Saltstack

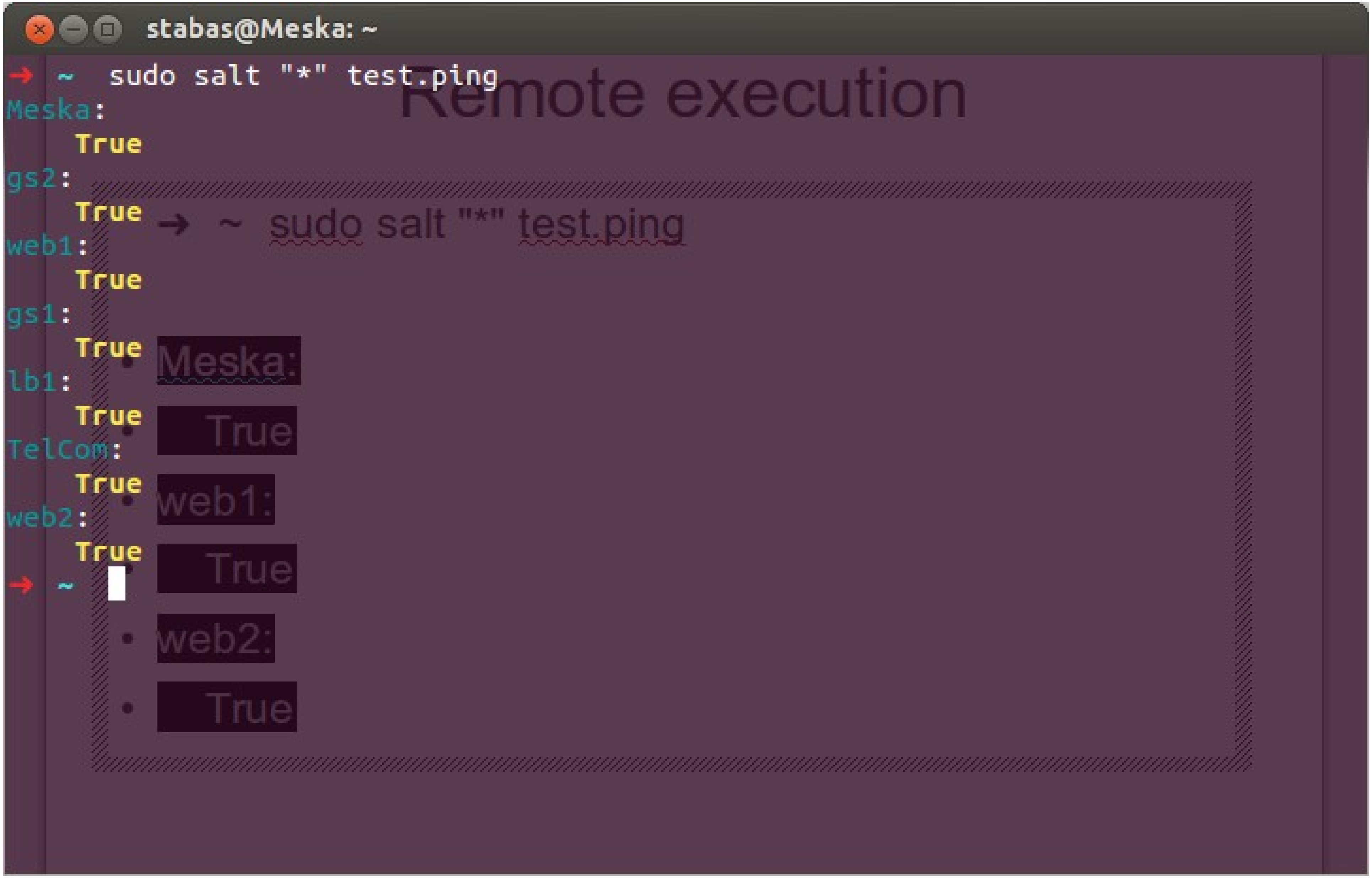
Saltstack

- Remote execution
- Configuration management
- Extentions

Remote execution

- Modules
  - Do what?
- Returners
  - Done. Where to report back?
- Targeting
  - Grains
  - Pillar

Remote execution



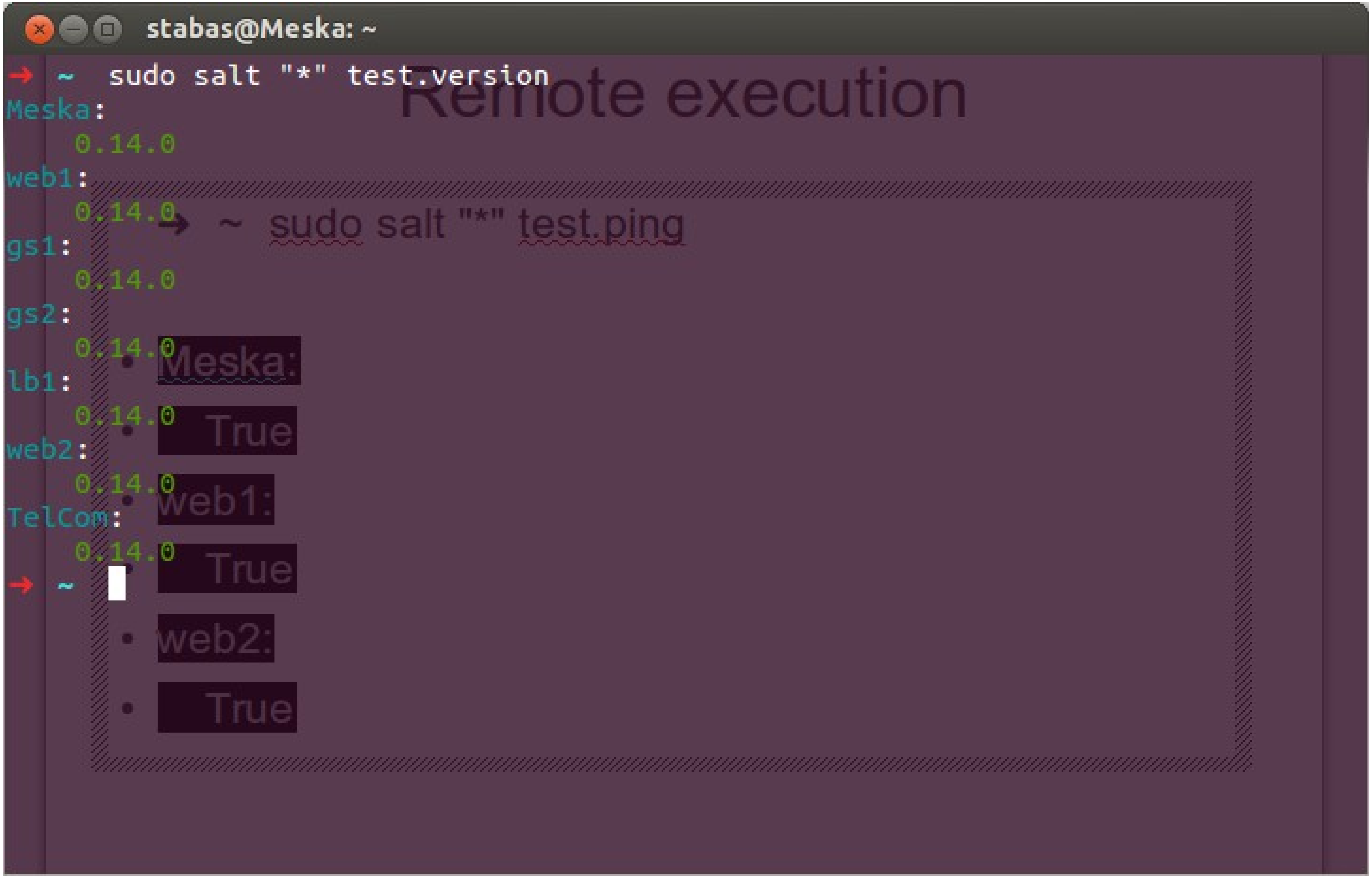
```
➜  ~  sudo salt "*" test.ping
Meska:
    True
gs2:
    True
web1:
    True
gs1:
    True
lb1:
    True
TelCom:
    True
web2:
    True
➜  ~
```

Remote execution

➜ ~ sudo salt "*" test.ping

- Meska:
- True
- web1:
- True
- web2:
- True

Remote execution

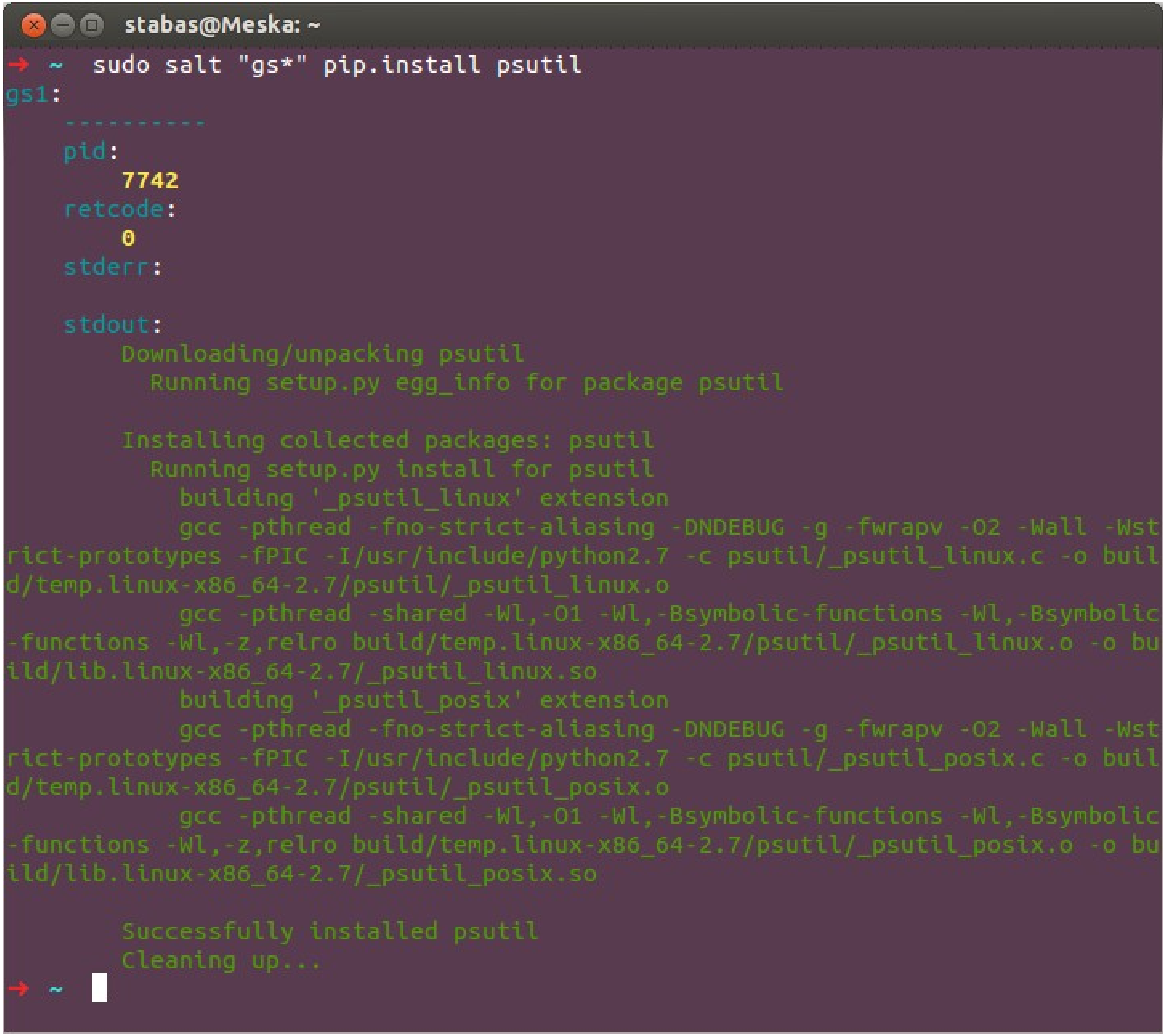


```
➜  ~  sudo salt "*" test.version
Meska:
    0.14.0
web1:
    0.14.0
gs1:
    0.14.0
gs2:
    0.14.0
lb1:
    0.14.0
web2:
    0.14.0
TelCom:
    0.14.0
➜  ~  
```

Remote execution

```
➜  ~  sudo salt "*" test.ping
```

- Meska:
- True
- web1:
- True
- web2:
- True



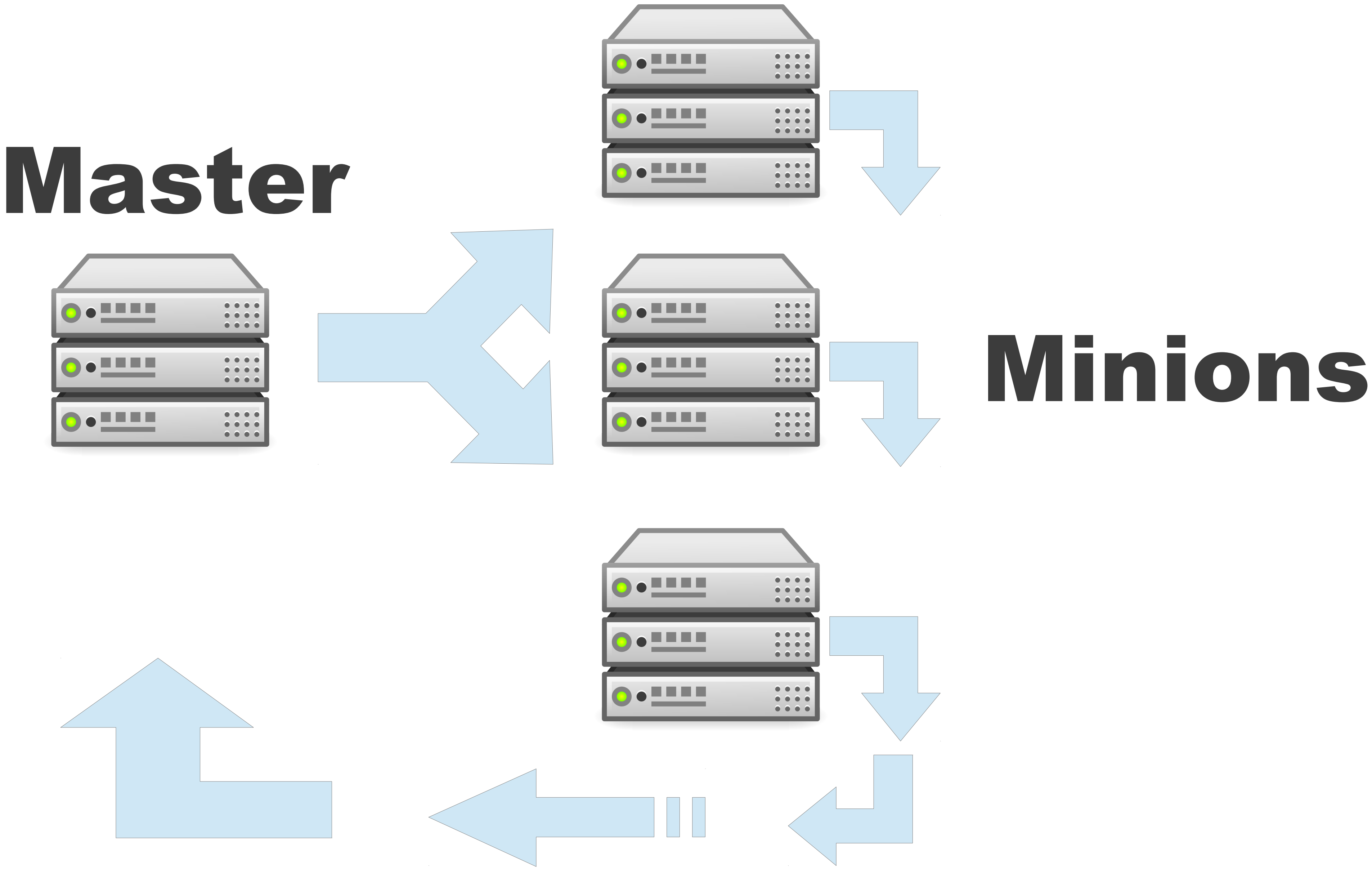
```
➜  ~  sudo salt "gs*" pip.install psutil
gs1:
    ----------
    pid:
        7742
    retcode:
        0
    stderr:

    stdout:
        Downloading/unpacking psutil
          Running setup.py egg_info for package psutil

        Installing collected packages: psutil
          Running setup.py install for psutil
            building '_psutil_linux' extension
            gcc -pthread -fno-strict-aliasing -DNDEBUG -g -fwrapv -O2 -Wall -Wst
rict-prototypes -fPIC -I/usr/include/python2.7 -c psutil/_psutil_linux.c -o buil
d/temp.linux-x86_64-2.7/psutil/_psutil_linux.o
            gcc -pthread -shared -Wl,-O1 -Wl,-Bsymbolic-functions -Wl,-Bsymbolic
-functions -Wl,-z,relro build/temp.linux-x86_64-2.7/psutil/_psutil_linux.o -o bu
ild/lib.linux-x86_64-2.7/_psutil_linux.so
            building '_psutil_posix' extension
            gcc -pthread -fno-strict-aliasing -DNDEBUG -g -fwrapv -O2 -Wall -Wst
rict-prototypes -fPIC -I/usr/include/python2.7 -c psutil/_psutil_posix.c -o buil
d/temp.linux-x86_64-2.7/psutil/_psutil_posix.o
            gcc -pthread -shared -Wl,-O1 -Wl,-Bsymbolic-functions -Wl,-Bsymbolic
-functions -Wl,-z,relro build/temp.linux-x86_64-2.7/psutil/_psutil_posix.o -o bu
ild/lib.linux-x86_64-2.7/_psutil_posix.so

        Successfully installed psutil
        Cleaning up...
➜  ~
```

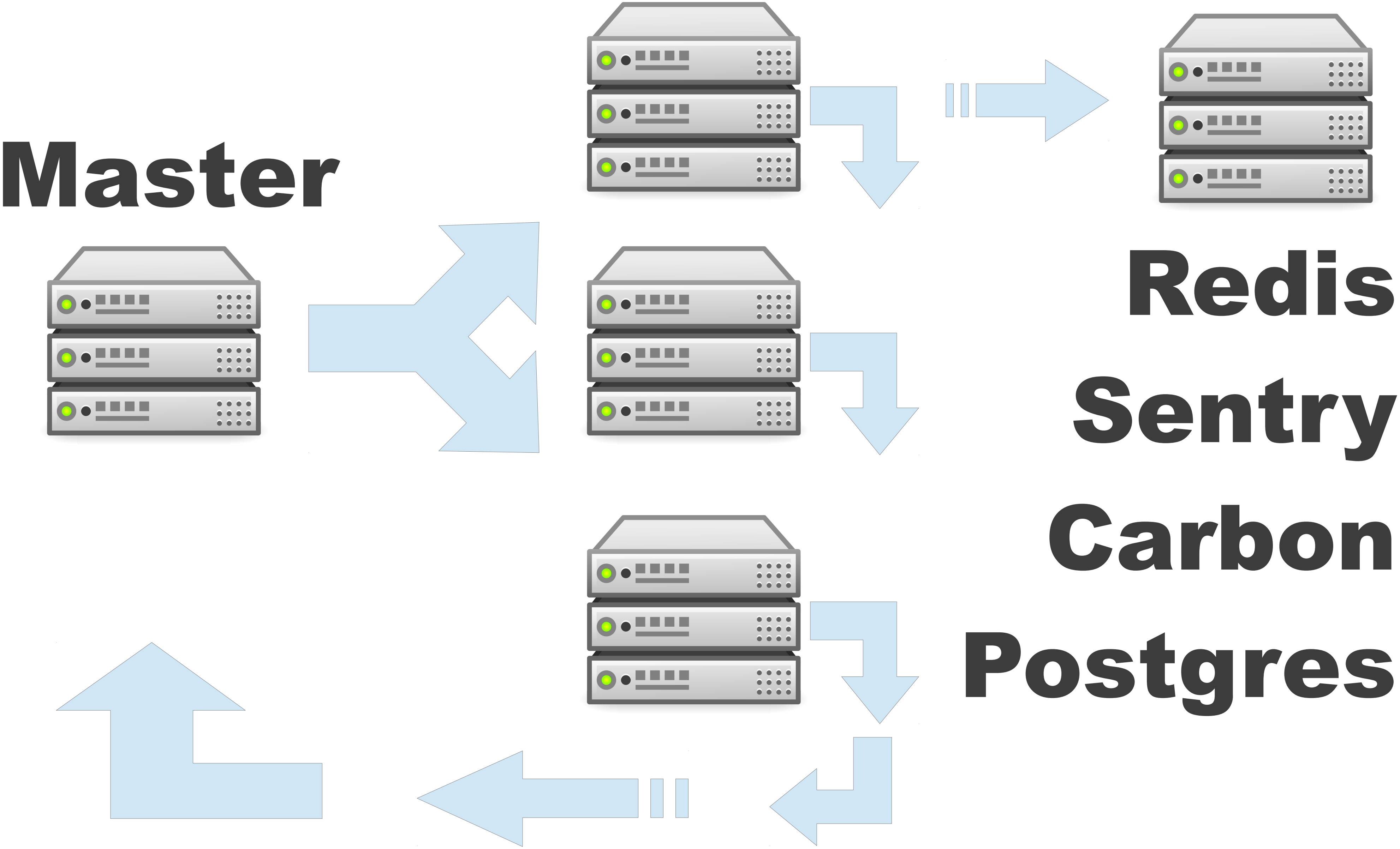
Returners



Master

Minions

Returners



Master

Redis

Sentry

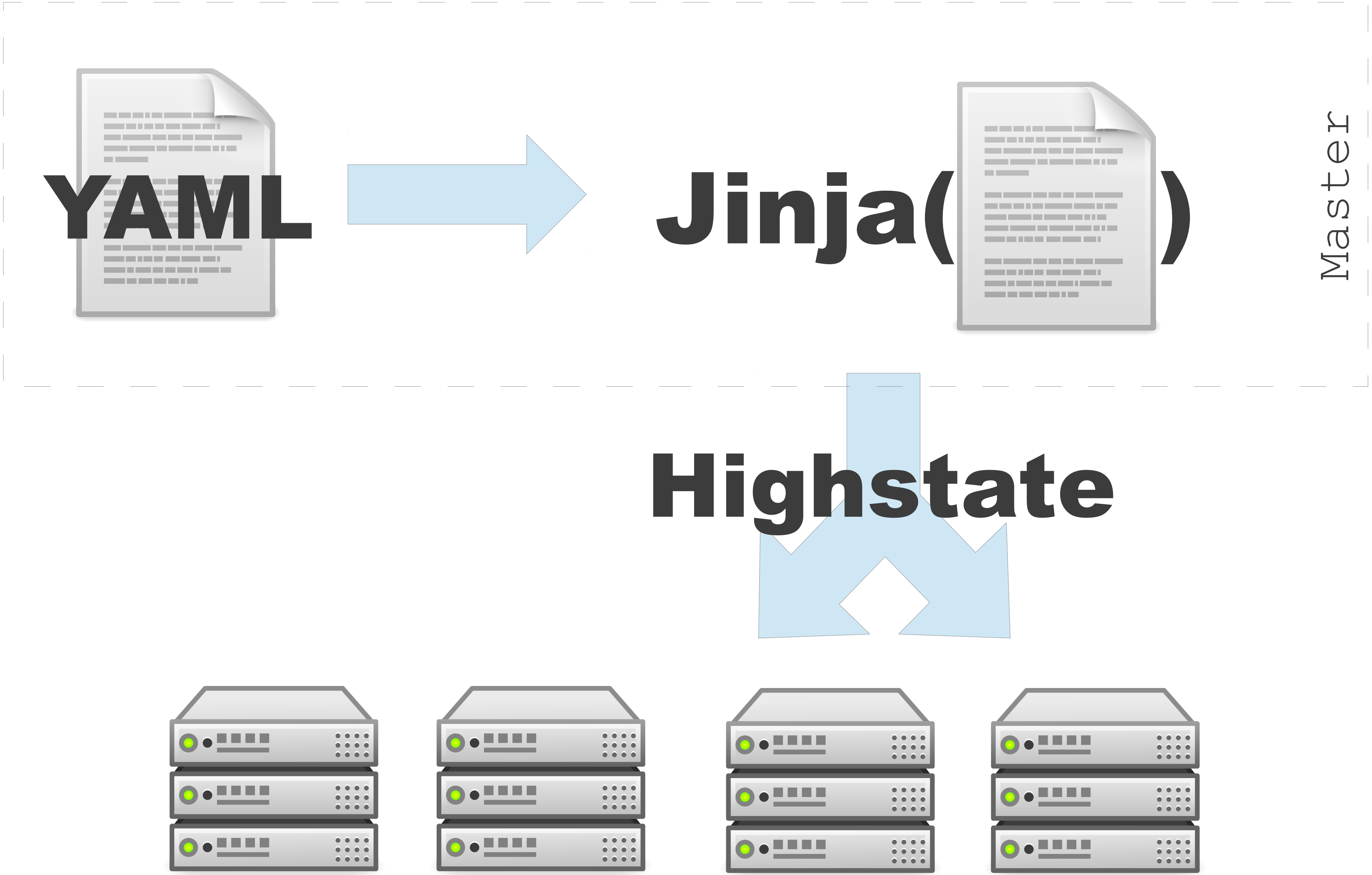
Carbon

Postgres

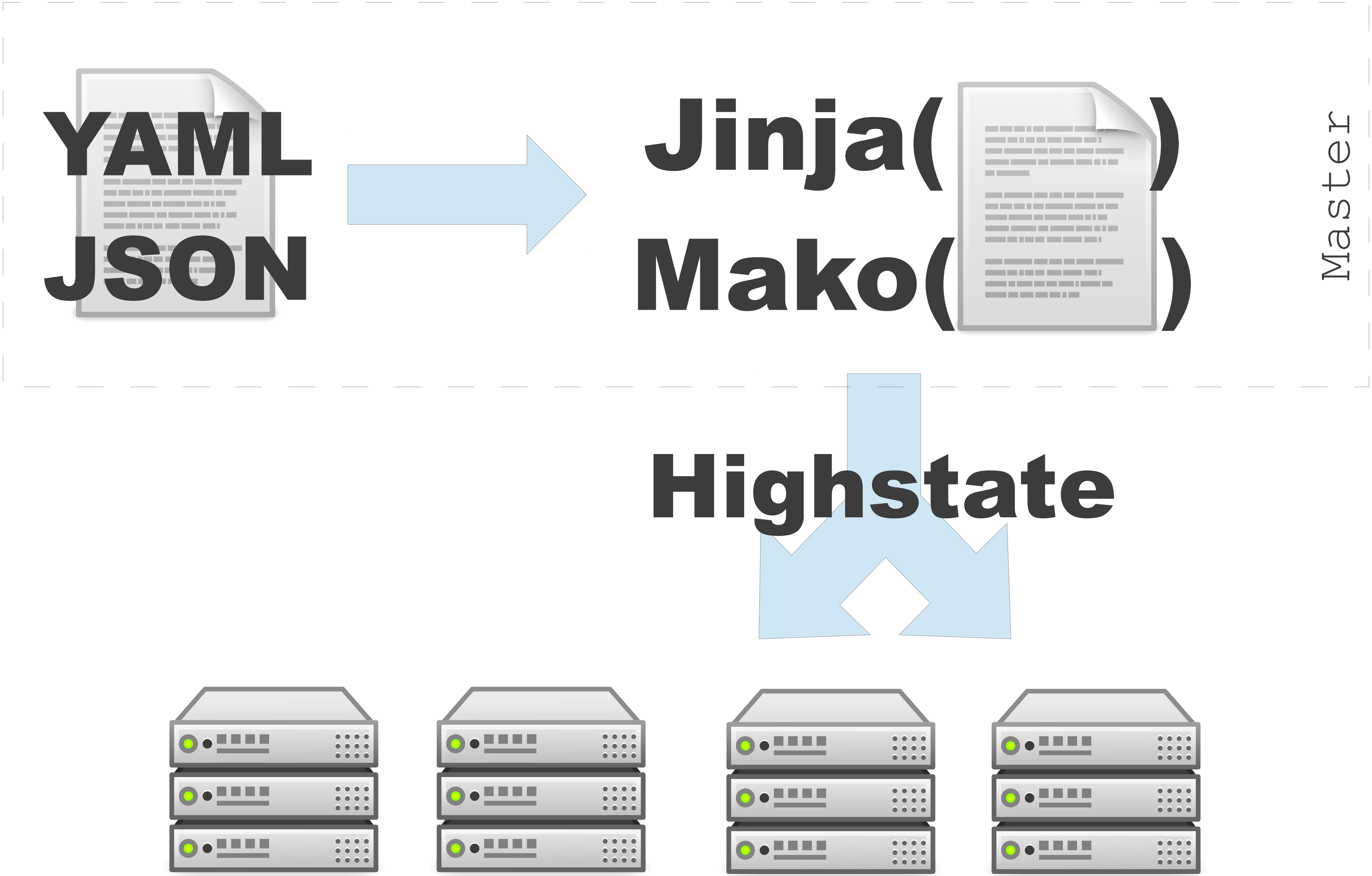
Configuration management

- States
  - Top.sls
  - my_state.sls
- Renderers
  - Default:
    - Yaml
    - Jinja
  - More:
    - Py, pydsl
    - Mako
    - Json
    - Stateconf
    - wempy

States / Renderers



States / Renderers



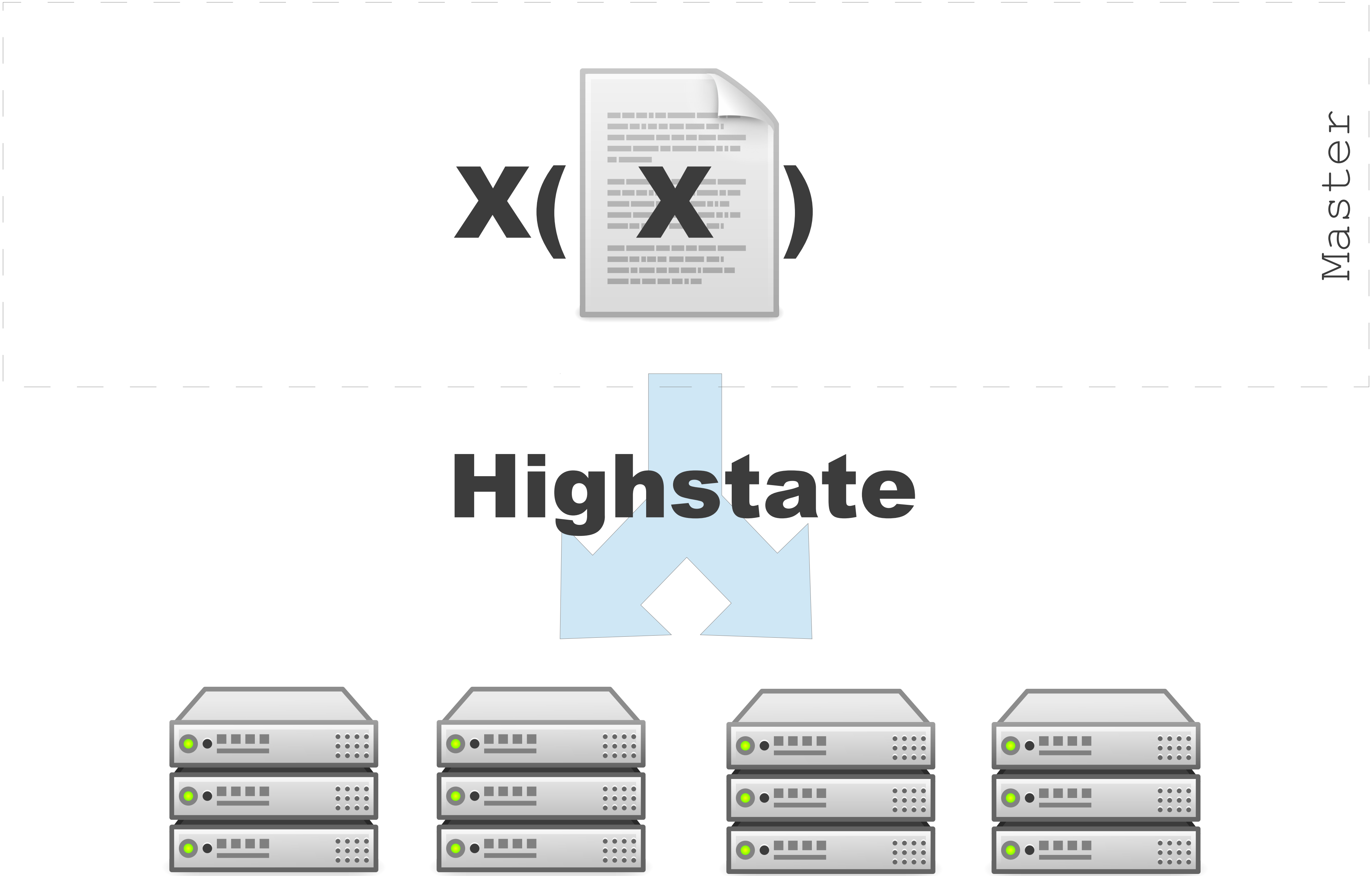
YAML
JSON

Jinja( )
Mako( )

Master

Highstate

States / Renderers



X(X)

Master

Highstate

Extentions

- Writing your own
  - **Modules**
  - States
  - Renderers
  - Returners
- Embedding salt:
  - **into your application**
  - API

Extentions: modules

_modules/mymodule.py:

```
def foo(bar):
    return __salt__['cmd.run'](bar)
```

Extentions: embedding

Myprogram.py:

```
# Import the Salt client library
import salt.client
# create a local client object
client = salt.client.LocalClient()
# make calls with the cmd method
ret = client.cmd('*', 'cmd.run', ['ls -l'])
```

Directions

- Saltstack:

  http://docs.saltstack.com/

- Opinions:

  http://shortly.nl/mxW

Moral