

UDDI Overview (shortened from UDDI.org)

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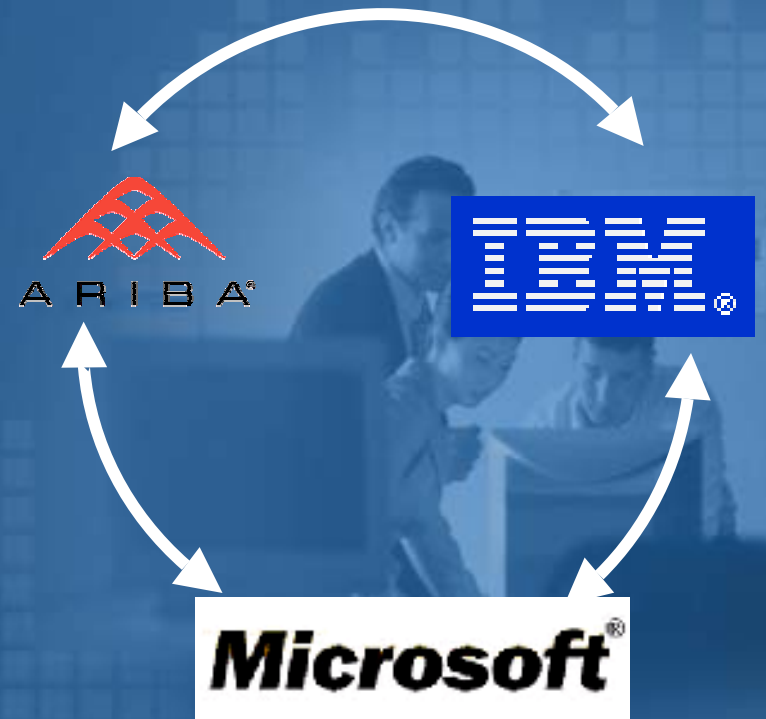
New Zealand

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How did this come about?

- Naturally “evolved”
 - Ariba and IBM collaboration around B2B
 - IBM and Microsoft collaboration around XML and SOAP
 - Microsoft and Ariba collaboration around BizTalk and cXML
- 6 months, ~50 meetings



What is UDDI?

- A project to speed interoperability and adoption for web services
 - Standards-based specifications for service description and discovery
 - Shared operation of a business registry on the web
- Partnership among industry and business leaders
- Universal Description, Discovery, and Integration

What Problems Do We Solve?

**Broader
B2B**



A mid-sized manufacturer needs to create 400 online relationships with customers, each with their own set of standard and protocols

**Smarter
Search**



A flower shop in Australia wants to be "plugged in" to every marketplace in the world, but doesn't know how

**Easier
Aggregation**



A B2B marketplace cannot get catalog data for relevant suppliers in its industry, along with connections to shippers, insurers, etc.

*Describe
Services*

*Discover
Services*

*Integrate
Them
Together*

UDDI v1 Implementation



Manufacturers



Flower Shops



Marketplaces

UDDI Business Registry

- ◆ Programmatic descriptions of web services
- ◆ Programmatic descriptions of businesses and the services they support
- ◆ Programming model, schema, and platform agnostic
- ◆ Uses XML, HTTP, and SOAP
- ◆ Free on the Internet

How UDDI v1 Works


1.  SW companies, standards bodies, and programmers populate the registry with descriptions of different types of services

2.  Businesses populate the registry with descriptions of the services they support

3. UBR assigns a programmatically unique identifier to each service and business registration



4.  Marketplaces, search engines, and business apps query the registry to discover services at other companies

5.  Business uses this data to facilitate easier integration with each other over the Web

Registry Data

- **Businesses register public information about themselves**
- **Standards bodies, Programmers, Businesses register information about their Service Types**

White Pages

Yellow Pages

Green Pages

Service Type Registrations

White Pages

- **Business Name**
- **Text Description**
 - list of multi-language text strings
- **Contact info**
 - names, phone numbers, fax numbers, web sites...
- **Known Identifiers**
 - list of identifiers that a business may be known by - DUNS, Thomas, other

Yellow Pages

- **Business categories**
 - **3 standard taxonomies in V1**
 - **Industry: NAICS (Industry codes - US Govt.)**
 - **Product/Services: UN/SPSC (ECMA)**
 - **Location: Geographical taxonomy**
 - **Implemented as name-value pairs to allow any valid taxonomy identifier to be attached to the business white page**

Green Pages

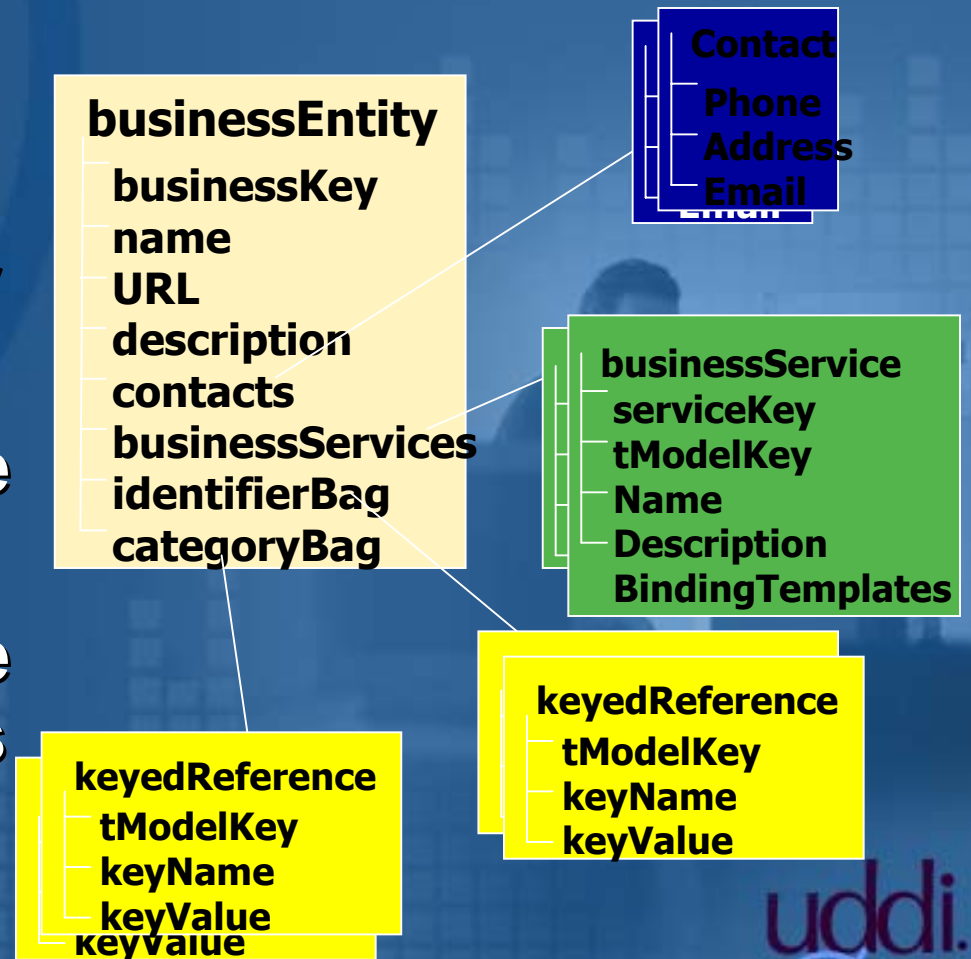
- **New set of information businesses use to describe how to “do e-commerce” with them**
 - **Nested model**
 - **Business processes**
 - **Service descriptions**
 - **Binding information**
 - **Programming/platform/implementation agnostic**
 - **Services can also be categorized**

Service Type Registration

- **Pointer to the namespace where service type is described**
 - **What programmers read to understand how to use the service**
- **Identifier for who published the service**
- **Identifier for the service type registration**
 - **called a tModelKey**
 - **Used as a signature by web sites that implement those services**

Business Registration

- XML document
- Created by end-user company (or on their behalf)
- Can have multiple service listings
- Can have multiple taxonomy listings



Example of a Registration

businessEntity

- TB993...
- Harbour Metals
- www.harbourmetals.co.au
- *"Serving Inner Sydney Harbour for ..."*
- contacts
- businessServices
- identifierBag
- categoryBag

Peter Smythe

— 872-6891

— 4281 King's Blvd, Sydney, NSW

— Peter@harbourmetals.co.au

businessService

- 23T701e54683nf...
- Online catalog
- *"Website where you can ..."*
- BindingTemplates

keyedReference

- EE123...
- **NAICS**
- **02417**

keyedReference

- DFE-2B...
- **DUNS**
- **45231**

BindingTemplate

- 5E2D412E5-44EE-...
- <http://www.sydney.net/harbour...>
- tModelInstanceDetails

tModelInstanceInfo

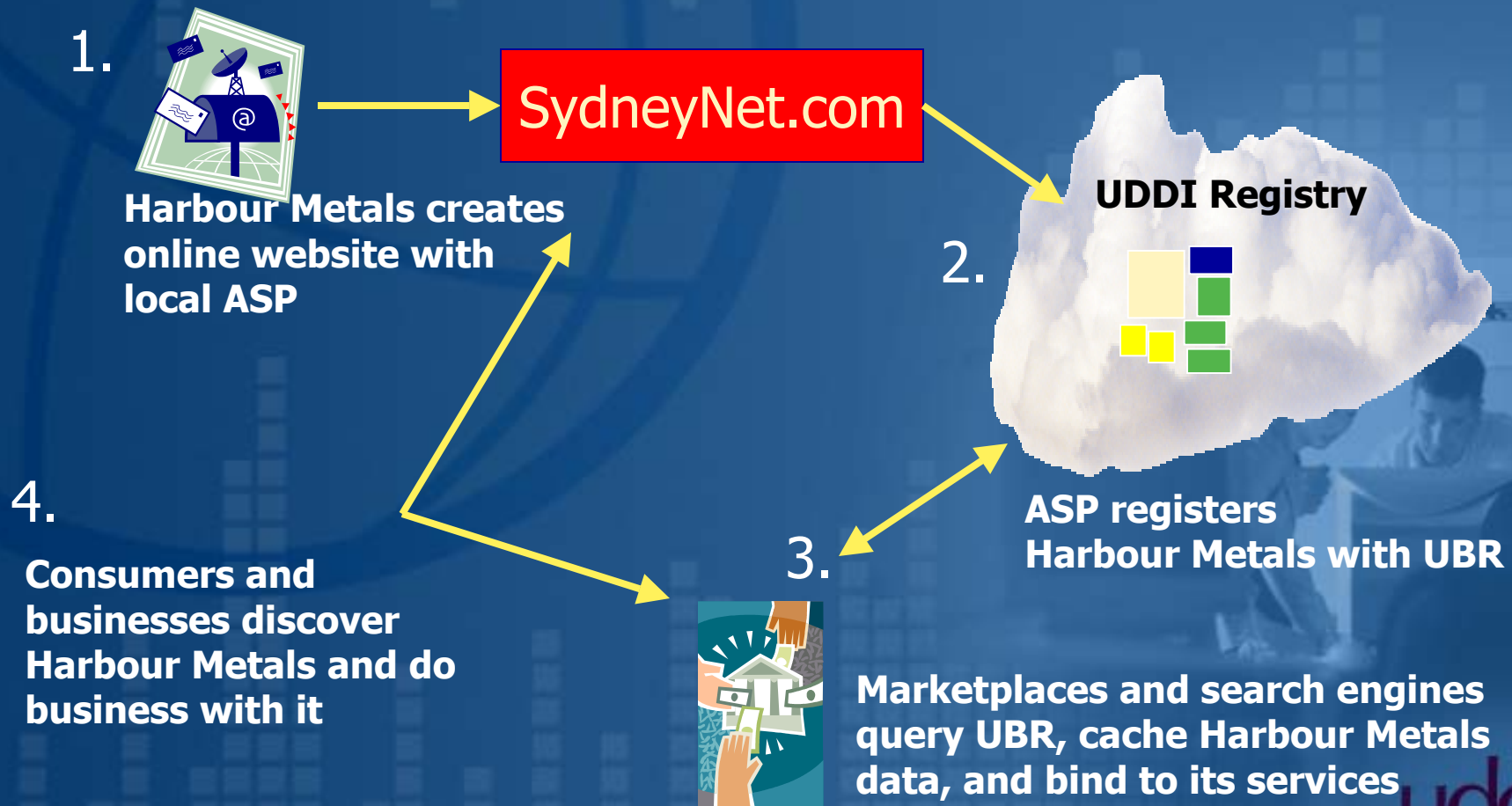
- **4453D6FC-223C-3ED0...**
- <http://www.rosetta.net/catalogPIP>

tModelKeys

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UDDI at Work



Registry Operation

- Peer nodes (websites)
- Companies register with any node
- Registrations replicated on a daily basis
- Complete set of “registered” records available at all nodes
- Common set of SOAP APIs supported by all nodes
- Compliance enforced by business contract



Why a DNS-like Model?

- Enforces cross-platform compatibility across competitor platforms
- Demonstration of trust and openness
- Avoids tacit endorsement of any one vendor's platform
- *May migrate to a third party*

Summary

- Significant effort that unites existing standards with a shared implementation
- Open process with clear roadmap to a standards body
- Industry momentum