Web Services & Distributed Objects

Architectures for Decentralized Applications

Panelists: Rohit Khare, Henrik Frystyk Nielsen, & Mark Thomsen

ISR Research Forum 17 June 2003 UC, Irvine

Panelists

- Rohit Khare
 - ISR & KnowNow, Inc.
- Henrik Frystyk Nielsen
 - Microsoft, Inc.
- Mark Thomsen
 - Alodar Systems

A Tale of Two Technologies

- Distributed Objects (CORBA)
 - Component-oriented
 - Application-Programming Interfaces
- Web Services (SOAP)
 - "Service-oriented"
 - Application-Layer Protocol interfaces

Distribution vs. Decentralization

- Managing inventory at multiple outlets
 - Enterprise Resource Planning (ERP)
- Merging with another retailer...
 - Enterprise Application Integration (EAI)
- Integrating directly with suppliers...
 - Exchanges, Trading Webs, Directories, ???

Panel Discussion

1. Are these different technologies?

- Are protocols better than APIs? If so, how and why?
- What, exactly, is a service? Why is it so hyped?

2. Are these different problems?

• Is decentralization a genuine problem today? in the future?

3. How to choose the right hammer.

- What features of each technology support decentralization?
- Does it really matter which you choose, or it just a detail?

My Position

- 1. Protocols are better than APIs because they are designed with outsiders in mind.
- 2. A service is merely a component operated for others.
- 3. There are risks latent in misapplying distributed technology to a decentralized application domain.
- 4. There are fundamental advantages of Web Services over Dist. Objects for Internet-scale integration:
 - Better able to cope with network failures.
 - More likely to expose dependencies explicitly.