

Agenda

- Brief introduction to yours truly and thesis
- The evolution of Unix
 - Standardisation of Unix
- The evolution of Linux
 - Standardisation of Linux
- Summing up

The Evolution of Unix

- **Company setting**

The American Telephone and Telegraph Company, AT&T

1949 Antitrust claim

1956 AT&T only allowed to perform experiments into new technology regarding common carrier services

- **MULTICS**

1967 AT&T, General Electric, MIT started a joint research project

Needed a multi user operating system that:

Were stable

Would accommodate 1000 users

1969 The MULTICS project died

Ken Thompson and Ken Ritchie returned to AT&T Research

Space travel (OH1) – a game for MULTICS

- **Birth of Unix**

1969 No game – no fun

Space travel for the PDP-7

End of 1969 the PDP-7 were self supporting (OH3)

1970 No Money – Not Funny!

A new computer > 100.000\$

Unix was promising, a file-system, a cognitive programming environment

A little scam

Word-processing became a research area

The PDP-11/20 (OH4)

1971 The word-processing was a success

The patent department bought the PDP-11/20

The research department bought a PDP-11/45 (OH5)

- **Unix versions**

1971 V1

The system was growing

The Programmers Manual

1972 V2

Now 10 installations

No support and free

1973 V3

First conference, held at Berkeley

1973 V4

Unix rewritten in C

C was developed to provide portability and a pleasant programming environment

1974-77

Unix distributed freely to universities as Source

Papers published

First BSD releases

1978

AT&T Announce fees on source code

3BSD (OH6)

Unix sales policy (OH7)

1978 – now

Unix became the victim of multiple versions and makers

- **The Standards**

Why standards?

Hardware portability

Interoperability

Application portability

User portability

- The origin of Unix standards

Source available until 1978

Different incompatible Unix's were emerging

Users were communicating

UnixUsers -> Usenix

Newsgroups

1981 /usr/group

POSIX –Portable Operating Systems Standards Interface (uni)X

Standards committee (OH8)

The Evolution of Linux

- Ignition, 1991

“Hello everybody out there using minux -
I'm doing a (free) operating system (just a hobby,
won't be big and professional like gnu) for
386 (486) AT clones.”

There was an existing community

Minix

The Internet was emerging

People got interested

- Distributed for free

The notion of free

The GPL license

Open Source Software / Free Software

Commercial licenses

- The development model

Linus T decides what Linux is!

The spider in the web

The feedback loop

- Standards

Linux is very standardised

Little actual standardisation in the community

Linux rely on other bodies for standardisation

The standards organisations

POSIX

IETF / RFC

Why?

Little power

Minimal communication