E-Business Implementation
The Singapore Experience

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Presentation Outline
• Part 1
  How Singapore Government Agency created a
  secure and trusted infrastructure for e-business
• Part 2
  How Singapore help the retail industry to scope
  up an e-business project
• Part 3
  How Singapore implement e-business for the
  FMCG industry

Part 1
Introduction
• E-Business has emerged as one of the most
  exciting and promising ways to enable
  companies to offer goods and services to
  their customers and potential customers
  globally.

A Framework to Build Trust and
Confidence in E-Business
• A secure public key infrastructure
• Establishing confidence in e-business
• Establishing credit bureau service
• Building user confidence
  - Trust Mark
  - Privacy Concerns

Legislation Passed by Singapore
• Electronic Transaction Act (ETA) which was
  passed in July 1998, aims to facilitate e-business
  by eliminating any barriers to e-business resulting
  from uncertainties over writing and signature
  requirements. A review of the ETA 1998 is
  currently in place to ensure that laws and legal
  framework remain relevant and competitive with
  international developments and changes
  Legal Guide to the Electronic Transactions Act
  1998.
Creating a Secure and Trusted Infrastructure

- In order to enhance the robustness of Singapore’s E-Business infrastructure to provide an environment in which both businesses and consumers could conduct online transactions confidently and securely, the Singapore Government has put in place a secure and trusted e-business infrastructure based on key initiatives listed in the following slides.

Singapore’s Efforts in developing infrastructure and confidence for e-Business

- 9 June 1999
  The Singapore One, a broadband network was launched to enable consumers to enjoy shopping, computer games, e-learning, movies, reservation of tickets and borrowing of library books from computers at home.
- 9 June 1999
  The Singapore National Electronic Product Catalogue was established to facilitate electronic business. It provides the platform for product data synchronisation.

Singapore’s Efforts in developing infrastructure and confidence for e-Business

- Creating a global seamless online environment involves creating a legal environment that recognises and facilitates electronic transactions across borders and eliminating outdated regulations. The Singapore Government has worked to create a conducive legal and pro-business policy environment to allow e-business and the internet to reach their full potential through various legislation and regulatory frameworks.

Developing a Public Key Infrastructure (PKI)

- The Singapore Government recognises, as does the industry players, that internet security is essential to safeguard transactions of those who use e-business. As a result of this common objective, the PKI Forum Singapore, comprising 19 key industry players including the Singapore Government, SingTel, DBS, CISCO Systems, Netrust, Phillip Securities, CrimsonLogic, NETS, NEC and VISA International, was formed in March 2001.

Developing a Public Key Infrastructure (PKI)

- PKI verifies the identity of the parties to an online transaction, ensures data has not been altered in transit, prevents a party from repudiating having sent the message, and makes certain that data remains confidential. The delivery of high-value or sensitive and confidential information online depends upon establishing a PKI to insure security, privacy, confidentiality and legally protected transactions in an electronic environment.

Asia PKI Forum

- The PKI Forum Singapore together with Japan and Korea took the lead to form the Asia PKI Forum in June 2001. The seven member countries include Singapore, Japan, Korea, Hong Kong China, Chinese Taipei, China and Malaysia. In an effort to achieve international interoperability, an MOU was signed by Singapore, Japan and Korea to kick-start an experiment that will facilitate interoperability of digital certificates amongst the participating countries.
Putting in place Secure E-Payment Services and Applications

- The willingness of a customer to transact and make payments online is a good proxy indicator of the user confidence and trust in electronic business. To put in place a robust and secure payment infrastructure, the Singapore Government has been collaborating with key industry partners and government agencies on a comprehensive suite of e-payment services which offer users an additional and convenient way of paying for their online transactions.

For debit payments, the Singapore Government recently facilitated the agreement between NETS and BCSIS to interconnect their payment switches for online direct debit. For credit card payments, IDA is working with the card associations to ensure that a secure user authentication service is in place as a means to minimise online credit card fraud. These debit and credit transactions are verified using the security framework of ebanking sites of the participating banks.

The secure user authentication enables participating card issuing banks to validate an online cardholder’s identity through authentication methods including passwords, digital certificates or biometrics during the on-line checkout process. This is a major step in helping merchants to have more confidence in e-business. More importantly, it ensures that the customer make his online payments in a secure and trusted environment.

Part 2
How Singapore help the FMCG industry to scope up an e-business project

Background
- Infocomm Development Authority of Singapore (IDA)
  - A Government Agency leading Singapore's drive to be a global infocomm centre and world-wide digital hub
  - Connected Singapore blueprint
    - Aims for Singapore to become one of the world's premier infocomm capitals
    - Transform industries

Electronic Supply Chain Management Eco-System
- Jointly initiated by ECR Singapore, SPRING and IDA
- ECR E-Business Standards Working Group
  - Formed in Jan 03
  - Chaired by Unilever Singapore
  - Members:
    - Retailers: Major Retail Chains
    - Manufacturers/Distributors: Asia Pacific Brewery, Energizer, KAO, Nestle, Sime Darby, Edible Products, Unilever, Yeo Hiap Seng
    - Government Agencies: SPRING and IDA
  - Role
    - build consensus and agree on e-business standards
    - engage industry to implement standards

Part 2
How Singapore help the FMCG industry to scope up an e-business project

- Singapore retail industry
  - Less productive than those in developed economies
  - Low adoption of e-business
  - costly and propriety point-to-point EDI systems
**Electronic Supply Chain Management Eco-System**

- Two-year project
- Major retailers lead the way
  - Implement e-procurement projects based on the standards
  - Establish shared service platforms for smaller suppliers
- More than 100 suppliers already connected
- SANC build a National Electronic Product Catalogue
- Estimated cost: S$20m (US$11.4m)

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**Part 3**

How Singapore implement e-business for the FMCG industry

- This project was jointly organised by ECR Singapore, Spring Singapore (the national standards body) and IDA (the government agency which promotes Singapore to be a global infocomm centre).

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**The E-Business Standards Organisation Structure**

- ECR Singapore
- Continuous Replenishment Working Group
- E-Business Standards Implementation Working Group
- Steering Committee

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**E-Business Project**

**PHASE 1**
- Initial project was to do CRP (Continuous Replenishment) with retailers

**PHASE 2**
- To continue with CRP and to expand it to food service sector and healthcare sector.

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**E-Business Project**

**Objectives**

- To reduce out of stocks
- Carry right quantity of inventory
- More effective and smooth operations
- Increase sales
**E-Business Project Implementation**

*Weaknesses*

- Supplier, retailer, IT Systems different (operating on different platforms and many interfaces required).
- Significant amount of manual tracking. High operation cost i.e. employing people to track stocks.
- High percentage of errors.

**ECR Singapore Continuous Replenishment Working Group**

*Recommendation*

- Provide a lower cost E-Business solution via XML.
- To adopt EAN.UCC XML Standard Messages which is a Global Standard endorsed by Global Commerce Initiative (GCI) to facilitate local and global exchanges of electronic messages.

**ECR Singapore Continuous Replenishment Working Group**

- The Working Group has concluded that to effectively implement Continuous Replenishment, E-Business process needs to be put in place.

**Launch of E-Business Project**

- This project was announced by Dr. Lee Boon Yang, Minister for Information, Communications and the Arts on 21st August 2003 as part of the E-SCM Eco-System for the FMCG Industry.
- This project was presented at the 6th Annual ECR Asia Conference on 9th October 2003 in Seoul, Korea.

**E-Business Solution Implementation**

- Initiated jointly by ECR Singapore, IDA and SPRING Singapore
- Support by 3 major retail chains (Initially)
- Support by suppliers involving more than 1,000 companies including SMEs
- Duration of project: 2003 / 2005

**E-Business Project**

*Part 1*

- Adoption of EAN.UCC XML Message Standards Version 1.31

*Part 2*

- Implementation
The E-Business Implementation Objectives

**Short Term Objectives**
- Eliminate inefficiencies along the Supply Chain and increase productivity through implementing E-Business Standards.
- Increase sales and profit through better availability and more efficient cost.

**Long Term Objectives**
- To move Singapore FMCG Industry to an International level that is comparable with those in Europe.

The E-Business Implementation Strategy

1. Using the Global E-Business Messaging Standards by EAN International
2. The development of a National Electronic Product Catalogue
3. Establish international linkages

National Electronic Product Catalogue (NEPC)

- SANC will enhance NEPC to enlarge the database and to connect with e-catalogues in Europe, USA and Asia
- NEPC will have a section on “New Product”.

Global Location Number

- A Location Number database has been developed and it is located at SANC website.
- It has been enhanced and interconnected with 60 global location number database in other countries.

The E-Business Implementation Tactics

- E-Procurement by major retail chains
- Continuous Replenishment to reduce out-of-stock situations and to optimise inventory levels to reduce wastage in the supply chain.

Profile of Suppliers

<table>
<thead>
<tr>
<th>Supplier Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Suppliers</td>
<td>17%</td>
</tr>
<tr>
<td>(S$100,000 per month)</td>
<td></td>
</tr>
<tr>
<td>Medium Suppliers</td>
<td>10%</td>
</tr>
<tr>
<td>(S$50,000 – S$100,000 per month)</td>
<td></td>
</tr>
<tr>
<td>Small Suppliers</td>
<td>73%</td>
</tr>
<tr>
<td>(below S$50,000 per month)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>
The E-Business Model
Retailers Connect to All Service Providers

This will enable a supplier when connected to any service provider able to communicate with all retailers.

Interoperability

- Suppliers will be able to connect with all retailers directly through the adoption of E-Business Standards
- Suppliers can also connect with all retailers by just linking with one single service provider

The Infrastructure of E-Business Platform

Overview of the B2B EC Infrastructure

Phase I

- Purchase Order
- Purchase Order Response
- Despatch Advice
- Invoice/Credit Note
- Single Order Multi-location Delivery

Phase II

- Sales Report
- Goods Return
- Confirmation of Receipt of Goods
- Request for Trading
- Free text for Remarks

Partial Order

- It was agreed that Partial Order would not be accepted.
- Any order not fulfilled will be treated as cancelled.
E-Business: Benefits

- Reduce out-of-Stock problems
- Reduce inventory levels
- Reduce errors in Purchase Orders
- Reduce errors in Delivery Orders
- Reduce errors in Invoices

E-Business: Benefits (continued)

- Achieve real time inventory data
- Achieve accurate sales forecast
- Achieve accurate party data exchanges through Global Location Number Database
- Achieve data alignment through the National Electronic Product Catalogue

Impact to Industry

On a global basis, the benefits derived for error free electronic transactions and out-of-stock situation amount to US$20 billion for FMCG industry.

Next

- The EAN.UCC XML Standard will be extended to cover activities between manufacturers and their distributors/wholesalers
- It will also be extended for the communication between Singapore companies and the manufacturing plants outside Singapore
- Discussions have already started in this direction with ECR Singapore’s counterparts in Malaysia, Hong Kong and Korea.

EAN International CEO’s Comments On This E-Business Project

“It is an outstanding news to know that a new standard (XML) will finally be implemented. As you know, the EAN community made an extra ordinary effort to develop this standard and it is an outstanding news that it is finally being implemented. Thanks for your effort.”

Mr. Miguel-Angel Lopera
2nd August 2003

Acknowledgement from EAN International On This Project

EAN International has acknowledged that Singapore is the first country in the world to implement the EAN.UCC XML Standard in such a large scale involving more than 1,000 companies which includes SME companies.
The National Electronic Product Catalogue (NEPC)

• To ensure error-free e-business transactions, data synchronisation through NEPC needs to be used.

What is NEPC?

• An internet accessible repository of product information and images in a standard electronic format

Objectives of NEPC

• To achieve master data alignment or maintenance of accurate and synchronised product information of trading partners to facilitate e-procurement.
• To remove unnecessary costs and increase the efficiency of the entire supply chain by improving the quality of the data exchanged.

Benefits of NEPC

• Enforces standard identification of products using EAN.UCC product identification numbers throughout the entire supply chain.
• Optimises space management in store and warehouse.
• Supports Computer Assisted Ordering
• Supports Continuous Replenishment

Steps to join NEPC

• Join SANC as a member
• Nominate at least one person from the company as the NEPC Administrator as the main contact person for all issues related to NEPC.
• Once registered as SANC/NEPC member, a set of user id and password will be issued to each authorised personnel to access NEPC.
• Training on how to access NEPC will be provided for all new members.

http://www.nepec.sanc.org.sg
Responsibilities of NEPC Administrator

- Registering their company to access NEPC.
- Constantly maintaining the accuracy of product information in NEPC.
- Adding new product information into NEPC via the website.
- Deleting obsolete products from the catalogue.
- Granting catalogue access to members of their organisation for viewing of product information.

NEPC Users

- Suppliers
- Retailers
- SANC
- Guest (generic log on user id for non SANC/NEPC members)
- www.nepc.sanc.org.sg

Supplier’s Functionalities

- Browsing of product information and images
- Add New Product Information
- Amend Product Information
- Delete Product Information
- Search for product by category, brand, supplier or by keyword

Submitting Product Information

- NEPC Administrator will submit their company’s product information via the online NEPC.
- NEPC Administrator should read through the NEPC Data Dictionary to understand the various data fields definitions & how the information should be entered before keying in the product information.
- All information submitted via the website will be reflected instantly on the screen.

Amending/Deleting Product Information

- Suppliers should constantly update all product information in NEPC.
- All amendments made via the website will be reflected instantaneously.
- All deletions done using the website will also be reflected instantaneously.

Product Images

- Suppliers who wish to have their product images (new or replacement of existing images) featured in NEPC will require the assistance of SANC.
- Suppliers may submit photographs, brochures or digital images of their products to SANC for imaging and uploading to NEPC.
Product Images

Minimum requirements for coloured photographs, product brochures:

- Coloured Photographs (minimum 3R size) featuring only a single product in an upright position with plain white or grey background.
- The EAN/UPC barcode number must be written behind the photographs/brochures.
- Overlapping/stacking of products featured in photographs/brochures are not acceptable.

Product Images

Digitised product images

- Must be in jpeg format.
- Digitised images should be saved using the product barcode number as the filename, eg, 8881234567895.jpg

Charges Involved

<table>
<thead>
<tr>
<th>Service</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Submission of product data</td>
<td>Free</td>
</tr>
<tr>
<td>Display of product image</td>
<td>S$65 per product + 5% GST</td>
</tr>
<tr>
<td>Replacement of product image</td>
<td>S$65 per product + 5% GST</td>
</tr>
<tr>
<td>Digitising product advertising filmlet</td>
<td>S$500 per filmlet + 5% GST</td>
</tr>
<tr>
<td>Incorporating digitised product advertising filmlet into NEPC</td>
<td>S$300 per filmlet + 5% GST</td>
</tr>
</tbody>
</table>
Next Steps

- Promote adoption by suppliers and other supermarket retailers
- Extend to other retail segments
- Extend to the Hospitality and F&B industries
- Extend to other messages
e.g., Sales Report, Cross Docking related
- Extend to international transactions
  - SANC is in discussion with counterparts in Malaysia, Hong Kong, and Korea

Thank You!
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1. Background

Vision: e-Trade Korea, Innovation 2007

Organization: National e-Trade Facilitation Committee, July 2002

e-Trade Process Innovation BPR/ISP as One of e-Government Projects, December 2003 ~ June 2004

National e-Trade Facilitation Committee

Chair: Prime Minister

Secretary: Ministry of Commerce, Industry and Energy

Committee: Ministers & Chief in Private Sector

Platform

W/G Finance

W/G Logistics/Customs

W/G Law/Global

W/G Marketing

W/G Pilot

W/G Secretariat

Secretariat

Administrative Committee

Chair: Vice Minister of MOCIE

Secretary: Director General for Trade Policy

Committee: Director of Bureau, Private e-Trade Facilitation Committee

Chair: Director General of MOCIE, Trade Policy

Committee: Director of Public, Private e-Trade Facilitation Committee

Private Sector

Korea International Trade Association

Korea Trade Investment Promotion Agency

Federation of Korean Industry

Korea Chamber of Commerce and Industry

Private e-Trade Facilitation Committee

Korea Trade Network

And more

Ministry of Commerce, Industry and Energy

Ministry of Finance and Economy

Ministry of Foreign Affairs and Trade

Ministry of Information and communication

Ministry of Construction and Transportation

Ministry of Maritime Affairs and Fisheries

Ministry of Justice

Korea Customs Service

and more

2. Strategy

Process Innovation Information Strategic Planning

Current Process Analysis & To-be Process Modeling

Marketing

Financial Settlement

License/Certificate

Insurance

Logistics

Trade Declaration

e-Trade Platform Design


Organization Legal System on e-Trade Institutional Model Incentive & Community Supporting System Bilateral/Multilateral Agreement on International Collaboration International Collaboration Mutual Recognition on Global e-Trade APEC, WCO, UN/CEFACT, PAA, EU IST, ASEM, Asia PKI International Support National e-Trade Infrastructure
5. Implementation Plan

4. e-Trade Platform Architecture: Service Framework (2/3)

Phase 1

<table>
<thead>
<tr>
<th>Company</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trading</td>
<td>提升贸易效率，实现贸易流程的电子化和标准化</td>
</tr>
<tr>
<td>Trading</td>
<td>增强贸易服务，建立贸易文档流通系统</td>
</tr>
<tr>
<td>Trading</td>
<td>建立贸易平台的基础设施，服务贸易流程</td>
</tr>
</tbody>
</table>

- e-Standard Registry (ebXML RegRep)
- e-Document Repository
- Management Service
- EDI-to-XML Transformation
- ebXML Core Component based XML
- L/C Consolidation & Settlement Limit
- Messaging Hub (EDI, XML)

Phase 2

<table>
<thead>
<tr>
<th>Company</th>
<th>Goal</th>
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<tbody>
<tr>
<td>ERP</td>
<td>实现贸易流程的标准化和电子化</td>
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<tr>
<td>CMS</td>
<td>提升贸易服务的集成度</td>
</tr>
<tr>
<td>Application Server / OS</td>
<td>实现贸易服务的系统管理</td>
</tr>
<tr>
<td>Application</td>
<td>实现贸易服务的远程灾难恢复</td>
</tr>
</tbody>
</table>

Phase 3

<table>
<thead>
<tr>
<th>Company</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing Supporting System</td>
<td>实现贸易服务的无缝流程</td>
</tr>
<tr>
<td>System Management Service</td>
<td>实现贸易服务的远程灾难恢复</td>
</tr>
<tr>
<td>SSO</td>
<td>实现贸易服务的在线环境</td>
</tr>
<tr>
<td>Interface with Related Parties</td>
<td>实现贸易服务的国际竞争力增强</td>
</tr>
</tbody>
</table>

6. ROI

- Reinforce Productivity
- Reduce IT Investment for SME
- Reduce Repetitive Submission
- Reduce 4 Hours using e-Trade for Trade Transaction
- Process Innovation
- Global Leader on e-Trade as e-Government Plan

- Process Analysis:
  - Saving USD 1.6 Billion Each Year in Korea Trade Community by Using e-Trade Platform
  - Developing USD 40 Million for three and half years (2004.7~2007.12)
  - Global Leader on e-Trade as e-Government Plan

- Quantitative Analysis:
  - International Competitiveness Reinforcement
  - Seamless e-Trade Service
**BizDex Overview**

*ebXML and WebServices – for businesses large and small*

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Director e-Business Strategy  
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**BizDex Background**

- A 2001 government study showed that broad scale automation of collaborative business processes offers significant value to the Australian economy (2% of GDP), but only if widespread adoption of B2B may be achieved.
- A 2002 government sponsored symposium in Melbourne agreed that, to date, technology has been unable to deliver on broad scale B2B interoperability. The symposium recommended an ebXML architecture and a commercial / governance framework as a mechanism to drive B2B interoperability.
- Proof-of-concept projects run during 2003 have led to the pilot infrastructure now known as "BizDex".

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**The problem for Business**

*Arghhhhhh! Just fax me!!!*

Each connection requires a different technical solution.

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**Imagine if . . .**

Imagine if someone created a solution, that automatically set up B2B collaborations . . .

- Between multiple trading partners.
- Across many different business processes.
- Using a variety of certified B2B standards and off the shelf enterprise applications.

**Imagine if . . .**

Imagine if peer-to-peer B2B collaborations could be set up . . .

- Leveraging existing infrastructure.
- Without disengaging existing VAN or e-Marketplace relationships.
- Without altering internal business processes.
- Without constantly engaging costly professional services.
- Without paying ongoing subscription or transaction fees.
- For a one time cost of less than $100 per trading partner.
The BizDex Vision

To bring B2B interoperability to:

- Common business processes.
- Using different software applications.
- Between thousands of businesses.

The Challenge

To reduce set-up costs to the point where genuine system-to-system B2B interoperability may be justified even for low transaction volumes.

The BizDex Strategy

- Simplify the Standards Landscape
- Automate B2B Set-Up
- Spread B2B compliance costs

How Does BizDex work?

- Spread B2B Compliance Costs
  - Opportunities emerge to build B2B communities.
  - Organisations build "plug-in" components which enable enterprise applications to comply with public processes.

- Automate B2B Set Up
  - Businesses publish their profiles and search for partner profiles on BizDex.
  - Profiles include:
    - Contact Information (White Pages)
    - Classification Information (Yellow Pages)
    - Business Service Interface (Green Pages)

BizDex reduces cost by providing a partner discovery framework and single point for profile maintenance.
How Does BizDex work?

**Automate B2B Set Up**

- Trading partners may download plug-in components to BizDex Connector or existing middleware infrastructure.
- Trading partners may use BizDex to calculate the agreement and configure their middleware platforms.

BizDex reduces cost by Automating the set-up of B2B Collaborations.

How Does BizDex work?

**Transacting with BizDex**

- Once set-up, trading partners exchange transactions directly and pay no transaction fees.
- Transactions are secure and reliable, complying with public process requirements.

Business transactions are peer-to-peer and so not visible to the BizDex Framework.

How Does BizDex work?

**Manage the B2B Community**

- Large enterprises building a community may use BizDex Lifecycle Management services.
- BizDex assist communities to manage change.
- Public Process Change
- New Partners
- Partner Changes

BizDex Community Management Service.

What does BizDex provide?

- A governed repository of public standards.
- A service to manage the B2B community.
- A governed library of integration components.
- A platform for set-up of B2B integrations.
- A service to set-up B2B trading partner agreements.
- A service to manage the trading partner lifecycle.

BizDex Business Review

Public - Private Partnership
Commercial model

BizDex in a nutshell

BizDex is a service, supported by a commercial and governance framework which provides the environment necessary for B2B collaborations to flourish. BizDex is built upon a collection of infrastructure components:

- A Standards Library.
- A Registry of Community Data.
- Commercial Services.

Confidence
Trust
Security
Authority
Rapid Scale
Competition
Innovation

### BizDex Ownership

**Independent Vendors or Industry Leaders**

The BizDex Board

- Currently BizDex reports to the CITEC Board.
- Propose to establish BizDex Pty. Ltd. as a not-for-profit entity.
- Charter to reflect the interests of the "Public Good".
- Currently sponsored by Standards Australia and NOIE but seeking to expand ownership and board structure.

### Proposed Mission of the BizDex Board

To be a trusted and independent, not-for-profit, consortium of government and recognized standards bodies, committed to B2B standards simplification, partnering with private enterprise to deliver low cost, scaleable, B2B interoperability to all Australian businesses.

### Public Infrastructure Funding

Funded through Standards Creation activity.

- Branded use of infrastructure.
- Subscriptions
- Professional Services:
  - Public Process Creation
  - Certification Services
- Revenue share of commercial services.

Supported by Government and Standards Bodies.

### Commercial Business Model

**Free Services**

- Registration and Discovery
  - Registration on BizDex is a free service.
  - Trading Partner search and discovery is a free service.

**Optional User Pays Services**

- Last Mile Integration
  - Customers may choose to purchase integration components from BizDex.
  - Customers may choose to use the BizDex connector platform or existing middleware infrastructure.
Trading Partner Agreement
- Customers may choose to have BizDex establish a trading agreement.
- Trading partners negotiate the distribution of agreement calculation fees.
- The customer only pays once the set-up and agreement is complete.

Community Management
- Customers may choose to use BizDex Community Management Services.
- Community Life Cycle Management
- Community Status Reporting
- Community Change Management

Commercial Model Value Proposition
- Core BizDex services are free.
- BizDex commercial services are optional.
- Customers may re-use their own private infrastructure.
- Payment for commercial services is delayed to point of use.
- Governance and certification underpin quality of service.
- Service providers compete in an open technical and commercial framework.
- Use of BizDex is open to individual businesses and communities such as VANs or e-Marketplaces.

Who is BizDex for?
- Government
- Industry Associations
- Large Business
- Small Business
- ERP Software Vendors
- SME Software Vendors
- B2Bi Software Vendors
- VAN’s & Marketplaces

BizDex Project Review

Where are we now?
Issues & challenges

BizDex – Past, Present and Future.
- Needs Assessment
- Phase 1 Proof of Concept
- Production Infrastructure Build
- Populate Library of Industry Standards
- Production Release planned for early 2005

Industry Consultation April 2002
Engage Working Group January 2003
Industry Consultation December 2003
Standards Australia December 2003

ITOL grant awarded to Standards Australia December 2003
Issues, challenges, next steps

- Consensus amongst diverse stakeholders
  - Vendors promote their own technology & “standards”
  - Governments are risk adverse
  - Standards bodies are wary of new business models

- Aligning benefits and costs
  - Benefits from a B2B automation are often one-sided. The company that is reaping the benefits needs to provide incentives to its partners to collaborate.

- Release BizDex data model and interface definitions as public
  - Release BizDex data model and interface definitions as public standards
  - Provide a certification framework for “BizDex compliant” implementations

How does BizDex work?

BizDex is a collection of open infrastructure components that, together with a commercial and governance framework, provide the environment necessary for B2B collaborations to flourish.

What makes up a Public Process?

Standards exist at each layer. A robust methodology and governance structure is required to harness the capability.

Public, Private – What is the Difference?

Whatever a trading partner has to do to comply with the public process.

The language of the community.
BizLib – Start by modeling the business collaboration

From “helicopter” domain view down to detailed service model

Generate the process schema from the model

Then generate the information schema

Harmonise and publish to BizLib repository

Re-use of BizLib processes and/or core components simplifies and harmonizes the B2B standards landscape, facilitating interoperability.

BizLib in a nutshell

BizDex - The role of a registry service

BizLib provides:
- Tools & Methodologies
- Certification Processes
- Harmonisation Framework
- Naming & Design Rules
- Independent Governance

BizDex - The role of a registry service
A UDDI Registry is the heart of BizDex

- White Pages
- Yellow Pages
- Green Pages
- Identifiers
- tModels
- Repository objects
- Federation

The BizDex Quality & Trust process

The value of BizDex is directly related to the quality of the data it contains.

Meta Data Mapping

BizLink Overview

BizLink connector can be regarded as a set of standards compliant "nuts & bolts". BizLink connector is enabled to perform a particular private process by schema which reside in the BizDex repository.

BizLink Architecture

A fundamental requirement is that the BizLink connector supports international open B2B standards. Furthermore, the architecture must be flexible enough to permit support for new standards as they emerge.

BizLink Transactions

The BSI layer manages compliance with the public process and obscures that complexity from other layers. The BSI essentially manages the state of a collaborative process.
### BizLink – private processes

The BPM is the heart of the BizLink connector. It is responsible to execute all the steps defined in the BPEL private process schema.

### BizLink – self configuration

Before BizLink can process an inbound message, it needs to be "programmed" with appropriate private process schema and partner profiles.

### What does BizDex provide?

- A governed repository of public standards.
- A service to manage the B2B community.
- A governed library of integration components.
- A platform for set-up of B2B integrations.
- A service to set-up B2B trading partner agreements.
- A service to manage the trading partner lifecycle.

### The Scenario

**IDES US Inc.**

**Steve Capell**
Managing Director
Red Wahoo Pty Ltd.

**Quicken**

**David Rouse**
Trading Partner Liaison Officer
IDES US Inc.

### The Five Steps

1. **Invite**
2. **Set-Up**
3. **Negotiate**
4. **Transact**

### Open Discussion
BizDex Overview

ebXML and WebServices – for businesses large and small

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