How to migrate to Linux

or
How to start using open source software

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Why should you migrate to OSS?

- More secure
- More choices
- Lower cost
- Unlimited control

Big problems with OSS

- Too many choices
- **Initial** learning curve
- Many Windows programs won't work
- Hardware support (printers and other oddball equipment)

The 3-step process

1. Determine what your computer needs to do for you.
2. Substitute, emulate, replace, or ignore.
3. Pick a migration strategy.

1 Determine what your computer needs to do

Make an inventory of the tasks your computer performs for you. Do not focus on what software performs that task, but focus on what the software is actually doing.

For example, there is no Internet Explorer for Linux. There are, however, many, **MANY** web browsers.

2 The four task migrations
1: Substitute

Find a software available for OSS that does the same task as what you're using now.

2 The four task migrations
2: Emulate

Find a way to run your existing software under an OSS.

- Porting: Is there a Linux version of the program?
- Pure emulation: wine
- Virtual computing: vmware, bochs

2 The four task migrations 3: Replace

This is similar to substitute, but comes into play when you can't substitute. The process is simply stated: have a new application written that does what you need. Depending on the application you need to replace, this may be very difficult and expensive, or relatively cost-effective. There may already be projects in progress to duplicate the functionality you need, or libraries that duplicate much of it.

2 The four task migrations
4: Ignore

If all other approaches seem impractical or impossible, consider one last thing before giving up on your migration:

Is the application really required?

3 Pick a migration strategy

1. Second computer
2. LiveCD
3. dual-booting
4. cold-turkey

Second computer migration

Advantages:
* No risk
* You get a fully operation environment

Disadvantages:
* Cost
* No incentive

LiveCD migration

Boot off a popular LiveCD distribution
such as Knoppix or FreeSBIE

Advantages:
- Low cost
- Low risk

Disadvantages:
- Lousy performance
- No incentive
- Inability to customize the environment
- Time involved with rebooting

Dual-booting migration

Install the new system on a second hard drive or split your existing hard drive.

Advantages:
- You have a full operating environment
- Easily able to switch back

Disadvantages:
- Potential risk during installation
- Time involved in rebooting
- No incentive
- Do you have enough HDD space?

Cold-turkey migration

Advantages:
- Fully functional system
- Plenty of incentive

Disadvantages:
- Like jumping off a cliff

Which distro to use?

- If you have a friend or consultant helping, use the distro they are familiar with.
- If you're on your own and fairly green, you'll probably do well with a distro oriented toward new users, such as Lindows or Fedora.
- If you're on your own and fairly knowledgable, you'll probably be happier with something like FreeBSD or Suse.

Example: What your comptuer does for you

- e-mail
- Web browsing
- 1PS games
- Typing school reports

Application migration

- e-mail: Replace with Mozilla mail
- WWW: Replace with Mozilla
- 1PS: Ignore
- Reports: Replace with OpenOffice.org

Being a fairly green user: Decides to use Fedora because it's free, popular, includes all the programs he needs, and is very user-friendly.

Migration strategy

- Has a friend who will help with the install.
- Has plenty of unused HDD space.

Solution: Decides to install Fedora in a dual-booting configuration.

Example: Corporate migration
What the computer does

- Corporate IMAP email with LDAP address book
- Some critical web sites, such as UPS shipping
- A business application developed in-house in C#.NET
- General word-processing/spreadsheet
- Must exchange documents with business partners who use MS

Application Migration

- Mozilla mail does IMAP/LDAP
- Mozilla browser tests out fine on all required web sites
- C#.NET application shoud run under Mono
- OpenOffice.org provides word processing and spreadsheet
- OpenOffice.org reads and writes MS documents, and provides PDF export

Migration: stage 1

- Existing Windows computers have IE and Outlook removed and replaced with Mozilla (substitution)
- Existing Windows computers have MS Office replaced with OpenOffice.org

Situation is monitored to ensure nothing was missed.

Migration: Stage 2

- Pilot users are given FreeBSD systems with the C# application to ensure it functions properly under FreeBSD/Mono

Migration: final stage

- All computers are reinstalled with FreeBSD. All traces of previous operating systems and software are removed.

Common gotchas

- Large number of poorly-written commodity applications coded in Visual Basic, that don't even work 100% correctly on Windows, will never work on any OSS.
- OSS applications have just enough differences from previous applications to frustrate users.