

What are all these distributions and how should I choose one?

Stuart Yeates

OSS Watch

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This talk

What are all
these
distributions
and how
should I
choose one?

Stuart Yeates

This talk is not a detailed technical analysis.

This talk is not an ideological analysis of open source.

This talk will not cover VMWare, Xen or other systems which let you run Linux under virtualisation.

This talk will be approximately half an hour followed by approximately half an hour of discussion.

In this talk

What are all
these
distributions
and how
should I
choose one?

Stuart Yeates

- Your Priorities
- Distributions
- Scenarios
- Sage Advice

Why is your department looking at Linux?

What are all
these
distributions
and how
should I
choose one?

Stuart Yeates

What are your motivations for looking at Linux? What do you hope to gain?

Why is your department looking at Linux?

What are all
these
distributions
and how
should I
choose one?

Stuart Yeates

- Save money on licensing
- Allow customisation
- Leverage in-house skills
- Leverage existing internal deployments
- Leverage external deployments
- Interoperate with peers
- Run specific open source apps
- Run specific commercial apps
- Unify desktops, servers and instruments
- Promote security
- ...

What does a distro do for the department ?

What are all
these
distributions
and how
should I
choose one?

Stuart Yeates

- provides pre-packaged, pre-tested, pre-compiled software that *just works* out of the box
- provides a single place to submit bug reports
- provides support for users
- provides a pool of users as potential user-developers
- provides a pool of existing developers
- provides a sense of community
- **embodies a set of priorities and trade-offs**

What are all
these
distributions
and how
should I
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Stuart Yeates

- Stability
- Security
- Pedagogical concerns
- Range of applications (particularly GUI apps)
- Bleeding edge versions
- Philosophical outlooks ("freeness", "openness", etc)
- Internationalisation (modern and ancient languages)

What are all these distributions and how should I choose one?

Stuart Yeates

- Latest and greatest features vs stability
- Having it all done for you vs local customisation
- Localised cost vs centralised cost
- Security vs openness
- Choice between frameworks and applications (KDE/Gnome)

These are fundamentally reflections of underlying software engineering issues.

Many distros resolve tensions by having variants.

Why so many distros?

What are all
these
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Stuart Yeates

New distros arise when someone (or some group) comes up with an innovation that is sufficiently cool / useful / productive to tempt people from the existing distros or tempt new users from other platforms.

Switching distros can involve very large amounts of work, so even when a new distro has very clear advantages, many users are very slow to switch.

Existing distros adopt features found useful in new distros.

What's the same?

What are all
these
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Stuart Yeates

- Common software (OpenOffice.org, Emacs, Firefox, Thunderbird, Apache, etc)
- Common tools (bash, make, configure, ssh, etc)
- Open standards (POSIX, HTTP, TCP/IP, LSB, etc)
- Explicit projects (freedesktop.org, etc)

Choosing a Distro

What are all
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and how
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Stuart Yeates

Think

Choosing a Distro

What are all
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Stuart Yeates

Try LiveCDs (possibilities, hardware, etc)

Talk to local Linux people (beer)

Talk to your friends and colleagues

Talk to your local IT support

What are all
these
distributions
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should I
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Stuart Yeates

- The distribution with the largest pool of developers
- Huge range of software available
- Strong ideological vision
- Versions for BSD, Solaris and Linux kernels
- Many different packages to fill most roles
- *No polished point and click installer for end-users*
- The most widely used at Oxford according to a recent survey

What are all
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Stuart Yeates

- Optimised for the user's machine
- Flexible installation
- Portage system (like FreeBSD ports system)
- *Full install and customisation lengthy*

What are all
these
distributions
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Stuart Yeates

- Live CD / Live DVD
- Based on Debian
- Good for testing to checking hardware support
- Excellent for resetting root passwords
- Excellent for rescuing unbootable systems
- No install necessary
- *Unsuitable for conventional desktop or laptop use*
- Used in recovery situations at Oxford

What are all
these
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and how
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Stuart Yeates

- Commercially supported distribution
- Security funded by the French Ministry of Defence
- Very good handling for internationalisation
- Easy to install
- *Minority distro*

What are all
these
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Stuart Yeates

- Commercially supported distribution
- Free and for-pay variants
- Commonly supported for third party applications (Oracle, SAP, etc)
- Widely used in grid and scientific computing
- *Relatively small number of packages ship as part of the distro*
- The second most widely used at Oxford according to a recent survey

What are all
these
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Stuart Yeates

- Red-hat sans branding
- Completely free
- Red hat applications typically run but are not supported
- Backed by CERN
- Widely used in grid and scientific computing
- *Minority distro*

SuSE (Novell)

What are all
these
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Stuart Yeates

- Commercially supported distribution
- Strong on desktop slickness
- Covered by campus agreements with Novell
- Easy to install
- *Minority distro*

What are all
these
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Stuart Yeates

- Commercially supported Debian derivative
- Faster release times than Debian
- Sacrifices choice for better integration
- Currently the focus of many new installs, especially end-user installs
- Easy to install
- Used in the OUCS OULD (Oxford University Linux Desktop)
- *In tension with Debian*

Scenario I

What are all
these
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Stuart Yeates

- Server
- No licence fees
- Red Hat range used by peers
- Needs to run Red Hat binaries and scripts

Went with Scientific Linux

Scenario II

What are all
these
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Stuart Yeates

- Desktop
- Needs easy install
- Others in the building moving towards Ubuntu
- Wants Regular updates

Went with Ubuntu

Scenario III

What are all
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Stuart Yeates

- Desktop
- Computer science background
- Already familiar with Debian community
- Thinking to become a Debian developer

Went with Debian

Scenario IV

What are all
these
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Stuart Yeates

- Desktop
- Department was committed to Gentoo
- IT staff gave informal support because it was what they used

Went with Gentoo

Scenario V

What are all
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Stuart Yeates

- Server
- Debian is “to hand”

Went with Debian

Priorities

What are all
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Stuart Yeates

The ones that matter most are the ones about *people*
Without a peers or commercial support to fall back on,
you're stuck one way or the other.

Sage Advice: 1

What are all
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Stuart Yeates

Don't install a live distro (Knoppix, DSL, etc) to disk (unless you know why you want to)

Install the latest stable version (unless you know why you don't want to)

What are all
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Backup

Ask your peers

Use IRC and Google from a stable machine to debug and fix problems.

Local mirrors (mirror.ox.ac.uk, www.mirrorservice.org, mirror.ac.uk)

Link to end-user peer support, enable users to help themselves and help each other

Further Information

What are all
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Stuart Yeates

- OUCS helpdesk (phone)
- ITSS (mailing list, in person)
- OxLUG (mailing list, IRC, in person)
- Distribution-specific (mailing list, IRC, wikis, ...)
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