



# **Open Source Deployment and Development**

OSS Watch Inaugural Conference

11 December 2003

# Why are we here today?

- *to raise awareness of issues surrounding free and open source software*
  - *to look at the relationship between open standards and open source*
  - *to enter the scary jungle of licensing*
  - *to welcome OSS Watch to the world*
- ...and to have some free beer when we are finished**

# Welcome to OSS Watch!

JISC has funded OSS Watch as a pilot service to give neutral guidance about free and open source software. Issues such as:

- *information for institutions considering putting open source into their information strategies*
- *the exposure of the UK academic community to any problems with open source*
- *what to do with the results of publicly-funded software projects*

**Today is our launch party!**

Open Source Software Advisory Service

## What OSS Watch does

- *Offer a neutral and practical web site*
- *Run at least two open meetings a year*
- *Run two focus groups year, and write analyses*
- *Engage in understanding institutional processes*
- *Advise IT managers, project developers, and users*
- *Give advice on open source at any UK/FE forum*

... and make all its material available under the GNU Free Documentation License

## What OSS Watch does not do

- *Try to persuade people to adopt open source*
- *Run a software repository*
- *Help people with their Open Office problems*
- *Compete with freshmeat or slashdot*
- *Provide definitive legal advice*
- *Be a forum for hairy sandal-wearing geeks*

# Plans for OSS Watch

Obviously:

- *run a web site*
- *talk at conferences*
- *organize workshops*
- *write reports*
- *keep our fingers on the pulse*

But to find out *what* to talk about, we have spent some months on a scoping study.

# Outline of Presentation

- Report Purpose
- Report Method
- UK Government and EU Policy
- Survey and Site Visit Findings
- Recommendations

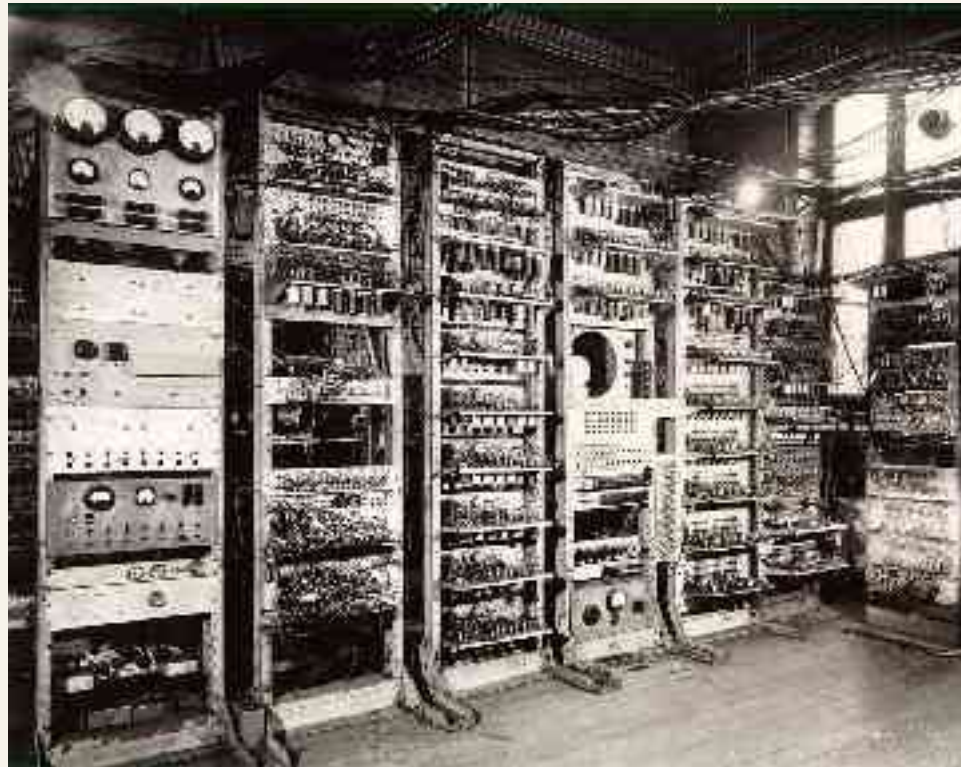
# **OSS Watch Report Purpose and Method**

- *Purpose:* To provide evidence for understanding and addressing the needs of higher education and further education (HE/FE) stakeholders in their use of Open Source Software.
- *Method:*
  - Overview of general OSS use in UK
  - Overview of UK Government and EU Policy
  - Scoping Survey – focus on IT Strategy & Software Development
  - Mini-survey – informal, focus on advisory service “wish list”
  - Site visits - to fill out gaps in the surveys, and gain more detailed understanding of how strategies are formed



# OSS Use in UK

- History of free software in the UK: from ‘Baby’ to DECUS UK to Alan Cox



# OSS Watch

# OSS Use in UK

- History of free software in the UK: from 'Baby' to DECUS UK to Alan Cox

19/7/49 - Kilburn Highest Factor Routine (amended)

function.	C	26	26 <sup>2</sup>	27	line	01234	1345
-24 to C	-G <sub>1</sub>	-	-	-	1	00011	010
← to 26			-G <sub>1</sub>		2	01011	110
-26 to C	G <sub>1</sub>				3	01011	010
← to 27			-G <sub>1</sub>	G <sub>1</sub>	4	11011	110
-23 to C	a	T <sub>26</sub>	-G <sub>2</sub>	G <sub>2</sub>	5	11101	010
subr 27	a-a <sub>1</sub>				6	11011	001
Test					7	-	011
Add 20 to G					8	00101	100
subr. 26	T <sub>26</sub>				9	01011	001
← to 25		T <sub>26</sub>			10	10011	110
-25 to C					11	10011	010
Test					12	-	011
Stop	0	0	-G <sub>2</sub>	G <sub>2</sub>	13		111
-26 to C	G <sub>2</sub>	T <sub>26</sub>	-G <sub>2</sub>	G <sub>2</sub>	14	01011	010
subr. 21	G <sub>2</sub> !				15	10101	001
← to 27	G <sub>2</sub> !			G <sub>2</sub> !	16	11011	110
-27 to C	-G <sub>2</sub> !				17	11011	010
← to 26			-G <sub>2</sub> !		18	01011	110
22 to G <sub>2</sub>	T <sub>26</sub>	-G <sub>2</sub> !	G <sub>2</sub> !		19	01101	000

20	-3	10111 etc
21	1	10000
22	4	00100

or 10100

23	-a	
24	G <sub>2</sub>	

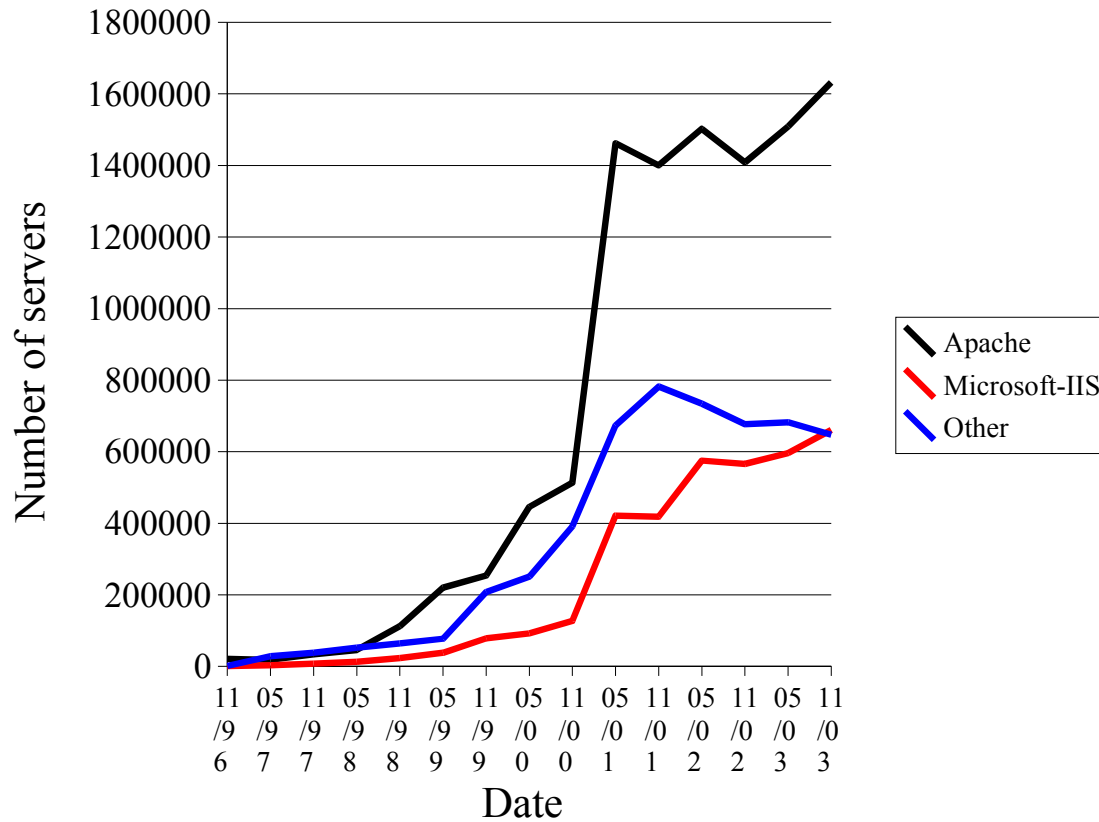
int.	final
25	T <sub>26</sub> (G <sub>2</sub> )
26	-G <sub>2</sub>
27	G <sub>2</sub>

# OSS Use in UK

- History of free software in the UK: from ‘Baby’ to DECUS UK to Alan Cox
- Measuring the growth of OSS

# Measuring OSS Use

*Fig. 1: Top Web Servers in UK Domain, Nov. '96 - Nov. '03*



Compiled from Netcraft Web Survey. N.B., does not measure intranet and LAN servers

# OSS Use in UK

- History of free software in the UK: from “Baby” to DECUS UK to Alan Cox
- Measuring the growth of OSS
- Compared to our EU neighbours

	UK		Sweden		German	
	small	large	small	large	small	large
<b>High intensity firm</b>	25.0%	74.1%	20.4%	13.2%	27.0%	51.3%
<b>Medium intensity firm</b>	39.1%	9.1%	14.6%	32.8%	45.5%	51.3%
<b>Low intensity firm</b>	25.0%	14.3%	13.6%	20.3%	52.8%	44.4%

Source: Wichmann, Thorsten, 'FLOSS Final Report - Part 1: Use of Open Source Software in Firms and Public Institutions'. (Berlin, 2002), p. 17.

# OSS Use in UK

- History of free software in the UK: from “Baby” to DECUS UK to Alan Cox
- Measuring the growth of OSS
- Compared to our EU neighbours
- In the end, we just don't know very much...

# UK Government & EU Policy

- 2001 report to the UK government
  - “OSS is indeed the start of a fundamental change in the software infrastructure marketplace, and is not a hype bubble that will burst.”
- Office of the e-Envoy July 2002 policy decisions
  - OSS as default exploitation route for R&D software?
  - Nine “proof of concept” Linux trials
- European Commission *eEurope* Initiative

# OSS Watch Survey Overview

- What we know already: Australian and FLOSS survey
- OSS Watch Survey is largest of its kind:

	No. of institutions	Institutions responding	Individual Respondents
<b>HE</b>	168	29 (17%)	34
<b>FE</b>	514	34 (7%)	34
<b>Total</b>	<b>682</b>	<b>63 (9%)</b>	<b>68</b>



## **Results - IT Strategy: HE vs. FE**

- FE institutions lag behind HE institutions in their number of staff with the skills to deploy OSS.
  - 88% of FE respondents reported that very few staff members had these skills
  - 59% of HE respondents reported that their staff had moderate or significant skills with OSS

## **Results - IT Strategy: HE vs. FE**

- FE institutions lag behind HE institutions in their number of staff with the skills to deploy OSS.
- HE institutions are much further advanced in the process of examining the potential of OSS solutions for their institutions.
  - 73% of HE respondents reported that their organisation has either looked seriously into OSS and/or has already made some decisions on its deployment
  - 61% of FE institutions said that very few members of their organisation were more than slightly aware of open source concepts

## **Results - IT Strategy: HE vs. FE**

- FE institutions lag behind HE institutions in their number of staff with the skills to deploy OSS.
- HE institutions are much further advanced in the process of examining the potential of OSS solutions for their institutions.
- Current and planned deployment is most significant for networking systems and operating systems.

## **Results - Reasons for Choosing OSS**

- Reasons for choosing OSS solutions in both HE and FE are principally financial
  - 25% of HE respondents and 53% of FE respondents identified cost as the most important reason for choosing OSS over proprietary analogues.

# **Results – Reasons for Choosing OSS**

- Reasons for choosing OSS solutions in both HE and FE are principally financial.
- Interoperability due to open standards is also a major attraction for HE institutions.

# Biggest Concerns for OSS

1. Interoperability and migration concerns (56%)
2. Third party support (37%)
3. Identification, categorisation, and availability of relevant software (29%)
4. Legal issues, including licensing (22%)
5. How to archive and manage ongoing development of software after projects are finished in-house (22%)

## **Results - Licensing Strategy**

- The majority of institutions which develop software in-house (59%) have never considered the issue of licensing, and do not have an institutional licensing policy.
- Site visits revealed confusion over how to commercialise code protected under the GPL.

# **Recommendations – Govt. Policy**

- More data needs to be compiled and collected on OSS use in UK HE and FE, and on Total Cost of Operation.
- UK Government and EU policy developments should be tracked and summarised, including information on meeting dates and links to primary documents.
- Given the apparent lack of coordination in interfacing with government, a focal point is needed for the communication of academic stakeholders' concerns to policymakers.



## **Recommendations – IT Strategy**

- Training workshops targeted at FE institutions that would like to consider the deployment of OSS software, but have few staff skilled in the use of OSS, should be carried out.
- Stakeholders could helpfully be offered case studies of institutional strategies which explicitly consider OSS and strategy templates based on these experiences.
- Information should be provided on lesser-known or more specialised OSS packages relevant to stakeholder needs.

# Recommendations – Development

- Institutions should be provide with information and guidance on the possible licensing routes, with particular attention given to the implications of OSS licensing for commercial exploitation.
- Cases of universities successfully commercializing source code protected under OSS licenses should be investigated and made available to developers and university enterprise offices.

## **What next for OSS Watch?**

- *How do I get support for OSS, and train staff?*
- *What is out there of any use to us?*
- *What about interoperability, and migration from existing software?*
- *How do we license our work?*
- *What is government and EEC policy on OSS?*

# Conference: Support and training

A one day conference to be held in early June in London, to look at institutional commitment to open source software in the back office

- *What are the support models for OSS?*
- *How do commercial vendors work with OSS?*
- *How can institutions combine together to support each other?*
- *What is the impact on staff training needs?*

## **Study: licensing and IPR**

*A workshop to be held in March, with the aim of writing a road map for developers:*

- *finding out who owns the copyright*
- *OSS as a method of exploitation*
- *how to choose a license*
- *implications for working with commercial partners*

*Hopefully informed by the work of the new Open Middleware Infrastructure Institute*

# Study: interoperability & migration

A workshop to be held in September, with the aim of writing a *road map for deployment*:

- *Which types of software can work in a mixed economy?*
- *What is the impact on legacy data?*
- *What is the cost of migration?*
- *Do "open standards" mean anything?*

# Study: real users

Look at some students actually using open source software over a period of months



## Open Source Deployment and Development

- Making the institutional case – Martin Wood Lecture Theatre
- Practical approaches and support – Martin Wood Lecture Theatre
- How do you make an open source project? – Lindeman Lecture Theatre (first floor)
- Getting the right licence – Lindeman Lecture Theatre (first floor)