Open Office Document (ODF) Standards, Applications, Compatibility & Collaboration

Overview

In recent years, there has been a push towards organizations considering the adoption of Open Document Format (ODF) for their documents as opposed to staying with proprietary formats, such as Microsoft Office, with established formats (e.g .xls or .doc). There have also been initiatives for some Government organizations to adopt ODF as a standard regardless of application suite. This whitepaper reviews the adoption of ODF and how it affects document standards, application compatibility, and the collaborative process.

ODF as a Standard

The goal of using a standard interchangeable format is to allow for free file sharing without regard to the application generating the file. That is the goal of organizations, such as OASIS, who are driving open standard initiative. However, there is a fundamental issue that can prevent the goal from ultimately being achieved. That issue is the fact the standards intentionally allow the open format to be extended. While ODF is a standard, it does allow for extensibility by the various office productivity applications. Therefore, these applications designed to create and edit ODF files could indeed generate files that contain content not compatible with the other applications. As a result, there may be significant challenges to widespread adoption, distribution, and usage of ODF documents for users and organizations that use different applications.

To adopt ODF as a means of communication among a diverse citizenship may not show any significant advantages over a proprietary format. As a result, each desktop could potentially be using applications that have their own modified standards defined. Anything not matching these standards would not necessarily represent as the author intended. In this regard, it is quite possible that the Open Office XML format that is natively supported by Microsoft Office 2010 and up is a more rigidly maintained, open standard.

ODF does not define nor set a standard macro language syntax. Even between ODF generating products there are differences in how they both create and read code. Even if the code is the same, there remains the likelihood that the code will be handled differently giving varying results on each platform. For users of more sophisticated files, this may be quite problematic.

There are many freeware applications that can create and edit ODF format files available, as well as commercially developed and supported products, such as WordPerfect or the Microsoft Office suite. A question an organization must ask, particularly a large one, regarding the free applications is how will support and development be handled in-house? Since most freeware will have limited or no vendor support available coupled with the absence of a large ecosystem of consultants, certified experts and trainers, there may be significant additional costs which need to be factored into the decision to adopt a new office productivity platform.

ODF Compatibility and Legacy Files

Legacy files, especially for most enterprises or large organizations, require some form of remediation for files to be converted to ODF from the current format. Many enterprises have developed complex and business critical functionality in Microsoft Office files that will need to rewritten or otherwise adapted if moving to ODF exclusively. There will be costs associated with this type of migration and needs to be budgeted for the project.

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As with any migration to a new platform, functionality of the files may be compromised or even lost. For example, many legacy documents in the standard Microsoft Office format include VBA code to call some functions – such as a calculation or to bring data from another source. ODF has no support for VBA, therefore without a remediation strategy the functionality of these files will be lost.

Across the board most major organizations, business and governments use Microsoft Office to create, collaborate and publish files. Office is the industry standard and is by far the most widely used productivity software commercially available today. We have seen some adoption of alternatives, but at this time they are not widespread. Unless there is a major change in the adoption of other office applications, we can expect that significant data exchange issues will remain from organization to organization. A strategy for how to handle these differences will need to be developed when adopting the ODF platform.

As stated, there are alternatives to Microsoft Office. Organizations reviewing options need to be certain that ODF is a superior solution and not simply base the decision on license cost alone. It's important too to keep in mind that Microsoft Office 2010 and 2013 have been developed to create and handle ODF format files, with some standardization in place.

Table 1: Evolution of file format support in versions of Microsoft Office

	Office 2003	Office 2007	Office 2010	Office 2013
Binary format (.doc, .xls, .ppt)	Open, Edit, Save	Open, Edit, Save	Open, Edit, Save	Open, Edit, Save
Traditional open XML	Open, Edit, Save	Open, Edit, Save	Open, Edit, Save	Open, Edit, Save
Strict open XML			Open, Edit	Open, Edit, Save
ODF 1.1		Open, Edit, Save	Open, Edit, Save	Open, Edit
ODF 1.2				Open, Edit, Save
PDF		Save	Save	Open, Edit, Save

As an organization the decision to considering moving to the ODF standard may be based on a corresponding plan to replace MS Office with the expectation of a cost savings, but there should be careful consideration of the hidden costs first.

ODF and Cost Savings

ConverterTechnology has kept up on industry discussions regarding improvement of organizational efficiency when adopting the ODF format, since some desktops only use about 15% of the functionality that Microsoft Office offers. We concur that the cost, from a licensing perspective, of the application suite may, at face value, produce a savings. Regardless of the cost of the suite being adopted, the actual efficiency of the end user will likely not improve. In fact, efficiency will drop for a period of time while users get familiar with the new tools.

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It is tempting to consider the potential cost savings of deploying a free or lower-cost office suite, but the decision should be made with consideration for all the possible impact and hidden costs it could have on your organizations such as:

- File compatibility and functionality
- User retraining and corresponding productivity drop for a time
- Product support and security update
- Availability of consultants for configuration, training and customization

Further Considerations

When looking at alternate platforms, organization should consider the following:

Macros

- Will they be supported?

Excel

- Are all functions available?
- Will they have the same names?
- Will they give the same result each time?
- Can custom functions be used or must they be modified?
- Will we be able to import data from external sources?
- Can all existing data connections be used?
- Are there syntax changes?
- How will links be affected between documents of the same/different type?
- Are all styles available and will they have the same appearance?

Inserts

- Can the new format use SmartArt, shapes, etc.?
- Are charts handled/displayed the same?
- Are all types available?
- What happens to equations?

Protection

- What document-level protection is available (locked cells/worksheets, passwords, etc.)?

Add-ins

- Will they be compatible with the new format?

External applications

- Are there any that create/modify/read existing documents?
- Will they be compatible with the new format or will modifications be necessary?

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Mail Merge

- Is this functionality in use and will it be available in the new format?

Formatting

- Are all of the fonts/colors/effects being used available in the new format?
- Will they generate the same appearance?

PowerPoint

- Are transitions and/or animations used in PowerPoint?
- Will they be available in the new format?

Conclusion

There are multiple issues regarding ODF that require clarification and, at the very least, further investigation. Organizations of all sizes should consider these factors when determining the benefits of ODF before deciding what platform to deploy. Whether you decide to update to a newer version of Microsoft Office, or go with and alternative platform, ConverterTechnology has experts dedicated to file migration and remediation. Our software is able to handle enterprise scale or batch conversion of legacy files to ODF.

About Chris Davies

As Manager of Technical Services for ConverterTechnology, Chris is responsible for the delivery of consulting services delivery and support for customers and partners. Chris has 20 + years' experience in software solution consulting and customer service for a wide range of industries, most recently working with document management, project collaboration and product lifecycle management tools. Chris has an extensive background managing large projects for major organizations ranging from Pharmaceutical Manufacturers to Civil Engineering Companies.