



Service Oriented Architectures

Living the Dream or the Nightmare?

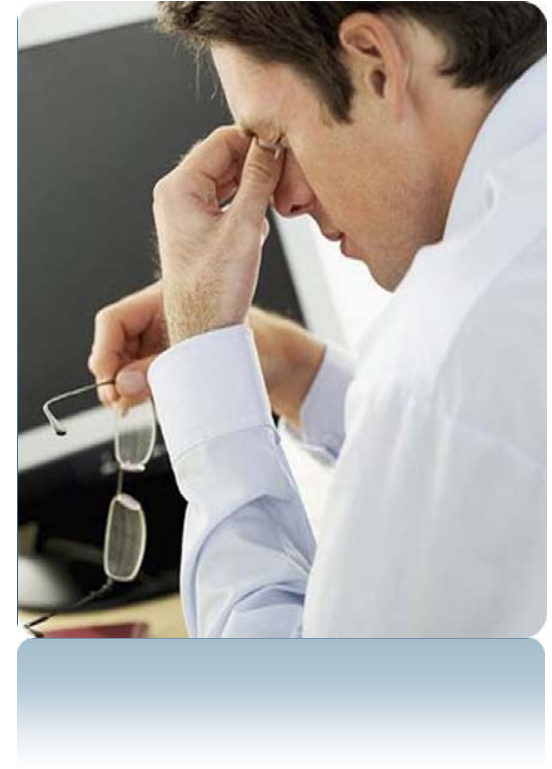
Philippe Lalande – Sun Microsystems, Inc.
Head of the OSS through Java™ Initiative
<http://ossj.org>
Member of the Board of Directors of the
TeleManagement Forum
<http://tmforum.org>



IT Applications Portfolio Challenge

- Well Over \$1 Trillion invested in IT annually
 - > ~30% of budget is for failed projects
 - > ~60% of budget is for maintenance of current apps
- **Large Applications Backlogs**
- **IT Portfolio Lifecycle Management: “Portfolio Obesity”**
 - > Number of applications
 - > Size of applications

Source: Robert Handler, Gartner



(Cross-) Industry Challenges

How to

Develop deploy
and manage better
applications and
services faster
with lower TCO



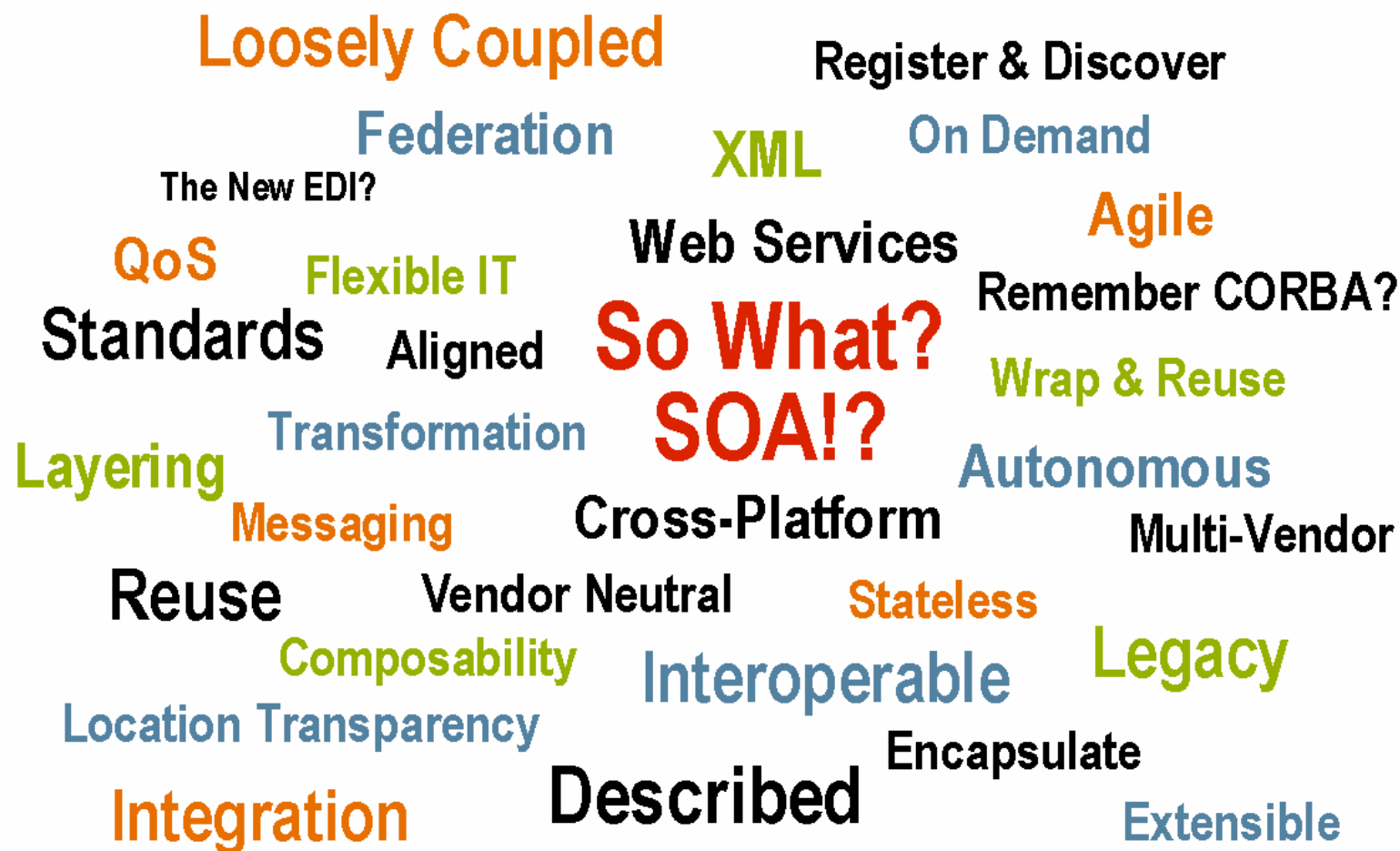
How to

Leverage data and
processes already
in place in legacy
systems to build
new generation of
services

SOA Buzz!

- SOA is a **catalyst for business transformation** enabling your business to thrive on change. . . . SOA is a technology-based embodiment of your business **(Forrester Research)**
- IT must change its primary operating mode from delivering applications to a mode of **delivering strategic business flexibility** . . . **(Forrester Research)**
- By 2006, more than 75% of midsize and large enterprises will have **deployed** SOA-enabled development tools and middleware **(Gartner)**
- By 2006, more than 60% of enterprises will consider SOA a **guiding principle** in designing their new mission-critical business applications and business processes. **(Gartner)**
- By 2007, focus will **shift** from basic infrastructure **to business frameworks** via Web services-based, Service-Oriented Architectures. **(Meta Group)**
- “By 2008, SOA will be a **prevailing software engineering practice**, ending the 40-year domination of monolithic software architecture” **(Gartner)**

SOA? Hype or Reality!



The word cloud features the following terms:

- Loosely Coupled
- Register & Discover
- Federation
- XML
- On Demand
- The New EDI?
- Web Services
- Agile
- QoS
- Flexible IT
- Standards
- Aligned
- So What?
- Remember CORBA?
- SOA!?
- Wrap & Reuse
- Transformation
- Layering
- Autonomous
- Messaging
- Cross-Platform
- Multi-Vendor
- Reuse
- Vendor Neutral
- Stateless
- Legacy
- Composability
- Interoperable
- Location Transparency
- Encapsulate
- Integration
- Described
- Extensible

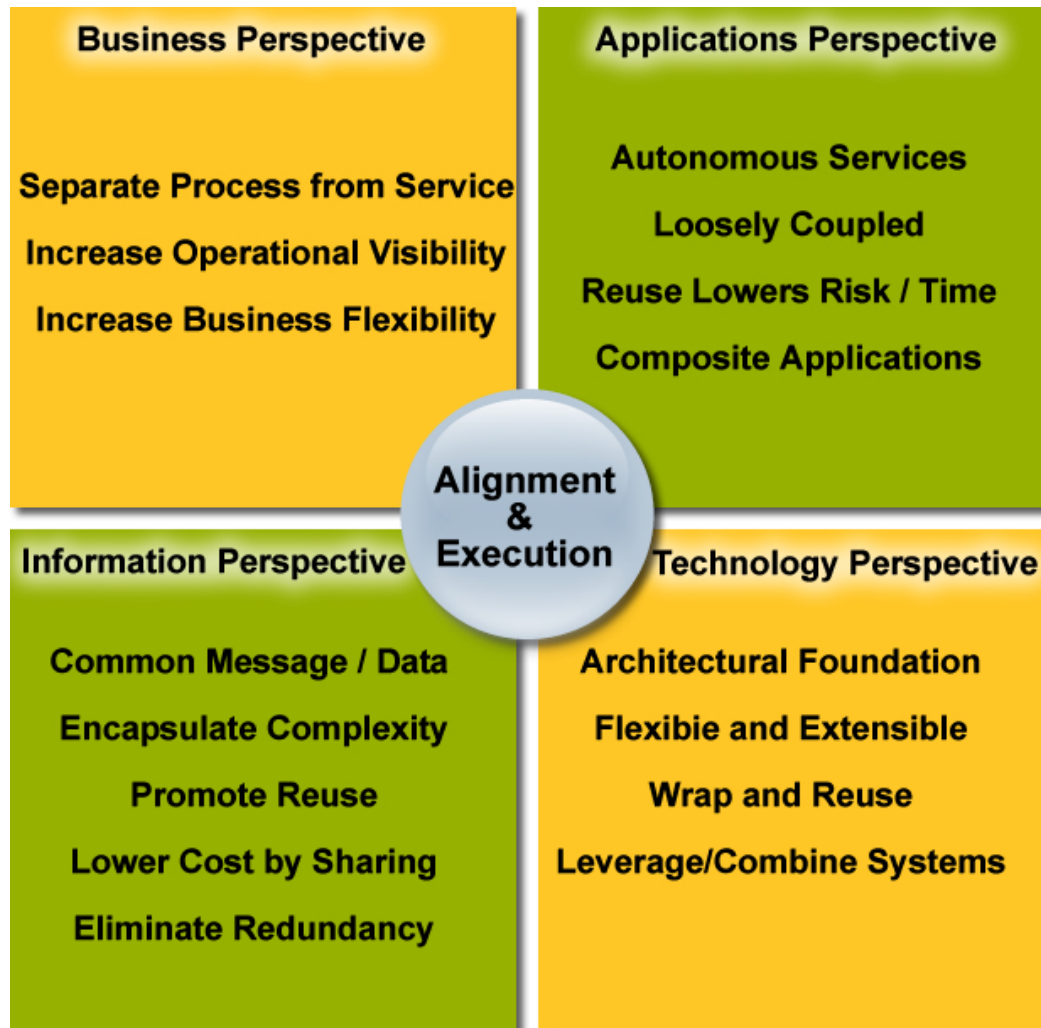
SOA Transcends...

SOA is more than any particular set of products or technologies, such as web services, JBI, ESB...; it transcends them, and, in a perfect world, is totally independent of them...

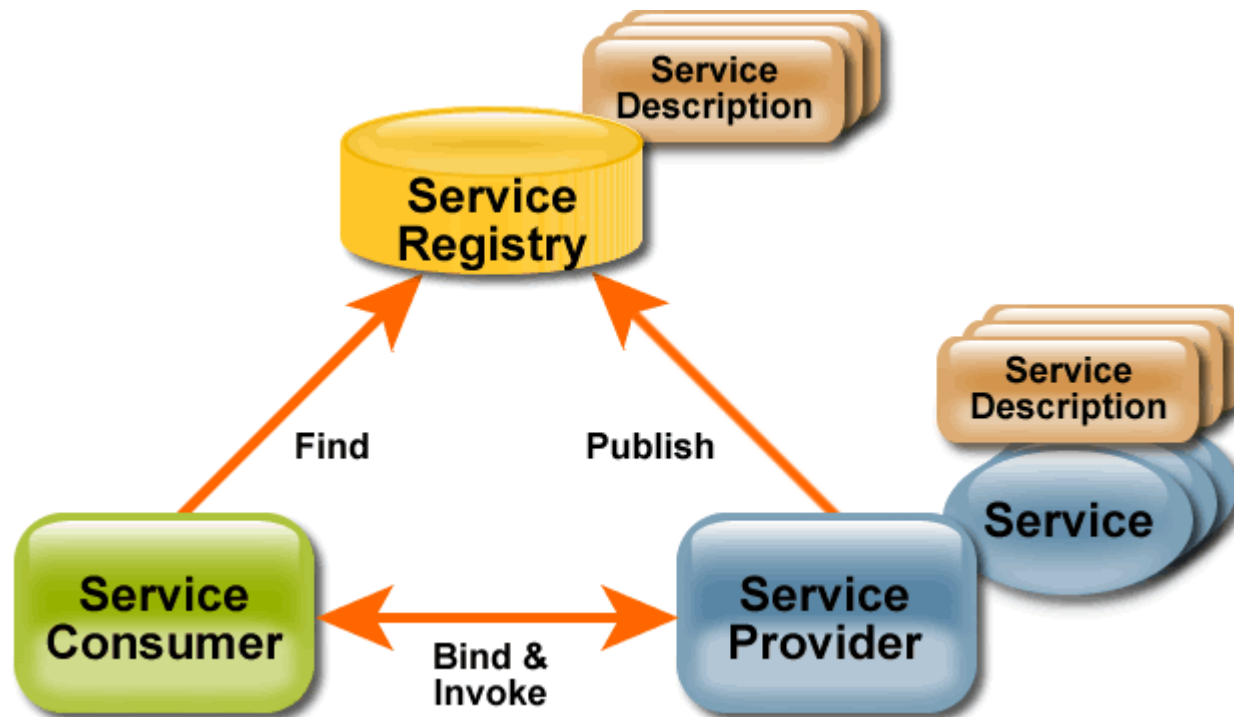
To have a Service Oriented Architecture implies that the IT organization of an enterprise pursue business and technical strategies which promote the exposure of business functionality and data within and between enterprises in a manner which is... Consistent.. Published ..Secure ..Contractual

SOA Perspectives

Organizational Impact

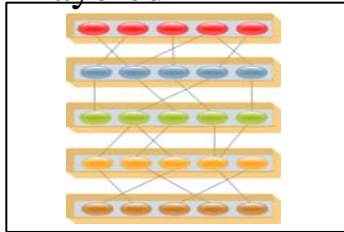


SOA Conceptual Model

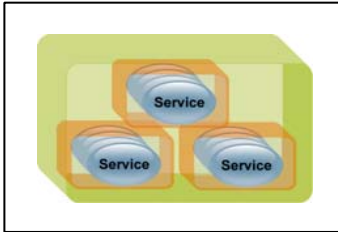


SOA Big Rules – Eye Chart

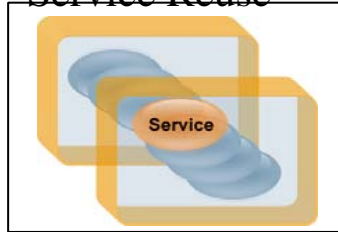
Layered



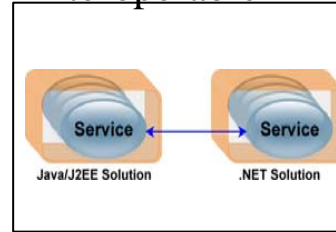
Modular & Autonomous



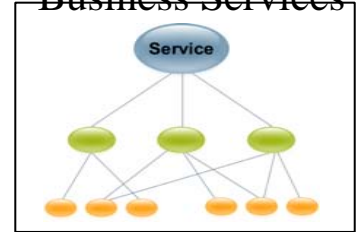
Service Reuse



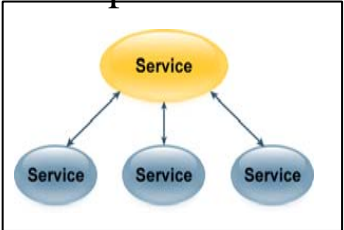
Interoperable



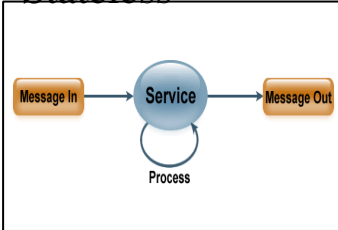
Coarse-Grained Business Services



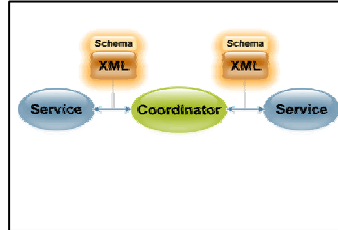
Composable



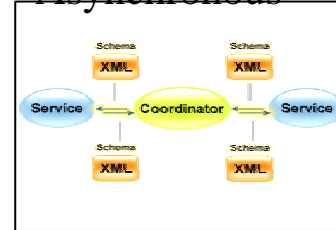
Stateless



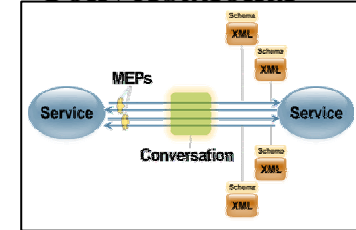
XML Doc-Based



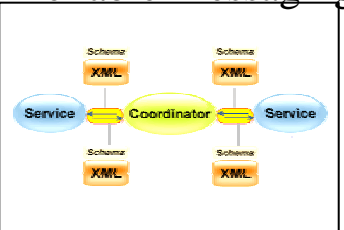
Asynchronous



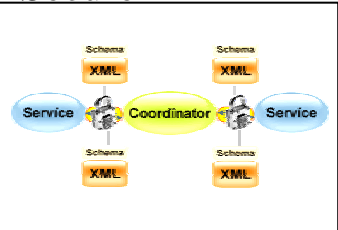
Conversational



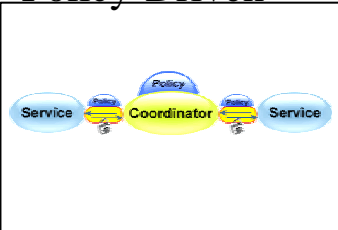
Reliable Messaging



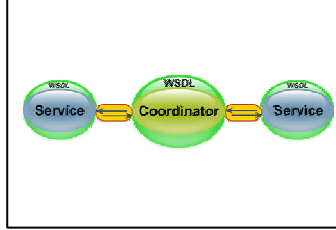
Secure



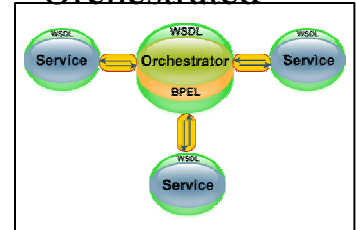
Policy-Driven



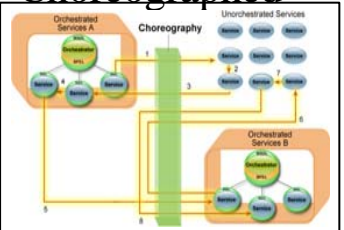
Described



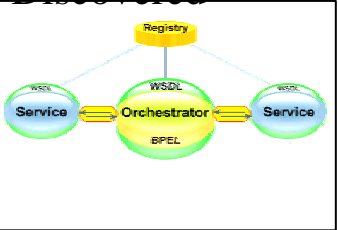
Orchestrated



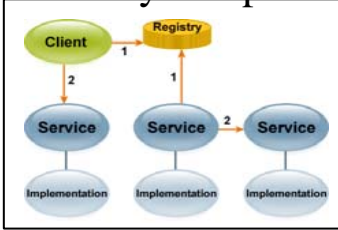
Choreographed



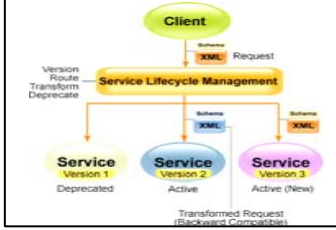
Registered & Discovered



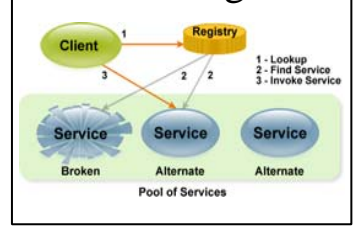
Loosely Coupled



Versioned

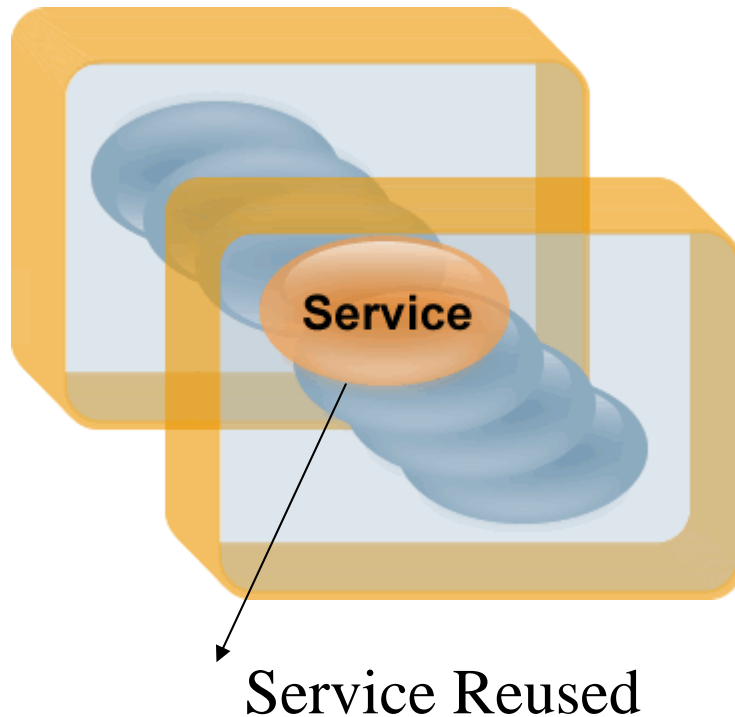


Self Healing



SOA Big Rule

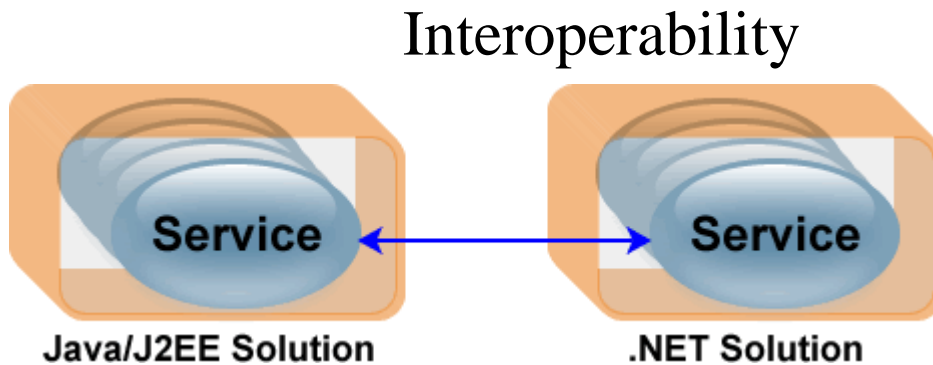
Reuse



- Business Services
- Common Services
- Utility Services
- Reductive Analysis

SOA Big Rule

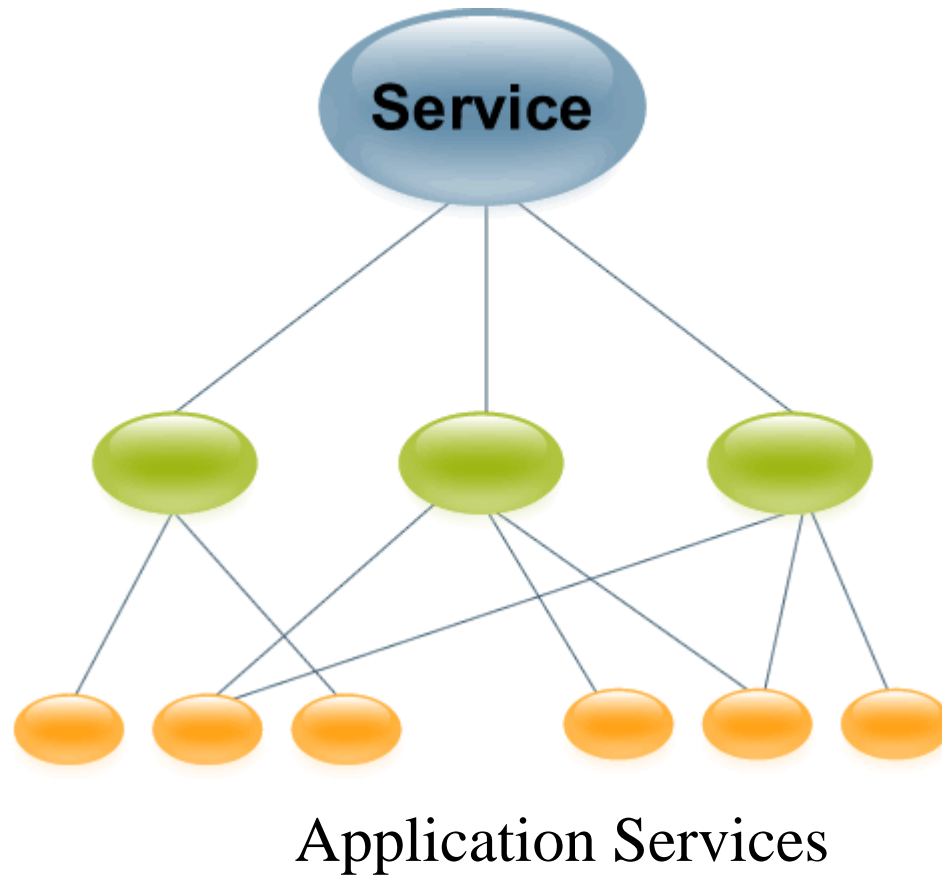
Interoperable



- Platform
- Vendor
- Protocol
- Data

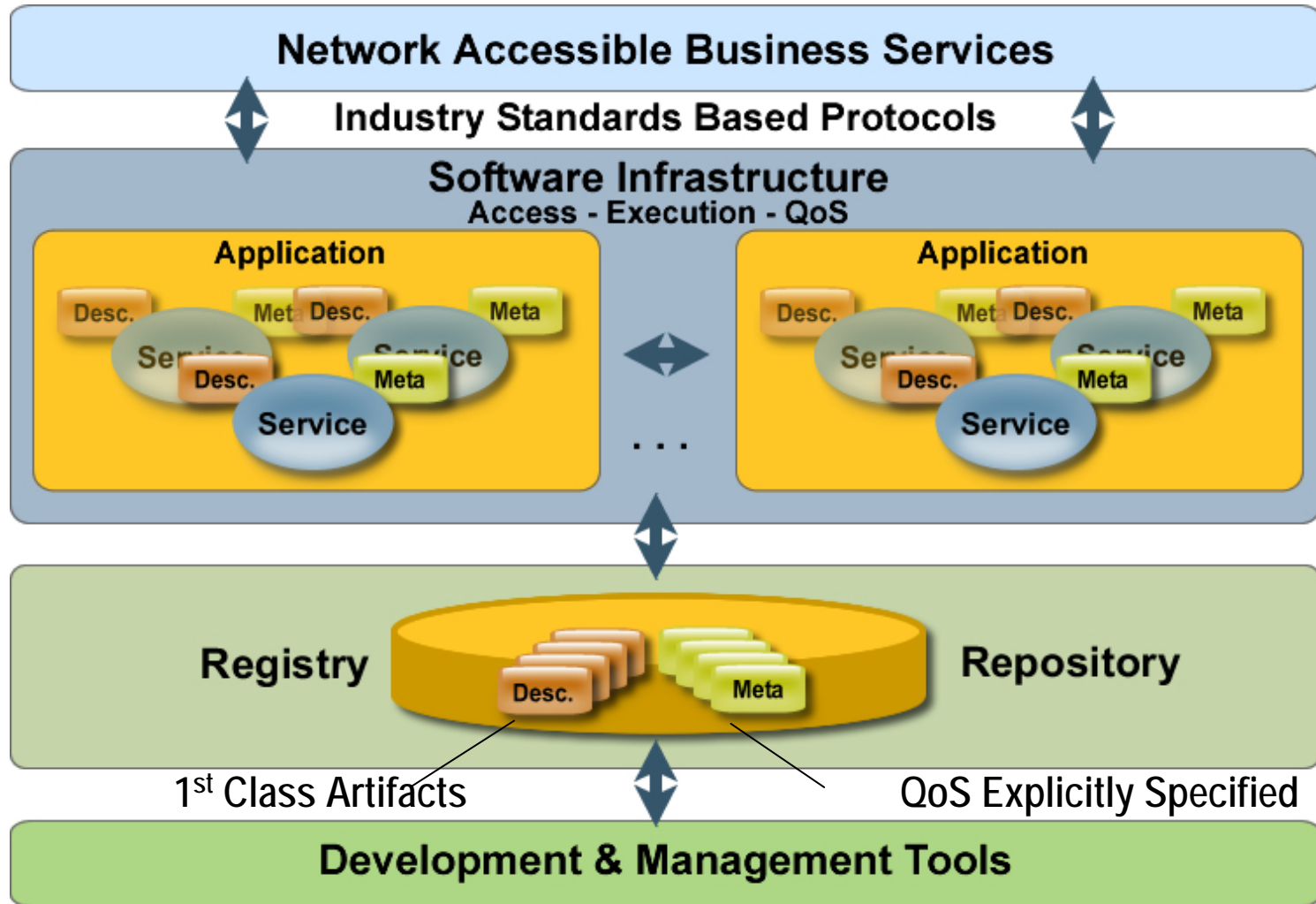
SOA Big Rule

Business Services



- Relative:
Coarse vs. Fine
Grained
- Multi Grained
Services
- Multi Grained
Methods
- Defined by real
business needs

Elements of SOA



The Real Challenge for OSS Industry

- Open services means open interfaces.
- So how do we collectively build services that are transparent in their operation and construction and let people access them?
- Otherwise, we're going to end up at a point where everyone has labored to create this common infrastructure, everyone has contributed to it, but the infrastructure is used to host fragmented islands of interoperability, moving the OSS integration nightmare onto another infrastructure.
- A cultural shift is needed.
- New service-centric communities are needed

Q&A

philippe.lalande@sun.com