A Proper Approach
to
Module Organization

How we do it @ Puzzle

The old approach

```
├─── ── files
│    ├─── ── apache
├─── manifests
│    ├─── ── classes
│    │    ├─── ── apache.pp
│    │    ├─── ...
│    └─── ── site.pp
├─── modules
│    ├─── ── apache
│    ├─── ── bind
│    ├─── ...
└─── ── README
```
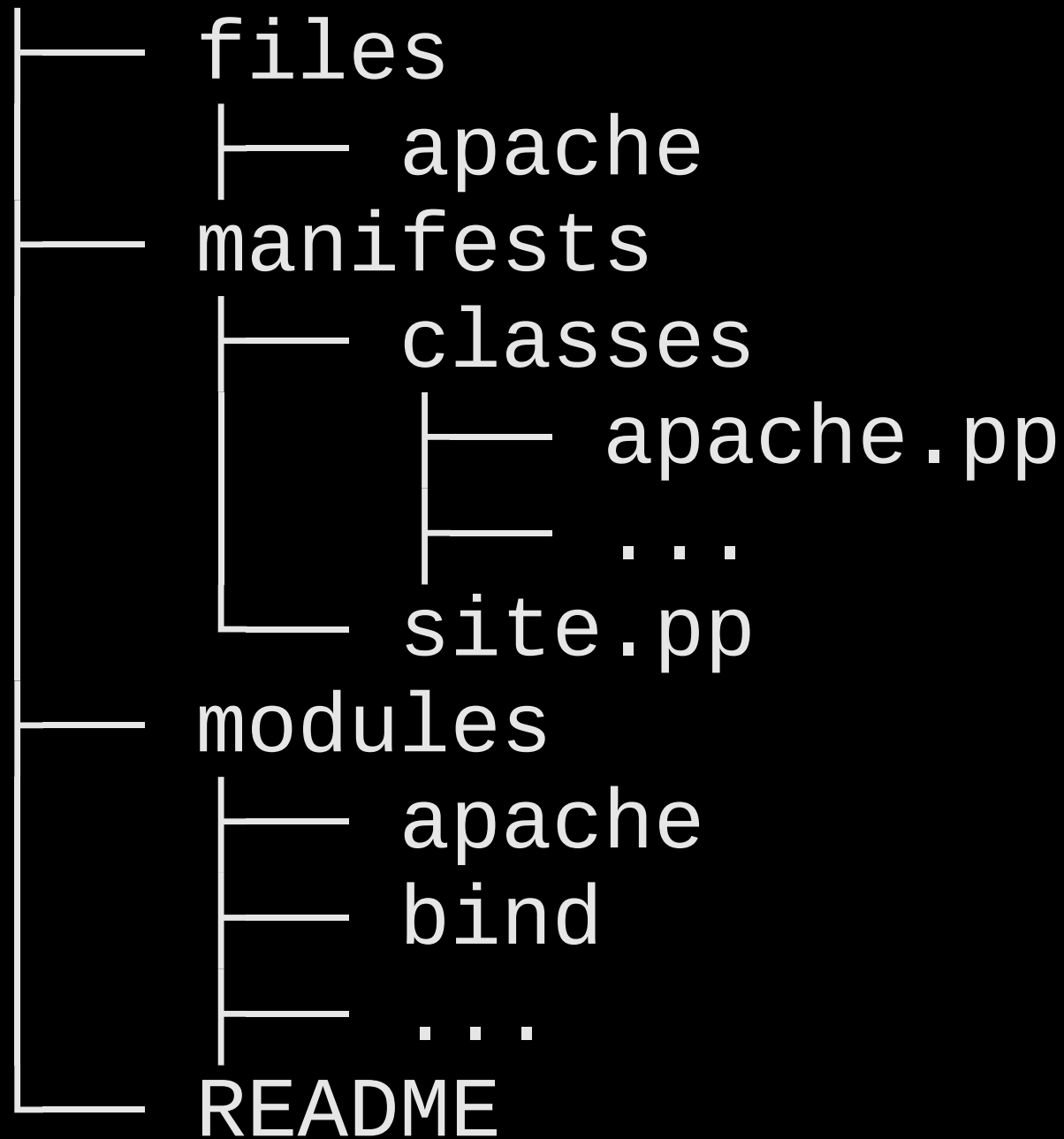
Keep everything in modules

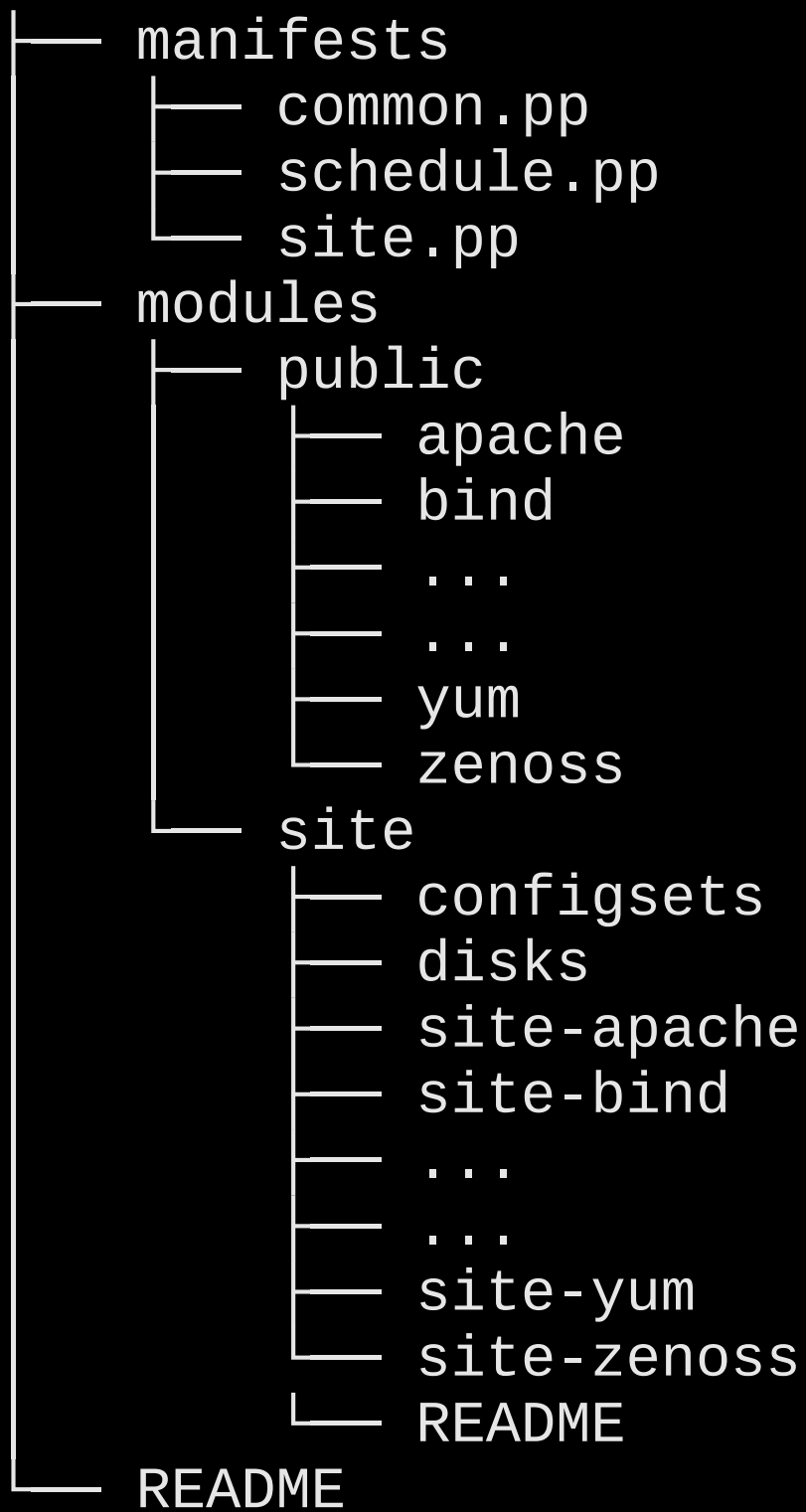# Distinguish between public and site modules

Keep public modules abstract
(like a library with an API)

Public modules contain no site-specific information and can be shared

Use a site module to parameterize the corresponding public module (use the API)

Keeping modules abstract while preserving flexibilty and mainitainability

Examples

```
├── manifests
│   ├── common.pp
│   ├── schedule.pp
│   └── site.pp
├── modules
│   ├── public
│   │   ├── apache
│   │   ├── bind
│   │   ├── ...
│   │   ├── ...
│   │   ├── yum
│   │   └── zenoss
│   └── site
│       ├── configsets
│       ├── disks
│       ├── site-apache
│       ├── site-bind
│       ├── ...
│       ├── ...
│       ├── site-yum
│       ├── site-zenoss
│       └── README
└── README
```

```
site-iscsi/
└── manifests
        ├── hostname.pp
        ├── hostname.pp
        ├── hostname.pp
        ├── init.pp
        ├── hostname.pp
        ├── hostname.pp
        ├── hostname.pp
        ├── hostname.pp
        ├── hostname.pp
        ├── hostname.pp
        └── hostname.pp
```

```
class site-iscsi {
    include site-iscsi

    # 8.2 iSCSI settings for iSCSI root
    # When accessing the root partition directly through a iSCSI disk, the
    # iSCSI timers should be set so that iSCSI layer has several chances to try to
    # re-establish a session and so that commands are not quickly requeued to
    # the SCSI layer. Basically you want the opposite of when using dm-multipath.

    # For this setup, you can turn off iSCSI pings by setting:
    # node.conn[0].timeo.noop_out_interval = 0
    # node.conn[0].timeo.noop_out_timeout = 0

    # And you can turn the replacement_timer to a very long value:
    # node.session.timeo.replacement_timeout = 86400

    Iscsi::Connection{
        iscsi_target_ip => '172.17.0.1',
        iscsi_target_name => 'iqn.2002-03.de.transtec:00.00a0d1e1783e',
        iscsi_noop_out_interval => 0,
        iscsi_noop_out_timeout => 0,
        iscsi_replacement_timeout => 86400,
    }
}
```
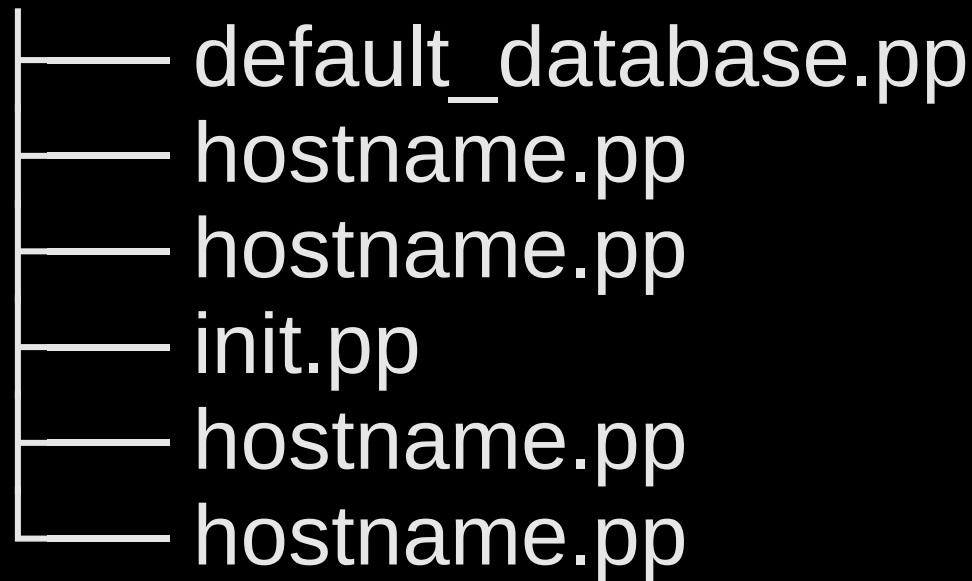
```
$ cat batris.pp
class site-iscsi::hostname {
    Inlcude site-iscsi
    iscsi::connection{'hostname':
        iscsi_initiator_name => 'iqn.2008-07.ch.puzzle.rz-initiator-
hostname',
        iscsi_target_pwd => 'xxxxxxxxxx',
        iscsi_initiator_pwd => 'xxxxxxxxxxx',
    }
}
```

```
site-mysql/
├── files
│       ├── hostname.rz.puzzle.ch
│       │       └── my.cnf
│       ├── hostname.rz.puzzle.ch
│       │       └── my.cnf
│       └── hostname.rz.puzzle.ch
│               └── my.cnf
└── manifests
        ├── default_database.pp
        ├── hostname.pp
        ├── hostname.pp
        ├── init.pp
        ├── hostname.pp
        └── hostname.pp
```

```
$ cat init.pp
class site-mysql {
    include mysql

    # sys user
    mysql_user{'sys@10.2.111.%':
        password_hash => "*DEE6524C5557C65602548",
    }
    mysql_grant{'sys@10.2.111.%':
        privileges => 'all',
        require => Mysql_user['sys@10.2.111.%'],
    }
}
```

```
class site-mysql::sitak {
    $mysql_rootpw = 'xxxxxxxxxxxxxxxxxxxxxxxxi'
    include site-mysql

    site-mysql::default_database{
        # base
        'xxxx_xxxx_prod':
            username => 'xxxx_xxxx',
            password => '*556C667468D01236';

        # openfire
        'yyyy_yyyy_prod':
            username => 'yyyy_yyyy',
            password => '*FD1BF380BBF757';
    }
}
```