Open Applications Group

OAGIS –
An Open Standards Based, Cross Industry Canonical Model

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Agenda

- OAGi Introduction
- The OAGIS Standard
- OAGIS as a Canonical Model
- Users of OAGIS
OAGi is not-for-profit standards development organization


OAGi is the only truly cross industry business network integration standard that works with Cloud.
• **OAGi** is . . .
  The Open Applications Group, Incorporated

• **OAGIS** is . . .
  The Open Applications Group Integration Specification
## OAGi Membership Today

- ADP
- AgGateway
- AMC Theatres
- Ashland
- Automotive Industry Action Group (AIAG)
- Bayer MaterialScience
- Boeing
- CDC Software
- Cisco
- DBI Poland
- DHL
- DigitalML
- Direct Insight
- Dow Chemical
- E2open
- EDIFICE
- Elemica
- Emerson
- GEFEG
- GXS
- HR-XML
- iBASEt
- IBM
- Infor
- Intel
- ISA
- Japan Petrochemical Association
- Kaba
- Liaison Technologies
- Metals Service Center Institute (MSCI)
- Microsoft
- NIST
- Nokia
- NXP Semiconductor
- Oakland Software
- OASIS
- Odette
- Oracle
- Rhodia
- Shell
- Softshare
- Standards for Technology in Automotive Retail (STAR)
- Talent Base
- Transentric
- Traxian
- UK Ministry of Defence
- Vortx
- World Batch Forum (WBF)
The OAGIS Standard is . . .

- Business Processes called Scenarios
- Business Messages called Business Object Documents (BODs)
Sample BODs

- Process PurchaseOrder
- Acknowledge PurchaseOrder
- Notify Shipment
- Process Invoice
- Acknowledge Invoice
- Get InventoryCount
- Show InventoryCount
OAGIS Scope – Internal/External/Cloud

- **CRM**
  - Opportunities
  - Sales Leads
  - Customer
  - Sales Force Automation

- **eCommerce**
  - e-Catalog
  - Price Lists
  - RFQ and Quote
  - Order Management
  - Purchasing
  - Invoice
  - Payments

- **ERP**
  - Financials
  - Human Resources
  - Manufacturing
  - Credit Management
  - Sarbanes/Oxley & Control

- **Manufacturing**
  - MES
  - Shop Floor
  - Plant Data Collection
  - Engineering
  - Warehouse Management
  - Enterprise Asset Mgmt.

- **Logistics**
  - Orders
  - Shipments
  - Routings
OAGIS 9.5 - Current Version

- Released May 2011
- Combines 14 years in the field
- 68 Business Scenarios
- 12 Verbs Defined
- 80 Nouns (Common Objects) defined
- 498 Messages (BODs)
Organizations need to “plug-In” their business partners and various departments and divisions.
Business Challenges

- Multiplicity of applications across enterprise fulfilling the same function
- Several versions of “enterprise-objects” such as Product, Customer, etc
- Custom program interfaces or flat file exchange
  - Mostly at the data level
  - Mostly point to point
Goals of the Solution

- Lower the cost of ownership
- Greater agility
Canonical Model

• CANON
  – Derived from the Greek and Latin meaning a rule or standard

• CANONICAL
  – Reduced to the simplest and most significant form possible without loss of generality; "a basic story line"; "a canonical syllable pattern"
A Case for a Canonical Model

From <many to many> to <many to one>
The Mathematics of Scaling Up

Traditional point to point for <many to many> integration:

The number of possible connections among any number of items is \( n(n-1) \) for two way connections.

<table>
<thead>
<tr>
<th>Number of components to integrate</th>
<th>Apply traditional formula</th>
<th>Cost of traditional integration @ 0.1 FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>( n = 5 )</td>
<td>( 5(4) = 20 )</td>
<td>2 FTEs</td>
</tr>
<tr>
<td>( n = 10 )</td>
<td>( 10(9) = 90 )</td>
<td>9 FTEs</td>
</tr>
<tr>
<td>( n = 15 )</td>
<td>( 15(14) = 210 )</td>
<td>21 FTEs</td>
</tr>
<tr>
<td>( n = 20 )</td>
<td>( 20(19) = 380 )</td>
<td>38 FTEs</td>
</tr>
</tbody>
</table>
The Mathematics of Scaling Up

Best practice <many to one> integration:

The number of possible connections among any number is $n \times 2.0$

<table>
<thead>
<tr>
<th>Number of components to integrate</th>
<th>Best practices formula</th>
<th>Cost of best practices integration @ 0.1 FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = 5</td>
<td>5 * 2.0 = 10</td>
<td>1 FTE</td>
</tr>
<tr>
<td>n = 10</td>
<td>10 * 2.0 = 20</td>
<td>2 FTEs</td>
</tr>
<tr>
<td>n = 15</td>
<td>15 * 2.0 = 30</td>
<td>3 FTEs</td>
</tr>
<tr>
<td>n = 20</td>
<td>20 * 2.0 = 40</td>
<td>4 FTEs</td>
</tr>
</tbody>
</table>
Canonical - a Single Horizontal Language

Internal Systems

S 1
adapter 1

S 2
adapter 2

S n...
adapter n...

Neutral Business Focused Language

OAGIS

Service Broker

External Systems

S 1
OAGIS

S 2
std2

S n...
std n...

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OAGIS Scope Drives Diverse Implementations

- **CRM**
  - Opportunities
  - Sales Leads
  - Customer
  - Sales Force Automation
- **eCommerce**
  - e-Catalog
  - Price Lists
  - RFQ and Quote
  - Order Management
  - Purchasing
  - Invoice
  - Payments
- **ERP**
  - Financials
  - Human Resources
  - Manufacturing
  - Credit Management
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- **Manufacturing**
  - MES
  - Shop Floor
  - Plant Data Collection
  - Engineering
  - Warehouse Management
  - Enterprise Asset Mgmt.
- **Logistics**
  - Orders
  - Shipments
  - Routings
Partial List of OAGIS Users

- ADP
- Agilent
- Amersham Health
- Boeing
- Campbell’s Soup (Australia)
- Canadian Tire
- Cisco
- Ford
- General Electric
- General Motors
- Goodrich Aerospace
- Goodyear
- IBM
- Microsoft
- Nokia
- Oxylane Group
- SKF
- Salt River
- Telia Sonera
- UK MoD
- Weyerhaeuser
- Woolworths (Australia)
### How it Works

**OAGIS as a Platform**

<table>
<thead>
<tr>
<th>Horizontal Processes</th>
<th>Human Resource Industry</th>
<th>Auto Retail Industry</th>
<th>Auto Industry</th>
<th>Chemical Industry</th>
<th>Steel Industry</th>
</tr>
</thead>
</table>

#### OAGIS Platform

- **UN/CEFACT Core Components**
- **ISO 20022 Core Components**
- **OAGIS Core Components**
- **HR-XML Core Components**

<table>
<thead>
<tr>
<th>XML Schema (XSD)</th>
<th>BOD Architecture</th>
<th>Meta Model</th>
<th>Naming and Design Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **UML Models**

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OAGIS 9 is More than Messages

OAGIS 9 provides a foundation for messages as well as a message library

- Canonical Data Model
- Component Libraries
- Application Architecture
- Technical Architecture (BOD)
- Transaction Model
- Naming and Design Rules
BOD Assembly Example

BOD Message

Application Area

Data Area

Verb

Noun

Component

Element

Component

Element

Component

Element

Component

Element

Element

Element

Element

Element
Standards within the OAGIS Standard

W3C - URI/URL
W3C - XML Schema 1.0 Part 1
W3C - XSL Schema 1.0 Part 2.0
W3C - XML Style Language
W3C - XML Path Language (XPath) Version 1.0
ISO - ISO11179
ISO - ISO1500-5 Core Components Type Specification
ISO - ISO20022 (UNIFI Financial Standard)
ISO - ISO4217 - Currency Codes
ISO - ISO639 - Language Codes
UN/CEFACT ATG2 Naming and Design Rules - NDR
UN/CEFACT Harmonized Core Components – TBG17
OASIS – SOAP 1.2
MIME Media Type Code
UNECE Unit Code
UNECE Unit Code
OMG UML 2.0
OAGIS Extensibility Model

• OAGIS provides the user a unique form of extensibility to stretch the standard without breaking it.
OAGIS Overlay Example

- Your new content
- OAGIS platform/framework
- OAGIS standards
- XSD overlay technology
- Canonical solutions for your business challenges

Your Overlay

OAGIS Framework/Standards

Your Solution
OAGIS – the Canonical Model

- Created/vetted by multiple industries
- Developed by enterprise level users
- Based on accepted business processes
- Semantically rich and deep
- Built on a reusable library/platform
- Tailor made for Cloud
- Extensible as needed
Questions?
OAGi User Demographics
Knowledge of OAGIS Adoption

- Difficult to know full adoption number
- OAGIS® is free and the download only requires a registration
- We learn from
  - Word of mouth
  - Emails
  - Surveys
  - Luck
- We count downloads
- We track emails
- Probably know 10% of user base
OAGIS live users in 40 known countries

- Australia
- Austria
- Bahrain
- Belgium
- Brazil
- Canada
- Chile
- China
- Croatia
- Czech Republic
- Denmark
- Ireland
- Finland
- France
- Germany
- Hungary
- India
- Israel
- Italy
- Japan
- Korea (South)
- Lithuania
- Mexico
- Netherlands
- Norway
- Papua New Guinea
- Poland
- Russia
- Saudi Arabia
- Singapore
- Slovenia
- Slovakia
- South Africa
- Spain
- Sweden
- Switzerland
- Turkey
- United Arab Emirates
- United Kingdom
- United States
OAGIS live users in over 40 industries

- Aerospace
- Agri-Business
- Automotive Manufacturing
- Automotive Retail
- Automotive Aftermarket
- Banking
- Brewing
- CPG
- Chemical
- Computer Hardware
- Computer Software
- Consumer Goods – Electronics
- Cosmetics
- Defense
- Distributors
- Federal Government
- Food Manufacturing
- Furniture Manufacturing
- Mortgage
- Pharmaceutical
- Insurance
- Industrial Goods Manufacturing
- Logistics
- Medical Device Manufacturing
- Mining
- Oil
- Natural Gas
- Paint
- Paper
- Publishing
- Retail
- Shipping
- State Government
- Local Government
- Telecommunications
- Tire Manufacturing
- Tobacco
- Trucking
- Universities
- Electric Utilities
## How is OAGIS Used?

If you are using, implementing, or evaluating OAGIS, how are you using it or plan to use it? Check all that apply.

<table>
<thead>
<tr>
<th>Answer</th>
<th>0%</th>
<th>100%</th>
<th>Number of Responses</th>
<th>Response Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business to Business</td>
<td></td>
<td></td>
<td>58</td>
<td>64.4%</td>
</tr>
<tr>
<td>Application to Application</td>
<td></td>
<td></td>
<td>66</td>
<td>73.3%</td>
</tr>
<tr>
<td>Business to Consumer</td>
<td></td>
<td></td>
<td>8</td>
<td>8.8%</td>
</tr>
<tr>
<td>In a Cloud</td>
<td></td>
<td></td>
<td>10</td>
<td>11.1%</td>
</tr>
<tr>
<td>For SOA Implementation</td>
<td></td>
<td></td>
<td>47</td>
<td>52.2%</td>
</tr>
<tr>
<td>To Implement Web Services</td>
<td></td>
<td></td>
<td>41</td>
<td>45.5%</td>
</tr>
<tr>
<td>For Master Data Management</td>
<td></td>
<td></td>
<td>24</td>
<td>26.6%</td>
</tr>
<tr>
<td>For Data Warehousing</td>
<td></td>
<td></td>
<td>5</td>
<td>5.5%</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td>4</td>
<td>4.4%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td></td>
<td>90</td>
<td>100%</td>
</tr>
</tbody>
</table>

As of July 1, 2010
# Country Representation Website Registrations

<table>
<thead>
<tr>
<th>Continent</th>
<th>Number of Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>10</td>
</tr>
<tr>
<td>Asia</td>
<td>16</td>
</tr>
<tr>
<td>Australia/Oceana</td>
<td>4</td>
</tr>
<tr>
<td>Europe</td>
<td>36</td>
</tr>
<tr>
<td>Middle East</td>
<td>8</td>
</tr>
<tr>
<td>North America</td>
<td>6</td>
</tr>
<tr>
<td>South America</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total Registrations</strong></td>
<td><strong>90</strong></td>
</tr>
</tbody>
</table>

- Over 3500 Registrations
- 6 – 10 new per day
## Website Registration Countries

- Egypt
- Kenya
- Morocco
- Mozambique
- Nigeria
- South Africa
- Swaziland
- Tunisia
- Uganda
- Zimbabwe
- China
- French Polynesia
- Hong Kong
- India
- Indonesia
- Japan
- Korea
- Malaysia
- Pakistan
- Philippines
- Russian Federation
- Saudi Arabia
- Singapore
- Sri Lanka
- Taiwan
- Thailand
## Website Registration Countries

- Australia
- New Zealand
- Tuvalu
- French Polynesia
- Austria
- Belgium
- Bulgaria
- Croatia
- Czech Republic
- Denmark
- Greece
- Hungary
- Iceland
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg England
- Estonia
- Finland
- France
- Germany
- Moldova
- Netherlands
- Norway
- Poland
- Portugal
- Romania
- Scotland
- Serbia
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Ukraine
- Wales
- Yugoslavia
- Turkey
## Website Registration Countries

- Dubai
- Israel
- Jordan
- Kuwait
- Lebanon
- Palestinian Territory
- Saudi Arabia
- United Arab Emirates

- Belize
- Canada
- Costa Rica
- Mexico
- Puerto Rico
- United States

- Argentina
- Bolivia
- Brazil
- Chile
- Columbia
- Ecuador
- Panama
- Peru
- Uruguay
- Venezuela
Thank you!
UserArea with Types

- Your Namespace
- Your new content defined in a reusable Type
- Manually plugged into Userarea