Motivation

- Typical state of affairs today is the “Distribution Crisis”
  * Computers and networks get faster and cheaper
  * Comm. software gets slower, buggier, more expensive
- Much time wasted on “accidental complexity”, e.g.,
  - Incompatible software infrastructures
  - Continuous rediscovery and reinvention of core concepts and components
- Also, “inherent complexity” beyond reach of most programmers
  - e.g., latency, partial failures, partitioning, causal ordering, etc.
- CORBA has become the “Holy Grail” of Distributed Object Computing (DOC)
  - Promise to slay the daemons of software complexity, cost, unreliability, etc.
Good News

- ORB infrastructure is stabilizing
  - Good ORBs are widely available on most OS platforms

- CORBA Object Services architecture is a useful metaphor
  - e.g., Events, Naming, Lifecycle, Trader, etc.

- User community is forming rapidly
  - e.g., many R&D projects ‘testing the waters’

- Less “Not Invented Here” syndrome
  - e.g., due to increased complexity and competition

Bad News

- Lack of maturity
  - e.g., many performance, reliability, portability, and interoperability problems

- Lack of integration with existing communication tools
  - e.g., incompatible event loops, name space pollution, often hard to support legacy apps using sockets

- Lack of experience and training
  - e.g., most developers still can’t handle inherent complexity, which is not solved by CORBA

Ugly News

- Lack of standardized semantics and protocols
  - e.g., layers above the ORB lack meaningful standardized semantics and protocols

- Lack of truly open standard solution
  - e.g., leads to proprietary systems sold under guise of open systems
Recommendations

- Understand requirements before adopting a communication model
  - e.g., not all applications require high-performance

- Understand ORB performance issues
  - e.g., increase size of socket queues to largest value supported by OS

- Reuse ORBs, reuse COSS patterns and architecture, but be prepared to build domain-specific services...

- Don’t settle for proprietary “open systems”
  - e.g., force the OMG to improve CORBA specifications

For More Information

- More information about CORBA is available on-line at the following WWW URLs (prefix http:// before each of these)
  - Doug Schmidt’s CORBA page
    - www.cs.wustl.edu/~schmidt/corba.html
    - www.cs.wustl.edu/~schmidt/corba-research.html
  - LANL’s OMG Page
    - www.acl.lanl.gov/CORBA
  - OMG’s WWW Page
    - www.omg.org/