

J2EE and Web Services for Managers

Understanding the Hype



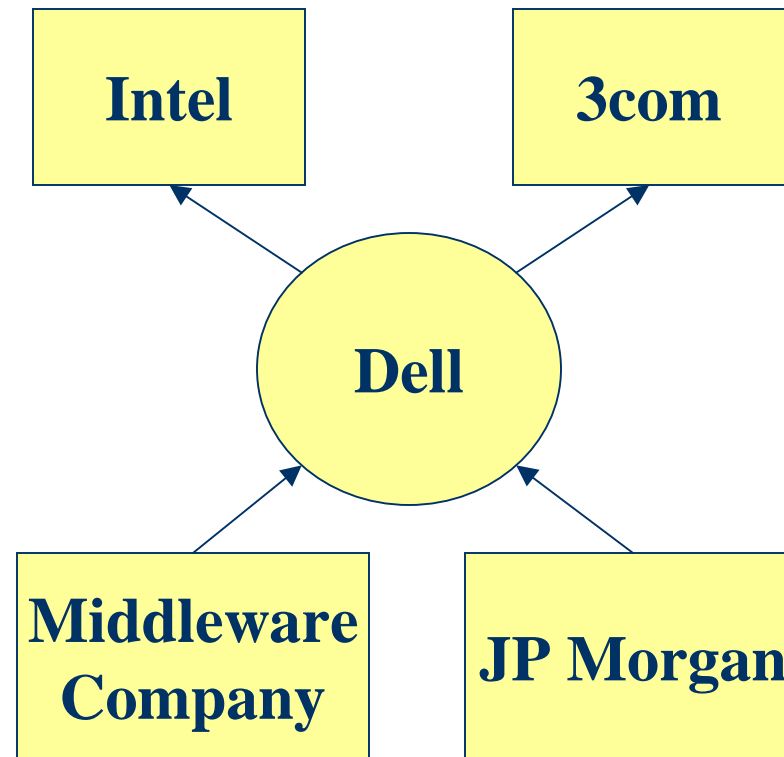
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► Motivation for Web Services



- ◆ *What are the challenges with B2B integration?*



▶ Problems with the world before web services



- ◆ Component wars
- ◆ Language wars
- ◆ Firewalls
- ◆ No agreement on interoperability

▶ Web services defined



- ◆ Paradigm:
 - Service-oriented architecture
 - "Assembly line" concept
- ◆ Technology is XML over (typically) HTTP
 - XML: Because businesses agree on it
 - HTTP: Because it gets through firewalls

▶ What is a web service?

◆ Web Service Definition:

- A **web service** is simply a remote procedure call (RPC) over the web that uses XML as the calling format



- Not unlike some of the other RPC mechanisms...

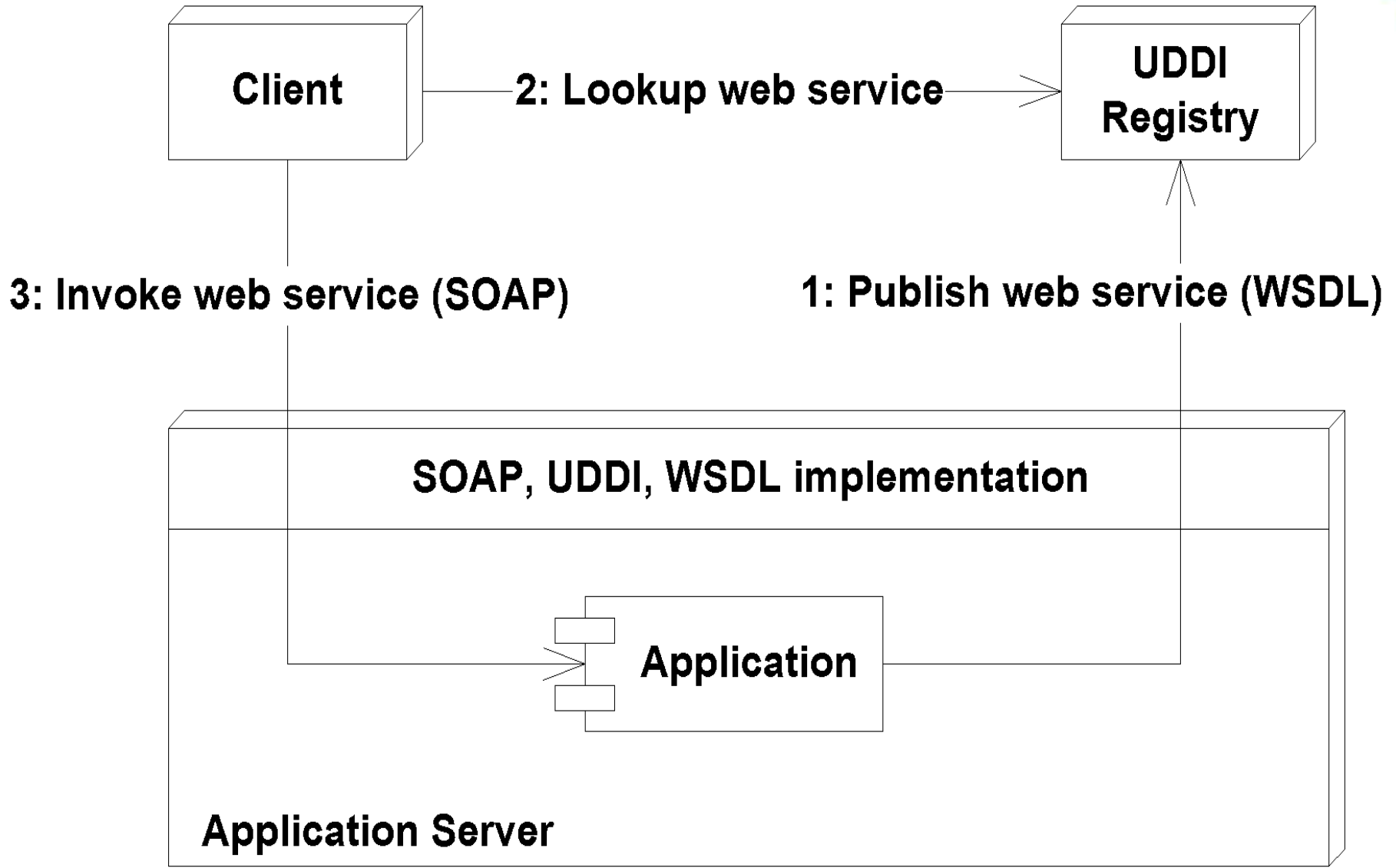


▶ Web services technologies



- ◆ Typical web services technologies:
 - UDDI: Used to **lookup** a web service
 - WSDL: Used to **describe** a web service
 - SOAP: Used to **call** a web service (XML/HTTP)
 - ebXML: Used to conduct complex business conversations and flow on top of SOAP

► How web services work



▶ Web services "hype"



- ◆ Smart
- ◆ Vendors agree on all technologies
- ◆ Dynamic discovery
- ◆ Silver bullet

▶ The Middleware Company's "Reality View" of web services



- ◆ Smart? **Not yet**
- ◆ Vendors agree on all technologies? **Not yet**
- ◆ Dynamic discovery? **No**
- ◆ Silver bullet? **Hell No!**

▶ The Middleware Company's "Reality View" of web services



- ◆ Web services are old technologies wearing a funny new hat
 - You can get XML/HTTP today with sockets
 - You can describe services with IDL or interfaces
 - You can register services via JNDI or Active Directory
- ◆ So why will web services succeed?
 - It is simple
 - People agree on it
 - All major vendors are pushing for web services
 - People are excited about them
 - People are beginning to use them in projects

▶ The real benefits of web services



- ◆ Paradigm benefits
 - Loose application coupling
 - Independent application evolution
- ◆ Interoperability
 - 'Component wars' and 'Languages wars' don't matter
 - Standardization of integration technologies
- ◆ B2B
 - Leverages Internet - Cheaper than VANs
 - Extensible
- ◆ EAI
 - Non-intrusive integration

▶ The web services challenge



- ◆ Why was EJB / COM+ technology so popular?
 - Because even one vendor can benefit from it
- ◆ Why is Jini not taking off as fast?
 - Because you need collaboration.
 - Results in chicken-and-egg.
- ◆ Web services for B2B have the same challenge
 - Who's going to be the first?

▶ The web services challenge



- ◆ Predictions:
- ◆ Web services for EAI will spawn marketplace
 - EAI is useful for even one vendor
 - General industry agreement on web services, unlike Jini
- ◆ Web services for B2B will happen more slowly
 - Requires collaboration