

Django deployment from a system administrator perspective

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Introduction

- Pythonic.nl
- Shared hosting environment
- Multiple django apps
- Different users
- Many setups possible, this is ours

Goals

- Security
- Maintainability
- Flexibility
- Transparency

Problems

- Everybody uses same webserver
- Access restriction
- People usually don't update software

How

- Apache 2 MPM ITK
- WSGI
- Offer standard set of tools
- Keeping everything up to date
- Minimize exposure to app/user

Apache

- Every Django app a virtualhost
- Every virtualhost an own user ID
- Django apps started with WSGI
- Virtualhost logs are written to user homedir

apache configuration

```
AssignUserId www-gijs www-gijs
```

Permissions

- Everything can be 600 and owned by user
- No source exposure to other users
- If django app hacked, no pain for other users

WSGI

WSGI file

```
1 import sys, os, os.path, django.core.handlers.wsgi
2 project = 'website'
3 here = os.path.dirname(__file__)
4 sys.path.append(here)
5 os.environ['DJANGO_SETTINGS_MODULE'] = project + '.settings'
6 application = django.core.handlers.wsgi.WSGIHandler()
```

- Apache starts django with WSGI file
- If WSGI file changed, Django restart
- Force restart with 'touch *WSGI file*'

Package management

How to keep packages up-to-date/secure?

- **if** possible, use Ubuntu package
- **then** Automatic upgrade, security updates
- **elseif** system wide install
- **then** Manual update
- **else** Per user python repository (manual, or virtualenv)

Per user python library repository

```
python setup.py install --home=~python
PYTHONPATH=$PYTHONPATH:~python
import sys; sys.path.append('~python')
```

Problems

- Main webserver as root!
- Update of python packages sometimes breaks app!
- If not sometimes insecure, people don't update
- what to do?

To do

- Chroot environment
- apache2-mpm-peruser, process reusage
- Better python package management

Pythonic.nl

- Django/Python shared hosting environment
- Shell access
- 50 GB traffic
- 10 GB space
- SVN repository
- Flexible setup
- Support for setting up environment
- Fast new server!
- info@pythonic.nl, <http://pythonic.nl>

Questions?

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