

Hands-on with Riak

What we will cover

- Install Riak
- A tour of the source and package directories
- Riak configuration files
- The ports, protocols and services Riak uses
- Basic commands
- Ingest some data to the cluster
- Perform simple GET, PUT, DELETE operations

Installing from source

```
## install erlang - R15B01
```

```
## download OSS source
```

```
$ git clone https://github.com/basho/riak.git
```

```
## checkout version 1.4.10
```

```
$ cd riak
```

```
$ git checkout riak-1.4.10
```

```
## make release
```

```
$ make rel
```

```
## or make development release (DEVNODES defaults to 5)
```

```
$ make devrel DEVNODES=N
```



Installing from package

```
## copy Enterprise Edition release package to node
```

```
## install deb (Debian/Ubuntu)
```

```
$ sudo dpkg -i riak-ee_1.4.10-1_amd64.deb
```

```
## or install rpm (RedHat/CentOS)
```

```
$ rpm -Uvh riak-ee-1.4.10-1.el6.x86_64.rpm
```



Files and Locations

- /etc/riak/
 - |_app.config
 - |_vm.args

Files and Locations

- /usr/lib/riak/
 - |_erts-5.9.1/
 - |_lib/
 - |_lib/basho-patches/
 - |_releases/

Files and Locations

- /var/lib/riak/
 - |_anti_entropy/
 - |_bitcask/
 - |_leveldb/
 - |_merge_index/
 - |_riak_repl/
 - |_ring/

Files and Locations

- /var/log/riak/
 - |_console.log
 - |_crash.log
 - |_erlang.log
 - |_error.log
 - |_run_erl.log

Files and Locations

- /usr/sbin/
 - |_riak
 - |_riak-admin
 - |_riak-debug
 - |_riak-repl

Riak configuration

- app.config
 - Ports & Endpoints
 - Active Anti-Entropy
 - Javascript VM settings
 - Riak Search
 - Backends
 - Log settings

Ports Protocols & Services

| Protocol | Ports | Service |
|----------|-----------|--|
| TCP | 4369 | epmd |
| TCP | 6000-7999 | <i>Erlang inter-node communication</i> |
| TCP | 8099 | Handoff listener |
| TCP | 8098 | HTTP client |
| TCP | 8087 | Protocol Buffers client |
| TCP | 9010 | Multi Datacenter Replication (repl v2) |
| TCP | 9080 | Cluster Manager (repl v3) |
| TCP | 8069 | Riak Control |

Erlang VM configuration

- `vm.args`
 - Erlang `-name` and `-setcookie`
 - `ERL_MAX_PORTS`
 - `ERL_MAX_ETS_TABLES`
 - `+zdbbl`

Basic Commands

```
riak { start | stop | restart | reboot | ping | console | attach }
```



Controlling Riak

<http://goo.gl/dF2RPp>

Configuring Riak

<http://goo.gl/4FiuLK>

Querying Riak

<http://goo.gl/r5ekmt>