The SELIS electronic invoicing solution

Venue: IRIS2007
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Topics

- **Introduction**
- **eInvoicing requirements**
- **SELIS architecture & services**
- **Standards & technologies**
- **Business Issues**
- **Policies**
- **Screenshots**

“... Invoices sent by electronic means shall be accepted by Member States provided that the authenticity of the origin and integrity of the contents are guaranteed: by means of an advanced electronic signature...”
Evolution of SELIS

- Requirements set by Directive 2001/115/EC
- eInvoke 2003 -prototype, publications-
- “CEN/ISS e-Invoicing Focus Group” (2004)
- SELIS_v2 (1/1/2006)
Objectives of SELIS

♦ Assessing the viability of deploying an eInvoicing service to SMEs
♦ Finalising certain aspects of the service pertaining to its definitive deployment
♦ Addressing scenarios for deployments and seeking remedies for adverse eventualities
♦ Shortening time to market
Consortium / Roles in SELIS

Technical Providers (TPs)
- University of Pireaus (Project Manager)
- Expertnet (Technical Manager)

Service Providers (SPs)
- Athens Chamber of Commerce and Industry
- Paris Chamber of Commerce and Industry
- Brasov Chamber of Commerce and Industry

External Trial Users: 8 SMEs

Market Analysis-Interviews: 500 SMEs (up to now)
eInvoicing requirements

- Interoperability
- Security
- User friendliness
- Compliance with the legal & policy framework
Overall high level architecture
User types:

- Accountants (invoice issuance and management)
- Administrators (configuration and publishing)
Supported functionality

Basic Functionality
- Invoice creation, signing & distribution
- Searching / reviewing of issued / received invoices
- Management of “customer / buyer” organizations
- Management of services / products
- Setup & publishing of company to UDDI

Added-value Functionality
- Importing / exporting to ERPs
- Role based access control & WS policy enhancements
- Invoice archiving
- Compatible with national auditing procedures
Supported scenarios of use
SELIS components & technology viewpoint

- 4 Tiers: Client Tier, Interaction Tier, Enterprise Tier & Integration Tier
- Support for a subset of xCBL schemas library
Standards & Technologies

♦ **Interoperability**
  ✓ SOAP for message exchange
  ✓ UDDI service publishing and retrieval
  ✓ WSDL for services description
  ✓ The XML Common Business Library (xCBL) as core invoice format
  ✓ XSL for transformation between formats

♦ **Security**
  ✓ XML Signatures
  ✓ Advanced electronic signatures
  ✓ Time stamping
  ✓ WS-Security extensions
  ✓ Online certificate status revocation protocol support

♦ **Server infrastructure**
  ✓ Apache http server
  ✓ Apache tomcat server
  ✓ eXist Native XML database
  ✓ UDDI: tested with Apache jUDDI and the Sun UDDI impl. (included in JWSDP)

♦ **Privacy**
  ✓ WSPL for policies definition
  ✓ XACML for access control
SELIS Draft Policies

- **Signature policy**
  - Based on
    - ETSI TS 102 733 Electronic signature formats
    - ETSI TR 102 041 Signature Policy Report

- **Application policy**
  - Describes terms of use for the SELIS applications:
    - what they must, may and should offer
    - how users must, may or should interact with them

- **Security policy**
  - Defines the measures that should be taken by an organization adopting the SELIS service to ensure confidentiality, integrity and availability of the service

- **WS privacy policy**
  - Describes non-functional attributes of the e-invoicing service, such as confidentiality mechanisms and authentication characteristics
SELIS Business Model

✓ Selis service provider: Chambers of Commerce
✓ Selis software provider: University of Piraeus, Research Center
✓ Selis Technical Support: Expertnet
Market evolution

Large accounts
- > 5,000

SMEs
- 500 – 5,000
- 50 – 500
- < 50

SELIS Platform

Invoices/month

EDI
Web EDI
Signature

???
Expected evolution

% of companies having begun the process
## Trends

<table>
<thead>
<tr>
<th>Sector</th>
<th>Criteria</th>
<th>E-Invoicing readiness</th>
<th>E-Invoicing potential</th>
<th>Type of business activity, customer structure</th>
<th>Current state of adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ERP &amp; CRM installed base</td>
<td>E-commerce activity</td>
<td>Relative to other sectors</td>
<td>In % of firms (estimate)</td>
</tr>
<tr>
<td>Food and beverages</td>
<td>● ●</td>
<td>●</td>
<td>(●)</td>
<td>●</td>
<td>~ 2-5%</td>
</tr>
<tr>
<td>Textile industry</td>
<td>● ●</td>
<td>●</td>
<td>(●)</td>
<td>●</td>
<td>~ 4-8%</td>
</tr>
<tr>
<td>Publishing and printing</td>
<td>● ●</td>
<td>●</td>
<td>(●)</td>
<td>●</td>
<td>~ 3-6%</td>
</tr>
<tr>
<td>Pharmaceutical industry</td>
<td>● ● ● ●</td>
<td>●</td>
<td>(●)</td>
<td>●</td>
<td>~ 5-8%</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>● ● ● ●</td>
<td>(●) **</td>
<td>(●)</td>
<td>●</td>
<td>~ 3-6%</td>
</tr>
<tr>
<td>Automotive industry</td>
<td>● ● ● ●</td>
<td>(●) **</td>
<td>(●)</td>
<td>●</td>
<td>~ 4-8%</td>
</tr>
<tr>
<td>Aerospace industry</td>
<td>● ● ● ●</td>
<td>(●) **</td>
<td>(●)</td>
<td>●</td>
<td>~ 8-12%</td>
</tr>
<tr>
<td>Construction</td>
<td>● ● ●</td>
<td>●</td>
<td>(●)</td>
<td>●</td>
<td>~ 2-5%</td>
</tr>
<tr>
<td>Tourism</td>
<td>● ● ● ●</td>
<td>●</td>
<td>(●)</td>
<td>●</td>
<td>~ 5-10%</td>
</tr>
<tr>
<td>IT services</td>
<td>● ● ● ●</td>
<td>●</td>
<td>(●)</td>
<td>●</td>
<td>~ 10-15%</td>
</tr>
</tbody>
</table>

● = low; ●● = medium; ●●● = high; ●●●● = high, also in SMEs

Note: "low" / "high" is defined in relation to the average of the sectors monitored.

ERP = Enterprise Resources Planning; CRM = Customer Relationship Management
SELIS Website

For more information and trial of SELIS service please visit…

http://selis.unipi.gr

Thank you!