



Web Services Some Real Examples and Key Adoption Issues

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Agenda

- Start
- Real Web Service @ Bekins Co.
- Real Web Service @ MedBiquitous
- Web Services 101 to 210
- Opportunities and Risks
- General usage TODAY
- Takeaway - Your Web Services Strategy Outline
- References
- Finish

Web Services - What in on earth are they ?

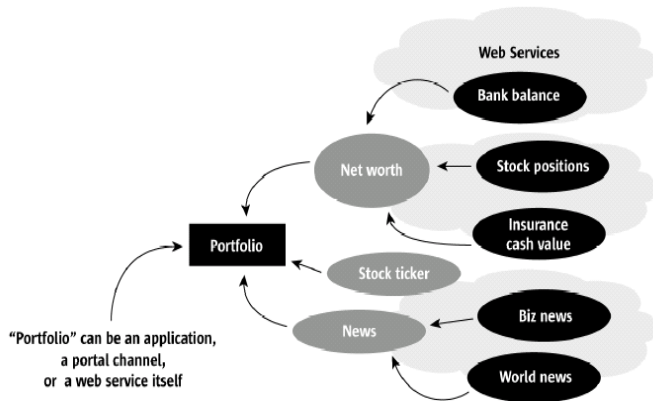
"encapsulated, loosely coupled,
contracted software objects"

Web Services - What in on earth are they ?

"encapsulated, loosely coupled,
contracted software objects"

Yeah right !

The concept and the drivers are simple



Moore's Law (Processing Power)
Gilder's Law (Connectivity)
Metcalf's Law (Network)
Broadband (Always On)

Vision: The UDDI Nirvana

Business, Description, Contact, Identifier (e.g. DUNS)

Business Categories - 3 Taxonomies (Industry, Product/Service, Geographical)

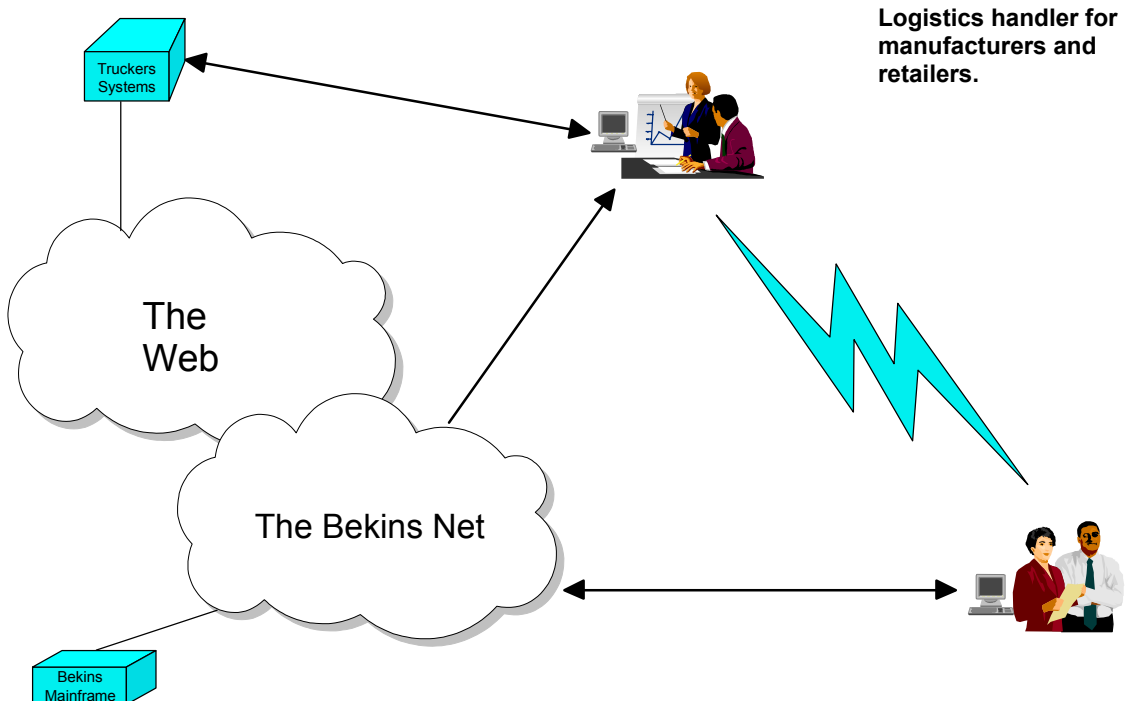
How to do business with me ? (BP, SD and Binding Information), Implementation Agnostic

Where can I find details ?, Who published this ?, Service Type - tModelKey

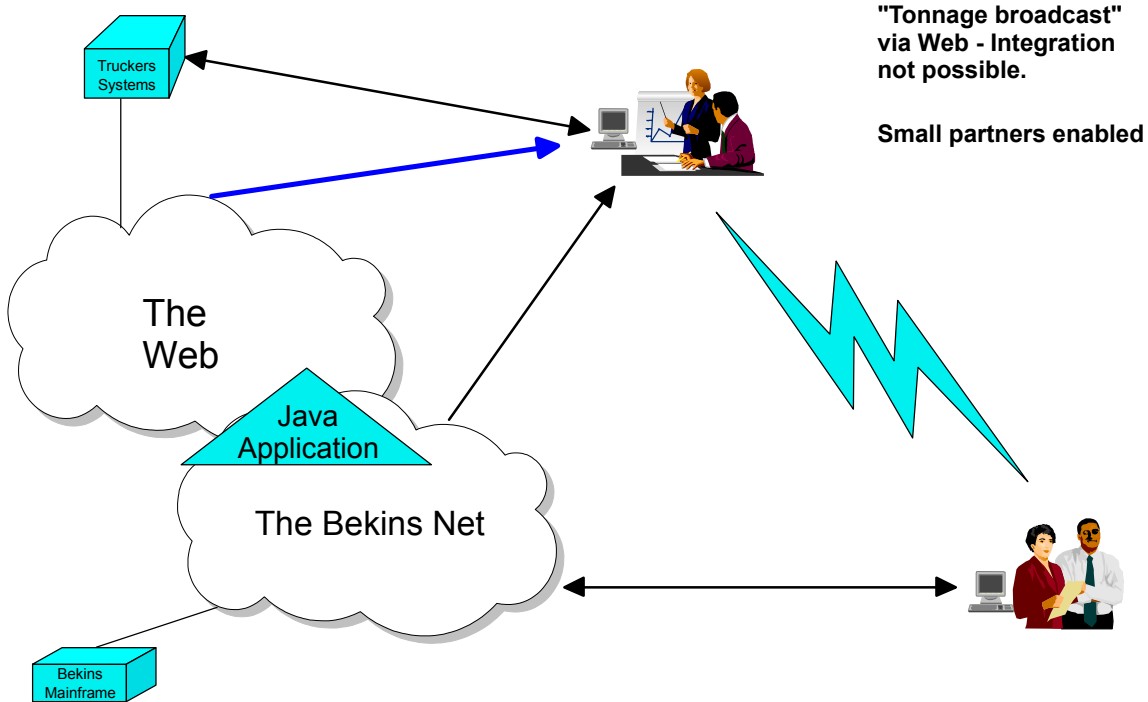
The State of the Art

Bits being used

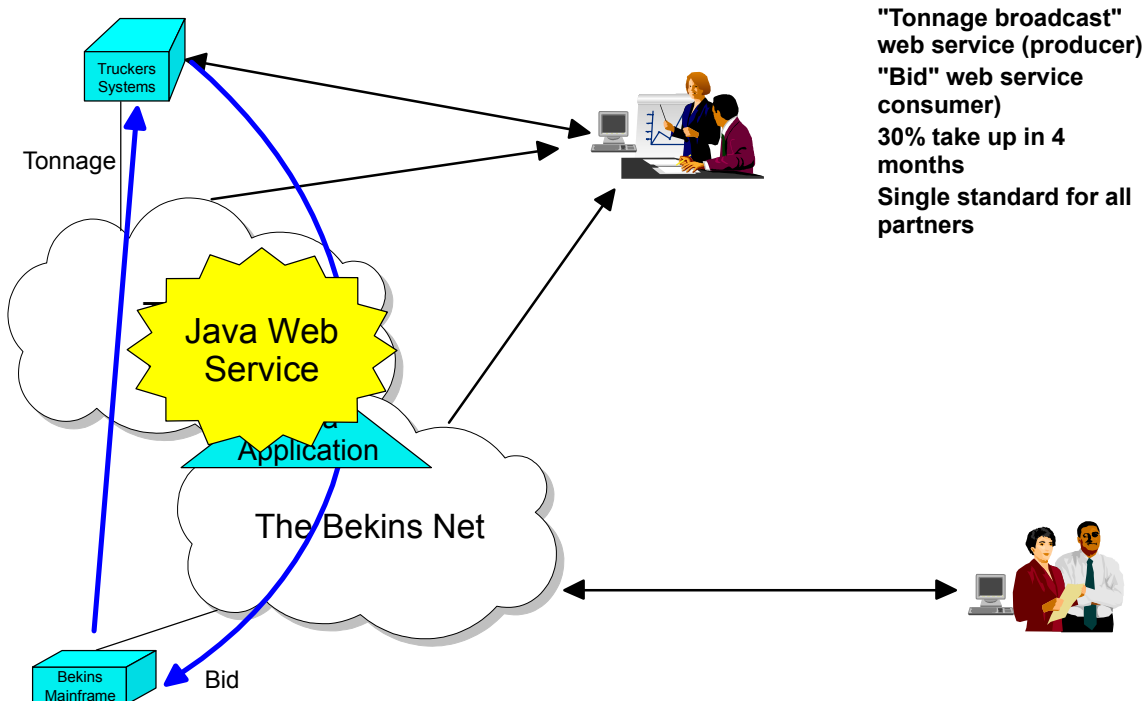
Real Web Service @ Bekins Co., Illinois



Bekins with the Web



Bekins with Web Service



Real Web Service @ MedBiquitous

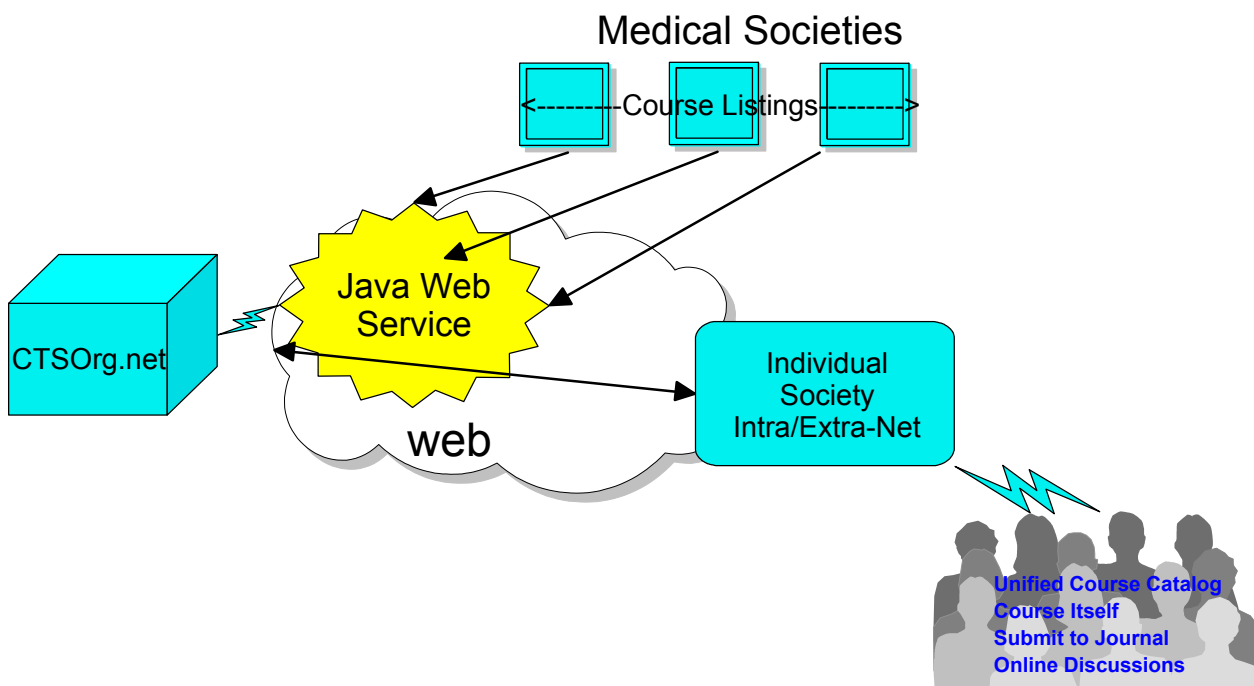
- **Gather course listings from all over and publish as web service**
 - ▶ Unified course catalogue
 - ▶ Take courses without leaving home base
- **Shared CorMed applications as a web service**
 - ▶ Membership application
 - ▶ Journal article submission application
 - ▶ Online discussion forum

"My goal was to instantly be able to put my fingers on the latest information from the around the world, all with a single sign-on," says Greene. "We learned that we could share a common server and middleware to help us stay in touch."

Dr Peter Greene, the associate dean for emerging technologies at Johns Hopkins University Medical School in Baltimore, quoted in cio.com.

He is also the Executive Director of the MedBiquitous Consortium

Real Web Service @ MedBiquitous



The essentials (101 to 210)

- **XML-RPC**
 - ▶ RPC wrapped in XML sent via HTTP POST
 - ▶ 64 on <http://www.xmlrpc.com/directory/1568/implementations> on 20th May 2002, 9.20pm, NZT
- **SOAP - you do have a supermarket of them**
 - ▶ 80+ on <http://www.soapware.org/directory/4/implementations> on 17th May 2002 at 11.07pm, NZT
 - ▶ The de facto RPC standard for a web service
- **WSDL**
 - ▶ The declarative specification standard for a web service
- **UDDI**
 - ▶ Slated to be the equivalent of Internet DNS of web services, two public registries in place, can be INTERNAL to an org or community
- **XML**
 - ▶ All specifications are described in XML, Whiz-dull is an XML language

Missing by design

- **Security**
 - ▶ Left it to HTTP, if that is good for you, then fine, else
 - ▶ Not a barrier inside the enterprise nor amongst "trusted" partners
- **ACID Test (Atomic, Consistent, Isolated and Durable)**
 - ▶ Gosh I are still current !
- **Business Process**
 - ▶ 2+ years of work to be done
 - ▶ Do you follow the Biztalk vs ebXML war ?
- **RAS (yes I mean the good old stuff)**
 - ▶ Watch the WS-I space
- **Inter-operability**
 - ▶ Watch the WS-I space

The opportunities (In order of adoption)

- **Realise "Best of Breed"**
- **Cost Reduction and lower B2B e-business Cost barrier**
- **Enable new applications to support new business opportunities**

The opportunities

- **Realise "Best of Breed"**
 - ▶ Allows pieces of software to talk to one another "unassisted", cheaply and easily.
 - Allow applications running in different parts of an organization, or in different organizations, to exchange data "unassisted" easily and cheaply.
 - ▶ Use universal and non-proprietary data standards
 - Integration between new software and legacy systems will be simple.

The opportunities

- **Realise "Best of Breed"**
- **Cost Reduction and lower B2B e-business Cost barrier**
 - ▶ By lowering the cost of software integration between systems as compared to a typical EAI effort.
 - ▶ By standardising skill sets
 - ▶ By lowering the cost and complexity of value chain integration

The opportunities

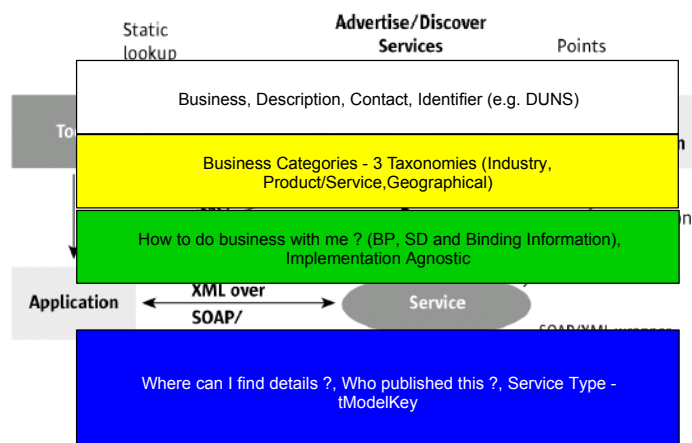
- **Realise "Best of Breed"**
- **Cost Reduction and lower B2B e-business Cost barrier**
- **Enable new applications to support new business opportunities**
 - ▶ Global Ski Resort Finder
 - ▶ Google Search
 - ▶ FedEx/UPS Tracking
 - ▶ SOAP SMS
 - ▶ Send FAX
 - ▶ EDGAR Search
 - ▶ Currency Exchange Rate

The risks

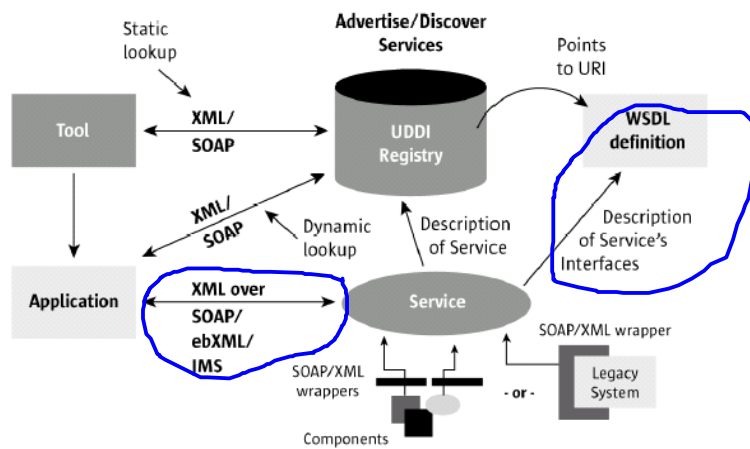
- **Remember SQL89**
 - ▶ and high functionality extensions by db vendor 1
- **And SQL92**
 - ▶ and more high functionality extensions by db vendor 2
- **And the OO support in DBMS standard**
 - ▶ which never happened !
- **How about the universal standard HTML**
 - ▶ How many HTML variations were there at last count
- **Inter-operability can not be taken for granted as standards are in a flux**
- **Higher Level Standards are NOT moving very fast**

I am not a cynic !

So where are we today ?



Current usage focus



J2EE = Write once, Run Everywhere w/o Change

Web Services = Integrate with One and Integrate with all w/o Change*

* I reserve the right to change my opinion based on "embrace and extend for lock in behaviour in the market !"

Take Away - Web Services Strategy Outline

- **Business**
 - ▶ **Service Taxonomy for Candidate Applications**
 - Consumer candidates
 - Producer candidates
 - ▶ **Business Applications**
 - COTS Business Applications - **Rate of support**
 - Custom Built (or Heavily Modified) Core Business Applications
 - ▶ **People**
 - Skills - NEW TOOLS - YetAnotherLearningCurve
 - Knowledge - **NEW THINKING***
 - ▶ **Business Model**
 - Producer, Consumer, Manager, All
- **Technical**
 - ▶ Existing EAI Investment
 - ▶ **Single Vendor or Single Standard**
 - ▶ Value Chain Participants
 - ▶ End User Experience
 - ▶ Delivery Metaphor - Browser vs Rich Win or Mac
- **LINUX ??????**
- **Adoption ROADMAP/BLEUPRINT for 6-12 months**

* I have coined the 4LA - Service Oriented OO (SOOO™)

References

- **Usage and Commentary**
 - ▶ www.cio.com
 - ▶ www.darwinmag.com
 - ▶ The Economist and Fortune
- **Gospel**
 - ▶ www.xml.org
 - ▶ www.uddi.org
 - ▶ www.w3.org
- **Industry Analysis**
 - ▶ www.middleware-company.com
 - ▶ www.stencilgroup.com
 - ▶ www.zapthink.com
- **Technology and Product Providers**
 - ▶ www.sun.com/software/sunone/docs/arch/chapter1.pdf
 - ▶ www-106.ibm.com/developerworks/webservices/
 - ▶ java.sun.com/webservices/
 - ▶ XML Web Services Basics, Roger Wolter, Microsoft Corporation December 2001
- **Various New Zealand Knowledge Sources**
- **What is available ?**
 - ▶ www.xmethods.net
 - ▶ www.xmlrpc.com



Thank You

This presentation and links to some
references are available at
www.prashanta.com

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