

The devil and the deep blue sea

August 2001

Les Hatton

Oakwood Computing Associates and the Computing Laboratory,
University of Kent, UK.

Abstract

This essay presents a practical alternative to the use of Microsoft software with specific examples. It was produced entirely by non-Microsoft software in a company which is a MFZ (Microsoft Free Zone) in that it does not in any way depend on Microsoft software to carry out its business. This has taken a little while to achieve but is entirely practicable.

Introduction

This essay was first written in August 2001 but will be updated from time to time. The software industry is currently in a no doubt temporary lull and there is great concern about the upcoming change to licensing policies at the software giant Microsoft. The essence of this change is to change to a subscription model for software. The principle perceived benefit is a financial one to Microsoft which at a time of recession is expected to cause considerable financial hardship to companies with publications such as the UK based Computer Weekly running leader articles suggesting near revolt amongst Microsoft users and requests for Government intervention, (16/08/2001). The same publication ran an article to ask the question "Was Linux faltering ?", so it is worthwhile to consider the current situation.

Who is to blame for this state of affairs ? Well you certainly can't blame Microsoft for exploiting a near-monopoly which users allowed them to build in the first place. You simply have to realise how it was done and how it can be undone.

The role of file formats in monopolies

What are the principle components necessary to build a monopoly ? Probably the most important one is to use non-standard and unpublished file formats. Some examples follow:-

Example 1

Problem: Company A buys a few copies of a word processor called say, WP from its developer Company B. B wishes A to carry on using WP so it fairly rapidly produces new versions each one of which produces files which previous versions cannot read. (This is deliberate: the technology to make files forward compatible has been known for a long time). Individuals within A upgrade and start distributing documents in the new format which other people cannot read, so after a while they upgrade as well because it

Date: \$Date: 2002/05/27 10:11:45 \$

Page .. 1

is too much trouble to tell people to standardise on the old format. An unpleasant side-effect is that in the rush to produce new versions to continue this cycle, more and more largely pointless features get added and the applications and files both swell rapidly swamping network facilities and local disk storage necessitating hardware upgrades. And so it goes on ... The natural culmination of this is for B to keep parts of the new versions on its own site along with credit card details so that users are completely under their control. This is the ultimate end-game for Microsoft's XP strategy.

Example: Microsoft Word

Solution: Only use Rich Text Format (RTF) for the file format, (look at the Save As ... options in the word processor). This is a human readable standardised format which will not lock you in. It is very versatile in what it can contain and is often comparable in space with the equivalent proprietary format. Do not be put off by dire warnings about losing 'features of the document'. The author has lost far more features through Word's little foibles over the years than through this practice. The vast majority of office documents do not or certainly need not contain such features. If you have to use Word, save output as RTF and send back any documents not in this format. On Linux, Star Office (which was used to produce this document) is an excellent replacement. A rich set of other options, (koffice, abiword, LyX, ...) is crystallizing.

One of the unsung benefits of the Open Source revolution is that file formats are by definition transparent and are usually standardised.

Example 2

Problem: Company A starts to use office e-mail which is given away by Company B who makes both the operating system and the application and can therefore do this. Company B uses formats which are proprietary and cannot be exported to other software for some while. Fairly soon, there is so much e-mail that Company A is once more locked in.

Example: Microsoft Outlook

Solution: Use a package which has open formats. On Windows and Macintosh, Eudora uses a standardised human readable format and in its advertising version is free, (<http://www.qualcomm.com/>). On Linux, kmail is an excellent substitute and because of the standardised format, Eudora and kmail can trivially read each other's files. Neither can read Outlook's equivalent.

Networks

This is fortunately an area which was well-developed before Microsoft appeared on the scene. Today, TCP/IP dominates. It is highly stable, easy to configure and just works. It is also easy to install – the author's 16 year old son installed a complete ethernet network with Hubs for 10 machines and a colour laser printer in an office in an afternoon. Getting Linux machines to talk to each other over this and to install shared file systems using NFS took about an hour. The Windows machines took rather longer but any machine can exchange files and share printers with any other machine. If firewalls are necessary, there are excellent alternatives available in the Linux world.

Viruses

Microsoft free companies have very little problem with viruses. For example, since removing the dependence on Microsoft software, the author's company has never suffered from a virus attack, (a period of nearly 3 years now). Microsoft supporters will tell you that this is because virus writers target Microsoft due to its popularity but the main reason is an entire series of particularly idiotic design decisions for example, allowing documents to contain active scripts. It is not impossible to write viruses for Linux but the opportunities are much less and protection is usually easier. As more and more internet commerce is carried out, this will become a very serious issue.

Internet Browsing

The nice thing about browsing is that the underlying file format, HTML and its extensions are open standards so Microsoft's opportunities to tie people in are somewhat reduced although the titanic battle with Netscape gives some idea of how hard they tried. If you are fed up with all this, take a look at opera, (<http://www.opera.com/>). Its compact, fast and generally quite reliable. Mozilla is fast becoming outstanding, (<http://www.mozilla.org/>), as is Konqueror, the browser built into the KDE desktop, (<http://www.kde.org>).

Reliability

Microsoft software has a generally lamentable record for reliability. In the author's offices, W95 failures occurred about once a day and WNT4 failures about once a week. W2000 is somewhat better but has some interesting problems. In comparison Sparc and Linux systems in the same office are staggeringly reliable. Of three Linux servers running for over 3 years with three different kernels and three different distributions, there have been no failures at all and no maintenance. They are very heavily used and just run. And run. And run.

Office technology

The desktop wars will no doubt continue but you could do much worse than KDE on Linux. It is slick, attractive and gets better every release. The author's office uses this now exclusively.

Database

Microsoft has not been so pre-eminent here largely because of the existence of other proprietary giants such as Oracle. However, again there are alternatives. In the Linux world, MySQL enjoys a growing reputation as the standard choice for web-server database work and PostgreSQL is an extraordinarily powerful relational database with few peers and a growing army of support. The open source nature of both means the file formats are visible so lock in is avoided.

Presentations

Microsoft Powerpoint has dominated this area. There are sensible alternatives again (Star Office on Linux), but file compatibility is not so good and there is no standard file format

of which the author is aware.

Spreadsheets

The situation here is very similar to that for Presentations although there are standard file formats.

The user should also look at Open Office which is not subject to the vicissitudes of ownership by a computer giant.

PDA support

Organisers and synchronisation with PDAs are important. Both can be done very satisfactorily on Linux as there is once again a standard file format. On Linux, gnome-cal and korganizer are making rapid progress although gnome-cal is more stable at the moment. Both can successfully synchronise with a Palm Pilot using kpilot.

Conclusion

If it is as easy as this, why do not more companies do it ? Why do they put themselves into a position where they are vulnerable to the whims of a software giant ? The answer seems to be inertia pure and simple. There is no technical reason for not doing it. If you don't do something about it, it will get worse. The longer you leave it, the harder it gets.

Solution: Each company needs to start a migration group. The purpose of the group is to plan and execute a movement away from proprietary formats and software. In the early stages, where proprietary software is capable of making non-proprietary file formats, these should be used. For proprietary software which can only make proprietary formats, alternative software must be implemented in parallel. Yes, it is traumatic but this will gradually loosen the grip of a monopoly forcing the beneficiary to change its ways. Only users can do this, legislation as has been seen is largely powerless.

Software alternatives

Microsoft product	Reasonable alternative which works well	Comments
Word	Star Office (Linux). Others include koffice, abiword, LyX, Latex (all Linux). Open Office	Star Office is probably the best and is comparably stable or better than Word.
Excel	Star Office (Linux), Open Office	Both can read and write Excel formats.
Powerpoint	Star Office (Linux), Open Office	As above
Internet Explorer	Konqueror, Opera, Mozilla	All are very good.

<i>Microsoft product</i>	<i>Reasonable alternative which works well</i>	<i>Comments</i>
e-mail	Eudora (Windows), kmail (Linux)	They are both very good and the ability to read the portable file format is very important.
Access	MySQL, PostgreSQL (Linux)	Both Linux alternatives are being very actively pursued and are already excellent.