

Company-X

Office Suite and Editable Document Format Upgrade Options

Adapt this document for your company's environment:

1. Replace *Company-X* with your company name.
2. Replace *Company-Y* with your potential migration partner. The migration partner should have specific LibreOffice support, training, and migration services expertise. A migration partner may help strengthen the business case.
3. The example pricing provided is for not-for-profits. Replace this with pricing appropriate for your context.
4. Delete this notice.

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Overview

Company-X's current installed office software is Microsoft Office 2003. While it has served us adequately over the years, there is now a requirement to upgrade.

This document covers:

- The reasons for an upgrade
- A summary of the competing electronic file formats
- A comparison of the replacement software candidates
- Recommendations for the replacement file format and software

Key reasons for upgrading

1) Continuity of access to Intellectual Property (IP) and document interchange

- *Company-X*'s IP is stored in older Microsoft Office file formats. Microsoft will eventually withdraw support for older file formats, leading to *Company X* no longer having access to its own IP. Documents saved in these formats are by default inaccessible from recent Microsoft Office software releases.
- IP stored in older file formats is a long-term archival risk. The risk increases going forward, as Microsoft continues to release new software without the necessary file format support.
- Document interchange with other agencies is frequently problematic. Microsoft Office 2003 increasingly cannot open newer Microsoft Office-format files.

Alternative office software offers superior compatibility for these older *proprietary* file formats, more so than Microsoft's own products. There are significant benefits to *Company-X* adopting a non-proprietary, industry-standardised file format.

2) Security and stability

Microsoft ceased support for Office 2003 in April 2014. This means:

- *Company-X* is exposed to an increasing IT security risk. Microsoft no longer provides the necessary security patching to prevent against malware infections contained in Microsoft Office files.
- New Microsoft Windows versions will break compatibility with Microsoft Office 2003, leading to the software behaving in unpredictable and disruptive ways, or ceasing to work altogether.

An office suite upgrade rectifies both problems. Certain alternative office software products provide additional longer-term benefits.

3) Efficiency and productivity benefits

- Microsoft Office 2003 is missing features present in modern office software. Examples include built-in PDF editing and export, a user interface optimised for wide-screen displays, cloud integration, and features for collaborative working.

Company-X undoubtedly stands to benefit from a replacement office software suite with modern features and performance.

Replacement native file format considerations

Each proposed replacement office software product features an attendant *native* file format. The product's full features and functionality is implemented using this native format. A summary of the available competing file formats follows.

Microsoft OOXML

OOXML is the native file format used by current versions of Microsoft Office. Files in OOXML format have the *.docx*, *.xlsx*, and *.pptx* extensions in the file name. Due to the complexity of the format's specification, Microsoft is the only vendor implementing OOXML to any significant degree. The absence of broad industry support for OOXML engenders the same long-term risk regarding continuity of access to IP stored in the format.

Additionally, multiple variants of the OOXML format exist across differing Microsoft Office versions (Office 2007, Office 2010, Office 2013, Office for Macintosh). These variants contain proprietary, non-standardised components available only to Microsoft.

Microsoft's claim of industry standardisation – while also delivering multiple overlapping format versions containing proprietary technology – aligns with their business model of locking in customers to a single product. This is the precise scenario which *Company-X* is currently in.

OpenDocument Format (ODF)

ODF is recognised as the leading industry-standard (ISO/IEC) office productivity file format. ODF's straightforward specification and independence from any single controlling vendor – with oversight from a standards body – has seen it gain significant uptake in enterprise-scale organisations worldwide. The UK Government for example has mandated ODF as its sole standard for document interchange – rejecting Microsoft's OOXML file format outright.¹

ODF's open nature has lead to the availability of many competing business office software alternatives with complete native feature support.. Examples include LibreOffice, and Apache OpenOffice. This changing competitive landscape has also lead to Microsoft and Google implementing ODF support in their products.

Files saved in ODF format today are guaranteed to open tomorrow and years into the future, irrespective of product and vendor. This ensures permanent continuity of access to our IP.

¹ www.gov.uk/government/news/open-document-formats-selected-to-meet-user-needs

Google Drive native file format

Google's cloud-based Google Drive service uses a proprietary, undocumented native file format. There is no choice of vendor. This is similar to *Company-X's* current scenario with Microsoft Office file formats.

Replacement office software candidates

Four product candidates are proposed. Each product is described below, with key advantages and disadvantages relative to *Company-X's* use case. Detailed information is provided in appendices.

Microsoft Office 2013

Microsoft Office 2013 is Microsoft's current office software product. It's delivered as a full installation on a computer hard drive, similar to our existing Microsoft Office 2003 installations.

Advantages

Full-featured, comprehensive office software suite

In terms of features, Office 2013 will fulfil *Company-X's* current office productivity needs. It contains many modern amenities introduced in the 12 years since Office 2003's release.

Disadvantages

Effectively proprietary native file formats, poor support for legacy file formats

Referring to the *Replacement native file format considerations* section above, Office 2013 will keep us locked-in to using Microsoft file formats, with the attendant risks and drawbacks. Microsoft is also withdrawing support for their older file formats. This leaves *Company-X* exposed to the risk of being unable to access IP saved in these formats.

Relatively high cost

Although the retail pricing for Microsoft Office is typically hundreds of dollars per license, discounts are available for not-for-profit organisations. However, as well as the initial license cost, many hidden costs are associated with Microsoft Office products.²

Deeply complex product licensing

Microsoft licensing requires sustained staff effort performing Software Asset Management to ensure license compliance. Non-compliance gives rise to the risk of a Microsoft license audit and costly penalties. This complexity is compounded with the adoption of BYOD and remote working scenarios.

Revised user interface is a substantial, disruptive change

Office 2013 ships with the latest revision of Microsoft's controversial user interface. For our staff

² Appendix A: Office productivity suite cost comparisons

with years of experience using Office 2003's traditional menu-based interface, we can expect to incur significant downtime for staff retraining – even for basic tasks. This may carry an additional cost for paid training materials. IT consultant rates for Microsoft products are also typically higher than competing alternatives.

Full features and functionality on Microsoft Windows only

Although Office 2013 is available for Apple Mac computers, it differs in features and functionality. Other business operating system (OS) products such as Ubuntu are not supported at all.

Microsoft Office's lack of cross-platform OS support means:

- *Company-X* is locked-in to using Windows. This limits our options should future business needs require investigation of an alternative, non-Windows OS.
- Upgrading our Microsoft Windows licenses is a potential significant associated cost. For example, Microsoft may withdraw support for running future versions of Office on our current Windows version.

Product activation risks

Microsoft mandates proof of license purchase using an online activation process. Without this, the software will only function with crippled functionality, or not at all. Activation schemes introduce an additional layer of risk arising from legitimately-licensed software potentially ceasing to function at critical times.

Extra computing hardware costs

Compared to competing alternatives, Office 2013 in tandem with Microsoft Windows generally requires a more expensive computer to run the product with acceptable performance. In some cases this may require upgrading existing computer hardware – effectively just to run Office 2013.

High exit cost

The combination of proprietary file formats, Windows-only support for full functionality, and severe licensing complexity increases the cost and effort of migrating to alternative office software products in the future.

Microsoft Office 365

Microsoft Office 365 uses Microsoft Office 2013 as a base and bundles it with additional cloud services. It's delivered as an ongoing paid subscription (that is, software rental).

Advantages

Nominally low cost for not-for-profit organisations

The nominally low monthly cost per staff member is more attractive than Office 2013's higher initial upfront cost.

Integration with other Microsoft services

Office 365 features integrated cloud storage, video calling, and a range of other bundled amenities.

Web app versions of Word, Excel, and PowerPoint

Web browser-based access to these applications with real-time collaborative editing is supported (albeit with a significantly reduced feature set).

Disadvantages

The disadvantages highlighted above for Office 2013 also apply to Office 365:

- Practically proprietary native file formats
- Poor or non-existent support for Microsoft's own legacy file formats
- Revised user interface is a substantial, disruptive change
- Full features and functionality supported only on Microsoft Windows
- Product activation risks
- On-going subscription fees add up rapidly
- High exit cost – heightened by Office 365's additional bundled services

LibreOffice

LibreOffice is a professional-grade business office software suite. It contains equivalent applications, features, and functionality to Microsoft Office 2013. It's delivered as a full installation on a computer hard drive.

Advantages

Full-featured, comprehensive office software suite

In terms of features LibreOffice will fulfil *Company-X's* current and future productivity needs. It ships with equivalents for Word, Excel, PowerPoint, Access, and Visio. It contains many modern amenities introduced in the 12 years since Office 2003's release – with additional features not present in any version of Microsoft Office (for example, full editable PDF support, and a presentation remote control app for smartphones).³

Industry standard file formats and open source technology

As highlighted in *Replacement native file format considerations*, LibreOffice uses the industry standard ODF file format. No proprietary vendor-only technology is used. This guarantees:

- Long-term access to our IP
- The broadest range of product alternatives

3 [LibreOffice/Office2013 comparison: wiki.documentfoundation.org/Feature_Comparison:_LibreOffice_-_Microsoft_Office](http://wiki.documentfoundation.org/Feature_Comparison:_LibreOffice_-_Microsoft_Office)

- Deep product customisation if needed
- Reduced vendor lock-in
- Significantly reduced exit cost

Support for a wide range of other file formats

LibreOffice can open, modify, and save documents in a variety of proprietary Microsoft file formats, including legacy file formats no longer supported by Microsoft. This allows us to manage the majority of OOXML-format files, and enables continued access to existing IP stored in older Microsoft formats.⁴

LibreOffice is compatible with dozens of additional non-Microsoft file formats. Microsoft Office by comparison only supports a small subset.

Very low cost or no cost

LibreOffice is available in two editions:

- LibreOffice (community version): this is free for both business and home use. It is not crippled in any way, and by itself is equivalent to Microsoft Office 2013. New versions containing feature enhancements are available every six months.
- LibreOffice from Collabora: this is an enterprise-hardened LibreOffice version, tested for maximum stability and intended for business use. Security and bug fixes are released immediately, and feature enhancements are available a few months after the community version.

Familiar yet modern user interface

LibreOffice features a traditional menu-based user interface, much closer to the Office 2003 interface our staff presently use. This translates to far less disruption for staff adapting to the new product compared to the alternatives.

Full cross-platform OS support

LibreOffice runs with full feature parity across Microsoft Windows, Apple OS X, Ubuntu, and many more OS products. Staff not using Windows do not have to sacrifice any functionality, and all documents can be interchanged with 100 percent compatibility.

This enables a broad range of options should migration to an alternative OS in future be required. Full cross-platform support reduces our exit cost, and reduces our Microsoft vendor lock-in.

No product activation

LibreOffice requires no product codes or online activation. The software will work the same way as the day it was installed, permanently.

Simplified or no license management

The LibreOffice community version can be installed anywhere and distributed to anyone for business and home use. There is no license management to speak of.

4 Appendix B: File format compatibility and support

The LibreOffice from Collabora version features simple license management, tracked via computer installations. Additional license purchases are a simple, straightforward cost.

Work-at-home use is covered

For staff wanting to use the software at home, the community version of LibreOffice can be installed for no cost on an unlimited number of computers. Additionally, LibreOffice from Collabora contains a work-at-home clause in the license agreement.

Built-in PDF editing and export support

LibreOffice features one-click PDF export. Full editable PDFs can also be created, removing the need for expensive software such as Adobe Acrobat.

A wide range of third-party enhancements

LibreOffice features a thriving add-on ecosystem, enhancing the already full-featured product with hundreds of useful customisations.

Disadvantages

No cloud-based web applications

The competing office suites are available as web-based alternatives with real-time collaborative editing (albeit with a far reduced feature set). Cloud support for LibreOffice is under active development, but native LibreOffice web apps are not yet available.

Microsoft OOXML compatibility

All competing office suites (not just LibreOffice) will *occasionally* fail to successfully render files saved in Microsoft OOXML format. This can be mitigated by one of several options, including retaining a limited number of Microsoft Office installations, or using either ODF or PDF format.

Google Drive

Google Drive is a component of the Google Apps for Work suite. It consists of word processing, spreadsheet, and presentation applications, delivered as an online subscription-based service. Most functionality is accessible from a web browser. With the exception of some minor components, there is no software installation needed on a computer's hard drive.

Advantages

Nominally low monthly cost

The cost for the Google Apps for Work suite is between \$US5.00 and US\$10.00 per staff member per month. When used on ChromeOS devices (such as Chromebooks) there are negligible device support costs.

Most functionality is available anywhere

Google Drive is delivered over the Internet and accessed using a web browser. Consequently it is

not dependent on any one OS product, and will work across Windows, OS X, and Ubuntu, with close to full feature parity.

Integrated features for collaborative work

Google Drive is designed for group collaboration. Assuming a robust Internet connection, staff working across physically disparate locations can collaborate in real time on documents. Modifications and comments are automatically recorded.

Simplified license management

License compliance is much easier than Microsoft Office. Google Drive is an online-only service with no software installation, no product activation, and no license key code tracking.

Integration with additional Google services

The Google Apps for Work suite bundles a range of additional services within the subscription cost, including video calling, hosted email, and tools for building basic Intranet sites.

Better resource usage on older computers

Because Google Drive is delivered over the Internet and requires only a web browser, it will run on older computer hardware. (Note however that this advantage may be offset against the Internet connection's performance and availability.)

Disadvantages

Entirely closed, proprietary native file format

As highlighted in the *Replacement native file format considerations* section above, Google Drive's native file format is not standardised and is entirely proprietary. From the standpoint of long-term continuity of access to our IP, this is an arguably even worse scenario than using Microsoft Office-format files – as Google is the sole supporting vendor. The format can be changed or obsoleted at any time, with no choice of alternative vendors or support channels.

User interface is a substantial, disruptive change

Staff with years of experience using Office 2003's traditional menu-based interface shifting to a completely web browser-based interface will require significant amounts of retraining.

Missing many powerful business-oriented features

Google's office web applications are adequate for basic use, but are missing a multitude of features present in LibreOffice and Microsoft Office. This is due to both Google Drive's relative immaturity (compared to the decades of development and iterative improvements in the alternatives), and limitations in Google's chosen technology.

Costs, terms of use, or the product can change at any time

Google can at any stage:

- Increase the monthly or annual cost per customer account

- Change or remove features
- Substantially alter or retire the entire product

Google is well known to frequently alter product user interfaces, causing significant disruption to familiar, established workflows.

Paid services make up a comparatively tiny amount of Google's revenue. Generally, over 90 percent of Google's total global revenue on any given quarter is generated by online advertising – compared to other competing vendors for which office productivity software is a core business. Google also has a well-established track record of shutting down large numbers of products on a frequent basis.

Ongoing subscription costs

Google can change the monthly subscription costs at any time. Consider a future scenario involving severe financial constraints. If subscription costs cannot be met, access to the service is cut off entirely. Compare this to traditional software, which will continue to work the same way, permanently.

Depends on an Internet connection

Generally, Google Drive requires constant high-speed Internet connectivity. This poses a problem for remote workers with intermittent or slow Internet access.

If the company Internet connection performance is impaired, or goes down entirely, this will create large-scale disruption with most staff unable to work.

Requires a Google account

Google Drive's tight integration with Google's other services translates to a high degree of vendor lock-in and associated increased exit costs.

Recommendations

Replacement office software suite: LibreOffice

LibreOffice is the recommended replacement office suite for *Company-X*, based on the key considerations of:

1. Guaranteed continuity of access to our IP
2. Costs – both direct and indirect
3. General features and functionality, balanced against *Company-X*'s particular use case

Specifically, LibreOffice from Collabora should be the primary replacement product, due to its additional enterprise-focused layer of security and stability.

LibreOffice adoption should be aligned with a carefully documented and executed migration plan.

Adopted standard file format: ODF

ODF should be adopted as *Company-X's* standard file format, replacing the existing Microsoft Office file formats.

New file format adoption should also be aligned to a migration plan.

Migration plan

A detailed migration plan is outside the scope of this document. As a summary however, the following example approach could be taken.

1) Install LibreOffice alongside Microsoft Office on all staff computers

Staff familiarise themselves with the new software. A welcome pack and introductory training is provided by a migration partner.⁵

2) Assess special use cases

Identify and ringfence use cases where Microsoft Office is required. Examples include external agencies which mandate Microsoft file formats. Workarounds and alternative approaches are investigated as a parallel effort, without delaying the rest of the migration project.

Note that one eventual outcome may be *Company-X* retaining limited installations of Microsoft Office for these specialised scenarios.

3) Assess existing documents stored in proprietary Microsoft formats

These are identified as either editable documents or non-editable documents.

Documents needing to be editable are converted to ODF.

Documents not needing to be editable are converted to PDF.

The original files are then backed up and archived permanently.

4) Advise staff to use LibreOffice exclusively

On an agreed date, LibreOffice becomes the primary office software suite. Files in Microsoft format are opened in LibreOffice, and converted to ODF format.

Document conversion problems (for example, caused by particularly complex source material) are captured for further investigation by IT and the migration partner.

A feedback process (part of a wider communications plan) can be introduced to help staff feel that they are engaged in the migration effort. This can also help address any potential problems early on.

5) Identify a date for retiring Microsoft Office

On an agreed date, Microsoft Office 2003 is uninstalled from all staff computers (excluding any special use cases). The migration is now complete.

IT and the migration partner continue with post-migration support and training.

⁵ Appendix C: Migration partner

Appendix A: Office productivity suite cost comparisons

Product	Initial Costs	Hidden Costs
Microsoft Office 2013 Professional	<p>From <i>Reseller-X</i>:</p> <ul style="list-style-type: none"> \$46,500 <p>Comprising:</p> <ul style="list-style-type: none"> Licenses: <ul style="list-style-type: none"> $200 \times \\$132.08 = \\$26,418$ (Note: this is charity pricing) Migration services and training: <ul style="list-style-type: none"> \$20,000 <p>Our user license count is growing due to the proliferation of affordable computing devices. This will potentially increase our licensing costs going forward.</p>	<ul style="list-style-type: none"> \$100 Windows licence per Windows upgrade \$20 Windows Server CAL per Windows upgrade \$20 Windows RDS CAL per Windows upgrade \$250 device support time per annum \$50 server support time per annum \$20 client antivirus per annum \$20 antivirus support time per annum EEE costs
Microsoft Office 365	<p>From www.office365.com:</p> <ul style="list-style-type: none"> \$35,600 (initial cost), then \$15,600 per annum <p>Comprising:</p> <ul style="list-style-type: none"> Office 365 Nonprofit E3 Plan licenses: <ul style="list-style-type: none"> $200 \text{ users} \times \\$6.50 \times 12 \text{ months} = \\$15,600$ per annum (Note: this is charity pricing) Migration services and training: <ul style="list-style-type: none"> \$20,000 	<ul style="list-style-type: none"> Same hidden costs as Office 2013 \$250 device support time per annum Contains a subset of Office 2013's functionality – Office 2013 is required for full functionality Functionality is reduced on non-Windows devices Deeply complex Microsoft license management adds potentially significant cost to what is already listed here EEE costs

Product	Initial Costs	Hidden Costs
LibreOffice (community version)	<p>From migration partner:</p> <ul style="list-style-type: none"> • No initial cost <p>Comprising:</p> <ul style="list-style-type: none"> • Licenses: <ul style="list-style-type: none"> ◦ No cost • Migration services and training: <ul style="list-style-type: none"> ◦ \$8,000 	<ul style="list-style-type: none"> • \$250 device support time <p>There are fewer hidden costs compared to Office 2013 running on Windows. There is a potential for significant savings.</p>
LibreOffice from Collabora	<p>From Collabora Productivity reseller:</p> <ul style="list-style-type: none"> • \$10,000 (initial cost), then US\$2,000 per annum. <p>Comprising:</p> <ul style="list-style-type: none"> • Licenses: <ul style="list-style-type: none"> ◦ 200 users × US\$10.00 = US\$2,000 per annum • Migration services and training: <ul style="list-style-type: none"> ◦ \$8,000 	<ul style="list-style-type: none"> • \$250 device support time <p>There are fewer hidden costs compared to Office 2013 running on Windows. There is a potential for significant savings.</p>
Google Drive	<p>From Google:</p> <ul style="list-style-type: none"> • \$24,000 per annum <p>Comprising:</p> <ul style="list-style-type: none"> • Licenses: <ul style="list-style-type: none"> ◦ 200 users × \$120.00 = \$24,000 per annum • Migration services and training: <ul style="list-style-type: none"> ◦ \$20,000 	<ul style="list-style-type: none"> • \$250 device support time (unless ChromeOS devices are used) <p>There are fewer hidden costs compared to Office 2013 running on Windows. There is a potential for significant savings, especially if Google Drive is used on ChromeOS-based devices.</p>

CAL: Microsoft Client Access License

EEE: Embrace, extend and extinguish⁶

⁶ en.wikipedia.org/wiki/Embrace,_extend_and_extinguish

Appendix B: File format compatibility and support

File Format	Microsoft Office 2013 Support?	LibreOffice Support?	Google Drive Support?
DOC, XLS, PPT	Yes.	Yes.	Yes.
DOCX, XLSX, PPTX (Microsoft Office 2007/2010)	Yes.	Yes.	Yes.
DOCX, XLSX, PPTX (Microsoft Office 2007/2010 (OOXML transitional)	Yes. Used by Office 2013 as the default.	Yes.	Yes.
DOCX, XLSX, PPTX (Microsoft Office OOXML strict)	Yes. However, not used as the default in any Microsoft Office suite.	Yes.	Yes.
OpenDocument Format (ODF)	Yes.	Yes.	Yes – via import.
General Microsoft file format compatibility	Excellent. However, Microsoft is withdrawing support for older file formats in new Microsoft Office releases.	Good. Note that LibreOffice will often successfully open corrupted Microsoft Office files even when Microsoft Office itself fails to do so.	Good.
Microsoft Office 95 and earlier	No. Cannot by default open documents saved in Microsoft Office 95 and earlier file formats.	Yes.	No.
General file format compatibility	Poor. Only a small number of additional file formats supported.	Excellent. Compatibility for hundreds of different file formats.	Poor. Only a small number of additional file formats supported.

Appendix C: Migration partner

Company-X can choose to work with an IT services consultancy to ensure a smooth and successful migration. This *migration partner* will provide:

- Assistance for designing the migration plan
- LibreOffice from Collabora product licenses
- Customised training material, and a LibreOffice welcome pack for staff
- One-on-one support for staff as and when needed, both during and post-migration

The objective of the welcome pack and online training materials is to help staff rapidly familiarise themselves with the new product.

The migration partner will work closely with the *Company-X* Information Systems Manager and migration Project Manager.

Company-Y is a potential migration partner:

- www.Company-Y.co