



How to Debug Salt



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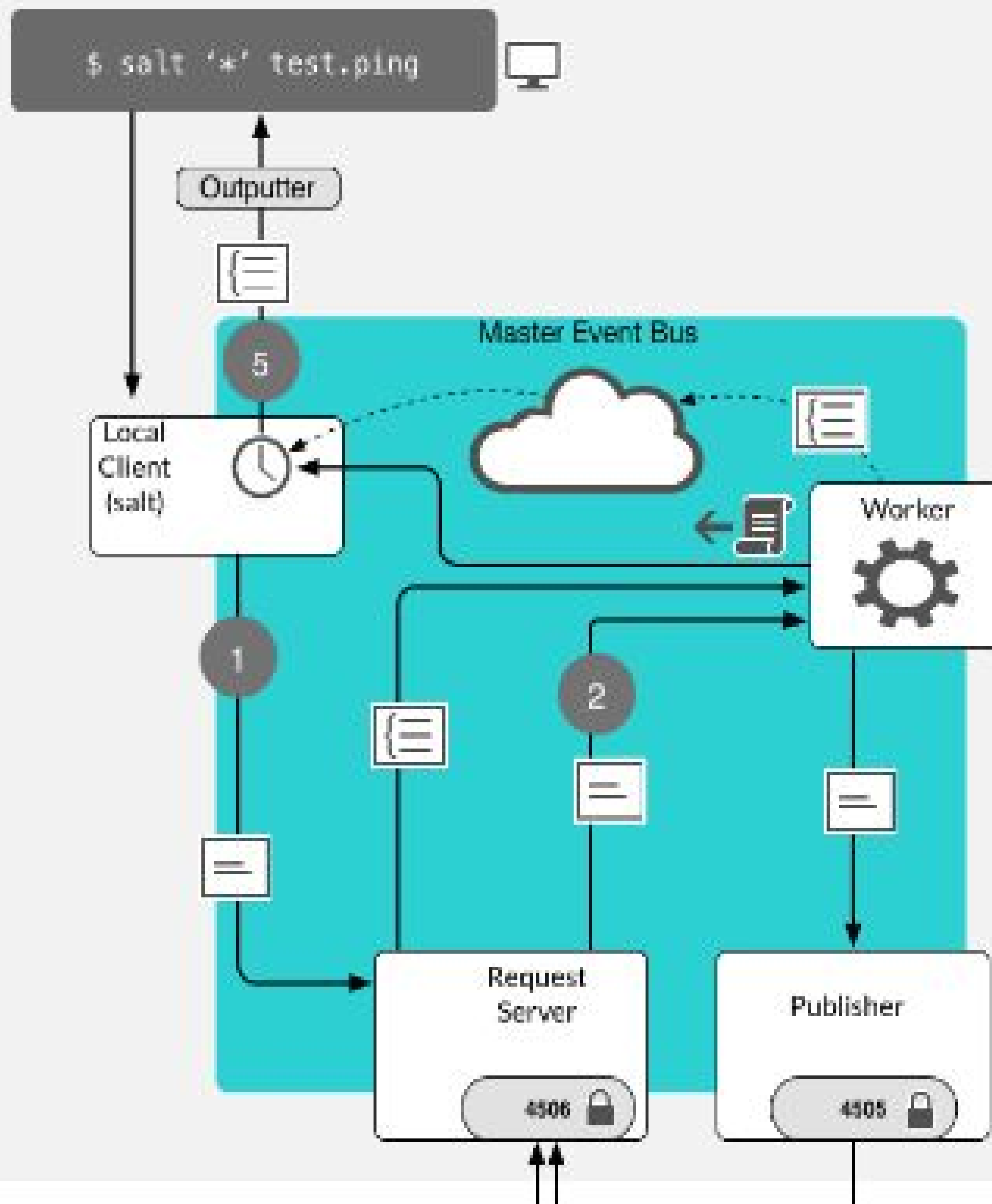
Salt Internals

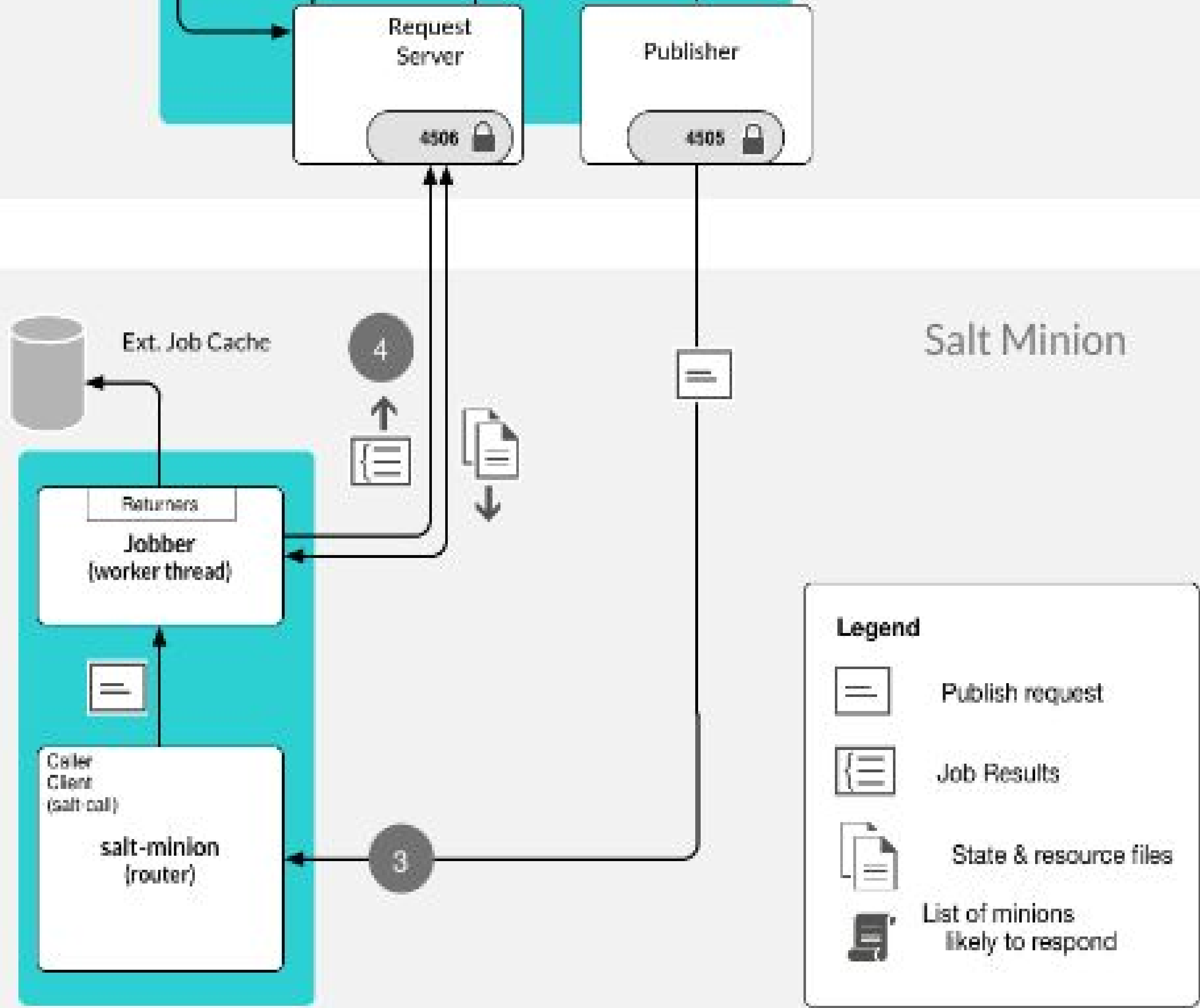
Master-Minion

Salt-Master Processes

- Publisher
- EventPublisher
- MWorker
- ReqServer

Salt Master





Troubleshooting: Master-Minion

Troubleshooting: Salt Master

- `salt-master -l debug`

Troubleshooting: Salt Master

- `different log levels`
- `log_level_logfile`
- `log_level`

Troubleshooting: Salt Master

- `salt-run state.event pretty=True`

Troubleshooting: Salt Minion

- `salt-call --local <cmd> -ldebug`

Python Debugger

- `pdb/pudb`
- `pudb.remote`

Logging in Salt

```
import logging
log = logging.getLogger(__name__)
log.error()
```

Salt Internals State System

YAML

- Understanding Yaml
 - spaces vs tabs
 - dictionary
 - lists
- salt vim plugin
- yaml parser

Jinja

- jinja docs
- salt vim plugin
- logs:
 - {% do salt.log.error('test') %}

State System Compiler

```
o salt '*' state.show_highstate  
o salt '*' state.show_sls
```

Resources

- **vim plugin:** <https://github.com/saltstack/salt-vim>
- **yaml docs:**
 - <https://docs.saltstack.com/en/latest/topics/yaml/index.html>
 - https://docs.saltstack.com/en/latest/topics/troubleshooting/yaml_idiosyncrasies.html
- **jinja docs:**
 - <https://docs.saltstack.com/en/latest/topics/jinja/index.html>

Questions?
