

Collaborative Web OS

The power of UNIX
in the age of Web 2.0

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UKUUG, Birmingham
9th August 2009

Towards Free Software
for User Controlled
Peer-to-Peer
Web Services

Software Freedom

Centralised web services

Social Web

Collaboration features

Remake all applications
as web applications

Remake all web applications
as free web applications

Copyleft alone
is not enough

Technical architecture
matters

P2P

vs

Client-Server

Federation of Servers

Peering of Clients

Distributed

+

Decentralized

Scale

Single-user servers

Small-community servers

Large federations

Simpler way?

Add collaboration
features to free
desktop applications

What is UNIX?

“System calls
define what UNIX is.”

‘Advanced Unix Programming’
Marc J. Rochkind, 1986

UNIX *System* Calls?

File IO

create() open() close()
read() write() unlink()

Process Control

fork() wait() exec()
exit() signal() kill()

IPC

pipe() dup()

What is the web?

HTTP

HTTP

GET HEAD PUT POST DELETE

WEBDAV

GET HEAD PUT POST DELETE

PROPFIND PROPPATCH
COPY MOVE LOCK UNLOCK

File IO

GET HEAD PUT POST DELETE

PROPFIND PROPPATCH
COPY MOVE LOCK UNLOCK

Jabber

Web OS?

Web OS:

UNIX over HTTP

Read and write files
to remote web servers

Emacs
OpenOffice
F-Spot
GIMP
Inkspace
Fontforge
PiTiVi
etc

Provide
servers
for such clients

Simple to setup

Simple to use

Users in control

**Complex functionality
behind simple API**

Example:

Version Control

End Goal:

Live, multi-user,
distributed edit
sessions

coordinated via
a web server
with IPC

Replace the need for
centralized services

with P2P networks
of user-controlled
services

Emacs OpenOffice
TomBoy F-Spot
GIMP Inkscape
Fontforge Scribus
PiViTi Jokosher

Emacs OpenOffice

FSF Project

Step 1

Set up a WebDAV server

with Apache +
mod_WebDAV

Step 2

Passwords turned on
for write access

open web read access

Step 3

Setup Emacs 22's WebDAV
to work on files there

Step 4

Setup OpenOffice's
WebDAV

to work on files there

Step 5

Build a simple website

using Emacs and
OpenOffice Draw

Step 6

Set up a 2nd server

Shell-script federation
directories using rsync

Step 7

Write it up

Inspire others

basiscraft.com



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