

ONE - Data is stored in at least one replica node

<https://docs.datastax.com/en/cassandra-oss/3.0/cassandra/dml/dmlConfigConsistency.html#Writeconsistencylevels>

Level	Description	Usage
ALL	A write must be written to the commit log and memtable on all replica nodes in the cluster for that partition.	Provides the highest consistency and the lowest availability of any other level.
EACH_QUORUM	Strong consistency. A write must be written to the commit log and memtable on a quorum of replica nodes in each datacenter .	Used in multiple datacenter clusters to strictly maintain consistency at the same level in each datacenter. For example, choose this level if you want a write to fail when a datacenter is down and the QUORUM cannot be reached on that datacenter.
QUORUM	A write must be written to the commit log and memtable on a quorum of replica nodes across <i>all</i> datacenters.	Used in either single or multiple datacenter clusters to maintain strong consistency across the cluster. Use if you can tolerate some level of failure.
LOCAL_QUORUM	Strong consistency. A write must be written to the commit log and memtable on a quorum of replica nodes in the same datacenter as the coordinator . Avoids latency of inter-datacenter communication.	Used in multiple datacenter clusters with a rack-aware replica placement strategy, such as NetworkTopologyStrategy , and a properly configured snitch. Use to maintain consistency locally (within the single datacenter). Can be used with SimpleStrategy .
ONE	A write must be written to the commit log and memtable of at least one replica node.	Satisfies the needs of most users because consistency requirements are not stringent.
TWO	A write must be written to the commit log and memtable of at least two replica nodes.	Similar to ONE.
THREE	A write must be written to the commit log and memtable of at least three replica nodes.	Similar to TWO.
LOCAL_ONE	A write must be sent to, and successfully acknowledged by, at least one replica node in the local datacenter.	In a multiple datacenter clusters, a consistency level of ONE is often desirable, but cross-DC traffic is not. LOCAL_ONE accomplishes this. For security and quality reasons, you can use this consistency level in an offline datacenter to prevent automatic connection to online nodes in other datacenters if an offline node goes down.
ANY	A write must be written to at least one node. If all replica nodes for the given partition key are down, the write can still succeed after a hinted handoff has been written. If all replica nodes are down at write time, an ANY write is not readable until the replica nodes for that partition have recovered.	Provides low latency and a guarantee that a write never fails. Delivers the lowest consistency and highest availability.

How to check consistency?

CONSISTENCY;

```
CREATE INDEX city_index ON user_transaction  
[cqlsh:user_transaction> CONSISTENCY;  
Current consistency level is ONE.  
cqlsh:user_transaction> █
```

Change Consistency?

```
cqlsh:user_transaction> CONSISTENCY TWO;
```

```
[cqlsh:user_transaction> CONSISTENCY TWO;  
Consistency level set to TWO.
```