

Espousal of ODF by the Department of IT GoNCT Delhi

Rajanish Dass

Indian Institute of Management, Ahmedabad*

Introduction

Open Document Format (ODF) is an Open XML based document file format for saving and exchanging editable office documents (including memos, reports, and books), spreadsheets, charts, and presentations. The deep impact of using ODF for providing better options for document access, greater choice among vendor selection by cutting out 'vendor-lock in' and the promise for supporting innovation by providing standardized basis for interoperable document formats have enticed a number of governments across the globe to give ODF a serious consideration. Currently, thirteen nations across the world are planning to adapt to ODF standards. A number of other nations have started to understand the importance of ODF and have been providing active support to the adoption of ODF by encouraging use of Open software by the end users. In this paper, we discuss the case of the Department of Information Technology, Government of National Capital Territory of Delhi, encouraging use of ODF to all concerned departments and government offices. This is a case in point for looking at the benefits and challenges of adapting to ODF by a government, particularly in the context of a developing country like India.

Mr. Prakash Kumar, IT Secretary to the Government of the National Capital Territory (GoNCT) Delhi, had issued a circular to all the concerned decision makers on November 30, 2005 (see Exhibits 1 & 2). This was meant for notifying that none of the departments/offices will be encouraged to buy any proprietary Office suite application from a particular vendor. Instead, they are encouraged to use OpenOffice (obtained as a free Office suite from OpenOffice.org), which

* This case was prepared by Professor Rajanish Dass, Computer & Information Systems Group, Indian Institute of Management, Ahmedabad, for teaching purpose solely as the basis for class discussion rather than to illustrate either effective or ineffective handling of administrative situation(s). The author gracefully thanks Mr. Prakash Kumar, Mr. Santulan Choubey, Mr. Yogesh Khanduja and other members at the DoIT, GoNCT Delhi, Debjani Dass, Saharsh Taneja, Rachna Handa and ODF India Alliance members for their support and valuable inputs in this case writing exercise. For any clarification, the author may be contacted at rajanish@iimahd.ernet.in.

contained in it all the features that an end-user may be looking for in an Office suite. Moreover, the departments were also encouraged to make multiple copies of the OpenOffice as there were no piracy issues attached to it. Prakash Kumar had also attached a CD containing OpenOffice along with the circular to all concerned departments. The National Informatics Centre (NIC), who was responsible for all the purchases of IT, related hardware and software, once it is passed by the Secretary of IT, was also notified not to purchase any proprietary Office suite, even on demand. Although the circular mentioned about interoperability of multiple platforms, nowhere did it mention about moving all documents to Open Document Format (ODF).

Unlike as he expected, reactions started to come, but a bit slowly from other departments. A number of department heads called him up to ask the reason for which he had issued this circular. Prakash Kumar was very apt. As a balanced leader, he immediately started pointing towards the implicit benefits of using OpenOffice. He was more vocal with the issues of piracy and reminded his colleagues about the Government of India policy about piracy as the onus of any employee in a particular department using pirated software will be on the HoD or corresponding in charge. Using OpenOffice immediately by-passed that issue. However, he faced major inertia to change to OpenOffice from some departments like that of the department of Income Tax, who clearly declared of not complying with the instructions to use OpenOffice. But then, Prakash had no stake, if the Income Tax department of the Government of NCT Delhi, refuses to move to OpenOffice, by the declaration of his circular, he or anybody from his department was not liable to purchase the next license of the proprietary Office suite.

Department of Information Technology, Government of NCT, Delhi

The Department of Information Technology (DoIT), Government of NCT Delhi, was playing a major role in enabling various other departments and offices of the government for adapting to Information Technology and proper usage of IT. The DoIT had played pivotal role in implementing a number of citizen centric projects. These initiatives had a deep impact on the citizen and were also inline with the Citizen-Government partnership called *Bhagidari*¹. The DoIT was created in the year 2000 and is working to put technology to its highest and best use throughout Delhi Government Department/Autonomous bodies to improve the administration of state programmes and services. Providing guidance on technical

¹ *Bhagidari* means partnership

matters to departments, vetting IT projects and taking department on achieving IT Road Map are the basic jobs of Information Technology Department².

With e-Governance and ICT for citizens being the prime focus of the current government (see Exhibit 3), a large chunk of responsibilities were being shouldered by the DoIT. With the able leadership and vision of Prakash Kumar, the department had been able to achieve substantial strides towards successful completion of various projects. Moreover, to help other departments for getting enabled in IT, the Secretary of IT had published on its website, various guidelines related to project specification etc. for being referred by other departments (see Exhibit 4). With more and more departments and offices using IT, the need for procurement of hardware and software was going up from every nook and corner of the government³. The process of procuring had been a bit long drawn to which the internal customers had shown their discontent. Although all the procurement requests had to pass through the Secretary of IT, but there were still problems regarding generating reports and accessing the information regarding status enquiry by various departments who had placed their procurement order and had to wait till their order was procured. To bring visibility to this whole process, Prakash Kumar successfully completed making the procurement process online in September, 2004. This was a boon to the end-users, who were typically offices and departments of the GoNCT Delhi, to have a transparent view about the status of their procurement request and also get a due date by which the procurement will be done (see Exhibit 5) and the date when the cheque payment was done for the corresponding order. User's could also view procurement orders that were being delivered within the due date and orders that were pending for 4-6 weeks, more than 6 weeks and more than 8 weeks. The procurement system also had the facility for the DoIT people to generate various reports – Department wise purchase, Item wise purchase and Pending orders being the most significant among them.

Open Document Format (ODF)

The OpenDocument format is an open XML-based document file format for saving and exchanging editable office documents (including memos, reports, and books), spreadsheets, charts, and presentations. OpenDocument was developed as an application-independent file format by a vendor-neutral standards developing

² www.it.delhigovt.nic.in

³ In the year 2004, the total cost of IT procurement was INR 7350293 against 52 orders and in 2005 this was INR 35201624 against 117 orders.

organization OASIS (Open Organization for the Advancement of Structured Information Standards), with the participation of multiple office application vendors. For Key benefits of using ODF, see Exhibit 6.

OpenDocument is owned by OASIS, and is a genuine vendor-neutral, open standard specification free from royalty and restricting encumbrances. All developers are free to work with it. In fact, OpenDocument is the only standard for editable office documents that has been vetted by an independent recognized standards body, has been implemented by multiple vendors, and can be implemented by any supplier (including proprietary software vendors as well as developers using open source software licenses such as the GNU LGPL or GNU GPL).

Using open standards like ODF ensures that the users' information is accessible across platforms and applications, even as technologies change. Organizations and individuals that store their data in an open format avoid being locked in to a single software vendor, leaving them free to switch software if their current vendor goes out of business, raises its prices, changes its software, or changes its licensing terms to something less favourable for the user. Adoption of open standards is particularly important for governmental applications because it can effectively ensure that a government document saved today will not be technologically locked tomorrow.

Support to read and create documents must include people with disabilities. The ODF Alliance supports the work of the OASIS ODF accessibility subcommittee. The Alliance also identifies the requirement that ODF implementations must support the platform(s) accessibility features, and test and identify the assistive technologies that support their claim of accessibility⁴.

Embracing of ODF by DoIT, GoNCT Delhi

A year had passed since the procurement system by the DoIT GoNCT Delhi to be in place, Prakash Kumar felt confident about the robustness of the system in place. With a click of a mouse button, he can now see which procurements were getting delayed and can go back to the problem so that it does not repeat itself in future.

⁴ As obtained from www.odfalliance.org

It was during this time that he had received a CD containing OpenOffice version 1.0 from Sun Microsystems along with a covering letter that it was available for free and was also uploaded in a website from which it may be freely downloaded. Prakash Kumar, being a tech-savvy decision maker, immediately had it installed in his office computer to have a look at its features. He was enthralled to see its advanced features and that almost any thing in word processing could have been done using it. When asked about his preference for OpenOffice, Prakash Kumar told "...the majority of the end-users across various departments and offices in the GoNCT Delhi are using computers for word processing and, provided they have e-mail facility, communicating using e-mails...hence the need for a good Office Suite will be the highest among all the software that we may purchase....if OpenOffice can come with such advanced features and is so much user friendly, why don't we go for this? After all, the best part is that it comes for free and can be passed on to other users free of cost, without the word piracy coming in...." For making his premonition further, he started looking for the information if any other state governments have started using it. He came to know that Sun Microsystems had made a contract with the government of Haryana and they were quite happy using it.

Prakash Kumar thought if that is the case, then he would better not leave this opportunity to save huge amounts of money that his government is paying as licensing fees. To make his decision solid, he should have started looking at the trends of software purchase across various departments in the last one year (see Exhibit 7), which he did not as he experienced that majority of the purchases done were for Office suite licenses from one proprietary software vendor only. He found no need to revisit the data and confirm the numbers. Prakash Kumar thought he was heading towards the right direction. Initially he thought of calling a meeting of other concerned officers from the DoIT to discuss about making the usage of OpenOffice mandatory. However, he thought, this would make the whole process go through rounds and rounds of discussion and if some bureaucrat gets influenced by these proprietary Office Suite manufacturers (as this step would obviously mean a huge loss of revenue to them); it will be difficult for him to manage the change. Moreover, he was a bit thoughtful about how to bring this into more than two hundred departments and government offices of the Delhi GoNCT.

This decision dilemma kept him quite busy for a couple of days, when he thought that he himself being the Secretary of DoIT, is competent enough to issue a circular regarding this. Moreover, from making the change drastic and enforcing everybody to move to OpenOffice, the change may be managed better if he tried to show the real value proposition of embracing OpenOffice and make the change happen gradually. Accordingly, he issued the circular (see Exhibit 1) and waited for remarks to come in.

Days after the Circular was Issued

Prakash Kumar got a mixed response from other departments and offices of the GoNCT. Some of the departments and offices had welcomed his circular, whereas others were hell bent on using the Office suite that they were habituated in using. "It is a bit difficult task to break into somebody's comfort zone as end-user's are quite habituated in using this Office suite from very early days", observed a thoughtful Prakash Kumar. Moreover, a number of times, it so happened that the end-user's carved for support on the new Office package that they are using. "Getting support from the market also becomes a bit difficult in case you are using OpenOffice or any other Open Source Software. Getting somebody to quick-fix a MS Office product is quite easy, but that for Open Software is a bit difficult", said Prakash Kumar. However, when he was made aware of the fact that the support may be bought from any of the software providers whose Office suite complies to ODF, Prakash Kumar was curious about the cost implication that would mean "...look, the main reason why we had been talking of OpenOffice was that it came for free, even if we go for buying the support, that would mean some cost attached to it..." argued Prakash Kumar, however, he felt interested to have a look at the cost implications of licensing for support and migration cost to ODF compliant Office Suite (see Exhibit 8). "But is cost the sole dimension that you are considering?" asked one of his friends while having an informal chat at his office. "Actually no", replied Prakash Kumar, "I'm also looking at the internal efficiency that gets created as one user may pass the office suite to some of her colleagues, which means that the internal efficiency of the organization goes up. Moreover, using OSS, anybody can design a better customer interface, not being dependant on what the vendor provides me. But the most important point is that, the moment you opt for ODF, you are no more locked in by the same vendor, year after year. Hence, although we have not formed any law like some of the other countries, we have ensured that what ever is the output from a computer, which must be readable by other systems as well."

Being inspired by this example, the state Judiciary System had developed systems base on OSS up to district level courts. Moreover, by December 2006, thirty one state run hospitals will be using Hospital Information Systems (being developed by Amrita Institute) developed using Open Source Software (OSS). Even all the IT to be used in the Institute of Liver and Biliary Services, a super speciality hospital first of its kind in Asia with a total budget of INR 3.5 billion, will also be using ODF standard office suits and all software being developed on OSS. This will mean that in total approximately 10,000 computers will be running on OSS. Moreover, Rajesh Aggarwal, Director of the Election Commission of the Government of India, is also currently working on adapting to ODF using OpenOffice. "If we succeed in this rollout by end-July, it may be geographically the largest deployment of OpenOffice in the world - as we will make it mandatory across all States and Districts to use it, train people, and ensure actual usage in all the Indian Languages," said Rajesh Aggarwal.

Santulan Choubey and Yogesh Khanduja of the DoIT of GoNCT Delhi were also very positive about ODF and OSS. Both of them saw a lot of value and cost-cut while using these for further development. Currently, the DoIT has sent circulars notifying the cost of computers using Linux and Windows and encourage users to start using Linux as it means huge amount of cost cutting for the government (see Exhibit 9). Referring back to the super speciality hospital of Liver and Biliary services, Mr. Khanduja calculated out the total cost benefit for going for Linux based computers (see Exhibit 10). Hence the cost boiled down to INR 6 million for development charges for the HMIS and variable charges of installation, training and hand-holding for a period of a year. The total savings coming out of this one project was a reason enough for the government to go for Open Standards. Though there is no external pressure, but looking at the cost implications and considering the performance imperatives (as downtime becomes very critical for government departments), everybody is changing to adapting Open Standards, slowly but surely. Albeit there is the inertia to change among the end-users; more from larger departments, where the number of users are more than four hundred. Even National Informatics Centre (NIC), which acts as the major advisory body to various government departments, have gradually started shifting towards Open Standards.

The Movement that Started at Commonwealth of Massachusetts

Massachusetts, like any other government, has a very complex and large IT infrastructure that had grown over years of IT accretion. The Information Technology Department (ITD) of the state of Massachusetts had come up with a number of policies and guidelines, that were updated regularly as needs and solutions evolve over time. The main objective of the ITD, as observed by its then CIO Peter Quinn, was to better manage the legacy of the state at the minimum cost and highest utility for the tax payers. As a part of this ongoing process, the ITD announced a brief Enterprise Open Standards Policy on January 13, 2004 (see Exhibits 11 & 12) based upon an earlier draft that had been released for comment the preceding year. The whole aim was to make the existing systems as interoperable as they can be to meet the business requirements of its agencies and to effectively serve its constituencies. ITD of Massachusetts initially talked about *Open Standards*, implying that multiple vendors can compete directly based on the features and performance of their products. It also implied that the existing information technology solution is portable and that it can be removed and replaced with that of another vendor with minimal effort and without major interruption (see current version of the Enterprise Technical Reference Model at www.mass.gov). In this context, the ITD had released a detailed roadmap for Enterprise IT Strategy⁵ in February 2003 and updated it to the Enterprise Technical Reference Model⁶ (ETRM) version 3.5 in September 2005. The ETRM, in turn, provides the detailed roadmap for carrying this policy into action, and forms the cornerstone of Massachusetts' concerted effort to transform its IT infrastructure into a lower cost, more durable, vendor-independent, cohesive platform for its operations.

A year later in 2005, Secretary of Administration and Finance of the Commonwealth of Massachusetts, Eric Kriss, made a public informal comment on Open Standards and indicated that the Commonwealth of Massachusetts was extending the definition of Open Standards to include what they would call *Open Formats* as open formats are specifications for data file formats based on an underlying open standard, developed by an open community, and affirmed by a standards body; or *de facto* format standards controlled by other entities that are fully documented and available for public use under perpetual, royalty-free, and

⁵ Available online at <http://www.mass.gov/Aitd/docs/itcommission/pdf/finalreportprint.pdf>

⁶ Available online at http://www.mass.gov/Aitd/docs/policies_standards/etrm3dot5/etrmv3dot5intro.pdf

non-discriminatory terms⁷. In this informal briefing, Kriss also indicated that the OASIS Open Document Format (ODF) will be the likely choice.

During the following months, a public meeting and many private consultations were held between members of the ITD and representatives of technology companies, industry associations, and open source advocates, among others, culminating with the announcement on August 29th that a final decision would be made on the open format issue following a brief, eleven-day comment period. Five entities (Adobe Systems, Inc., Corel Corporation, IBM, Sun Microsystems, and Hiser + Adelstein (a consulting firm)) provided comments in support of the proposed amendments that are individually posted at the ITD website. The only negative comments that are separately posted are those of Microsoft, and some Massachusetts public officials and representatives of organizations for disabled community members⁸. Positive comments came from a great diversity of individuals, including the Communications Officer of the United Nations, from many states, and from far and wide like Australia, England, Italy, Portugal, and Sweden.

On August 29, 2005, the long watched process of the Commonwealth of Massachusetts quietly reached its final phase. For the last twenty months, the ITD of Massachusetts had been planning for requisite changes in its internal IT policies relating to the use of "open formats" when saving documents created by the Massachusetts Executive Agencies. The impetus for such a change is to prevent vendor "lock in", and also to lessen the likelihood that public information will not become inaccessible in the future due to changes in proprietary software, or the discontinuance of support for such software. On August 29, 2005, the Information Technology Division (ITD) of the Commonwealth posted a new version of an information technology policy amendment on its Website, together with a statement that it would become final following a brief, eleven-day comment period. No press release was issued, and the first widely noticed note of the event appeared as a two sentence posting by Richard Waters, a *Financial Times* correspondent living in San Francisco, to the Financial Times Website (see Exhibit 13).

⁷ Details may be referred at http://www.mass.gov/eoaf/open_formats_comments.html

⁸ A single datafile containing all the comments is available at http://www.mass.gov/Aitd/docs/policies_standards/etrm3dot5/responses/allresponses.pdf

On September 21, 2005, the proposed amendments became final, and Massachusetts became the first jurisdiction in the world to mandate the saving of documents using only software that complies with the Open Document OASIS Format (ODF).

The humble way that the ITD had changed its IT policy is seen by many end-users as the first victory of a revolution in government information technology (IT) policy that will spread throughout the world, seeking to liberate end-users from dependence on limiting proprietary solutions and the risk of abandonment, and guaranteeing that long term access to public documents will be assured. Some others feel that the step may prove to be a disastrous way of handling the proposed change and was being made advanced too fast⁹.

History of Open Document Format

The Open Document Format (ODF), that eventually is pushing forward positively for becoming the standard, is based on an office suite that has been widely used by a number of users at a point in time and has evolved through experiences over past many years. The original suite was developed by a German company called Star Division in the mid-1980s. In August 1999, Sun Microsystems had bought this office suite for a whopping amount of US \$73.5 million. The initial purpose of Sun was to offer its own office suite in the market, in competition with existing office suites, like the one that of Microsoft. In the initial few months, this office suite, called Star Office 5.2, was being sold as a commercial product. However, in the year of 2000, when the newly organized OpenOffice.org project was launched, Sun Microsystems contributed most of the code of its Star Office, to become the basis of the open source office suite. The main objective of the OpenOffice.org project was to build a multiplatform and multilingual office suite and an open-source project. The aim was to make an office suite compatible with all other major office suites, and make this product free to download, use, and distribute¹⁰. Future versions of the StarOffice software, beginning with version 6.0, have been built using the OpenOffice.org source, APIs, file formats, and reference implications.

⁹ Updegrave, A. (2005). Massachusetts And Opendocument: A Brave New World? *Consortium Standards Bulletin*, IV(9)

¹⁰ More information may be obtained from www.openoffice.org

While the process of achieving this goal was begun in OpenOffice.org, observed Updegrave, co-founder of Gesmer Updegrave LLP, the technology law firm representing the consortia that creates and promotes open source software. The primary focus of OpenOffice.org had been to produce and maintain a high-quality office suite. As a result, a group of interested companies and others proposed the formation of a Technical Committee to standardize the OpenOffice Format within OASIS, a software standards consortium whose rules and process were deemed to be compatible with the creation of a standard based upon an open source application. While OASIS was a logical home for the project from a process point of view, standardizing a file format for complete office suites was an ambitious undertaking, in contrast to the computer-to-computer, transactional processes upon which OASIS has historically focused. As a result of this early transition, the majority of the format project was accomplished within OASIS rather than OpenOffice.org.

OASIS chartered what was originally called the OpenOffice XML Format Technical Committee (TC) in December of 2002. The original members of the TC were nothing if not diverse: Arbortext, Boeing, Corel, CSW Informatics, Drake Certivo, National Archive of Australia, and New York State Office of the Attorney General, Society of Biblical Literature, Sony, Stellent and Sun Microsystems. Later, other organizations joined the committee, including KOffice and IBM, each of which has created its own office suite that supports OpenDocument. Some, but not all, of the suites that support OpenDocument are based upon open source software developed by OpenOffice.org, which continues to offer an open source office suite that is committed to compliance with the OpenDocument OASIS Standard.

With the transfer of rights in the file formats to OASIS, the relationship between the OpenOffice.org code and architecture and what is now called the OpenDocument format was reversed. Given the diverse composition of the OASIS TC, the needs of end users, archivists and XML experts as well as vendors interested in productizing the format were directly represented in the development process, resulting in a balancing of interests that does not naturally exist within the development process of a single vendor that is strongly motivated by cost and time concerns as well as market considerations.

The new TC did not simply begin where OpenOffice.org left off, but instead spent more than a year analyzing the existing format in detail in order to determine what to retain, what to change, and what to add, thereby ensuring that the finally adopted standard would be vendor neutral, application independent, and as

interoperable as possible. More than a year of additional work was required to take the resulting format to a third and final vote by the TC in March of 2005. The draft standard was also posted for public review during the process, and the many comments received from non-members were reviewed for merit and inclusion by the TC. The resulting OpenDocument 1.0 was approved by the full membership of OASIS two months later, becoming an OASIS Standard in May of 2005.

OpenDocument 1.0 was submitted by OASIS in September 2005, to the Joint Technical Committee of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), a committee formed by the two "Big Is" to create IT standards, and more simply known as ISO/IEC JTC 1. Since OASIS is an international standard setting organization in its own right, the submission was made using the ISO/IEC JTC 1 "Publicly Available Specification" (PAS) approval process, rather than through a national member body of ISO/IEC JTC 1 (such as ANSI, the American National Standards Institute). The PAS process was created specifically for such purposes, in order to provide a fast-track approval option for globally adopted specifications that have been created through an open, consensus-based process, but outside of an accredited software development organization (ebXML, another OASIS Standard, was earlier approved via a similar route and become ISO 15000).

The TC that created OpenDocument will continue to operate indefinitely, and remains open to new voting and observer members. Currently, it has launched version 2.0, and its future work plans include both the addition of new features and capabilities, as well as meeting needs of office suite users as they continue to evolve¹¹. However, Sun Microsystems still continues to be a major patron of the OpenOffice.org project and provides support in majority of the efforts of OpenOffice.org.

Evolution of ODF

On **November 4, 2005**, something of a historic meeting was held at the IBM Learning Centre in Armonk¹². Sun Microsystems and IBM, who had rarely shared a marquee in the past, committed to ODF as full partners in this endeavour. They

¹¹ Updegrove, A. (2005). Massachusetts And Opendocument: A Brave New World? *Consortium Standards Bulletin*, IV(9)

¹² Updegrove, A. (2006). *First Report from Armonk ODF Meeting The ODF Train is Leaving the Station*. Retrieved June, 2006

were joined by a host of other companies like RedHat, Novell, Adobe, Corel, Computer Associates, Force 6 3, Google, Nokia, including Peter Quinn, Massachusetts CIO, and representatives of OASIS and OSI, RedMonk. The meeting was historic due to the high degree of unanimity of the purpose of ODF among the attendees. Some of the notable decisions taken in this meeting was addressing the accessibility issue and to close gaps between Microsoft Office and ODF as soon as possible and even try to deliver an Open Office which will be much ahead in terms of functionalities that the existing Office suites prevalent today. The formation of an alliance among partners for the purpose of pushing boundaries was also proposed by IBM.

On **March 3, 2006**, thirty six companies, associations and end-users announced the formation of the ODF Alliance. The mission of this alliance being globally educating: policy makers, IT administrators and the public on the benefits and opportunities of ODF, to help ensure that government information, records and documents are accessible across platforms and applications, even as technologies change today and in the future. The alliance included companies that most vocally had supported the ODF till date (like Sun, IBM and Novell), some of the companies (like RedHat, Corel and Oracle) that have been privately or publicly been on the periphery of the effort, closely affiliated non-profit organizations (like OpenOffice.org and the Open Document Fellowship) and a variety of end-user's across the world¹³.

On **March 31, 2006**, Bristol City Council decided to move to StarOffice (which complied with ODF standards) by converting 5500 desktops from MS Office to Star Office. Interestingly, the decision was taken by looking at the Total Cost of Ownership (TCO) of having MS Office over a period of 5 years. Moreover, Bristol City council was keen on having a unified document standard as it was facing problems with various products and various versions of the office suite¹⁴.

On **April 3, 2006**, the National Archives of Australia (NAA) decided to move its digital archive program to software that supports ODF. The significance of this example is that the NAA gathers in materials from many sources, in many different formats, which will need to be converted to ODF compliance for long term archival storage. NAA felt that it cannot tell people that "we accept on this

¹³ Updegrave, A. (2006). *ODF Alliance Formed to Push ODF Adoption by Government*. Retrieved June, 2006

¹⁴ Updegrave, A. (2006). *We Are Not Alone: Bristol City Council Converts 5,500 desktops to StarOffice*. Retrieved June, 2006

format” and that they had to deal with whatever came their way. For this reason, the sole solution was adhering to ODF¹⁵.

On **May 3, 2006**, the ISO/IEC accepted ODF as an ISO standard. ODF is now ISO/IEC 26300. With this adoption by the ISO/IEC, ODF will become more acceptable to various members of the governments across the world. India had also voted in favour of ODF for it being adopted as an ISO standard. On May 12, 2006, Gartner reacted to the ISO acceptance of ODF (see Exhibit 14).

Currently, thirteen nations across the world are planning to adapt to ODF standards. Recently, for example, Denmark has decided to opt for ODF by 2008. Keeping in pace with the development of the acceptance of ODF and OSS (Open Source Software) globally, a number of initiatives were taken in Asia. In Malaysia, for example, Malaysian Government Interoperability Framework for Open Source Software (MyGIFOSS) has listed ODF as the choice for Office Productivity Suites in February 2006. Similarly in Indonesia, Ministry of Research and Technology plans to implement Java Desktop System (JDS) on Linux as a national-standard desktop, custom-designed for its own culture. Thailand has planned to develop courses for all levels on computer and communications, where the subject will include training materials focusing on the Open technologies and OSS. In China, a number of initiatives are being taken to promote ODF and OSS and a number of public sector projects are being executed on these. Again, Sri Lanka being an ISO member country has voted favorably for ODF. This was declared by the Cabinet of the Government of Sri Lanka (GOSL) during the National Free and Open Source week 2005. In South Korea, the government announced that by 2007 it plans to replace proprietary software with open-source alternatives on a substantial number of its PCs and servers. Moreover, the South Korean government rolled out a homegrown open-source platform to 10,000 schools in the country. Similar initiatives were being taken by a number of other Asian countries like Pakistan, Bangladesh, Singapore and Taiwan etc. (for detailed discussion on the initiatives taken in these countries, see Exhibit 15).

The India ODF Alliance

Heat was catching up in India as well.

¹⁵ Dahdah, H., & Updegrave, A. (2006). *A National Archive Moves to ODF*. Retrieved June, 2006

Regular proponents of ODF who had their presence in India had grouped up. In March 2006, Jaijit Bhattacharya, Country Director for Government Strategies, Sun Microsystems, Dravida Seetharaman of IBM, Venkatesh Hariharan of RedHat and Sasi Kumar of CDAC had an initial meeting and decided for a workshop sensitizing other partners like Novell as well. A broad framework of the road ahead was also discussed. Accordingly, on May 24, 2006 a workshop was organized among the India Alliance partners for discussing the road ahead. Jaijit Bhattacharya of Sun emphasized on the importance of adhering to Open Document Format as an economic necessity for a fast growing country like India. He emphasized on the presence and acceptance of standards in various areas in the Indian society and referred to vendor lock-in as a major challenge for the governments and common public. In similar lines, Ashish Gautam of IBM referred to document *pain-points* referring to the importance of documents re-use and re-referral in departments of governments are more crucial and necessary than other customers perhaps. Jaijit emphasized the use of Star Office 8.0 being now ready adhering to ODF and similarly other office suites like KOffice, IBM Workplace, TextMaker, AjaxWrite, AbiWord etc. (see Exhibit 16 for screenshots from different ODF implementations). The group decided to have a press briefing on 14th June, 2006 where the main idea will be to make the public aware of the ODF and its benefits and ODF Alliance India will be launched.

On 14th June, 2006, Jaijit Bhattacharya of Sun Microsystems announced the formation of the ODF Alliance India in a brief press release. Jaijit emphasized the importance of such an alliance in the Indian context as India has a strong presence in the International IT business, although the digital divide here was more prominent than a host of other countries. "We believe", said Jaijit with confidence in air "that ODF India Alliance will prove to be substantially beneficial for a developing country like us. With low cost and free market, Indians will not only garner more innovations developed on these standard platforms, but we will also be able to touch upon the huge masses of people who has been left out in the IT revolution. I feel positive vibes going around the opportunities that ODF has in India. As a nation, we must grab this opportunity!"

Challenges Faced by DoIT, GoNCT Delhi and the Road Ahead

"The most prominent challenge", said Mr. Santulan Choubey, "is getting the requisite manpower who can work on Open Source Technologies. Moreover, in

case of using OpenOffice, users familiarized with using MS Office, rarely try to change. The inertia to change is a major challenge". Prakash Kumar was also conforming to this. "Although a number of terminals have changed from Windows to Linux in the last two year's time, but the support that you get from the market is not adequate. Moreover, it becomes difficult for an ordinary end-user with non-technical background, to cope up with the changes", added Prakash Kumar. To even this change management, DoIT has started training end-user on OSS and ODF Office Suites. Till date (see Exhibit 17), a substantial number of people have been trained by the DoIT. The training is conducted centrally with each of the department nominating employees from training. Moreover, to avoid the inertia to change to Open Standard software, especially ODF, DoIT has targeted users who are using the computer for the very first time. They have found that in these cases, the user's are quite comfortable using ODF and have been using it without any complaints. One department that has already trained a substantial number of its employees in ODF is the Department of Food Supplies and Consumer Affairs, GoNCT of Delhi. On asking the usability and comfort of using OpenOffice in the consumer forum in the above mentioned department, Devraj Singh and Satish Minocha, who are actually using OpenOffice since last year said that they do not see any problem using OpenOffice for their regular usage. Their task being mostly word processing, they can work as fast using OpenOffice, as they had using MS Office. Sanjeev Chadhdha, another end-user, remarked that the training that DoIT had conducted for ODF was meant for novices only and hence, they were not made aware of the advanced features of OpenOffice, till the point they had discovered it themselves.

"But we are trying our best", remarked Choubey, "why will any of the end user bother about shifting from the office package that they have been using and have been trained from their school days, unless it promises of such advanced features that people find value and have no other way, but to switch". Prakash Kumar, incidentally, was trying to focus on the availability of man-power trained in ODF and OSS, to make it easier for employers to think of switching to ODF completely. "Today recruiting a Linux administrator, for example, is costlier than that of people who are aware of proprietary technologies", added Prakash Kumar. "Moreover", said Choubey "I have actually tried my best to get people so claimed to be OSS expert, but then I have found them soon transforming to other platforms looking better job prospects." Both of them were agreeing that a must step for ODF Alliance, India was to start educating children right from school and also starting training centres to facilitate their job prospects. "Without

familiarization and having a strong support network, wide acceptance of ODF will not come so easily", remarked Prakash Kumar. How this should be done, that too in a country as diverse as that of India, remained the million dollar question. "This problem," told Jaijit to Anuradha Sen, another employee of Sun Microsystems primarily working for the ODF Alliance India chapter, "must be solved at first. Every Change has to go through some pain and we cannot lead this massive change in a diversified country like India, from behind. Let the one percent of population go through this change so that ICT becomes easier and feasible for the rest of ninety nine percent of the Indians, whom IT has not impacted till date, to be touched upon by the benefits of ICT." Jaijit asked Anuradha to have a talk with IBM India and decide to schedule a conference call with other key players of the ODF India Alliance, like Redhat and Novell and other India ODF Alliance members, to sort this out and coming out with a concrete and sustainable road ahead.

Govt. of N.C.T. of Delhi
DEPARTMENT OF INFORMATION TECHNOLOGY
9th Level, B – Wing, Delhi Secretariat,
I.P.Estate, New Delhi – 110002

NoF.6(7)/2005/19/Pt.file/3562

Dated:30-11-2005

CIRCULAR

Use of 'Open Office' Software.

Various departments/offices are using application software for Word-Processing, Spreadsheet and Presentation Tools for which the license Office Suite software is purchased through NICS. Presently, in the market new software named 'Open Office' is available which is free to use license and hence multiple copies of the same can be made and used in different offices without incurring any extra cost. Open office comes with application software 'Writer' for Word-Processing, 'Calc' for Spreadsheet application, 'Impress' for Making Presentation and 'Base' for Database Management.

Advantages of 'Open Office Suite':

- 'Open Office' is an open, feature-rich multi-platform office productivity suite. The user interface and the functionality is very similar to other products in the market but in contrast to these commercial products 'Open Office' is absolutely free.
- 'Open Office' is Graphical User Interface based user-friendly office productivity tool.
- 'Open Office' software reads all major Office Suite files for example User can open their existing word progressing files created using other word processor like MS-Word in 'Open Office Word Processor' ('Writer').
- Apart from being user friendly it also enables user to save the file in formats of other office suits like Microsoft Office or Lotus SmartSuite.
- 'Open Office' is able to read and write Microsoft Office files. This allows users to open and save Word, Excel and PowerPoint files on their preferred platform like Windows, Linux and Solaris.
- PDF export feature that enables user to easily create PDF files without the need for any additional third party software.
- 'Open Office' can export presentations and drawings to the Macromedia Flash format (.swf). Thus, it's possible to view presentations in a simple web browser.

In view of advantages of 'Open Office', it is widely used by many Governments and that to all free of cost, it being free to use license software.

All the Heads of Departments are requested not to put up proposal for purchase of any Office Suite software in future. We are enclosing a 'Open Office' CD and department can further copies as per requirement as it is free to use license software.

Department of Information Technology may be contacted for any difficulty, clarification or doubt that may arise in implementation of this order.

Sd/-
(Prakash Kumar)
Secretary (IT)

Copy for information to: -

- All HODs / Secretaries / Pr. Secretaries
- Chairman /MDs of PSUs
- All head of local bodies/autonomous bodies
- All Secretaries to the Ministers
- OSD to Chief Secretary
- Secretary to L.G.

Copy to:-

- NICS I with the direction not to give any quotation for any office suite software to any of the department of Government of Delhi, even on demand. NICS I will not accept any order for any office suit software from any department/organization of Delhi Government.



Exhibit 3. Website of the Department of IT, GoNCT Delhi (*it.delhigovt.nic.in*)



Exhibit 4. Website of the Government of National Capital Territory of Delhi (*www.delhigovt.in*)

Order Number / NICSI Project No.	Department Name	Order Date	Cheque Date	Due Date
18/2006/202	PRINCIPAL ACCOUNTS OFFICE	29/03/2006	29/03/2006	
8/2006/200	Department of Industries	29/03/2006	27/03/2006	
8/2006/201	Department of Industries	29/03/2006	27/03/2006	
113/2006/199	GTB HOSPITAL, GOVT OF NCT OF DELHI	27/03/2006	17/03/2006	
101/2006/198	Executive Engineer, Civil Division No. XI, I&FC Deptt., Govt. of Delhi,	23/03/2006	23/03/2006	
112/2006/195 51203/GEN/NCT	Guru Nanak Eye Centre	17/03/2006	10/03/2006	03/05/2006
21/2006/196	Urban Development Department	17/03/2006	13/03/2006	
117/2006/197 51205/GEN/NCT	Directorate of Health Services	17/03/2006	02/03/2006	03/05/2006
014/2006/192 51197/GEN/NCT	Power	16/03/2006	08/03/2006	01/05/2006
057/2006/193	PWD	16/03/2006	23/02/2006	
31/2006/194	Delhi Transco Limited	16/03/2006		
8/2006/191 51175/GEN/NCT	Department of Industries	10/03/2006	08/03/2006	24/04/2006
18/2006/190	PRINCIPAL ACCOUNTS OFFICE	08/03/2006	08/03/2006	

Exhibit 5. Online Procurement System at DoIT Source: *delhigovt.nic.in/procurement*

Feature	Benefit
OASIS standard	Open, transparent specification process with multi-vendor participation
Approved by ISO as ISO/IEC 26300	Well known and broadly accepted standard
ISO standard Relax-NG schema types (ISO/IEC 19757-2:2003)	Well known and broadly accepted standard
Supported by multiple applications	Choice between free open source and commercial implementations including OpenOffice.org, StarOffice, KOffice, IBM Workplace, Textmaker, Abiword/Gnumeric, Google Writely, and AjaxWrite.
Broad industry support	ODF guarantees long-term viability. The OASIS ODF TC, the OASIS ODF Adoption TC, and the ODF Alliance include members from Adobe, BBC, Corel, EDS, EMC, GNOME, IBM, Intel, KDE, Novell, Oracle, Red Hat, Software AG, and Sun Microsystems. As of June 2006 the ODF Alliance has already more than 200 members.
Shipping products since September 2005	ODF files can already be created and used today. The first products with ODF support started shipping in September 2005.
Free open source “reference” implementations	ODF is supported by multiple free open source office applications including OpenOffice.org, KOffice and Abiword/Gnumeric. OpenOffice.org, for example, is developed by large community including vendors like Sun Microsystem, Novell, Intel, and Red Hat. Due to the availability of the source code, support for additional platforms or languages can be added by anyone.
ODF implementations available for all major desktop platforms	Applications with ODF support are available for Microsoft Windows, Linux, the Solaris OS, Apple Mac OS X, and FreeBSD.
Open standard W3C XForms technology is used for forms	The forms concept integrated into ODF is based on the W3C standard XForms which is supported by multiple applications and vendors.
Reuse of existing standards where possible	Instead of trying to reinvent the wheel and to make interoperability as simple as possible, ODF reuses established standards like HTML, SVG, XSL, SMIL, XLink, XForms, MathML, and Dublin Core.
Very mature	The first work for the ODF file format started as early as 1999 (see the ODF history in Table 1).

Exhibit 6. Features and Benefits of ODF Source: *ODF Alliance India*

Year	Month	Total Purchase	Office Suite and/or License Purchased
2004	September	142089	128321.06
2004	October	26502	18334.2
2004	November	190157	151920.86
2004	December	62294	33696.64
2005	January	151206	19574.62
2005	February	402762	383668
2005	March	1592874	1508323.58
2005	April	424013	74870.04
2005	May	0	0
2005	June	31146	29968.64
2005	July	0	0
2005	August	14984	14984.32
2005	September	0	0
2005	October	18712	18712.32
2005	November	0	0
2005	December	43092	19644
	Total	3099831	2402018.28

Exhibit 7. Total Software Purchase across various departments of GoNCT, Delhi from Sep '04-Dec '05 *Source: delhigovt.nic.in/procurement*

	Year 1	Year 2	Year 3	Year 4	Total Lic Cost /user	Total Lic Cost for a 10,000 User Organization	Approx Cost INR (conversion rate 1 US\$ = 45 INR)
Licensing Cost per user							
Opt 1: Migrate to StarOffice	US\$50	\$0.00	\$0.00	US\$50	US\$ 100	US\$ 100,000	INR 4500000
Opt 2: Upgrade to latest version of MS Office and accept Software Assurance ***	US\$ 156	US\$ 156	US\$ 156	US\$ 73	US\$ 541	\$5.41 million	INR 243.45 million
Opt 2: Upgrade to latest version of MS Office and decline Software Assurance ***	US\$ 250	\$0.00	\$0.00	US\$ 250	US\$ 500	US\$ 5 million	INR 225 million
Option 1: SAVING						\$ 5.3Mn	INR 238.5 million
Option2 : SAVING						\$ 4.9Mn	INR 220.5 million

Exhibit 8. Migration cost from MS Office (one of the non-ODF Office suite) to Star Office (an ODF Compliant Office Suite) Source: Sun Microsystems (India)

1				
Pentium based CLIENTS/NODES				
1.1	P-IV 3.0 GHz,256MB DDR RAM 400 MHz, 40 GB HDD, 17" SVGA monitor,OEMM,MM,FDD, 10/100 ethernet, 104 keys OEM keyboard, DVD ROM Drive, Win XP Prof , Antivirus S/W	INR 32100	3 yr. warranty	WIPRO/HCL/HP
1.2	P-IV 3.0 GHz,256MB DDR RAM 400 MHz, 40 GB HDD, 15" SVGA monitor,OEMM,MM,FDD, 10/100 ethernet, 104 keys OEM keyboard, 48x or higher CD ROM Drive, LINUX , Antivirus S/W	INR 26707.2	3 yr. warranty	WIPRO/HCL/HP
2				
Celeron based CLIENTS/NODES				
2.1	Celeron 2.66 GHz,256MB DDR SDRAM, 40 GB HDD, 15" SVGA monitor,OEMM,MM,FDD, 10/100 ethernet, 104 keys OEM keyboard, 48x or higher CD ROM, LINUX OS	INR 20972	3 yr. warranty	HCL/WIPRO
2.2	Celeron 2.8 GHz with 256MB DDR SDRAM, 40 GB HDD, 15" SVGA monitor,OEMM,MM,FDD, 10/100 ethernet, 104 keys OEM keyboard, 48x or higher CD ROM, Win XP Prof , Antivirus S/W	INR 26108	3 yr. warranty	HCLHP

Exhibit 9. Cost Differences in PC Configuration *Source: DoIT, Delhi*

Type of Hospital	No. of Nodes	Extra Financial Implication for Windows XP @Rs.3500 per node	No. of Hospitals	Total Amount Saved (INR)
A	200	700,000	3	2100000
B	300	1050000	20	21000000
C	400	1400000	8	11200000
			TOTAL SAVINGS	34300000

Exhibit 10. Savings from using Linux for Proposed Hospital Information Systems at GoNCT Delhi *Source: DoIT, Delhi*



Commonwealth of Massachusetts
Executive Office for Administration and Finance
Information Technology Division

Policy Area: Application/Application Development	Policy #: ITD-APP-01
Title: Enterprise Open Standards Policy	Effective Date: January 13, 2004

Issue Statement

The Commonwealth must ensure that its investments in information technology result in systems that are sufficiently interoperable to meet the business requirements of its agencies and to effectively serve its constituencies. This policy addresses the importance of open standards compliance for IT investments in the Commonwealth. For the purpose of this policy, open standards is defined as follows:

Open Standards: Specifications for systems that are publicly available and are developed by an open community and affirmed by a standards body. Hypertext Markup Language (HTML) is an example of an open standard. Open standards imply that multiple vendors can compete directly based on the features and performance of their products. It also implies that the existing information technology solution is portable and that it can be removed and replaced with that of another vendor with minimal effort and without major interruption (see current version of the Enterprise Technical Reference Model).

Applicability

Agencies within the Executive Department and vendors providing information technology goods and services to these agencies must comply with this policy.

Commonwealth's Position

- Effective and efficient government service delivery requires system integration and data sharing.
- Technology investments must be made based on total cost of ownership and best value to the Commonwealth. Component-based software development based on open standards allows for a more cost-effective "build once, use many times" approach.
- Open systems and specifications are often less costly to acquire, develop and maintain and do not result in vendor lock-in.

Policy Statement

- All prospective IT investments will comply with open standards referenced in the current version of the Enterprise Technology Reference Model.
- Existing IT systems will be reviewed for open standards compatibility and will be enhanced to achieve open standards compatibility where appropriate. Open standards solutions will be selected when existing systems are to be retired or need major enhancements.

Roles and Responsibilities

Information Technology Division

- Provide guidance and consultation to agencies on open standards compliance.
- Provide central services and infrastructure that comply with open standards.

Published January 13, 2004

Page 1 of 2

Exhibit 11. Policy of Open Standards for the Commonwealth of Massachusetts

Source: www.mass.gov

ITD-APP-01
Enterprise Open Standards Policy

Agencies

- Ensure compliance with this policy for all prospective IT investments including vendor oversight.
- Ensure all application development efforts build in reviews throughout the process to ensure enterprise architecture compliance (including open standards compliance).
- Review current systems for open standards compatibility and bring these systems into compliance when major enhancements are scheduled or when these systems are replaced.
- Contribute to the development of enterprise architecture and standards.

Compliance

- ITD will review all agency IT Investment Briefs, project plans and service requests for compliance with this policy before granting approvals.
- Agencies will integrate open standards compliance language in all IT bids and solicitations.

Related Documents

- Enterprise Information Technology Acquisition Policy
- Enterprise Technical Reference Model Version 1.0

Points of Contact

Questions or comments related to this policy should be directed to Standards@state.ma.us. The Director of Policy and Architecture, Information Technology Division will respond to all questions.

Exhibit 12. Policy of Open Standards for the Commonwealth of Massachusetts (contd...)

Source: www.mass.gov

Kosovo Report

→ click

FINANCIAL TIMES

Q&A: who controls the internet?

Quiz Jack Goldsmith, author of Illusions of a Borderless World, and Thomas W. Hazlett of FT.com's New Technology Policy Forum

SUBSCRIBE

▶ Sign up now or ▶ Take a Tour

Username

Password

Remember me Log in

Monday Jun 19 2006
All times are London time

SEARCH ▶

Go

QUOTES ▶

Go

Home UK

US | Europe | Asia

World ▶

Companies ▶

Markets ▶

Market data ▶

Managed funds ▶

Massachusetts software switch set to hit Microsoft

By Richard Waters in San Francisco
Published: September 1 2005 03:00 | Last updated: September 1 2005 03:00

The state of Massachusetts has laid out a plan to switch all its workers away from Microsoft's Word, Excel and other desktop software applications, delivering what would be one of the most significant setbacks to the software company's battle against open-source software in its home market.

Exhibit 13. Financial Times Report by Richard Waters on Sep-01-2005 Source: www.ft.com

ISO Approval of OASIS OpenDocument Is a Blow to Microsoft

Rita E. Knox, Michael A. Silver

International standards bodies' unanimous approval of ISO/IEC 26300 moves OASIS OpenDocument Format to being the official XML document format. It is now unlikely that ISO will adopt Microsoft's Open XML document format.

© 2006 Gartner, Inc. and/or its Affiliates. All Rights Reserved. Reproduction and distribution of this publication in any form without prior written permission is forbidden. The information contained herein has been obtained from sources believed to be reliable. Gartner disclaims all warranties as to the accuracy, completeness or adequacy of such information. Although Gartner's research may discuss legal issues related to the information technology business, Gartner does not provide legal advice or services and its research should not be construed or used as such. Gartner shall have no liability for errors, omissions or inadequacies in the information contained herein or for interpretations thereof. The opinions expressed herein are subject to change without notice.

Exhibit 14. Gartner's Reaction to ISO/IEC Certification of ODF

Country	Initiative	Remarks
Malaysia	<ul style="list-style-type: none"> ▪ In the February 2006 MyGIFOSS (Malaysian Government Interoperability Framework for Open Source Software), ODF is listed for choice of open source software for Office Productivity Suites • 1 June 2006: The MNCC Open Document Format SIG has been formed for promotion of ODF in Malaysia Its mission statement is to promote the adoption of ODF (Open Document Format) and open standards in Malaysia. • MIMOS :R&D , ICT advisors to government- launched 'Asian Open Source Center' to promote web based Asian collaboration (www.ASIAOSC.org) 	<ul style="list-style-type: none"> ▪ National Open Source Conference 2002: Minister Communications announced that the government will begin to implement OSS in various departments and ministries ▪ April 2002:PIKOM 'Association of Computer and multimedia in Malaysia' submitted white paper to government proposing official Open Source policy. ▪ 7th Asia OSS Symposium held in KL, Malaysia ▪ Deployment of SKALA (<i>Sistem Kalawan and Laporan</i>) – a Monitoring And Reporting System at nationwide level using PHP, PostgreSQL/ Linux/Apache ▪ eSILA (Sistem Latihan) – A system to monitor public sector Uses Linux / Apache / PHP / PostgreSQL ▪ IBM OpenPower Linux Seminar ▪ Open Source Developers Conference 2005 by NOVELL
Japan	<ul style="list-style-type: none"> • March 9, 2006 - Justsystems, Inc. announced the company's participation as a founding member of the ODF Alliance • Writely and Google Spreadsheet are promoting the ODF file format 	<ul style="list-style-type: none"> • Organizations supporting OSS: Association, Consortium, and Society, Japan Linux Association (JLA), TRON Association, Emblix (Japan Embedde Linux Consortium), Japan Unix Society, Linux Business Initiative, Open Software Technology Alliance
Indonesia	<ul style="list-style-type: none"> • Indonesia's Ministry of Research and Technology plans to implement Java Desktop System (JDS) on Linux as a national-standard desktop, custom-designed for its own culture. • Bought 7000 PC's with Java desktop (JDS) with Star office 8 	<ul style="list-style-type: none"> • Indonesian people are not only being OSS users but have also become OSS contributors
Thailand	<ul style="list-style-type: none"> • Develop computer and communication courses for all levels as the course wares, subjects including training materials focusing on the open technology and open source. • "Regional Open ICT Ecosystem" a seminar attended by a number of Asian governments. • Thailand hosted regional conference exploring how open standards can help achieving interoperability in e-Government implementation 	<ul style="list-style-type: none"> • 1st Asia Open Source Software Symposium (Asia OSS Symposium) was held in March, 2003 in Phuket, Thailand • Reformation and leveraging the country ICT R&D • Targeting the use of open source software and local software at 50% of the annual software market. • Develop the easy-to-use software by investing in supporting software development based on the government designed standards.
Philippines	<ul style="list-style-type: none"> • The Advanced Science and Technology Institute (ASTI) has advocated the use of open-source software in the Philippines • Development and implementation of open-source Community Based Health Information Tracking System (CHITS) Project • ICT for development projects implementing Open Source software and open system workstations 	
China	<ul style="list-style-type: none"> • 03-03-05: First China Open Source Software Week Held in China • OSS application in Beijing Government • Yangfan Project: Desktop Linux OS function operation (started in Beijing Municipal Corporation) 	<ul style="list-style-type: none"> • RedFlag is the largest OSS company in China • Industry customers in Government • Industry customers in educational institutions • 5th Asia OSS Symposium was held March 2-4, 2005 in Beijing and was one of the events of the first China OSS week

	<ul style="list-style-type: none"> Qinhang Project : Promotion of Linux desktop system and application software 	
Country	Initiative	Remarks
Sri Lanka	<ul style="list-style-type: none"> Sri Lanka is an ISO member country which has favored the ODF The Cabinet of the Government of Sri Lanka (GOSL) declared the above as during the National Free and Open Source week 2005 Sinhala Operating System based on Linux 2nd Sri Lanka FOSS Conference (International): For FOSS/IT developers/contributors focused on the LAMP stack 	<ul style="list-style-type: none"> 6th Asia OSS Symposium, held in Colombo in year 2005 During the recent Tsunami, a community of 80 Sri Lankan developers rallied to the cause to build a disaster management system CXO Conference: Targeting CIO, CTO and CEOs Software Freedom day: Advocacy for the general public Training Workshops: Basic and advanced FOSS training
Bangladesh	<ul style="list-style-type: none"> Bangladesh Open Source Network at SoftExpo2005 Organization, BIOS, promises Bangla Innovation through Open Source In ICT4D collaboration between D.Net and BIOS to develop ICT systems on Open Source 	
Pakistan	<ul style="list-style-type: none"> FOSSFP is a voluntary non-profit technology foundation which promotes OSS Free and Open Source Software Foundation of Pakistan announce the release of the latest Ubuntu Linux 6.06 LTS supporting Desktops and Servers in Pakistan IBM Offers Free Technologies to Universities to Accelerate Open Standards Development Skills 	
Singapore	<ul style="list-style-type: none"> March, 2006:Alliance formed to promote improved access to and retrieval of electronic government documents Resolvo pushes for Government adoption of Open Document Format (ODF) 	
Korea	<ul style="list-style-type: none"> The South Korean government has announced that by 2007 it plans to replace proprietary software with open-source alternatives on a substantial number of its PCs and servers Korea Plans to Build Linux City and a University The South Korean government rolled out a homegrown open-source platform to 10,000 schools in the country. 	
Taiwan	<ul style="list-style-type: none"> 2005 Golden Penguin Greater China Open Source Software Competition to promote OSS 	<ul style="list-style-type: none"> 4th Asia OSS Symposium was held in Taipei, Chinese Taipei, from September 1-3, 2004. It was hosted by CICC and IIS, Academia Sinica, Chinese Taipei

Exhibit 15. ODF Initiatives in Asia (except India) *Source: Contribution by ODF Alliance India*

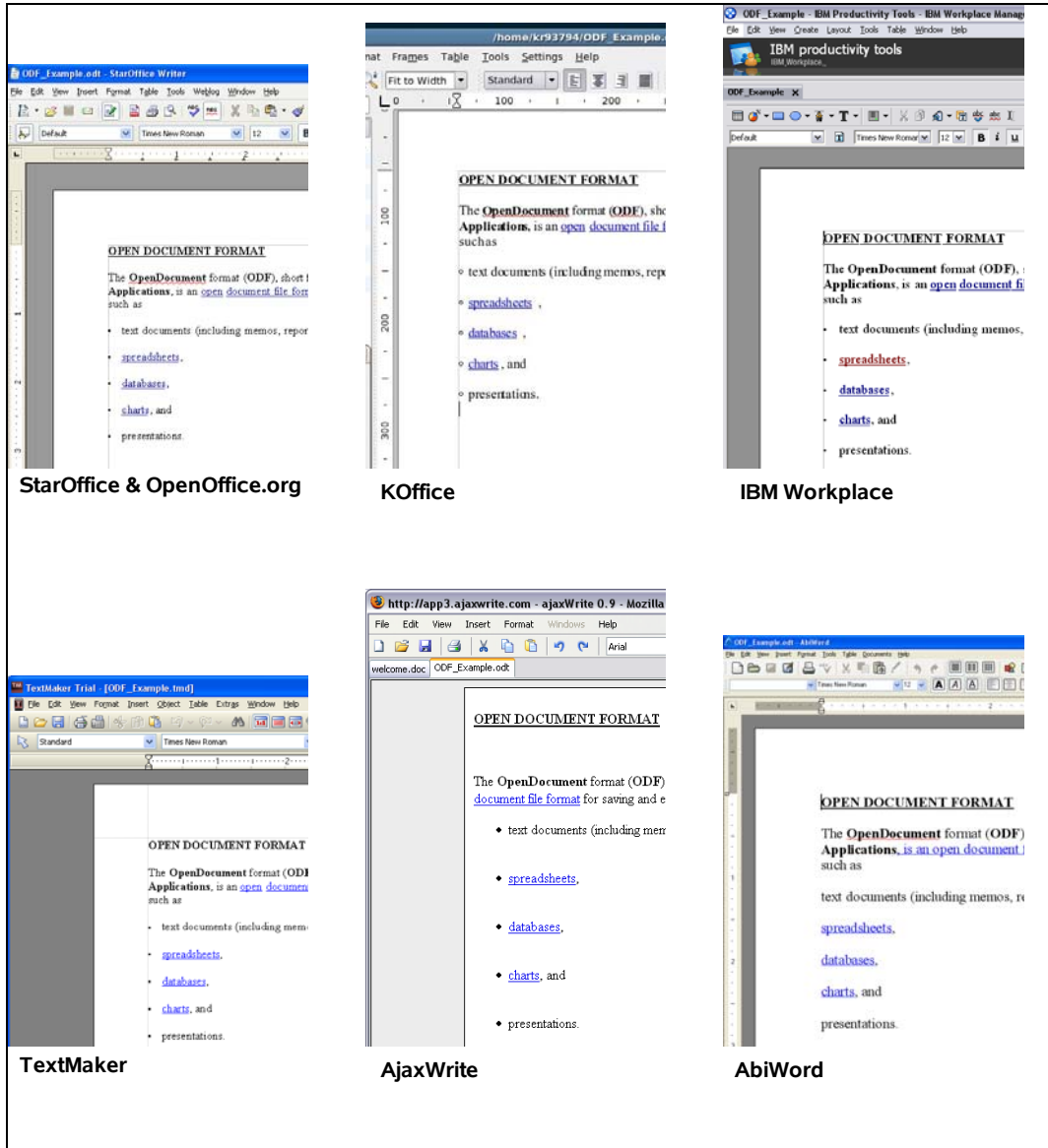


Exhibit 16. Screenshots from different Office Suites adhering to ODF Source: ODF Alliance India

Employees Computer Training in Department of Information Technology, GoNCT Delhi during **22-April-2003 to 04-June-2006**

Total students nominated For Computer Training	3030
Total students trained	2305
Summary	
Total students nominated For Basic Computer Literacy	2469
Total students trained For Basic Computer Literacy	1909
Total students nominated For Advanced MS Excel	
	234
Total students trained For Advanced MS Excel	162
Total students nominated For Web Technology	
	114
Total students trained For Web Technology	75
Total students nominated For DBMS	
	19
Total students trained For Data Base Management System	9
Total students nominated For Open Office	
	204
Total students trained For Open Office	150

Exhibit 17. Number of employees trained in various subjects by central training provided by DoIT, GoNCT Delhi *Source: DoIT, GoNCT Delhi*