



Open Document Format

Open Systems For Open Minds

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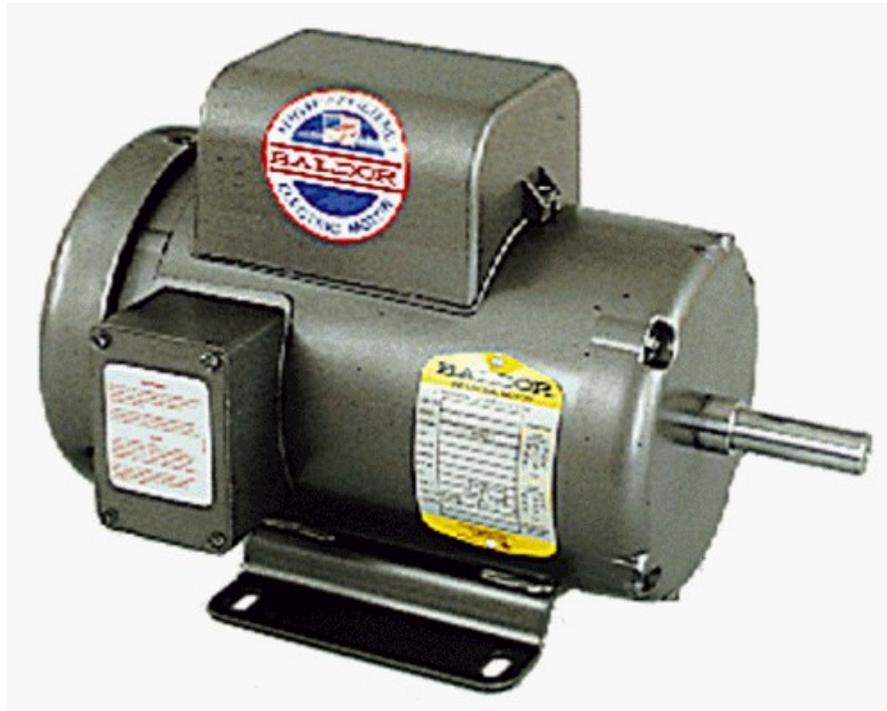
A truly open Standard



**Open Document Format for Office
Applications (OpenDocument) v1.0**

OASIS Standard, 1 May 2005

Would you rather own a patent on...?



Sun: A History of Community



Sun's Open Source Initiatives



—monthly



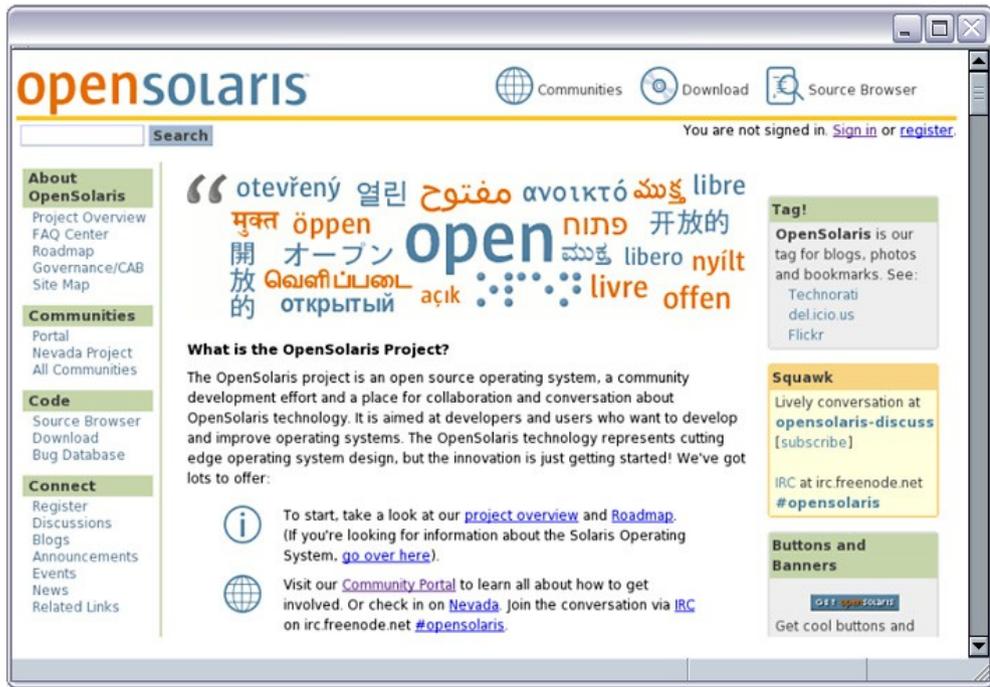


opensolaris™

OpenSPARC™

OpenSolaris

opensolaris™



11,000 members* (in just 6 months)

30 major community projects, BrandZ, DTrace, Solaris™ ZFS, Z

25 User Groups Worldwide

27,500 Downloads

4 Open Solaris™ Distros Available: Solaris™, SchilliX, BeliniX, Nexen

Community Recognition:

2005 Open Source World Editor's Choice, Solaris Eng: InfoWorld Innovators Award, Bryan Cantrill:

Top 35 Young Innovators – MIT



Innovation Happens Everywhere

www.opensolaris.org

*Source: Sun 2/06 – For latest, see: <http://www.opensolaris.org/os/community/marketing/metrics/latest/>

OpenOffice.org



Home of the leading
multi-platform open source
office suite

More than 55M downloads*

More than 300K completed users
surveys since v2.0

More than 35,000 unique
mailing list subscribers

More than 680 signed Joint
Copyright Agreements

Over 80 projects (incl. 52 native-lang.
projects)

OASIS OpenDocument

www.openoffice.org

*Source: Sun 2/06 – See website for latest stats

OpenSPARC.net

OpenSPARC™

OpenSPARC™

Home

Welcome to OpenSPARC.net

OpenSPARC
Specifications New!

Get Connected
News
Events
Community Registration
Mailing List
Forum Registration
Forums
Registration Help

Cool Threads
Feature Story
FAQ
UltraSPARC
UltraSPARC-T1
Performance
Cool Stuff

Goals of the OpenSPARC Initiative

- To significantly increase participation in processor architecture development and application design by making cutting-edge hardware IP freely available.
- To eliminate barriers to the next big build-out of the Internet.
- To improve collaboration and cooperation among hardware designers.
- To enable community members to build on proven technology at a markedly lower cost.
- To encourage innovation.
- To foster bringing bold new products to market.

Sign Up Now!

To learn more about OpenSPARC register signup:

- Community Register
- Mailing List
- Forum Registration
- Forums

Blog Roll

Keith Adams
David Berlind
Keith Bierman
Jamie Cardoso
Luis Cargnini
Chi Chang
Yuan Chou
Peter Coffee
David Davidian
Richard Elling

Updates and News

Beta Program Open!
The beta program for OpenSPARC T1 is now open. If you are interested in taking an early look at the OpenSPARC T1 RTL

First 64-bit, 32 Thread Architecture
RTL code available under GPLv2
license

Announced Dec. 6 2005, Available
March 21 2006 at
www.opensparc.net

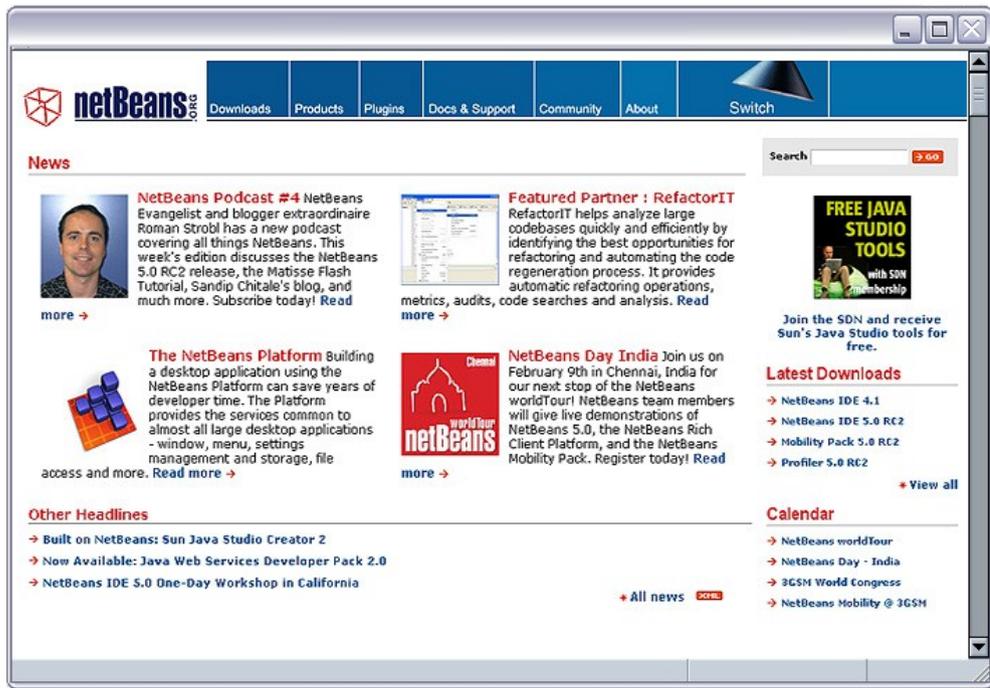
Linux port already in progress by
community member

Overwhelming demand for beta
program by both corporations and
universities

"Sun's decision to release Verilog source code for the UltraSPARC hardware design under a free software license is a historic step - Sun is showing its profound understanding of the forces shaping our technological future in making this decision"

-- Eben Moglen, founding director of the Software Freedom Law Center

NetBeans.org



Over **8M** IDE downloads
and gaining momentum

Over **3M** page views per
month

Over **330,000** mailing list
subscribers

Over **40** industry
endorsements

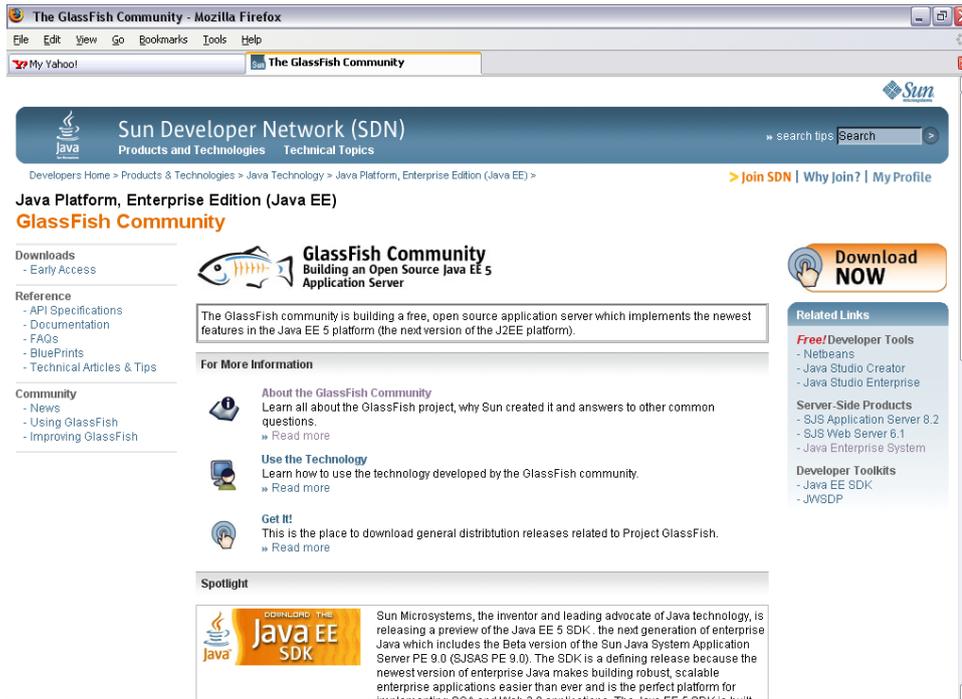
Tripled active user base in
the
past year



Project GlassFish



Project GlassFish



Building a Java EE 5 open source application server

Source: Sun 2/06 – See website for latest stats

Over **1200** members and **200,000** downloads

Includes **Java EE 5, JWSDP** and other Web services technologies

CDDL license – Free to download and free to deploy

Builds best with NetBeans, available Eclipse plug-in
Basis for the Sun Java System Application Server PE 9

Java.sun.com/javaee/GlassFish

Myths About Open Source

1. Open Source developers will build your project for Free
2. Open Source is anti-business
3. Open Source projects are hostile to corporate developers
4. Open Source software never really ships on time (or at acceptable quality)
5. Nobody really makes money

Truths About Open Source

1. 45% of CIOs in the Fortune 2000 are looking for an alternative to proprietary OS
2. Linux: massive worldwide deployments
3. Open Source no longer synonymous with “free” or no/low value technology
4. 55% of Open Source developers at OSDN are paid to work on at least one Open Source project
5. Venture capitalists are investing in open source companies
6. Companies can redistribute open source software and charge for different value-added services

Why Open Source

- Massive peer review means higher overall quality
- Promotes unexpected innovations
- Creates opportunity for developers to innovate and develop new applications on the shoulders of existing ones
- In the “Participation Age” open source communities share technology & knowledge to refine and improve their own businesses, communities and society

Benefits of Open Source

Good For Customers

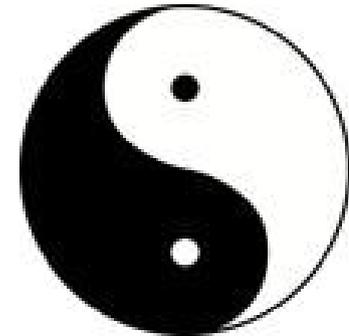
- Community drives competition, choice, value
- Accelerates unexpected, disruptive innovation

Good For Sun & Partners

- Innovation happens everywhere
- Creates new opportunities by growing the market

Open Source Mantra

- Three Golden Rules:
 - > **Collaborate**
over what does not differentiate
 - > **Compete**
by innovating on the commodity base
 - > **Contribute!**



The Contributors

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What is OpenDocument Format (ODF)?

- Open standard specification for displaying and storing data files
- Only available open, vendor-neutral, standardized format for office applications
- Can be implemented by any document processing application vendor
- Provides access to documents, independent of the applications that created them
- Approved by OASIS in May 2005
- Submitted to ISO for international standardization: Vote closed May 1, 2006 with overwhelming approval

Why ODF?

- Long-term reuse of and access to data
- No lock-in to proprietary tools or undocumented formats
- Competitive data processing products
- Reduced costs
- Increased reliability, because more data automation
- Platform independence
- Interoperability

History

- 1999
 - > Development of StarOffice XML file format starts
 - > Primary goal: interoperability
- 2000
 - > Foundation of OpenOffice.org and OpenOffice.org XML project
 - > Sun contributes StarOffice to OpenOffice.org
 - > Name change to “OpenOffice.org XML”
 - > OpenOffice.org XML becomes open source community project
 - > First OpenOffice.org XML working draft available

History

- 2001
 - > 1st OpenOffice.org XML implementation (OpenOffice.org 1.0 and StarOffice 6.0)
 - > Used as default file format, no alternatives
 - > Used by all applications
 - > Proof of concept
- 2002
 - > OpenOffice.org/KOffice collaboration on package format
 - > Foundation of OASIS Open Office Technical Committee
 - > Goal: vendor independence
 - > Basis of TC's work: OpenOffice.org format

History

- OASIS Open Office XML charter (extract)
 - > The purpose of this TC is to create an open, XML-based file format specification for office applications.
 - > The resulting file format must meet the following requirements:
 - > it must be suitable for office documents containing text, spreadsheets, charts, and graphical documents,
 - > it must retain high-level information suitable for editing the document,
 - > it must be friendly to transformations using XSLT or similar XML-based languages or tools,
 - > it should 'borrow' from similar, existing standards wherever possible and permitted.

History

- 2004
 - > OASIS Open Office XML Committee Draft 1 and 2
- 2005
 - > Name change to “OASIS Open Document Format for Office Applications (OpenDocument)”
 - > Emphasizes application and use case independence
 - > OASIS OpenDocument v1.0 gets approved OASIS standard

- 2005

>  **OpenDocument**

History

- Changes from OpenOffice.org to OpenDocument
 - > New XML Namespaces
 - > Schema language: Relax-NG (OOo: DTD)
 - > Schema/Validation improvements
 - > Elements for document classes, etc.
 - > Attribute value data types (XSD)
 - > Adoptions to new standard versions
 - > SVG 1.1, CSS3, etc.
 - > Adoption to new/other office applications
 - > Removal of inconsistencies, error corrections

OASIS OpenDocument TC

- Adobe Systems
- Blast Radius Inc.
- IBM
- KOffice
- OpenOffice.org
- Society of Biblical Literature
- Sun Microsystems

The Advantages of OpenDocument

- Shared control
- Open transparent specification process
- Based on broad experience
- Various implementations
- Any vendor or user can join (incl. governments!)
- Free open source “reference implementation”

=> Choice & Competition

OpenDocument Application Support

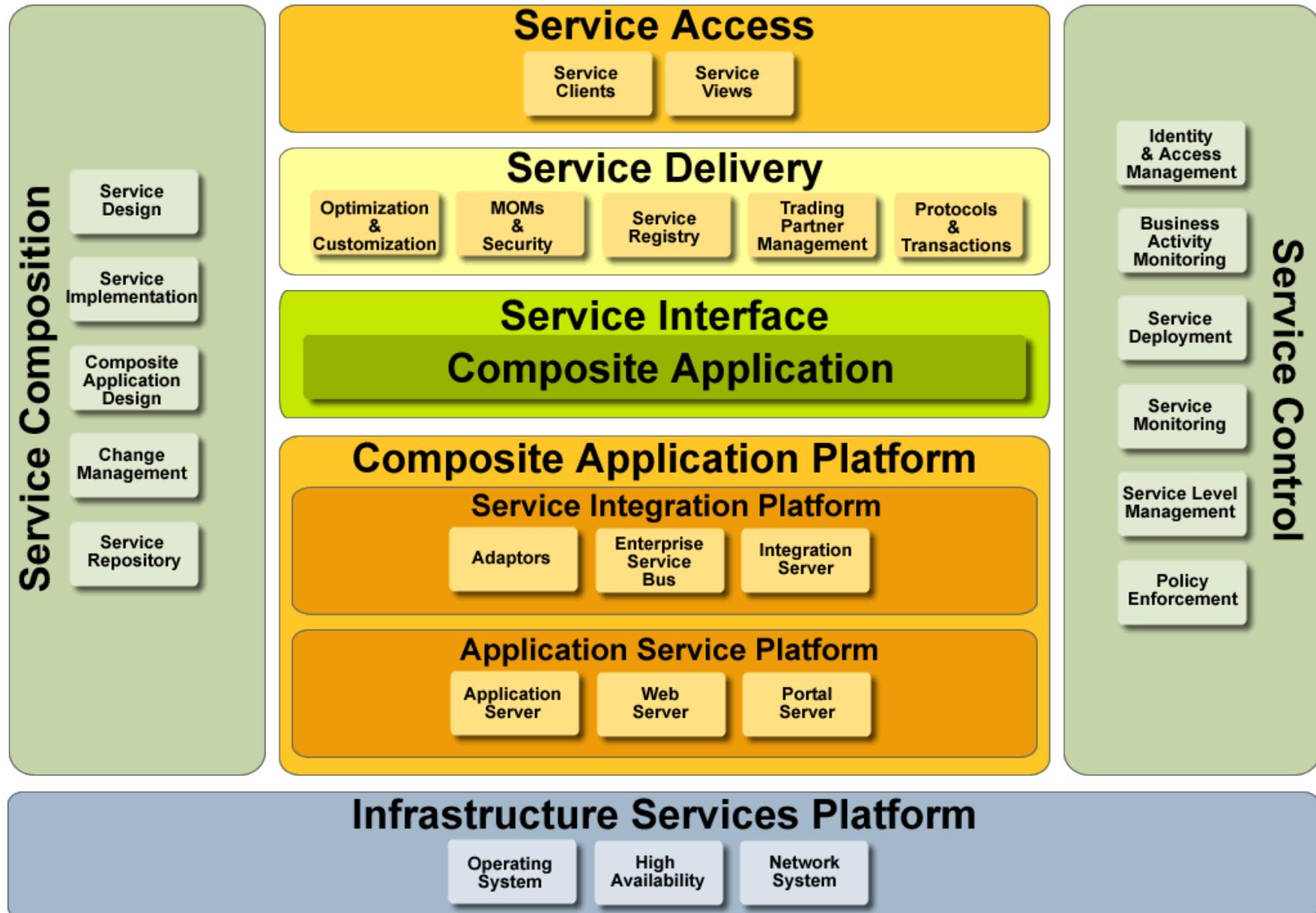
- OpenOffice.org 2.0
- StarOffice 8 Office Suite
- KOffice
- IBM Workplace
- TextMaker
- AbiWord
 - > Contributed by an R&D group belonging to Nokia
- Writely
- Zoho Writer

The Advantages of OpenDocument

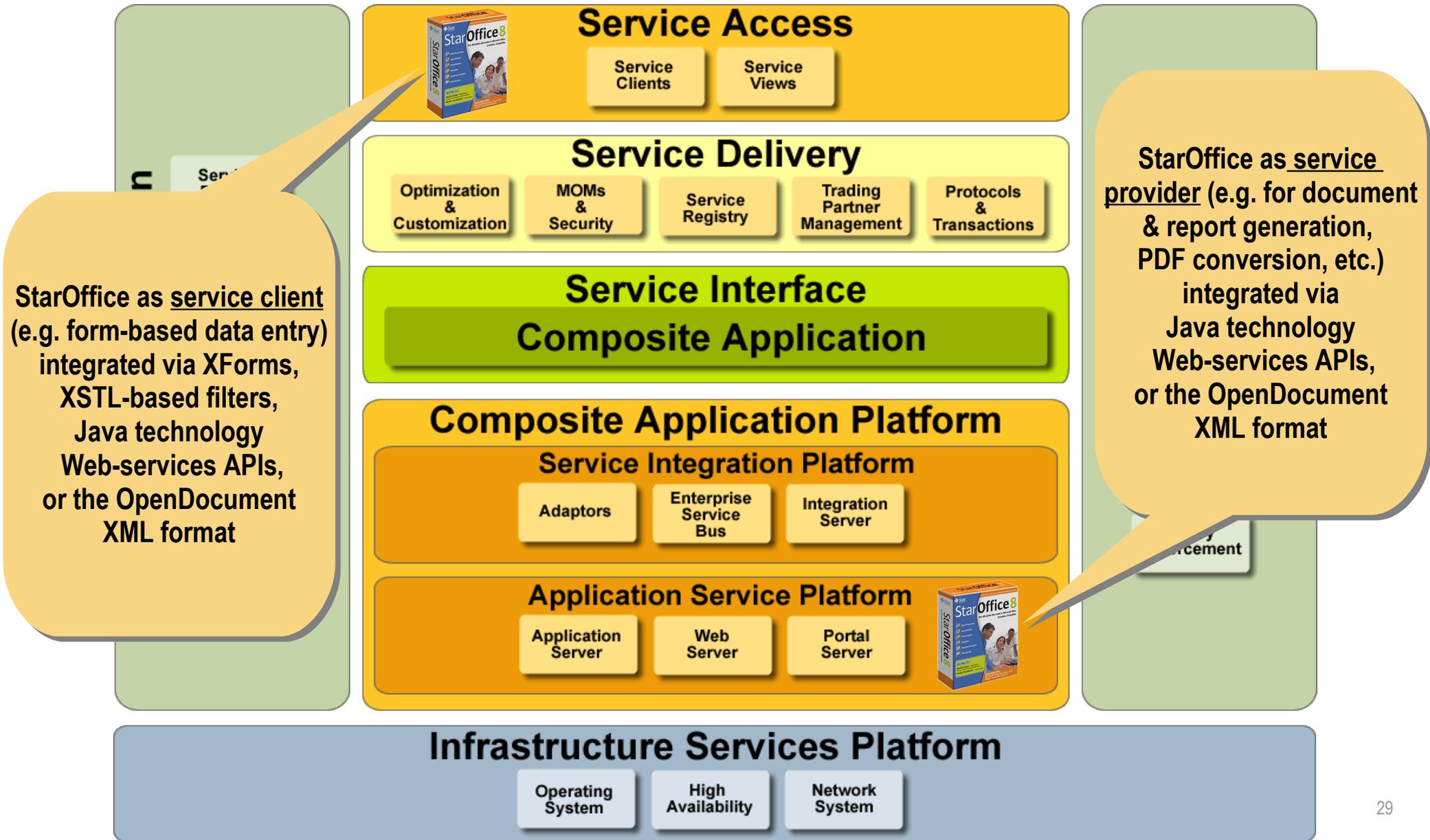
- Shared control
- Open transparent specification process
- Based on broad experience
- Various implementations
- Any vendor or user can join (incl. governments!)
- Free open source “reference implementation”
- Not having to support proprietary file formats of a single vendor frees up developer resources for innovation

=> Choice & Competition

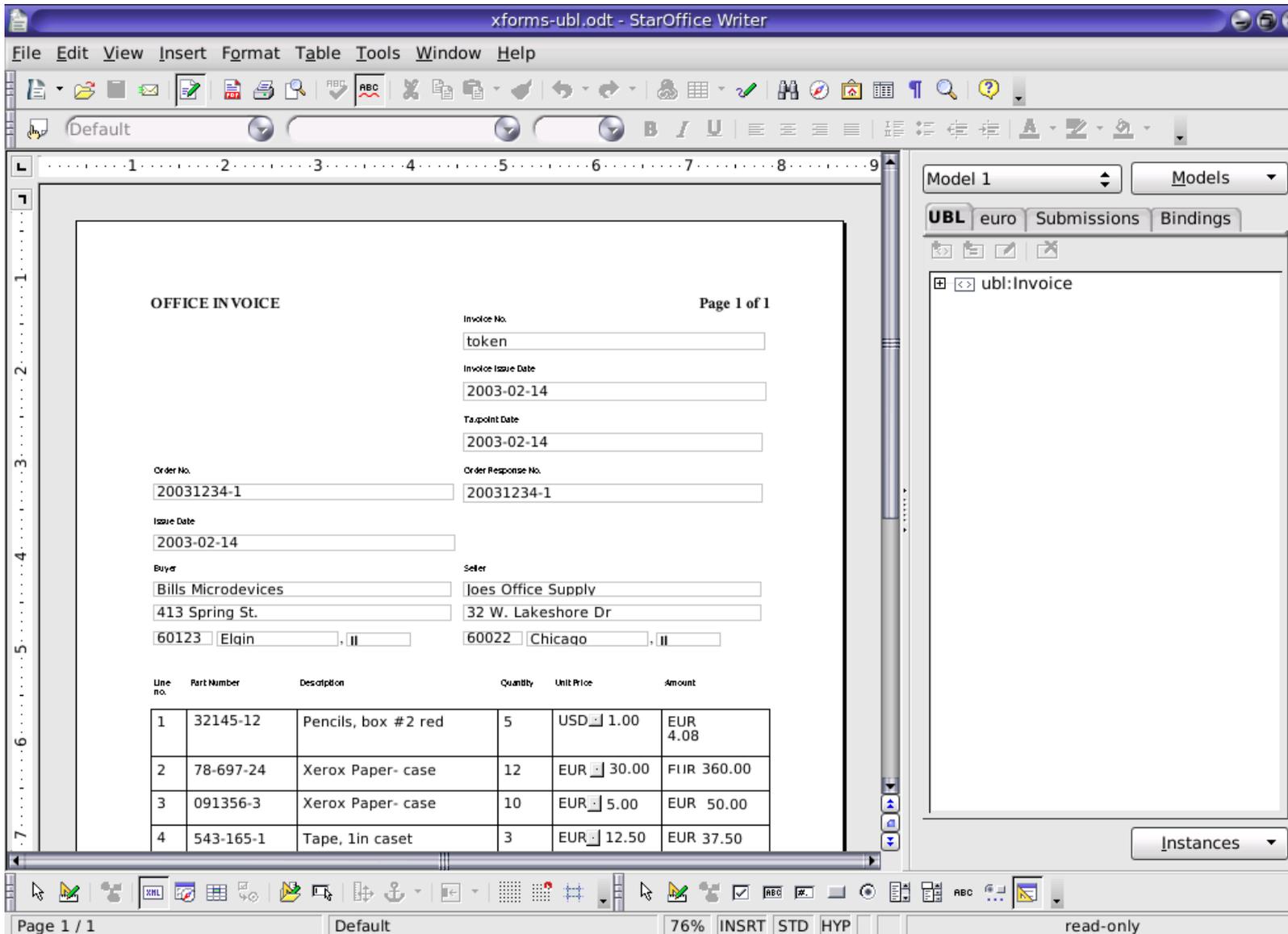
A SOA (Service Oriented Architecture) Platform



StarOffice integrated into SOA Platforms



Open Standard for Forms: XForms



The screenshot shows the StarOffice Writer interface with an XForm document titled 'xforms-ubl.odt'. The form is an 'OFFICE INVOICE' and is currently on 'Page 1 of 1'. The form contains several input fields for metadata and a table of line items.

Form Fields:

- Invoice No.: token
- Invoice Issue Date: 2003-02-14
- Taxpoint Date: 2003-02-14
- Order No.: 20031234-1
- Order Response No.: 20031234-1
- Issue Date: 2003-02-14
- Buyer: Bills Microdevices, 413 Spring St., 60123 Elgin, IL
- Seller: Joes Office Supply, 32 W. Lakeshore Dr., 60022 Chicago, IL

Table:

Line no.	Part Number	Description	Quantity	Unit Price	Amount
1	32145-12	Pencils, box #2 red	5	USD 1.00	EUR 4.08
2	78-697-24	Xerox Paper- case	12	EUR 30.00	EUR 360.00
3	091356-3	Xerox Paper- case	10	EUR 5.00	EUR 50.00
4	543-165-1	Tape, 1in caset	3	EUR 12.50	EUR 37.50

The right-hand pane shows the 'Models' tab with 'UBL euro Submissions Bindings' selected. The 'Instances' pane below it shows a single instance of 'ubl:Invoice'. The status bar at the bottom indicates 'Page 1 / 1', 'Default' style, '76%' zoom, and 'INSRT STD HYP' modes, with the document being 'read-only'.

XML Forms (XForms)

- W3C Recommendation 1.0 from October 2005
- Form based export of custom schema data
 - > Scenario : Invoice, user defined data files
- Make fields mandatory
- Add calculations
- Send via http or store locally

Birthday list

Firstname :

Lastname :

Birthday :



```
<instanceData>  
  <Firstname>myFirst</Firstname>  
  <Lastname>myLast</Lastname>  
  <Birthday>07/12/2005</Birthday>  
</instanceData>
```

XForm Technology



The screenshot shows an XForm interface with three input fields: "FirstName" (John), "LastName" (Doe), and "Street" (Doestreet). Below the fields is a "save input" button. To the right, the "Instance 1" XML tree view shows the structure: "invoice" containing "items" and "Address". "Address" contains "FirstName", "LastName", "Street", "City", and "ZIP". A green arrow points from the "save input" button to the XML output box below.

```

<invoice>
+ <items></items>
- <Address>
  <FirstName>John</FirstName>
  <LastName>Doe</LastName>
  <Street>Doestreet</Street>
  <City>Doetown</City>
  <ZIP/>
</Address>
</invoice>

```

*Create XML driven
Forms with Drag & Drop*

StarOffice XML Filter

Build in XSLT engine

```
<datarow>
  <day>Monday</day>
  <date>01/01/03</date>
  <name>Sindy</name>
  <comment>No</comment>
</datarow>
```

**XML file with
the content**



```
<xsl:stylesheet>
  <xsl:template
    match="datarow">
    <table:row>
      <table:cell value="{value}"/>
    <table:row>
  </xsl:template>
</xsl:stylesheet>
```

XSLT Stylesheet

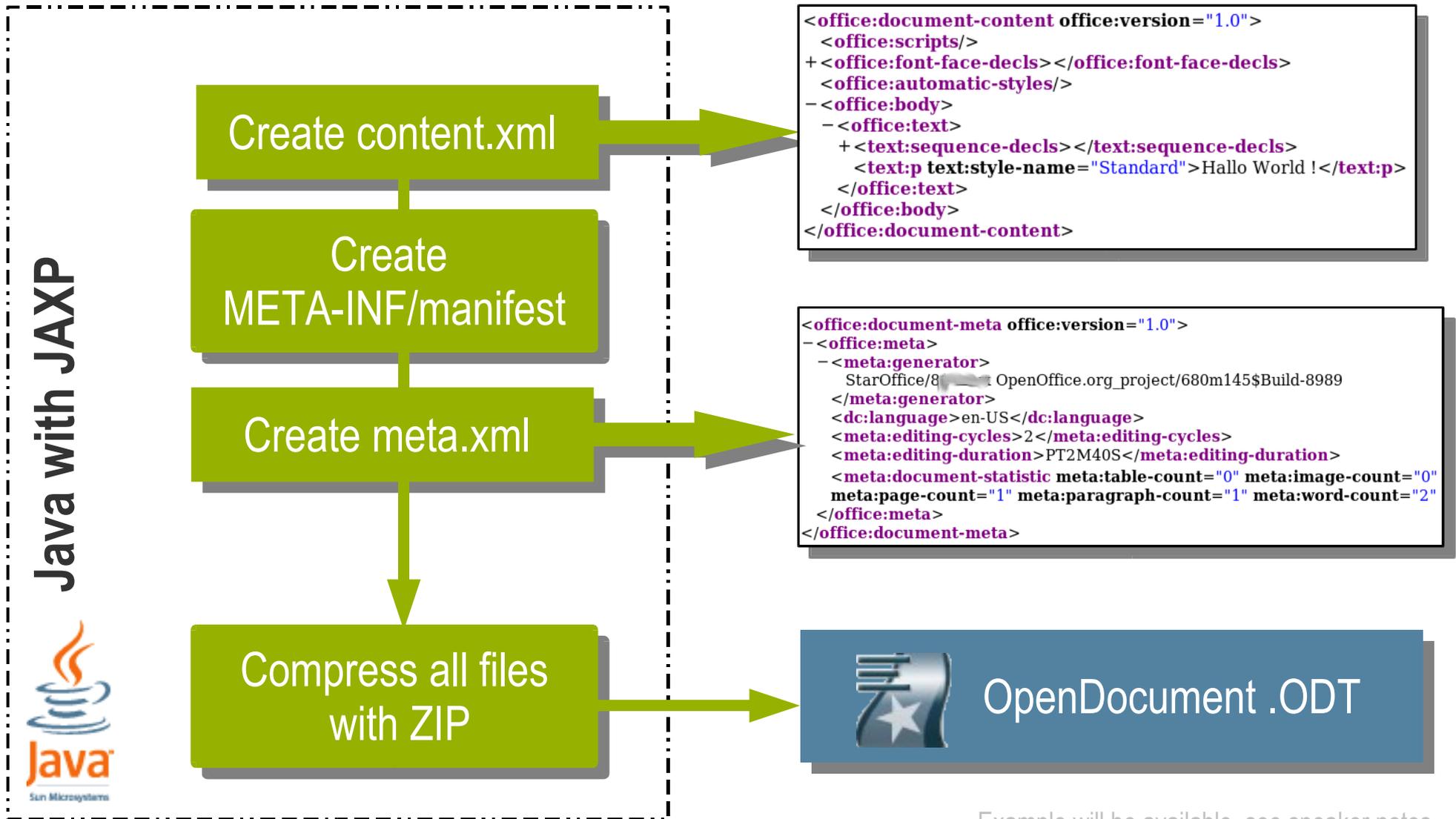
Monday				
	A	B	C	D
2				
3		Weekday	Date	Name
4		Monday	01/01/03	Sindy
5		Tuesday	01/01/03	Hugo
6		Wednesday	01/01/03	Fred
7		Thursday	01/01/03	Nick
8		Friday	01/01/03	Thomas

**Calc sheet based
on XML file**

*Import and Export
any XML based
files*

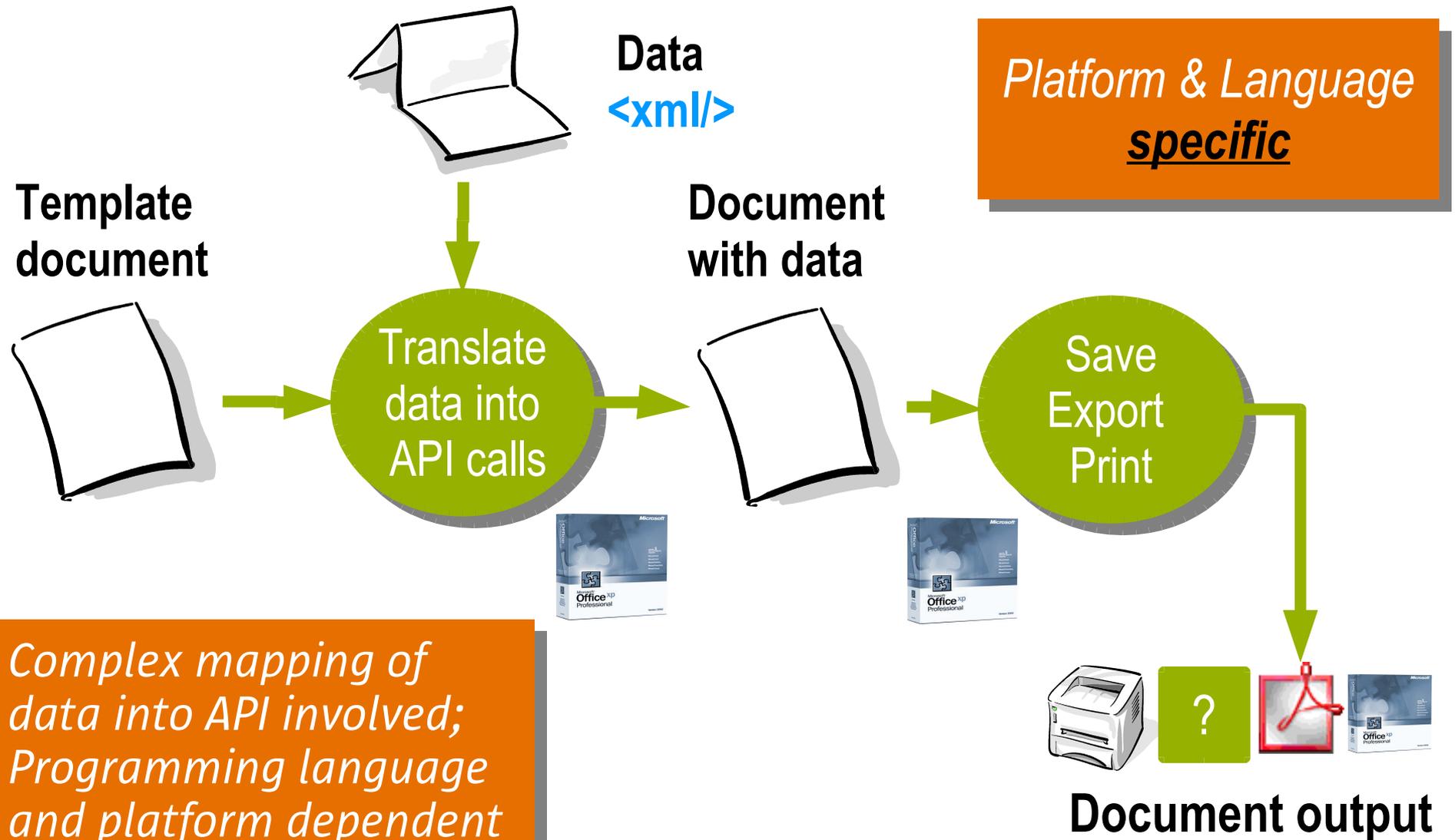
Demo available, see speaker notes

Create OpenDocument files with Java

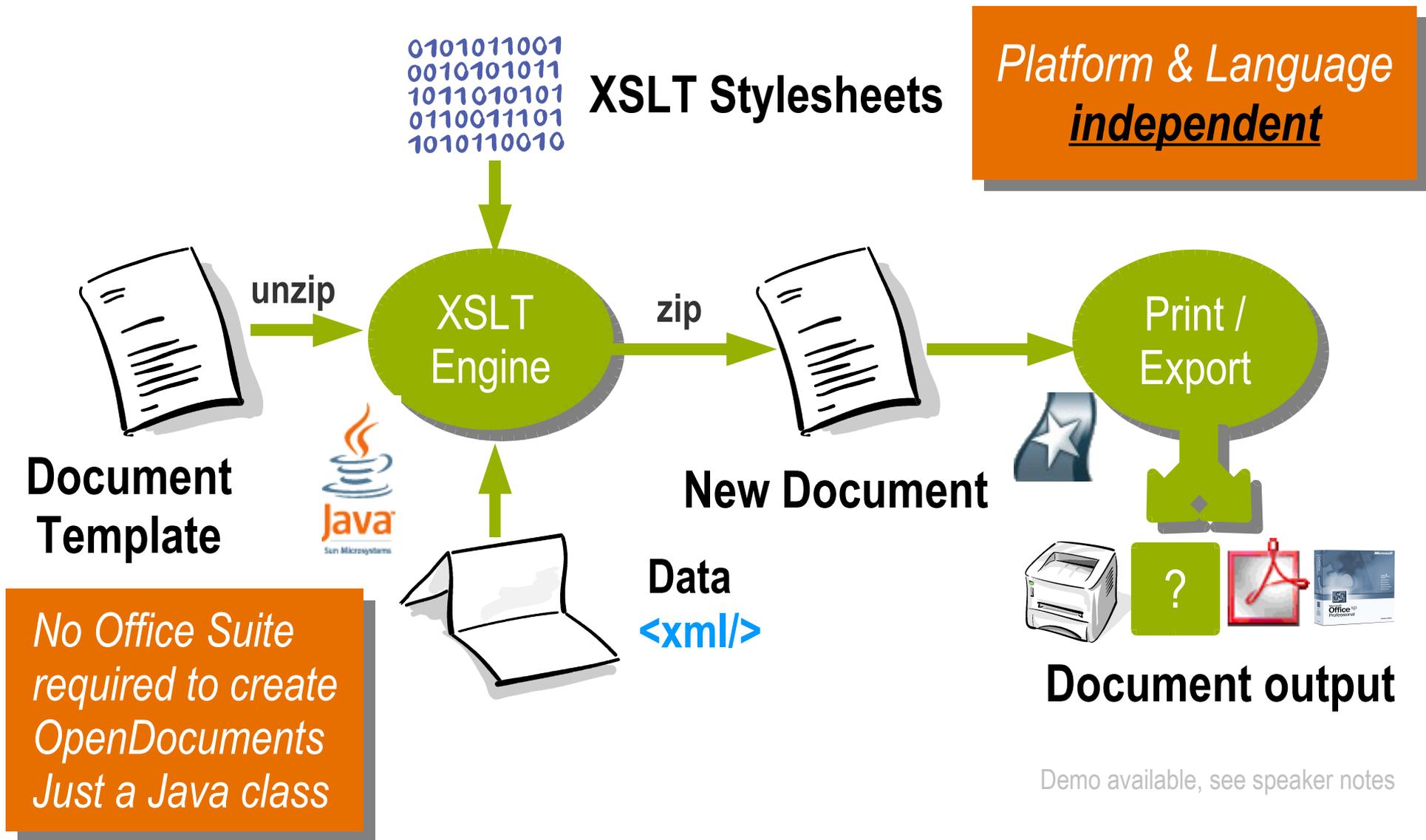


Example will be available, see speaker notes

Document Processing (Old Way)



Server Based Document Creation



Demo available, see speaker notes

Benefits of ODF to Governments

- Improved stewardship of public records, currently and in the future
- Consistently applied appropriate privacy and security protections
- Better IT governance through interoperability
- Improved quality and accessibility of information and services
- Eliminate information stove pipes

EU Recognizes Need for Open Formats

“Transparency and accessibility requirements dictate that public information and government transactions avoid depending on technologies that imply or impose a specific product or platform on businesses or citizens.”

Pedro Ortún
Director, DG Enterprise & Industry
European Commission
July 19, 2005



Massachusetts Mandates Open Formats

“Open formats for data files ensure that government records remain independent of underlying systems and applications thereby preserving their accessibility over very long periods of time.”

Commonwealth of Massachusetts
Enterprise Information
Technology Architecture



An Open Format is OPEN if it is:

- Based on an underlying open standard
- Developed through a publicly visible, community driven process
- Affirmed and maintained by a vendor-independent standards body
- Fully documented and publicly available
- Without proprietary extensions

What Others are Saying...

"An open-documents world can ensure that hundreds of years in the future people will still know the code to read mankind's records. And it will spur price and quality competition. Just look at the telecom industry, whose intense rivalries have brought price cuts and innovative services. Freeing software from a monopoly should reap similar benefits." -- Editorial, *Christian Science Monitor*, November 14, 2005

"What's at stake? If we compare what is going on with the monopoly on word processing to the openness, creativity and innovation in the field of authoring tools for the web, it becomes clear that we could see important changes if ODF becomes the mandated standard. ODF is important for ensuring access, competition, cost savings and data sharing now and in the future." -- Manon Ress, *Consumer Project on Technology*, a Washington, DC non-profit created 20 years ago by Ralph Nader (as quoted in *eWeek*, December 15, 2005)

OpenDocument Support is Growing among Governments Globally

- Denmark Ministry of Science, Technology & Innovation
- Federal Ministry of the Interior, Germany
- Korean National Computerization Agency
- National Archives of Australia
- Netherlands Tax and Customs Administration
- New Zealand Government
- The Infocomm Development Authority of Singapore
- Swedish Defence Materiel Administration
- UK Local e-Government Standards Body

Other OpenDocument Milestones

- Sun's OpenDocument patent statement
 - > September 2005
 - > Sun will not use any of its patents against an implementation of the OpenDocument specification
 - > <http://www.oasis-open.org/committees/office/ipr.php>
- OpenDocument submitted to ISO
 - > September 2005, Approved May 2006
 - > <http://lists.oasis-open.org/archives/members/200509/msg00016>.

Next Steps for ODF

- In progress:
 - > Elimination of compatibility issues between ODF applications (OpenOffice.org, KOffice, etc.)
 - > Definition of formulas via sub-committee
 - > Improved accessibility of ODF via sub-committee
 - > Meta-data
 - > Forms
 - > Custom schemas
- Potentially in the future (depending on member input and relevance to ODF):
 - > Definition of scripting
 - > DRM

Thank you. dave.edstrom@sun.com



The Network is the Computer

John Gage to Bill Joy in the early 1980's



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