

OS2BorgerPC

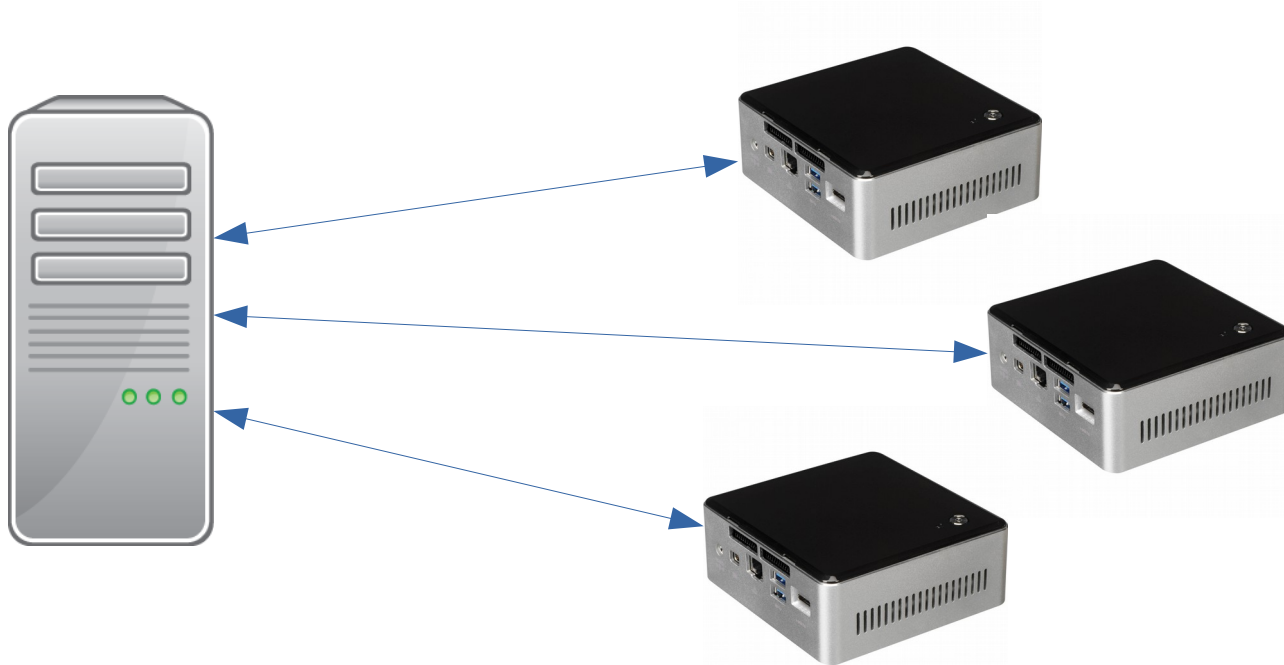
Open Source OS with remote
management

MAGENTA
open source **it**

Agenda

- » System architecture.
- » Administration and client interface.
- » Remote control and how it is done.
- » Why Django?
- » Considerations and challenges right now.

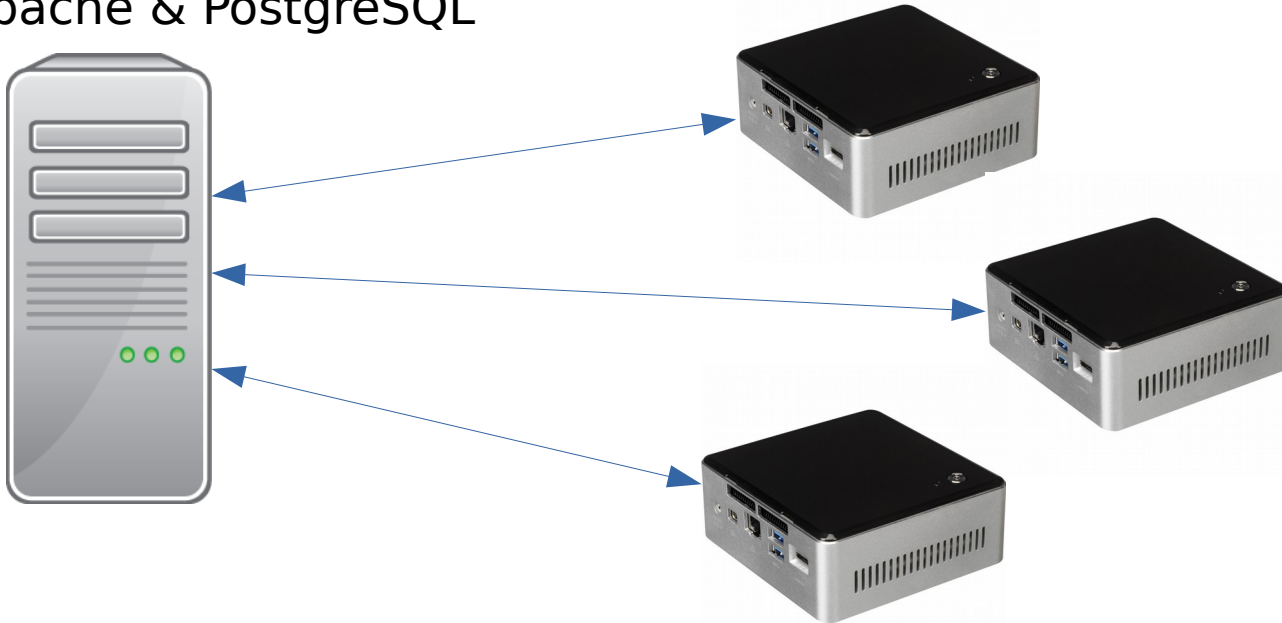
Architecture



Architecture

Django, Apache & PostgreSQL

Ubuntu 16.04 LTS



Administration Interface

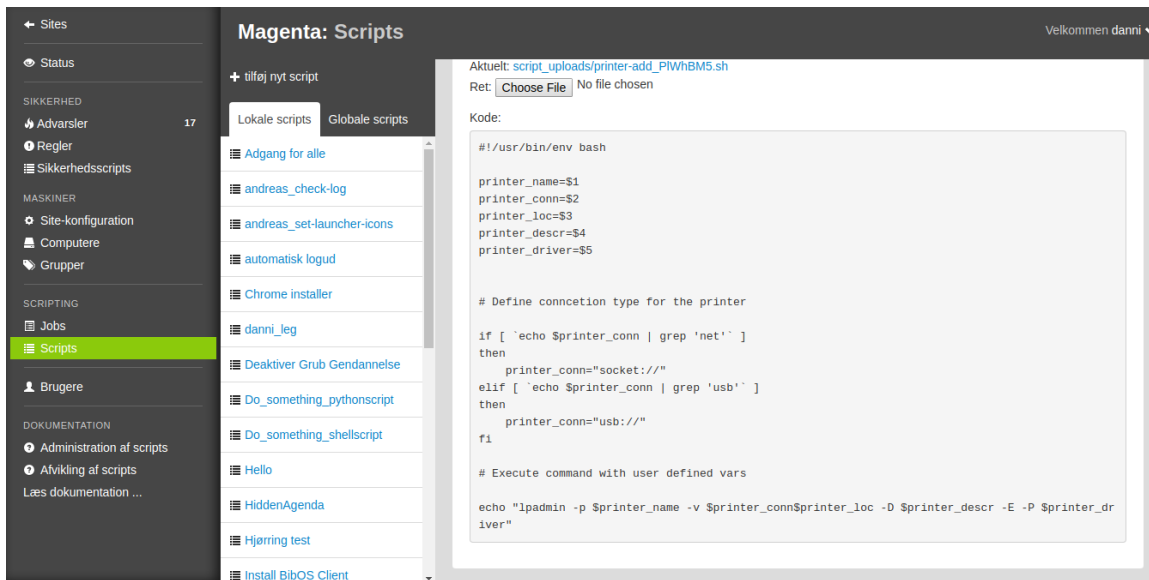
The screenshot displays the Magenta administration interface. On the left is a dark sidebar with navigation menus: 'Sites', 'Status', 'SIKKERHED' (with a red notification badge '17'), 'MASKINER', 'SCRIPTING', and 'BRUGERE'. The 'Computere' menu item is highlighted. The main content area is titled 'Magenta: Computere' and shows a list of virtual machines. The 'fitpc3' VM is selected and highlighted in green. To the right, the 'Detaljer om fitpc3' page is open, featuring a 'Gem ændringer' button and an 'Opdateringer tilgængelige' notification. The details form includes fields for 'Navn' (fitpc3), 'Beskrivelse', 'Lokation', and 'Distribution' (BibOS16.04). A 'Grupper' section shows the 'Magenta Security group' assigned to the VM. The interface also displays the last update time as '2018-03-13 15:20:09' and the last warning as 'marts 13, 2018 3:21 p.m.'.

» <https://bibos-admin.magenta-aps.dk/>

Client interface



Client control



The screenshot displays the Magenta Scripts management interface. On the left is a navigation sidebar with categories like 'SIKKERHED', 'MASKINER', 'SCRIPTING', and 'DOKUMENTATION'. The 'Scripts' menu item is highlighted. The main content area is titled 'Magenta: Scripts' and shows a list of scripts under 'Lokale scripts'. The script 'script_uploads/printer-add_PIWhBM5.sh' is selected, and its content is displayed in a code editor. The code is a shell script that defines printer variables and executes a command to install a printer driver.

```
Aktuelt: script_uploads/printer-add_PIWhBM5.sh
Ret: Choose File | No file chosen

Kode:

#!/usr/bin/env bash

printer_name=$1
printer_conn=$2
printer_loc=$3
printer_descr=$4
printer_driver=$5

# Define connection type for the printer

if [ `echo $printer_conn | grep 'net'` ]
then
    printer_conn="socket:///"
elif [ `echo $printer_conn | grep 'usb'` ]
then
    printer_conn="usb:///"
fi

# Execute command with user defined vars

echo "lpadmin -p $printer_name -v $printer_conn$printer_loc -D $printer_descr -E -P $printer_driver"
```

» <https://bibos-admin.magenta-aps.dk/site/magenta/scripts/174/>

The administration system

- » Originally build in Django 1.6.9 but is now running Django 1.8.9
- » We are using a PostgreSQL database
- » As communication interface we use django-xmlrpc 0.1.5

Client setup

- » Started with running Ubuntu 12.04 LTS, but is now running Ubuntu 16.04 LTS.
- » Setup is done through an install script.
- » The OS2BorgerPC client communicating with the administration system, is a pypi package.

- » https://pypi.python.org/pypi/bibos_client/0.0.3.2

Why Django?

- » We know python. We are Open Source.
- » Django Object Relational Model (ORM) and admin pages are just great.
- » Best Open Source framework in python to build Websites.

Considerations and challenges

- » We experienced performance issues. Too many clients connecting simultaneously.
- » We considered async behavior in the xmlrpc interface. However we were not sure how the django ORM would handle this.
- » Now we are considering a message queue of some sort.

OS2BorgerPC – links

- » <https://os2.eu/produkt/os2borgerpc>
- » https://github.com/magenta-aps/bibos_admin
- » https://github.com/magenta-aps/bibos_image

Questions



» <mailto:danni@magenta-aps.dk?subject=djangocph>