THE BUSINESS CASE FOR INTEROPERABILITY
An Australian Experience

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Overview

- NOIE held a workshop on interoperability in April 2002
  → Aim was to identify practical initiatives that could advance the level of interoperability in Australian economy

- Workshop confirmed that interoperability is more than a technical challenge
  → Business and public policy challenge

- Workshop provided insights re managing collaborative eBusiness initiatives
  → governance, community development, urgency, funding, technology
National Office for the Information Economy (NOIE)

- Australian federal government agency
  - Facilitate productivity growth, innovation and structural adjustment through effective use of IT/eBusiness

- NOIE’s leverage:
  - grants program to support collaborative and inclusive solutions
  - honest broker, bringing stakeholders together in key sectors
  - document value equation through research and case development
  - government online strategies
Interoperability drivers: public policy

- Self-interest. Interoperability critical as government agencies build e-procurement and service delivery channels just like private sector
  - inter-agency and cross-jurisdictional integration
  - mandate to engage small/medium business

- Macro-interest. Interoperability critical as it determines numbers that can engage in eBusiness.
  - Distribution of benefits (especially re small/medium business)
  - Competition levels, productivity/efficiency gains
  - Critical mass/economy of scale
  - Demand for re-usable/cost-efficient products that enable traction and boost spending/volume
Interoperability drivers: business

- Improve supply chain management through process alignment
- Enable/add value to channel management
- Faster business cycles through better data collation mechanisms
- Generate savings on administrative overhead (automation)
- Reduce data entry error rate and process duplication (enhance competitiveness)
- Reduce technical complexity re integration projects
- Enable easier roll-out of emerging technologies
- Lower IT deployment costs, especially re investment fatigue
- Encourage standardised transaction mechanisms
- Provide greater certainty/less risk in eBusiness planning
Interoperability: inhibitors

- Cost barrier of entry: B2Bi projects tend to be expensive
- Technical barrier of entry: plethora of standards creating “Tower of Babel”
- Legacy barrier: custom-built systems, proprietary interests
- Corporate bias: small/medium-sized firms ignored; buyer-centric
- Poor points of reference: B2B equated with dot-com crash, no ROI
- Poor knowledge: weak understanding re B2B operating requirements
- Collaboration challenges: improving competitiveness vs. revenue generation, internal process visibility, governance
- Business tradition: lock-in mentality, singular/unique view cf. establishing an infrastructure
Irrational to Rational Exuberance

Intensity of adoption

E as “Revolution” 1999-2000

Dot-com IPOs c1997

Web browser c1995

Market shakeout 2000-2001

E as “Evolution” 2001+

B2B Realisation Gap

Rate of adoption

Awareness:
- unique opportunity to transform operations
- generate transaction and communication savings

Actuality:
- challenges of implementation
- need for interoperability

Adapted from: Harry Dent (Anatomy of the Economic Cycle, 1993) and Gartner (Hype Cycle, 1997)
## eBusiness success dependent on infrastructure

<table>
<thead>
<tr>
<th>Layer</th>
<th>Dynamic</th>
<th>Feature</th>
<th>Driver</th>
<th>Output (ideal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Competitive</td>
<td>Proprietary services,</td>
<td>Prosperity: generate revenue, market share</td>
<td>Products that enable large-scale deployment and traction of eBusiness solutions</td>
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<tr>
<td></td>
<td></td>
<td>Product differentiation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Collaborative</td>
<td>Business infrastructure,</td>
<td>Viability: generate investor confidence and buy-in, facilitate high volume usage</td>
<td>Frameworks for security and trust, universal connectivity, message and data standard (!), legal protection and trade practices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shared technical services</td>
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Without Layer 1, the business case for Layer 2 is diminished because industry endures:

- Lock-in through technical incompatibility or high switching costs
- Under-utilisation of eBusiness solutions
- Investment fatigue due to multiple integration efforts
- Duplication and clearance delays
- Higher administrative overhead due to manual preparation of data and re-keying

- No economies of scale / critical mass
- Limited process efficiency + cost-savings
Problem solving approach rather than ideas clearinghouse:

- What constitutes eBusiness infrastructure?
- What are inhibitors to efficient large-scale deployment of eBusiness solutions?
- How to demarcate cooperative from contestable?
- Is there a common overhead? Are there projects which can reduce these overheads and create a ripple effect?
- How to engage small/medium firms (~80% of economy) and generate critical mass?
Big Buyer 1

"Use my easy website to get your orders"

"Use my website – or else!"

"Come to me and access the world"

"Use me, I'm your local exchange"

"I know your business so come to me"

Portal integration?

Big Buyer 2

"Arghh! Just fax me!"

Global Network

Vertical Exchange

Local Exchange
B2Bi toolkit integration?

Trading partners

- Standards Alphabet Soup...
  - **Transports**
    - VAN
    - http
    - https
    - MQ
    - smtp
    - ftp
    - etc
  - **Message**
    - VAN
    - CBI
    - RNIF
    - BTF
    - ebXML
    - MVL
    - proprietary
    - etc
  - **Document**
    - EDI
    - EDIFACT
    - CBI
    - OAG
    - RosettaNet
    - SAP XML
    - xCBL
    - ebXML
    - Modified
    - custom
    - etc
  - **Data Codes**
    - ISO
    - UNSPSC
    - EDIFACT
    - EAN
    - NATO
    - Custom
    - etc
  - **Processes**
    - ebXML
    - CPA
    - RNet
    - PIP
    - xCBL
    - Custom
    - Order
    - Payment
    - Inventory
    - Catalog
    - etc

- **Skills**
  - UNIX
  - W2000
  - SQL
  - Java
  - EDI
  - Process
  - B2Talk
  - WebMethods
  - Firewalls
  - etc

- **Projects team**
  - $ 100,000
  - Minimum

- **The $ 100M+ Enterprise**
  - **API**
  - **ERP / legacy system**

- **B2Bi Toolkit**
  - **Admin UI**
  - **Message protocol adapter**
    - Parsing & mapping tools
  - **ERP protocol adapter**
  - Process manager
  - Storage, directory, Queuing, routing...

- **Interface**
  - CCM
  - Corba
  - JNI
  - MQ-Series
  - ODBC
  - JDBC
  - SOAP
  - etc

- **ERPs**
  - SAP
  - Oracle
  - JDE
  - PeopleSoft
  - BAAN
  - MasterPack
  - MYOB
  - Quickbooks
  - Legacy
  - etc
NOIE Interoperability Workshop: Outcomes

- Endorse and assist deployment of ebXML
  - Scope local repository/registry
  - Develop low-cost integration toolkit
- Best practice supplier enablement for eCatalog management
  - Supplier to publish once, read by multiple buyers
  - Separate content from order/settlement process and technology
- Payment reconciliation
  - Integrate information flows in transaction and payments
- Supply chain proof-of-concept
  - Document commercial benefits in vertical and horizontal chains
Learnings on managing collaborative eBusiness initiatives

- What contributes to successful, long-term B2B initiatives?
  - Identify urgent problems which cause pain for all stakeholders
  - Separate contestable/political (eg. increasing revenue streams) from collaborative/shared (eg. generating uptake/reducing cost)
  - Scope the business solution rather than technology solution. Defer technology decisions.
  - Establish central governance group for guidance/problem-solving
  - Establish equitable funding model. Investment=seriousness.
  - Open message development and controlled approach to IP/repository
  - Focus on communities who can ripple out B2B wins quickly.
Thank you

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