

# 1 memcached.json

memcached.json — memcached configuration file

## DESCRIPTION

**memcached.json** is a JSON encoded file specifying the properties used to configure the memcached server. Some of the parameters may be changed at runtime by instructing memcached to reread the configuration file. These properties is explicitly marked as such.

The following sections describes the various attributes that may be specified.

### root

This is the root directory of the Couchbase server installation.

### admin

Specify the username used for administrative operations (like bucket management). To disable the use of an administrative role you should set this to an empty string.

### breakpad

The **breakpad** attribute is used to configure the Breakpad crash catcher. When enabled (and on a supported platform), if memcached crashes a minidump containing information on the state of memcached will be written to disk. It is an object with the following attributes:

enabled	A boolean value specifying if Breakpad is enabled. If true (and *minidump_dir* is set) minidumps will be output to directory specified by *minidump_dir*. If not specified then defaults to false.
minidump_dir	A string value specifying the directory to write any outputted minidumps to. If not specified then Breakpad is not enabled.
content	A string value specifying what data will be included in generated minidumps. Currently the only permitted value is "default".

**enabled**, **minidump\_dir** and **content** may be modified at runtime by instructing memcached to reread the configuration file.

### require\_init

The **require\_init** attribute is a boolean value that is used to disable all user commands while the server (Couchbase Server) is initializing the node (creating the buckets etc). Until the node is initialized memcached will only allow the "admin user" to connect to the cluster and run commands. All other users will receive a "NOT INITIALIZED" response for all commands except SASL requests; which will be allowed, but upon a successful authentication "NOT INITIALIZED" will be returned unless the SASL authentication was done for the admin user.

### rbac\_file

Specify the filename containing all of the RBAC definitions

### **rbac\_privilege\_debug**

The **rbac\_privilege\_debug** is a boolean value that may be used by developers to detect the privileges required for their module to work. It should *never* be enabled in a production environment!

When running in the privilege debug mode, all commands will be permitted for all users. If the current user profile lacks the permission for the operation to be performed, the following entry is printed to standard error:

Missing privilege for **user profile**. Need **command**.

### **audit\_file**

Specify the filename containing all of the Audit configurations

### **ssl\_cipher\_list**

Specify the list of ciphers to use. The format of the string is described in ciphers ( <https://www.openssl.org/docs/apps/ciphers.html> ). By default no value is specified causing whatever openssl defaults to to be enabled. Some values may be:

HIGH	Only enable "high" encryption ciphers (keys > 128 bits)
MEDIUM	In addition to the high encryption ciphers, also allow 128 bit encryption

### **threads**

The **threads** attribute specify the number of threads used to serve clients. By default this number is set to 75% of the number of cores available on the system (but no less than 4). The value for threads should be specified as an integral number.

### **interfaces**

The **interfaces** attribute is used to specify an array of interfaces memcached should listen at. Each entry in the interfaces array is an object describing a single interface with the following properties:

host	A string value specifying the hostname to bind to. If the attribute is missing (or set to "*") IN_ADDR_ANY is used.
port	An integral number specifying the port number
IPv4	A boolean value specifying if IPv4 should be enabled or not. By default IPv4 is enabled.
IPv6	A boolean value specifying if IPv6 should be enabled or not. By default IPv6 is enabled.
maxconn	An integral number specifying the maximum number of concurrent clients that may be connected.
backlog	An integral number specifying the backlog size set to listen.

<code>tcp_nodelay</code>	A boolean value if TCP_NODELAY should be set or not. By default <code>tcp_nodelay</code> is enabled.
<code>ssl</code>	An object specifying SSL related properties. See below.
<code>protocol</code>	A string value specifying the protocol enabled for this port. If not present the memcached binary protocol is used. Legal values: "greenstack" or "memcached"

The **ssl** object contains the two **mandatory** attributes:

<code>key</code>	A string value with the absolute path to the file containing the private key to use.
<code>cert</code>	A string value with the absolute path to the file containing the X.509 certificate to use.

**maxconn**, **backlog**, **tcp\_nodelay**, **ssl.key** and **ssl.cert** may be modified by instructing memcached to reread the configuration file.

## extensions

The **extensions** attribute is used to specify an array of extensions which should be loaded. Each entry in the extensions array is an object describing a single extension with the following attributes:

<code>module</code>	A string value containing the module to load. This may either be an absolute path, or the systems library path will be searched for the object. When loaded memcached calls the method <code>memcached_extensions_initialize()</code> .
<code>config</code>	A string value containing configuration attributes to the module. The config value is passed transparently to the module.

## engine

The **engine** attribute is used to specify the engine to load. It is an object with the following attributes:

<code>module</code>	A string value containing the module to load. This may either be an absolute path, or the systems library path will be searched for the object. The object must implement the engine api.
<code>config</code>	A string value containing configuration attributes to the module. The config value is passed transparently to the module.

## require\_sasl

The **require\_sasl** attribute specify if performing SASL authentication is required or not. The value is a boolean value which is set to false by default.

**default\_reqs\_per\_event**

The **default\_reqs\_per\_event** attribute is an integral value specifying the number of request that may be served per client before serving the next client (to avoid starvation). The default value is 20.

**default\_reqs\_per\_event** may be updated by instructing memcached to reread the configuration file.

**reqs\_per\_event\_high\_priority**

The **reqs\_per\_event\_high\_priority** attribute is an integral value specifying the number of request that may be served per high priority client before serving the next client (to avoid starvation). The default value is 20.

**reqs\_per\_event\_high\_priority** may be updated by instructing memcached to reread the configuration file.

**reqs\_per\_event\_med\_priority**

The **reqs\_per\_event\_med\_priority** attribute is an integral value specifying the number of request that may be served per medium priority client before serving the next client (to avoid starvation). The default value is 20.

**reqs\_per\_event\_med\_priority** may be updated by instructing memcached to reread the configuration file.

**reqs\_per\_event\_low\_priority**

The **reqs\_per\_event\_low\_priority** attribute is an integral value specifying the number of request that may be served per low priority client before serving the next client (to avoid starvation). The default value is 20.

**reqs\_per\_event\_low\_priority** may be updated by instructing memcached to reread the configuration file.

**bio\_drain\_buffer\_sz**

The **bio\_drain\_buffer\_sz** attribute is an integral value specifying the number of bytes in the BIO drain buffer. This is an integral setting just used by the engineers for testing.

**verbosity**

The **verbosity** attribute is an integral value specifying the amount of output produced by the memcached server. By default this value is set to 0 resulting in only warnings to be emitted. Setting this value too high will produce a lot of output which is most likely meaningless for most people.

**verbosity** may be updated by instructing memcached to reread the configuration file.

**datatype\_support**

The **datatype\_support** attribute is a boolean value to enable the support for using the datatype extension. By default this support is disabled.

**max\_packet\_size**

The **max\_packet\_size** attribute is an integer value that specify the maximum packet size (in MB) allowed to be received from clients without disconnecting them. This is a safety net for avoiding the server to try to spool up a 4GB packet. When a packet is received on the network with a body bigger than this threshold EINVAL is returned to the client and the client is disconnected.

## EXAMPLES

A Sample memcached.json:

```
{
  "root" : "/opt/couchbase",
  "admin" : "_admin",
  "breakpad" :
    {
      "enabled" : true,
      "minidump_dir" : "/opt/couchbase/var/crash",
      "content" : "default"
    },
  "require_init" : true,
  "rbac_file" : "/opt/couchbase/etc/security/rbac.json",
  "rbac_privilege_debug" : false,
  "audit_file" : "/opt/couchbase/etc/security/audit.json",
  "ssl_cipher_list" : "HIGH",
  "threads" : 4,
  "interfaces" :
  [
    {
      "host" : "*",
      "port" : 11209,
      "IPv4" : true,
      "IPv6" : true,
      "maxconn" : 10000,
      "backlog" : 1024,
      "tcp_nodelay" : true,
      "ssl" :
      {
        "key" : "/etc/memcached/pkey",
        "cert" : "/etc/memcached/cert"
      },
      "protocol" : "memcached"
    },
    {
      "host" : "*",
      "port" : 11210,
      "IPv4" : true,
      "IPv6" : true,
      "maxconn" : 10000,
      "backlog" : 1024,
      "tcp_nodelay" : true,
      "ssl" :
      {
        "key" : "/etc/memcached/pkey",
        "cert" : "/etc/memcached/cert"
      },
      "protocol" : "greenstack"
    }
  ],
  "extensions" :
  [
    {
      "module" : "stdin_term_handler.so",
      "config" : ""
    }
  ]
}
```

```
    },
    {
      "module" : "file_logger.so",
      "config" : "cyclesize=10485760;sleeptime=19;filename=data/n_0/logs/ ↵
                  memcached.log"
    }
  ],
  "engine" : {
    "module" : "bucket_engine.so",
    "config" : "admin=_admin;default_bucket_name=default;auto_create=false"
  },
  "require_sasl" : false,
  "default_reqs_per_event" : 20,
  "reqs_per_event_high_priority" : 40,
  "reqs_per_event_med_priority" : 20,
  "reqs_per_event_low_priority" : 10,
  "verbosity" : 2,
  "datatype_support" : true
  "max_packet_size" : 25,
  "bio_drain_buffer_sz" : 8192
}
```

## COPYRIGHT

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