

Governance in a Web Services World

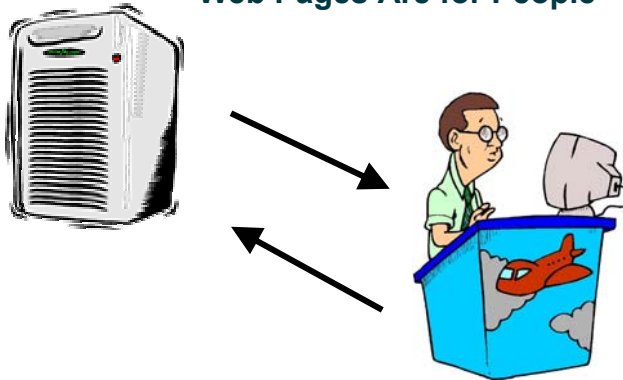
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So You Think the Web is Great?

- Presenting information (and even transactions) in Web Pages has allowed organisations to get much closer to their clients.
- Industries like airlines have transformed their businesses through Web Based Reservation Systems.
- New businesses like WOTIF.COM have appeared.

But there is a limitation with all these example . . .

Web Pages Are for People



What if we wanted to truly Automate Business Processes?

Some Automation Opportunities

- Validation (Read Only)
 - Look up information in another organisation's database
 - Checking in a government database to see if a person is licenced
- Order Fulfilment
 - Bidding and supplying on an order that was announced via the Web
- Connecting Different Business Partners into a Single Service Offering
 - Rent a Car companies and Airlines
 - Government and Private Sector Organisations
 - Motor Dealer Registering a New Vehicle
 - Integrated vehicle certificate check

Characteristics of Automation – So Far

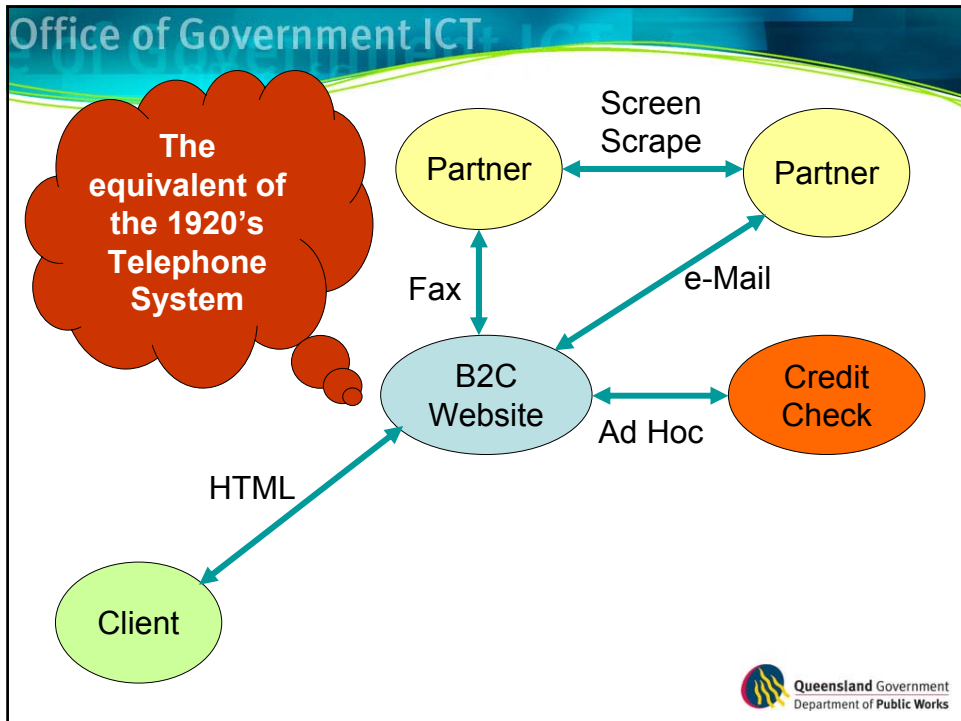
- Systems designed and built specifically for a given task
- Systems built around tight SLAs with our business partners
- Business partners were known before we started building the system to transact with them (and will remain so)
- In some cases - based on screen scraping Web Pages which were initially designed for people

Are We Limiting Ourselves?

- Imagine owning a telephone that could only connect to phones of the same brand and even maybe phones of the same model.
- Imagine an office environment where you can only make telephone calls to the people in your building – and only to people who have had their phones already wired up to yours.
- Imagine an office where telephone calls could only be made for a predefined purpose.
- Imaging an office where technicians would be required to work (sometimes for months) to establish connections with new people you wanted to call.

In the 1920's Phone systems worked this way.

What about today?



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Key Messages !

- Web Pages are for People
- If you want Program to Program Interaction over the Web then use **Web Services**
- Web Services are about exposing traditionally internal components of business functionality between partners at the program to program level.

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Architecture

- Web Services can be poorly architected
 - usable only by known client applications.
- Well architected Web Services
 - usable by unknown future client applications.
- Service Oriented Architecture (SOA) can make the difference – allowing design to maximise unforecast use.

Well architected Web Services can provide a platform for innovative new business opportunities.

We Have to get the Architecture Right

Expose discrete components of business functionality via Web Services

Web Services Have Features to Support Automation

- A Communication Platform (HTTP and TCP/IP Security)
- Universal Data Format (XML)
- A Protocol providing an envelope, encoding rules and a response convention (SOAP - Simple Object Access Protocol)
- A Language to provide a common way to describe what Web services are and do (WSDL - Web Services Description Language)
- A Language to simplify the orchestration of multiple Web Services into a coherent business process (WS-BPEL – Web Services Business Process Execution Language)

So We have the Tools – Why aren't we Using Them?

Web Services aren't always being treated
as a business issue or opportunity by all
parties.

Program to Program integration between organisations is a Green field

Green Field – Opportunities for Government

- **Industry can deliver existing government services on behalf of government** with systems that are integrated at the programmatic level
- **Examples**
 - Motor Vehicle Dealers can register vehicles
 - eMove where industry can front-end government services often adding value (e.g. multi-jurisdictional scope)

Green Field – Opportunity for Business

- **Industry can create new business models (that do not duplicate government services)** underpinned by programmatic access to government systems
- **Examples**
 - Business and professional licence confirmation and application
 - Grant access and application assistance service, etc

What Needs to Be Done?

- Work needs to be done at both ends of the business transaction (Government and Business). Both government and business have to agree priorities.
 - Selecting the right services to be published.
- Establish standard schemas for business objects of interest (eg customer address) and clear unambiguous definitions of elements.
 - What does 'name' mean? What format is 'name'?
- Governance processes to oversee changes, priorities and ongoing performance of services.

Yes it's a Green Field – *BUT . . .*



There are a number of issues that need to be resolved.

Risks

- Business Opportunities are missed because systems are not available.
- We need to understand the changing dynamics created by this technology. Work done by government may be done by industry Understanding must precede action!
- Industry partners fail to deliver services at the appropriate quality.
- Privacy Issues.
- Security of Government Information.



Is The Opportunity Real?

- On a small scale this is happening now
 - Motor Dealers already register new vehicles
 - eMove
- There is a growing demand from Industry to access Government information through the Web.
 - Screen Scraping is common (Automating Web Pages).
- Opportunities are not simply Government ² Business. There are Business ² Business opportunities as well.
 - The Key to sustainability is standards.

So Where to From Here?

The Role of the Education Sector

- **Business Research and Training**
 - Research into standards, governance models
 - Research into business models
 - Include opportunity assessment and business models in business and information systems courses
- **Technical Research and Training**
 - Research into Web Services Standards and Schema definitions
 - Graduate technicians familiar with the building blocks of Web Services and the Architectural concepts that underpin this approach

The Role of Industry

- Look for business opportunities based on program to program automation between entities across the Internet
- Work with Higher Education and Government to set priorities, develop standards and support governance models.
- Ensure that new business models have sufficient support to work at the levels of quality required.

In the Short Term – Office of Government ICT will . . .

- Publish all of the Web Services available within government and keep industry informed of additions.
- Work with agencies and industry to develop standard schemas, definitions and architectural approaches.
- Work to highlight the opportunities across government
 - Read Only Information
 - Business Process Review

Industry Contact Points

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Questions

