

# Web Console & Bucket

[Dashboard](#)[Servers](#)[Buckets](#)[Indexes](#)[Search](#)[Query](#)[XDCR](#)[Security](#)[Settings](#)[Logs](#)**Data Service**

1 node

**GSI Service**

1 node

**FTS Service**

1 node

**Query Service**

1 node

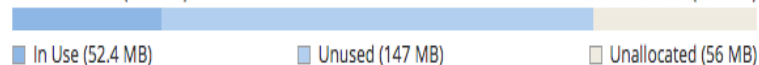
**XDCR**

0 remote clusters

0 replications

**Data Service Memory**

Total Allocated (200 MB)



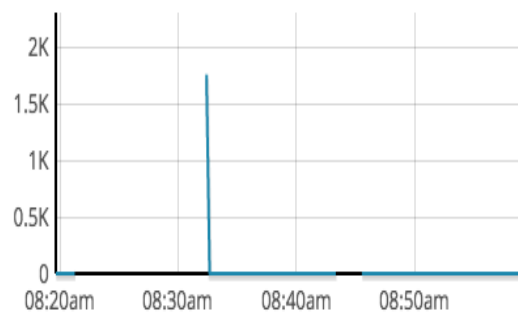
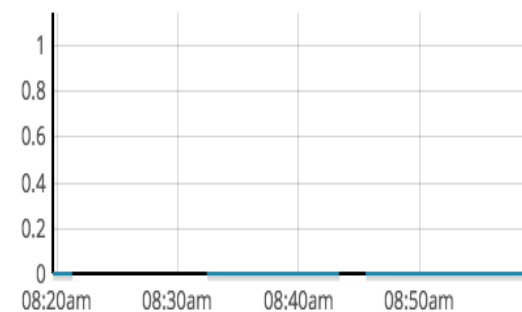
Total in Cluster (256 MB)

**Data Service Disk**

Usable Free Space (172 GB)



Total Cluster Storage (232 GB)

**Buckets** 2 active**Operations Per Second****Disk Fetches Per Second**

Data Service

1 node

GSI Service

1 node

FTS Service

1 node

Query Service

1 node

XDCR

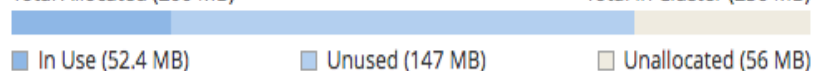
0 remote clusters

0 replications

## Data Service Memory

Total Allocated (200 MB)

Total in Cluster (256 MB)



## Data Service Disk

Usable Free Space (172 GB)

Total Cluster Storage (232 GB)



Field	Description
<b>Data Service Memory</b> section provides a graphical representation of your RAM situation.	
total quota	The amount of RAM allocated to data buckets within your cluster.
unallocated	The amount of RAM not allocated to data buckets within your cluster.
unused	The amount of memory that is unused (available) for storing data.
in use	The amount of memory across all buckets that is actually in use (that is data is actively being stored).

name	group	services	CPU	RAM	swap	disk used	items	
10.17.1.124	group 1	data full text index query	85.8%	84.1%	78.4%	22.2MB	31.5 K / 0	<a href="#">Statistics</a>
172.23.106.27	group 1	data full text index query	0.75%	9.32%	0%	---	0 / 0	<a href="#">Statistics</a>
This server will be added to the cluster pending rebalance.								<button>Cancel Add</button>

# Buckets

- Couchbase buckets
- Ephemeral buckets
- Memcached buckets

# Bucket Types

## Couchbase\*/Ephemeral

- ✓ highly-available
- ✓ dynamically reconfigurable distributed data storage
- ✓ Persistence\*
- ✓ replication services

## Memcached

- ✓ directly-addressed
- ✓ distributed (scale-out)
- ✓ in-memory
- ✓ key-value cache

Capability	Memcached buckets	Couchbase buckets	Ephemeral buckets
Item size limit	1 MB	20 MB	20 MB
Persistence	No	Yes	No
Replication (DCP)	No	Yes	Yes
Cross Datacenter Replication (XDCR)	No	Yes	Yes

# Bucket Capabilities

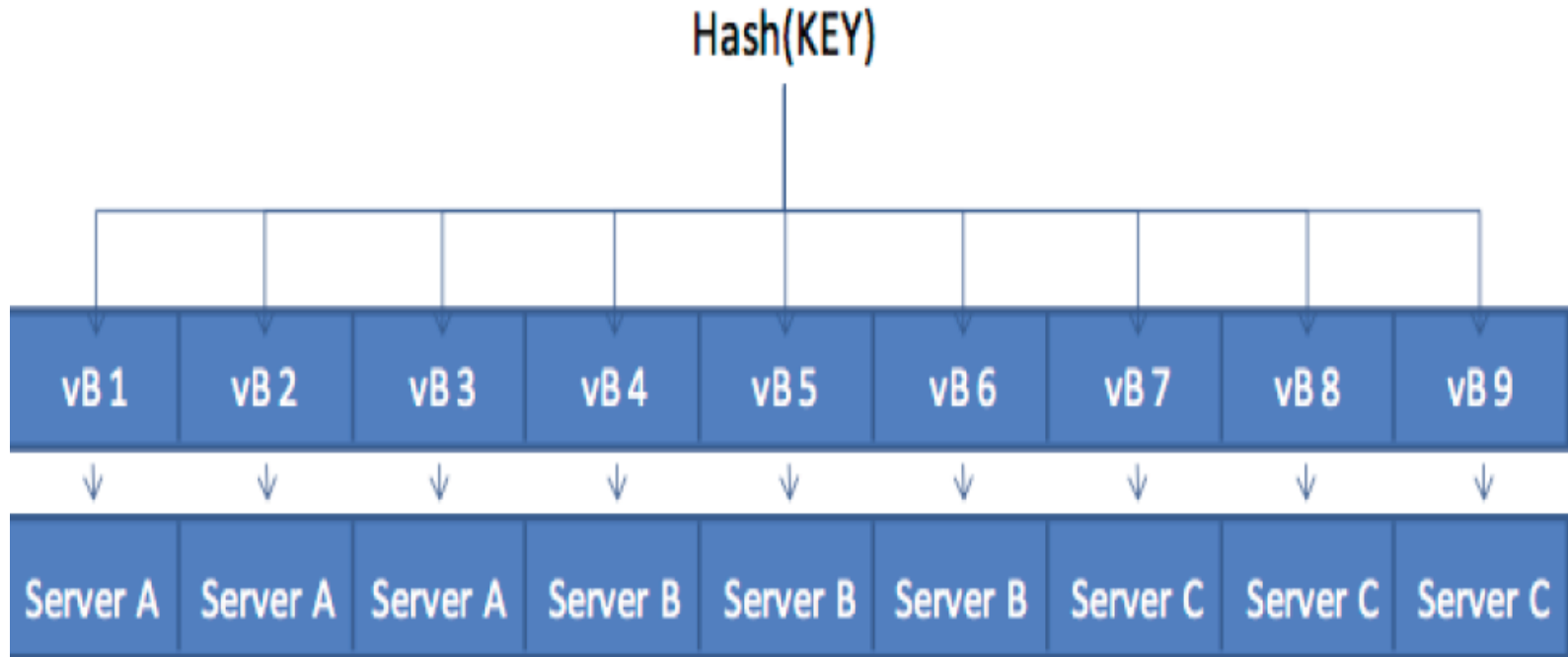
Capability	Description
Caching	Couchbase buckets operate through RAM. Data is kept in RAM and persisted down to disk.
Persistence	Data objects can be persisted asynchronously to hard-disk resources from memory to provide protection from server restarts or minor failures.
Replication	configurable number of replica servers
Rebalancing	load distribution across resources and dynamic addition or removal of buckets



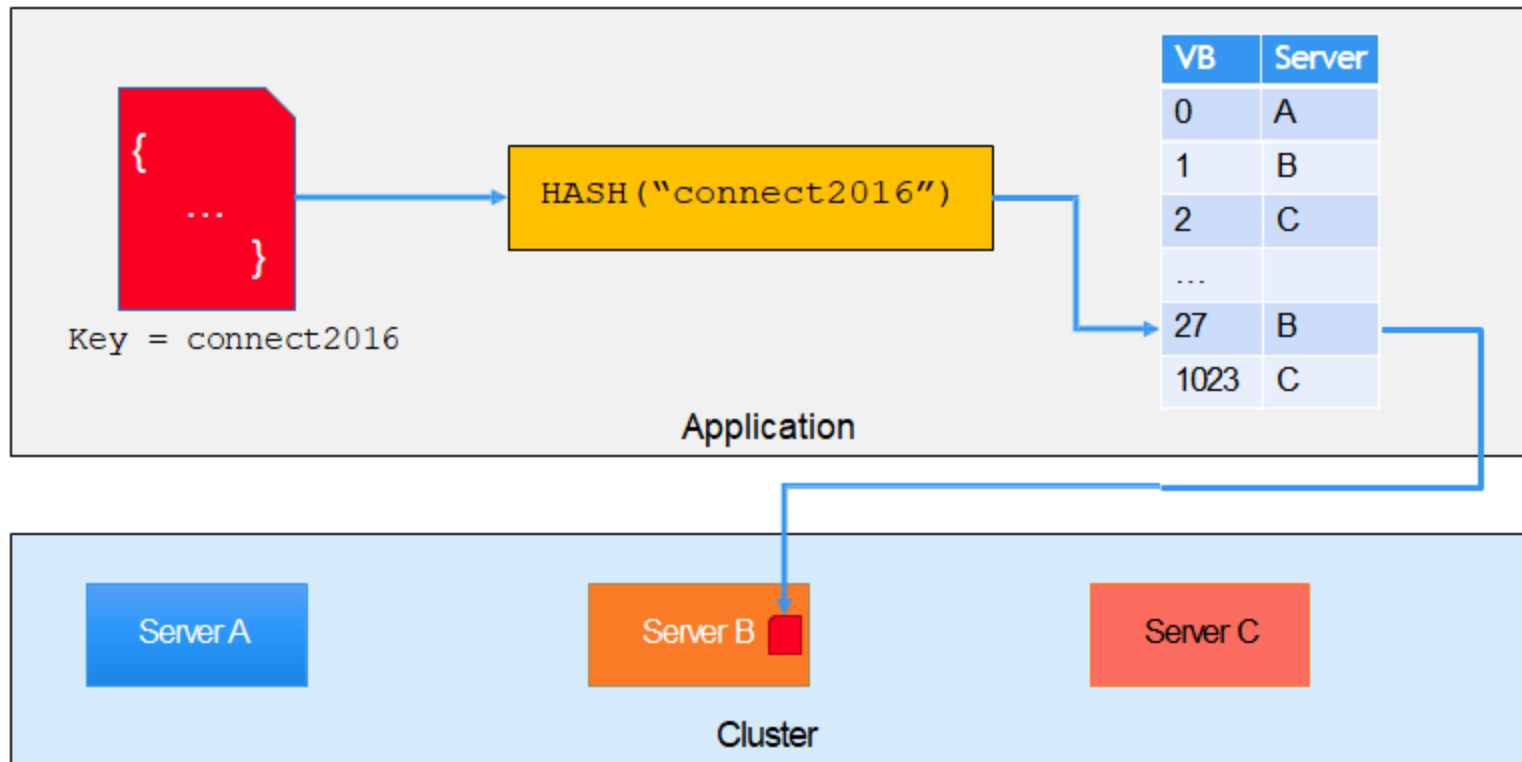
Capability	Couchbase Buckets	Ephemeral Buckets
Persistence	Couchbase buckets are persisted asynchronously, from memory to disk.	Ephemeral buckets are not persisted to disk: they are retained in RAM only.
Replication (DCP and XDCR)	Couchbase buckets can be replicated across a configurable number of servers.	Ephemeral buckets can be replicated across but without being persisted to disk.
Rebalance	By means of rebalancing, the load constituted by Couchbase buckets is distributed evenly across nodes within the cluster.	Rebalancing redistributes Ephemeral buckets, exactly as it does Couchbase buckets; but without the data being persisted to disk.
Auto-failover	By default, Auto-failover starts when a node has been inaccessible for 120 seconds.	Auto-failover starts as soon as a node is inaccessible

- the owner of a subset of the key space of a Couchbase cluster
- used to allow information to be distributed effectively across the cluster
- used both for distributing data, and for supporting replicas (copies of bucket data) on more than one node.

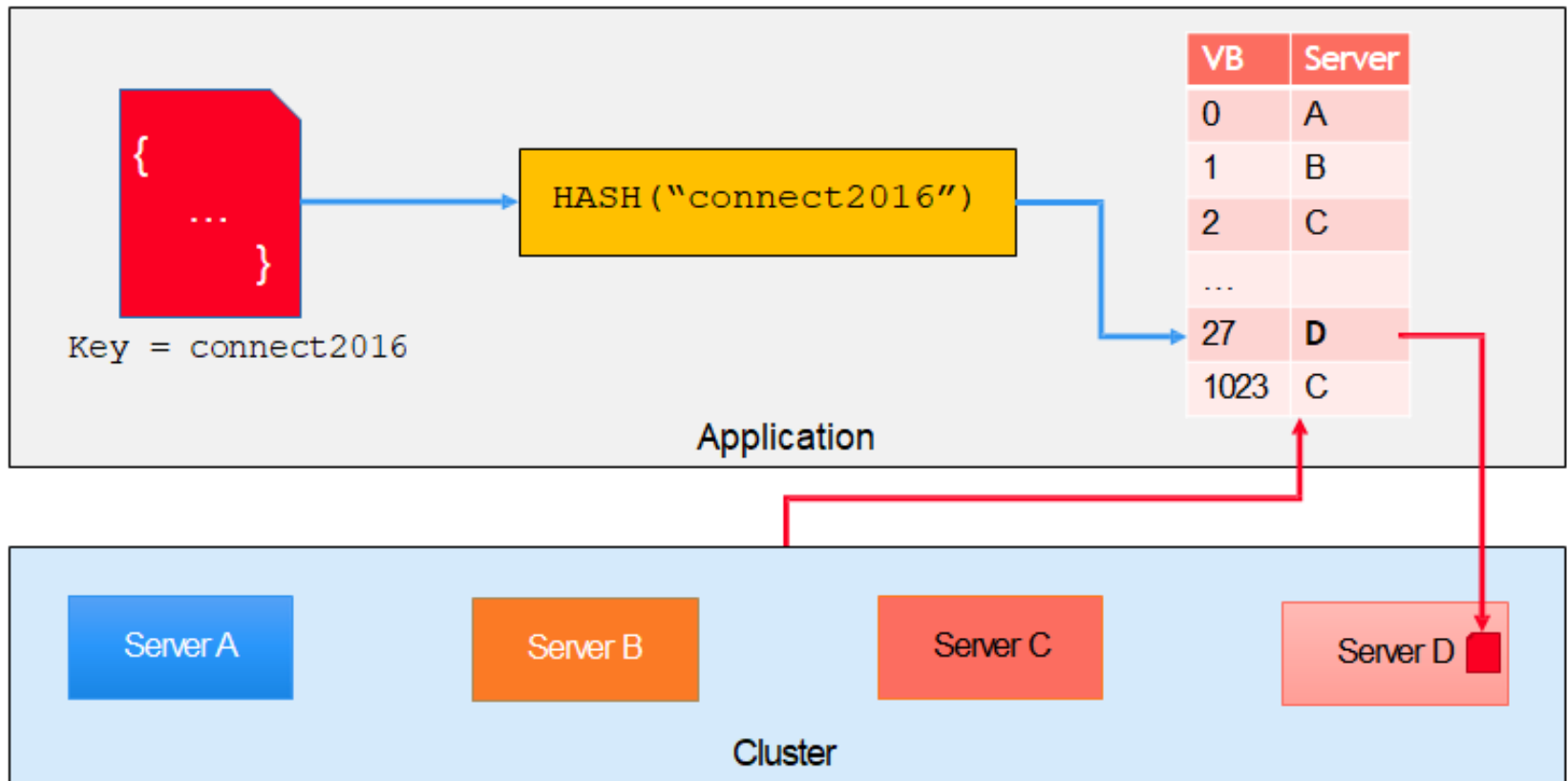
# vBucket Mapping



The client first hashes the key to calculate the vBucket which owns KEY.



# Automatic Sharding



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name	items	resident	ops/sec	RAM used/quota	disk used	
<b>testBucket</b>	1	100%	0	3.52MB / 650MB	283KB	<a href="#">Documents</a> <a href="#">Statistics</a>
<b>travel-sample</b>	31,591	100%	0	44.6MB / 100MB	21.7MB	<a href="#">Documents</a> <a href="#">Statistics</a>

# Creating a new Bucket

## Add Data Bucket



Name

Bucket name cannot be empty

Memory Quota in megabytes per server node

MB



☒ other buckets (100 MB) ☒ this bucket (250 MB) ☐ remaining (250 MB)

Bucket Type

☒ Couchbase ☐ Memcached ☐ Ephemeral

► Advanced bucket settings

Cancel

Add Bucket

# Creating a new Bucket...

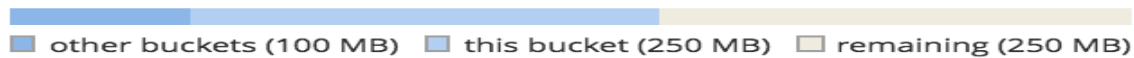
## Add Data Bucket



### Name

### Memory Quota in megabytes per server node

MB



### Bucket Type

☒ Couchbase ☐ Memcached ☐ Ephemeral

### ▼ Advanced bucket settings

### Replicas

☒ Enable  Number of replica (backup) copies

☐ Replicate view indexes

### Conflict Resolution ⓘ

☒ Sequence number ☐ Timestamp

### Ejection Method ⓘ

☒ Value-only ☐ Full

### Bucket Priority ⓘ

☒ Default ☐ High

### Auto-Compaction ⓘ

☐ Override the default auto-compaction settings?

### Flush ⓘ

☐ Enable

[Cancel](#)[Add Bucket](#)



**Add Data Bucket** ✕

**Name**

**Memory Quota** in megabytes per server node  
 **MB**  

☒ other buckets (100 MB) ☒ this bucket (250 MB) ☐ remaining (250 MB)

**Bucket Type**  
☐ Couchbase ☐ Memcached ☒ Ephemeral

**▼ Advanced bucket settings**

**Replicas**  
☒ Enable  Number of replica (backup) copies

**Conflict Resolution** ⓘ  
☒ Sequence number ☐ Timestamp

**Ejection Method** ⓘ  
☒ No ejection ☐ NRU ejection

**Metadata Purge Interval** ⓘ  
 Range 0.04 (1 H) - 60days

**Bucket Priority** ⓘ  
☒ Default ☐ High

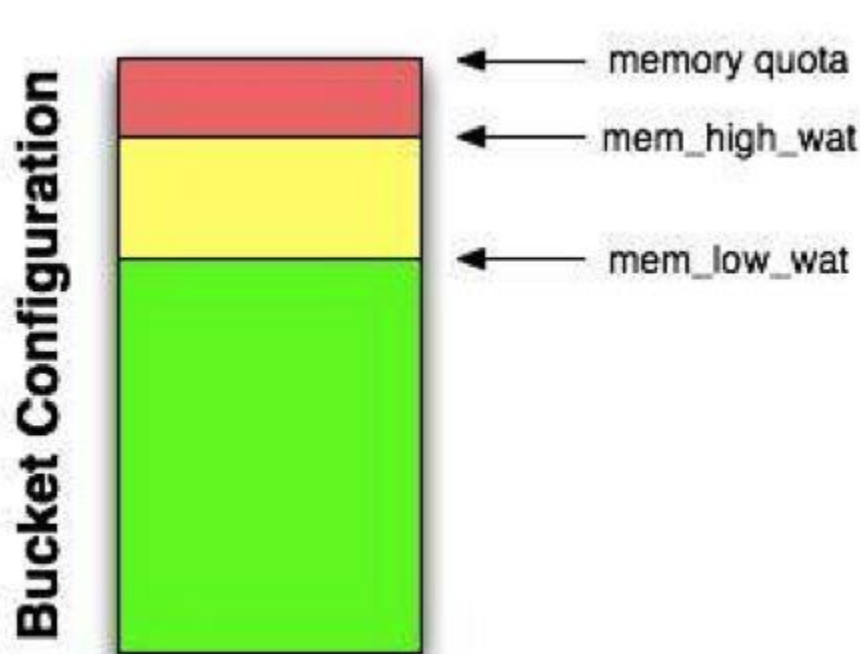
**Flush** ⓘ  
☐ Enable

Cancel Add Bucket

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name	items	resident	ops/sec	RAM used/quota	disk used	
<b>mySecondTestBucket</b>	1	100%	0	48MB / 100MB	4.06MB	<a href="#">Documents</a> <a href="#">Statistics</a>
<b>myTestBucket</b>	2	100%	0	48MB / 100MB	4.07MB	<a href="#">Documents</a> <a href="#">Statistics</a>

- process of removing data from RAM to make room for active and more frequently used information.
- automatic and operates in conjunction with the disk persistence system



## Default setting for RAM water marks

Version	High water mark	Low water mark
2.0	75%	60%
2.0.1 and higher	85%	75%

- Used for data with a naturally limited life.
- to be automatically deleted from the entire database.
- expiration time :
  - as a relative time (for example, in 60 seconds),
  - or absolute time (31st December 2012, 12:00 p.m.)

- removing information entirely from memory for Memcached buckets.
- uses a least recently used (LRU) algorithm.

## Settings

[Update Notifications](#)[Auto-Failover](#)[Alerts](#)[Auto-Compaction](#)[Sample Buckets](#)

Sample buckets are available to demonstrate the power of Couchbase Server. These samples contain data and sample MapReduce queries.

### Installed Samples

- There are no installed samples.

### Available Samples

- ☒ beer-sample
- ☒ gamesim-sample

[Create](#)