07:43:49,714 GCInspector.java:252 - ParNew GC in 520ms. CMS Old Gen: 13501336496 -> 13535384776; Par Eden Space: 1718091776 -> 0; Par Survivor Space: 34196808 -> 23257856
INFO [Service Thread] 2015-09-05 08:14:15,633 GCInspector.java:252 - ConcurrentMarkSweep GC in 298ms. CMS Old Gen: 14495521568 -> 648005496; Code Cache: 68215872 -> 68203712; Metaspace: 69789088 -> 69790848; Par Eden Space: 38399344 -> 86816904; Par Survivor Space: 228848 -> 335328
INFO [Service Thread] 2015-08-30 10:29:39,295 GCInspector.java:252 - G1 Young Generation GC in 421ms. G1 Eden Space: 12264144896 -> 0; G1 Old Gen: 5012193272 -> 5276434432; G1 Survivor Space: 620756992 -> 1610612736;
```

# Garbage Collections - eden space

```
INFO [Service Thread] 2015-09-05 07:43:49,714 GCInspector.java:252 - ParNew GC in 520ms. CMS Old Gen: 13501336496 -> 13535384776;

Par Eden Space: 1718091776 -> 0; Par Survivor Space: 34196808 -> 23257856
```

INFO [Service Thread] 2015-09-05 08:14:15,633 GCInspector.java:252 ConcurrentMarkSweep GC in 298ms. CMS Old Gen: 14495521568 -> 648005496;
 Code Cache: 68215872 -> 68203712; Metaspace: 69789088 -> 69790848;
 Par Eden Space: 38399344 -> 86816904; Par Survivor Space: 228848 -> 335328

INFO [Service Thread] 2015-08-30 10:29:39,295 GCInspector.java:252 - G1 Young Generation GC in 421ms. **G1 Eden Space: 12264144896 -> 0**; G1 Old Gen: 5012193272 -> 5276434432; G1 Survivor Space: 620756992 -> 1610612736;

#### **Garbage Collections - survivor space**

```
INFO [Service Thread] 2015-09-05 07:43:49,714 GCInspector.java:252 - ParNew GC in 520ms. CMS Old Gen: 13501336496 -> 13535384776; Par Eden Space: 1718091776 -> 0; Par Survivor Space: 34196808 -> 23257856
```

INFO [Service Thread] 2015-09-05 08:14:15,633 GCInspector.java:252 - ConcurrentMarkSweep GC in 298ms. CMS Old Gen: 14495521568 -> 648005496; Code Cache: 68215872 -> 68203712; Metaspace: 69789088 -> 69790848; Par Eden Space: 38399344 -> 86816904; Par Survivor Space: 228848 -> 335328

INFO [Service Thread] 2015-08-30 10:29:39,295 GCInspector.java:252 - G1 Young Generation GC in 421ms. G1 Eden Space: 12264144896 -> 0; G1 Old Gen: 5012193272 -> 5276434432; G1 Survivor Space: 620756992 -> 1610612736;

## Garbage Collections - old generation

```
INFO [Service Thread] 2015-09-05 07:43:49,714 GCInspector.java:252 - ParNew GC in 520ms. CMS Old Gen: 13501336496 -> 13535384776; Par Eden Space: 1718091776 -> 0; Par Survivor Space: 34196808 -> 23257856
```

INFO [Service Thread] 2015-09-05 08:14:15,633 GCInspector.java:252 - ConcurrentMarkSweep GC in 298ms. **CMS Old Gen: 14495521568 -> 648005496**; Code Cache: 68215872 -> 68203712; Metaspace: 69789088 -> 69790848; Par Eden Space: 38399344 -> 86816904; Par Survivor Space: 228848 -> 335328

INFO [Service Thread] 2015-08-30 10:29:39,295 GCInspector.java:252 - G1 Young Generation GC in 421ms. G1 Eden Space: 12264144896 -> 0; G1 Old Gen: 5012193272 -> 5276434432; G1 Survivor Space: 620756992 -> 1610612736;

## **Garbage Collections - collection type**

INFO [Service Thread] 2015-09-05 07:43:49,714 GCInspector.java:252 - ParNew GC in 520ms. CMS Old Gen: 13501336496 -> 13535384776; Par Eden Space: 1718091776 -> 0; Par Survivor Space: 34196808 -> 23257856

INFO [Service Thread] 2015-09-05 08:14:15,633 GCInspector.java:252 - ConcurrentMarkSweep GC in 298ms. CMS Old Gen: 14495521568 -> 648005496; Code Cache: 68215872 -> 68203712; Metaspace: 69789088 -> 69790848; Par Eden Space: 38399344 -> 86816904; Par Survivor Space: 228848 -> 335328

INFO [Service Thread] 2015-08-30 10:29:39,295 GCInspector.java:252 - **G1 Young Generation GC** in 421ms. G1 Eden Space: 12264144896 -> 0; G1 Old Gen: 5012193272 -> 5276434432; G1 Survivor Space: 620756992 -> 1610612736;

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#### **Garbage Collections - ParNew**

INFO [Service Thread] 2015-09-05 07:43:49,714 GCInspector.java:252 - ParNew GC in 520ms. CMS Old Gen: 13501336496 -> 13535384776; Par Eden Space: 1718091776 -> 0; Par Survivor Space: 34196808 -> 23257856

INFO [Service Thread] 2015-09-05 08:14:15,633 GCInspector.java:252 - ConcurrentMarkSweep GC in 298ms. CMS Old Gen: 14495521568 -> 648005496; Code Cache: 68215872 -> 68203712; Metaspace: 69789088 -> 69790848; Par Eden Space: 38399344 -> 86816904; Par Survivor Space: 228848 -> 335328

INFO [Service Thread] 2015-08-30 10:29:39,295 GCInspector.java:252 - G1 Young Generation GC in 421ms. G1 Eden Space: 12264144896 -> 0; G1 Old Gen: 5012193272 -> 5276434432; G1 Survivor Space: 620756992 -> 1610612736;

# Garbage Collections - ConcurrentMarkSweep

INFO [Service Thread] 2015-09-05 07:43:49,714 GCInspector.java:252 - ParNew GC in 520ms. CMS Old Gen: 13501336496 -> 13535384776; Par Eden Space: 1718091776 -> 0; Par Survivor Space: 34196808 -> 23257856

INFO [Service Thread] 2015-09-05 08:14:15,633 GCInspector.java:252 -

ConcurrentMarkSweep GC in 298ms. CMS Old Gen: 14495521568 -> 648005496;

Code Cache: 68215872 -> 68203712; Metaspace: 69789088 -> 69790848;

Par Eden Space: 38399344 -> 86816904; Par Survivor Space: 228848 -> 335328

INFO [Service Thread] 2015-08-30 10:29:39,295 GCInspector.java:252 -

G1 Young Generation GC in 421ms. G1 Eden Space: 12264144896 -> 0;

G1 Old Gen: 5012193272 -> 5276434432; G1 Survivor Space: 620756992 -> 1610612736;

## **Garbage Collections - G1**

INFO [Service Thread] 2015-09-05 07:43:49,714 GCInspector.java:252 - ParNew GC in 520ms. CMS Old Gen: 13501336496 -> 13535384776; Par Eden Space: 1718091776 -> 0; Par Survivor Space: 34196808 -> 23257856

INFO [Service Thread] 2015-09-05 08:14:15,633 GCInspector.java:252 - ConcurrentMarkSweep GC in 298ms. CMS Old Gen: 14495521568 -> 648005496; Code Cache: 68215872 -> 68203712; Metaspace: 69789088 -> 69790848; Par Eden Space: 38399344 -> 86816904; Par Survivor Space: 228848 -> 335328

INFO [Service Thread] 2015-08-30 10:29:39,295 GCInspector.java:252 - **G1 Young Generation GC** in 421ms. G1 Eden Space: 12264144896 -> 0; G1 Old Gen: 5012193272 -> 5276434432; G1 Survivor Space: 620756992 -> 1610612736;

**Flapping** 

INFO [GossipTasks:1] 2015-02-17 14:38:05,129 Gossiper.java (line 901) InetAddress /10.98.12.216 is now DOWN

INFO [GossipTasks:1] 2015-02-17 14:38:39,768 Gossiper.java (line 901) InetAddress /10.100.12.130 is now DOWN

INFO [RequestResponseStage:18] 2015-02-17 14:39:14,169 Gossiper.java (line 887) InetAddress /10.98.12.216 is now UP

INFO [GossipTasks:1] 2015-02-17 14:39:48,841 Gossiper.java (line 901) InetAddress /10.98.12.216 is now DOWN

INFO [RequestResponseStage:19] 2015-02-17 14:40:23,602 Gossiper.java (line 887) InetAddress /10.98.12.216 is now UP

INFO [RequestResponseStage:18] 2015-02-17 14:40:58,971 Gossiper.java (line 887) InetAddress /10.100.12.130 is now UP



## Flapping - up, down, up, down

INFO [GossipTasks:1] 2015-02-17 14:38:05,129 Gossiper.java (line 901) InetAddress /10.98.12.216 is now **DOWN** 

INFO [GossipTasks:1] 2015-02-17 14:38:39,768 Gossiper.java (line 901) InetAddress /10.100.12.130 is now **DOWN** 

INFO [RequestResponseStage:18] 2015-02-17 14:39:14,169 Gossiper.java (line 887) InetAddress /10.98.12.216 is now UP

INFO [GossipTasks:1] 2015-02-17 14:39:48,841 Gossiper.java (line 901) InetAddress /10.98.12.216 is now **DOWN** 

INFO [RequestResponseStage:19] 2015-02-17 14:40:23,602 Gossiper.java (line 887) InetAddress /10.98.12.216 is now UP

INFO [RequestResponseStage:18] 2015-02-17 14:40:58,971 Gossiper.java (line 887) InetAddress /10.100.12.130 is now UP



# Flapping - other node's ip

INFO [GossipTasks:1] 2015-02-17 14:38:05,129 Gossiper.java (line 901) InetAddress /10.98.12.216 is now DOWN

INFO [GossipTasks:1] 2015-02-17 14:38:39,768 Gossiper.java (line 901) InetAddress /10.100.12.130 is now DOWN

INFO [RequestResponseStage:18] 2015-02-17 14:39:14,169 Gossiper.java (line 887) InetAddress /10.98.12.216 is now UP

INFO [GossipTasks:1] 2015-02-17 14:39:48,841 Gossiper.java (line 901) InetAddress /10.98.12.216 is now DOWN

INFO [RequestResponseStage:19] 2015-02-17 14:40:23,602 Gossiper.java (line 887) InetAddress /10.98.12.216 is now UP

INFO [RequestResponseStage:18] 2015-02-17 14:40:58,971 Gossiper.java (line 887) InetAddress /10.100.12.130 is now UP



# Flapping - timestamps

INFO [GossipTasks:1] **2015-02-17 14:38:05,129** Gossiper.java (line 901) InetAddress /10.98.12.216 is now DOWN

INFO [GossipTasks:1] 2015-02-17 14:38:39,768 Gossiper.java (line 901) InetAddress /10.100.12.130 is now DOWN

INFO [RequestResponseStage:18] **2015-02-17 14:39:14,169** Gossiper.java (line 887) InetAddress /10.98.12.216 is now UP

INFO [GossipTasks:1] 2015-02-17 14:39:48,841 Gossiper.java (line 901) InetAddress /10.98.12.216 is now DOWN

INFO [RequestResponseStage:19] 2015-02-17 14:40:23,602 Gossiper.java (line 887) InetAddress /10.98.12.216 is now UP

INFO [RequestResponseStage:18] **2015-02-17 14:40:58,971** Gossiper.java (line 887) InetAddress /10.100.12.130 is now UP



#### **Hinted Handoff**

INFO [HintedHandoff:1] 2015-03-16 20:18:28,627 HintedHandOffManager.java (line 349) Started hinted handoff for host: d1a57a91-7aef-4878-a056-88949920724c with IP: /54.153.39.203

INFO [HintedHandoff:1] 2015-03-16 20:18:37,292 HintedHandOffManager.java (line 381) Finished hinted handoff of 2492 rows to endpoint /54.153.39.203



#### Repairs

- INFO [AntiEntropySessions:1] 2015-03-16 17:24:44,097 RepairSession.java (line 246)
- [repair #562f46d0-cc01-11e4-a84d-098a653a7013] new session: will sync /54.174.19.98, /54.153.108.157, /54.153.39.203, / 54.174.245.247 on range (3074457345618258602,6148914691236517205] for Keyspace1.[Counter3, Standard1, SuperCounter1, Super1, Counter1]
- INFO [RepairJobTask:2] 2015-03-16 17:24:48,102 RepairJob.java (line 161) [repair #562f46d0-cc01-11e4-a84d-098a653a7013] requesting merkle trees for Standard1 (to [/54.153.108.157, /54.153.39.203, / 54.174.245.247, /54.174.19.98])
- INFO [AntiEntropyStage:1] 2015-03-16 17:24:52,749 RepairSession.java (line 166) [repair #562f46d0-cc01-11e4-a84d-098a653a7013] Received merkle tree for Standard1 from /54.174.19.98
- INFO [RepairJobTask:4] 2015-03-16 17:24:52,757 Differencer.java (line 67) [repair #562f46d0-cc01-11e4-a84d-098a653a7013] Endpoints /54.153.39.203 and /54.174.245.247 are consistent for Standard1
- INFO [RepairJobTask:6] 2015-03-16 17:24:55,438 Differencer.java (line 74) [repair #562f46d0-cc01-11e4-a84d-098a653a7013] Endpoints /54.153.108.157 and /54.174.19.98 have 6222 range(s) out of sync for Standard1
- INFO [RepairJobTask:6] 2015-03-16 17:24:55,441 StreamingRepairTask.java (line 64) [streaming task #562f46d0-cc01-11e4-a84d-098a653a7013] Performing streaming repair of 6222 ranges with /54.153.108.157
- INFO [StreamReceiveTask:1] 2015-03-16 17:25:01,524 StreamingRepairTask.java (line 92) [repair #562f46d0-cc01-11e4-a84d-098a653a7013] streaming task succeed, returning response to /54.174.19.98



Thank you!

**Questions?**