

# Welcome

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## Integration Methodology Workshop

February 3, 2004

THE *Open* GROUP



THE *Open* GROUP

# Integration is a big issue

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- ❑ Gartner Dataquest forecasts Worldwide End-User IT Spending will grow
  - from \$2.7 US *trillion* in 2001
  - to greater than \$3.0 US *trillion* in 2002 and
  - reach \$3.4 US *trillion* in 2003
- ❑ The worldwide integration services market is expected to see a 25% compounded annual growth rate between 2001 and 2005 to \$116.5 US *billion*, according to IDC
- ❑ CIO magazine survey says companies spend over 35% on integrating systems and processes

# Goal of this Session

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- To get members of The Open Group and Enterprise Application Integration Industry Consortium together to determine if there is a shared problem that could benefit from a shared approach for resolution
  - If so set up the next steps to moving toward a shared resolution
  - If not we have at least shared our mutual views of the issues and have shared ideas on approaches for dealing with real problems

# Overview of the day

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- Introduction
  - Setting up the imperative
- EAIIC
  - The view from the Enterprise Application Integration Consortium
- The Open Group
  - The relevance to The Open Group
- Next Steps - Working Together
  - So what are we willing to do together!

# Time-lined agenda of the day

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- 10:30 The Potential of a Cooperative Effort - Terry Blevins, VP and CIO The Open Group
- 10:40 EAIIC GIF Vision - John Schmidt, EAIIC Board of Directors
- 11:00 EAI Principles and Foundation for TBI - John Schmidt, EAIIC Methodology Chair
- 11:20 Total Business Integration - Steve Field, Tier 1 Innovation, and A. Anand, Johnson & Johnson
- 11:50 Vendor Perspective - Mark Tempelmeyer, IBM Industry Solutions
- 12:10 End User Perspective - David White, Johnson & Johnson
- 14:00 The Open Group's Boundaryless Information Flow initiative - Terry Blevins
- 14:45 TOGAF - Chris Greenslade, Chair of The Open Group Architecture Forum
- 16:00 Review of a Draft Proposal
- 16:30 General Discussion
- 17:00 Sign-up

# Any questions ... so let's get to it

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## What is Boundaryless Information Flow?



# Background

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- ❑ Interoperability - an issue for most organizations
  - A big issue
  - Has many meanings
- ❑ Need to understand what is really meant by this requirement
  - Use business scenarios
- ❑ Coming up - Our understanding of the interoperability requirement!

# Business Scenarios

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- ❑ A Business Scenario describes:
  - Business process, application or set of applications
  - Business and technology environment
  - Relevant people and computing components
  - Desired outcome of proper execution
- ❑ A good Business Scenario
  - Is “S.M.A.R.T.”
  - Enables the supply side to better understand the needs of the buy side
  - Support the business case for the vendors

# What Is Meant by Interoperability

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- Working definition of interoperability
  - The ability of two or more entities or components to *exchange information* and to use the information that has been exchanged “*to meet a defined mission or objective*”

# Customer Problem Statement

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- “I could run my business better if I could gain operational efficiencies improving
  - **the many different business processes of the enterprise**
    - both internal, and
    - spanning the key interactions with suppliers, customers, and partners using
  - **integrated information, and access to that information.”**

# How Important...

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- ❑ Not having Boundaryless Information Flow where systems interoperate, i.e. easily exchange information and use that information to improve operations, is causing organizations real pain \*
  - 100s of millions in lost opportunities
  - Billions spent to make systems interoperate or to recover from mistakes
  
  - *The risks are not only financial but deal with lost lives*
    - *Hospitals, 911/999 systems, Critical infrastructure, Air Traffic Control...*

\* respondents to survey taken at conference

# Forecasts

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- ❑ Gartner Dataquest forecasts Worldwide End-User IT Spending will grow
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# Shared Problems across Industries

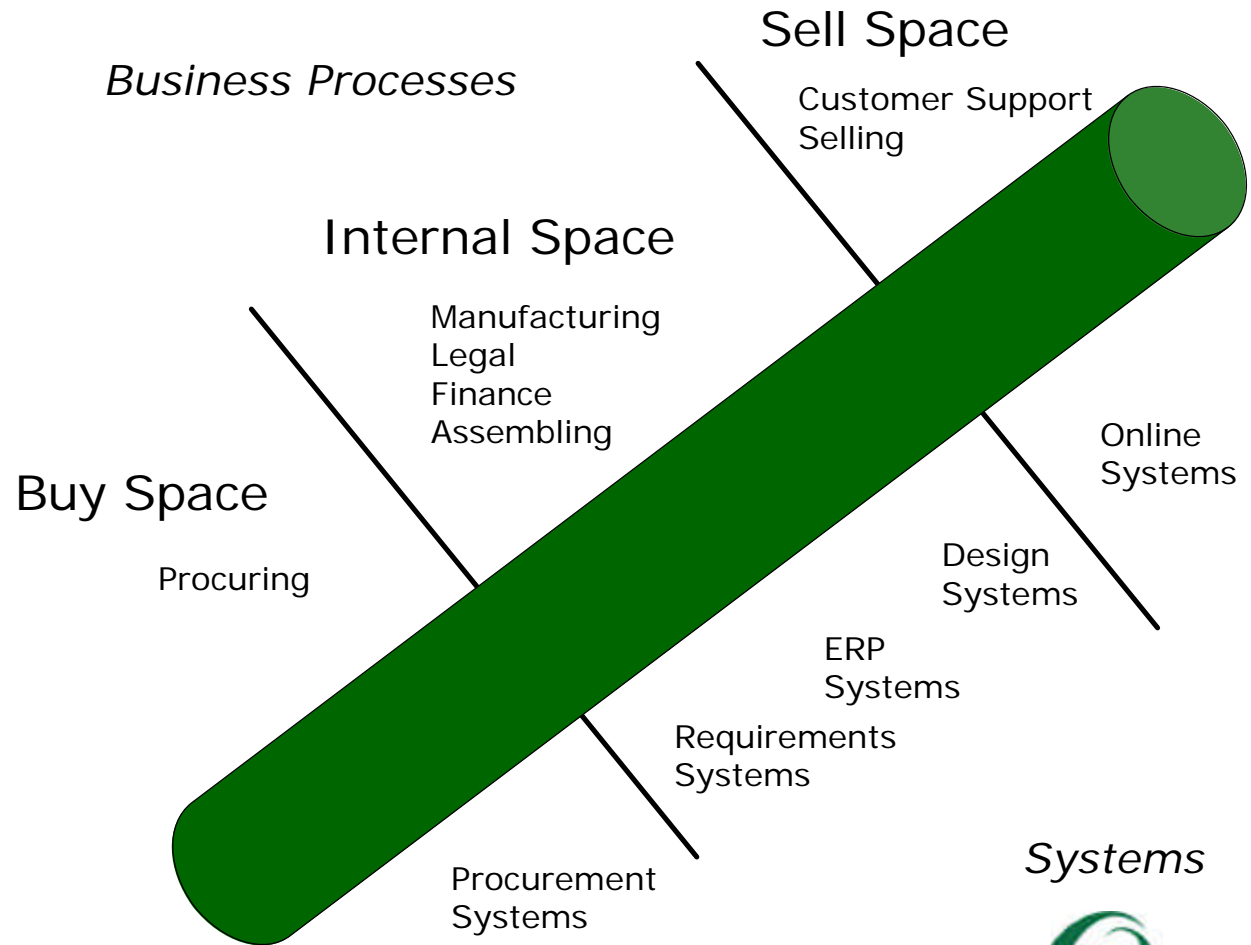
Manufacturing	Banking	Petrochemicals
<b>Business Processes</b> Manufacturing Processes ... Scheduling Procurement Human resources, ...	<b>Business Processes</b> Banking Processes... Scheduling Procurement Human resources, ...	<b>Business Processes</b> Petrochemicals Processes... Scheduling Procurement Human resources, ...
<b>Business Logic</b> Manufacturing Scheduling Procurement Human resources, ...	<b>Business Logic</b> Banking... Scheduling Procurement Human resources, ...	<b>Business Logic</b> Petrochemicals ... Scheduling Procurement Human resources, ...
<b>Business Metadata</b> Manufacturing Scheduling Procurement Human resources, ...	<b>Business Metadata</b> Banking... Scheduling Procurement Human resources, ...	<b>Business Metadata</b> Petrochemicals ... Scheduling Procurement Human resources, ...
<b>Middleware</b>	<b>Middleware</b>	<b>Middleware</b>
<b>Operating Systems</b>	<b>Operating Systems</b>	<b>Operating Systems</b>
<b>Computer Hardware</b>	<b>Computer Hardware</b>	<b>Computer Hardware</b>
<b>Networks</b>	<b>Networks</b>	<b>Networks</b>

**Common problems**

# Problems from ...

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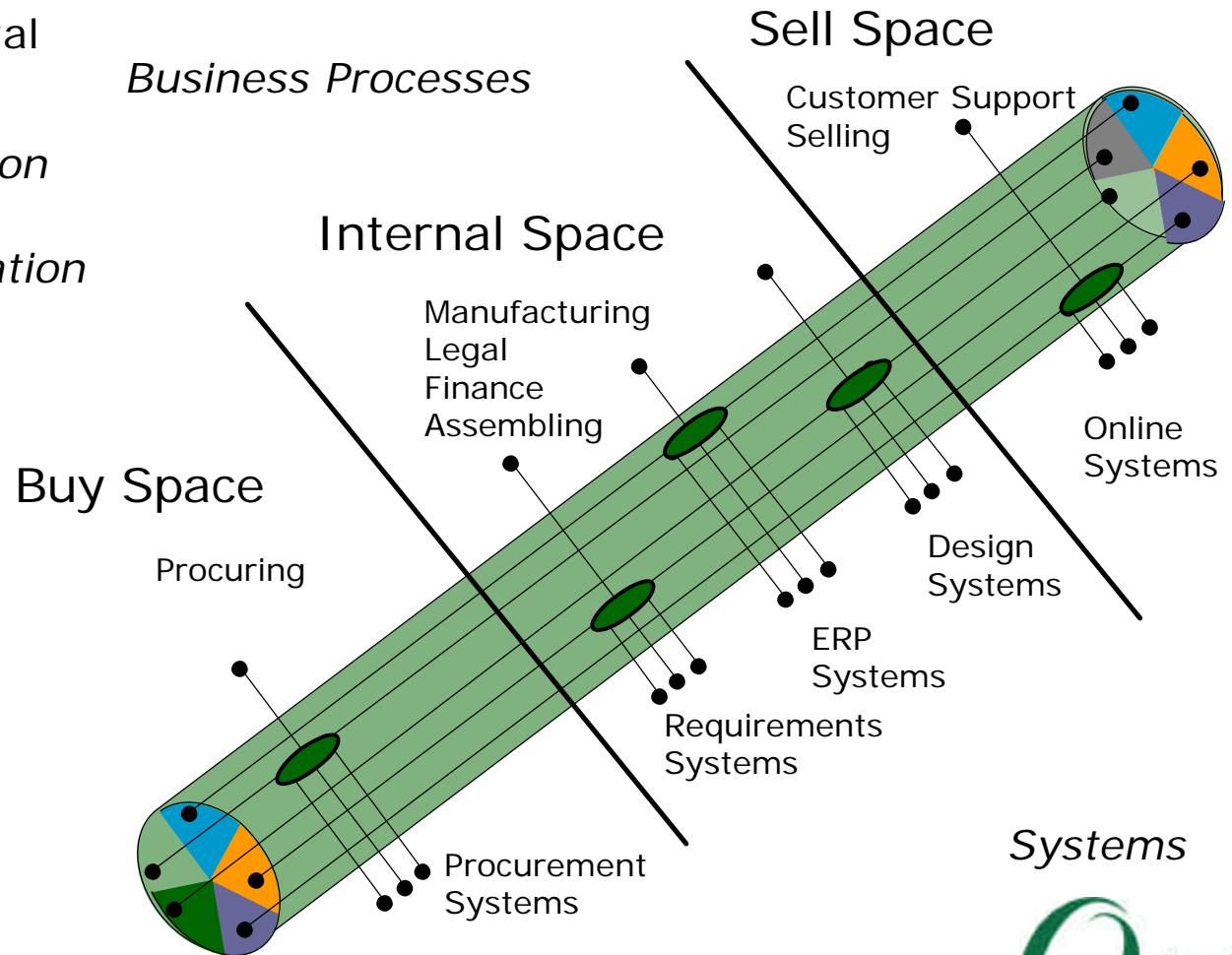
*Need to integrate and optimize business processes*



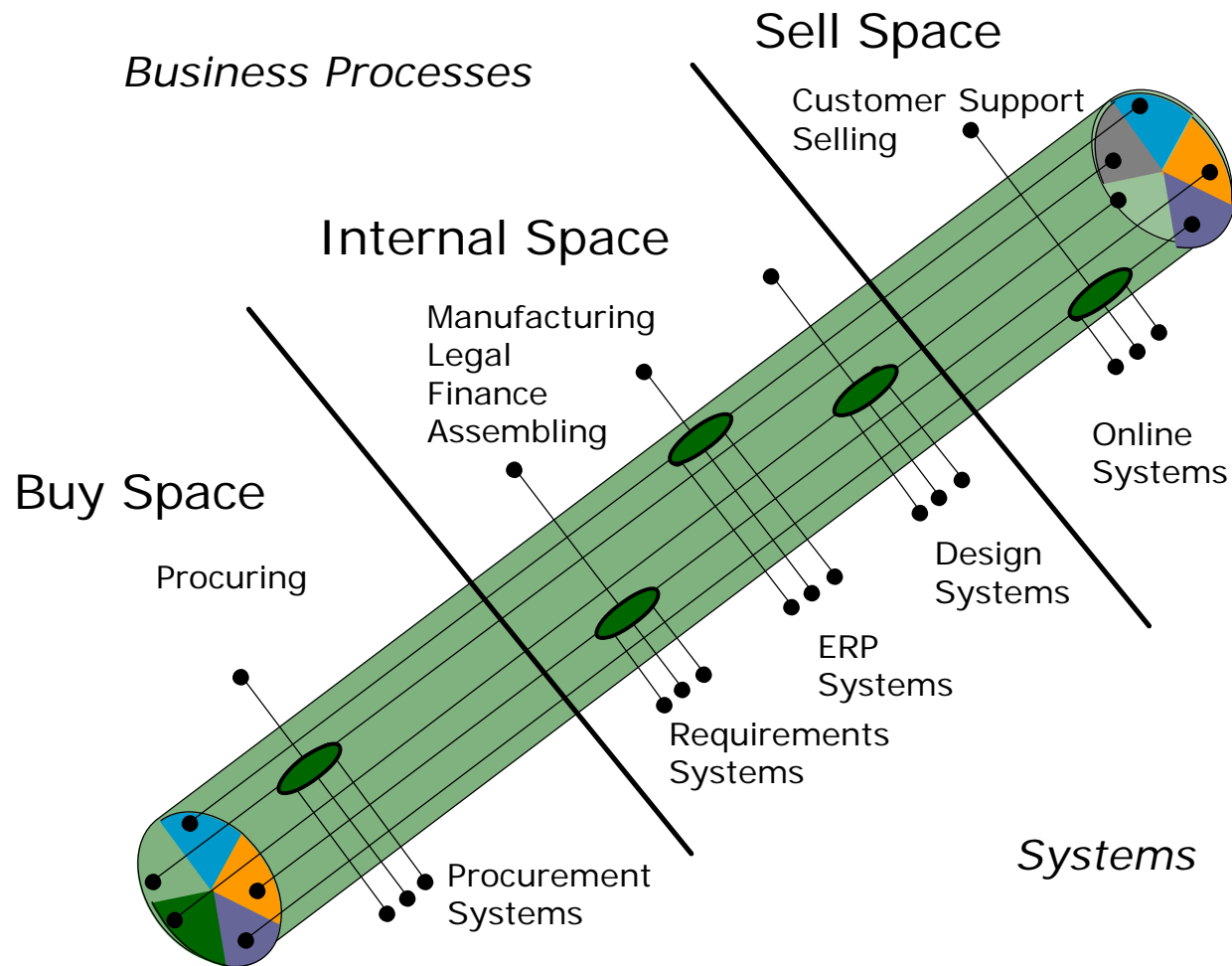


# Problems from ...

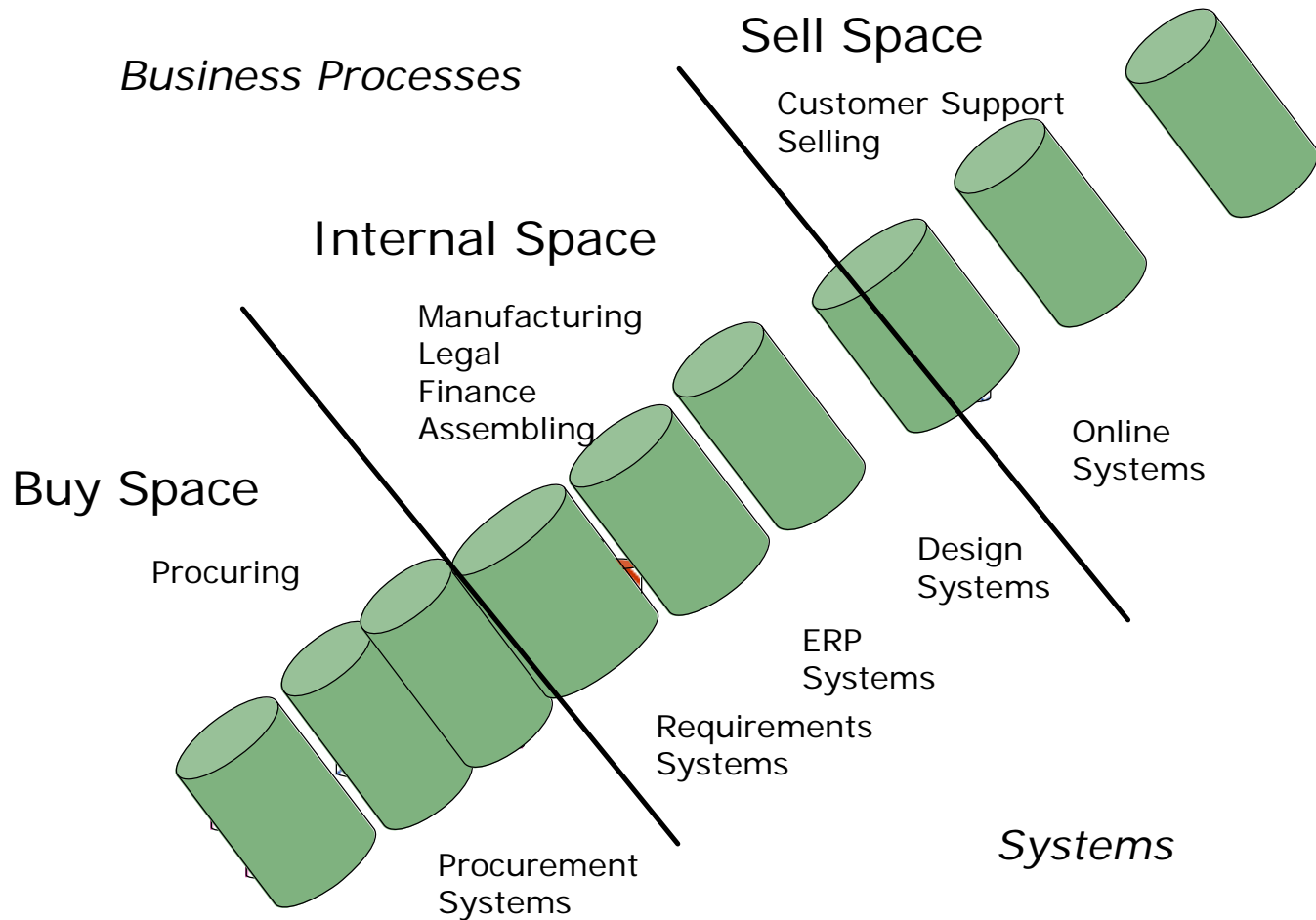
However fundamental issues are:  
*Integrated information and Access to that information*



# Actually Want This...

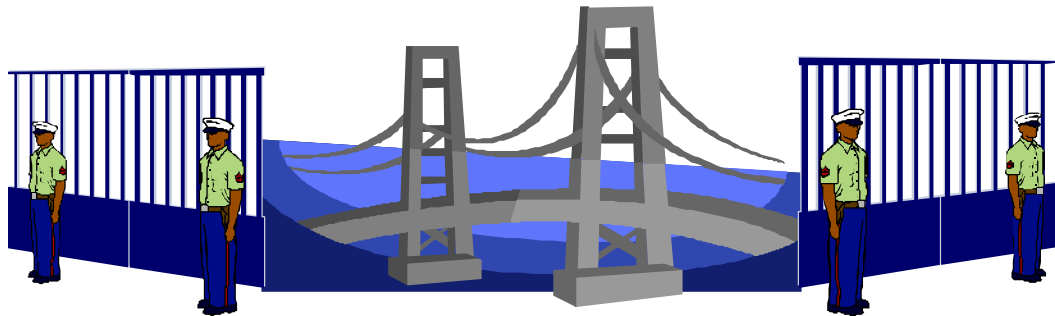


# But Have This

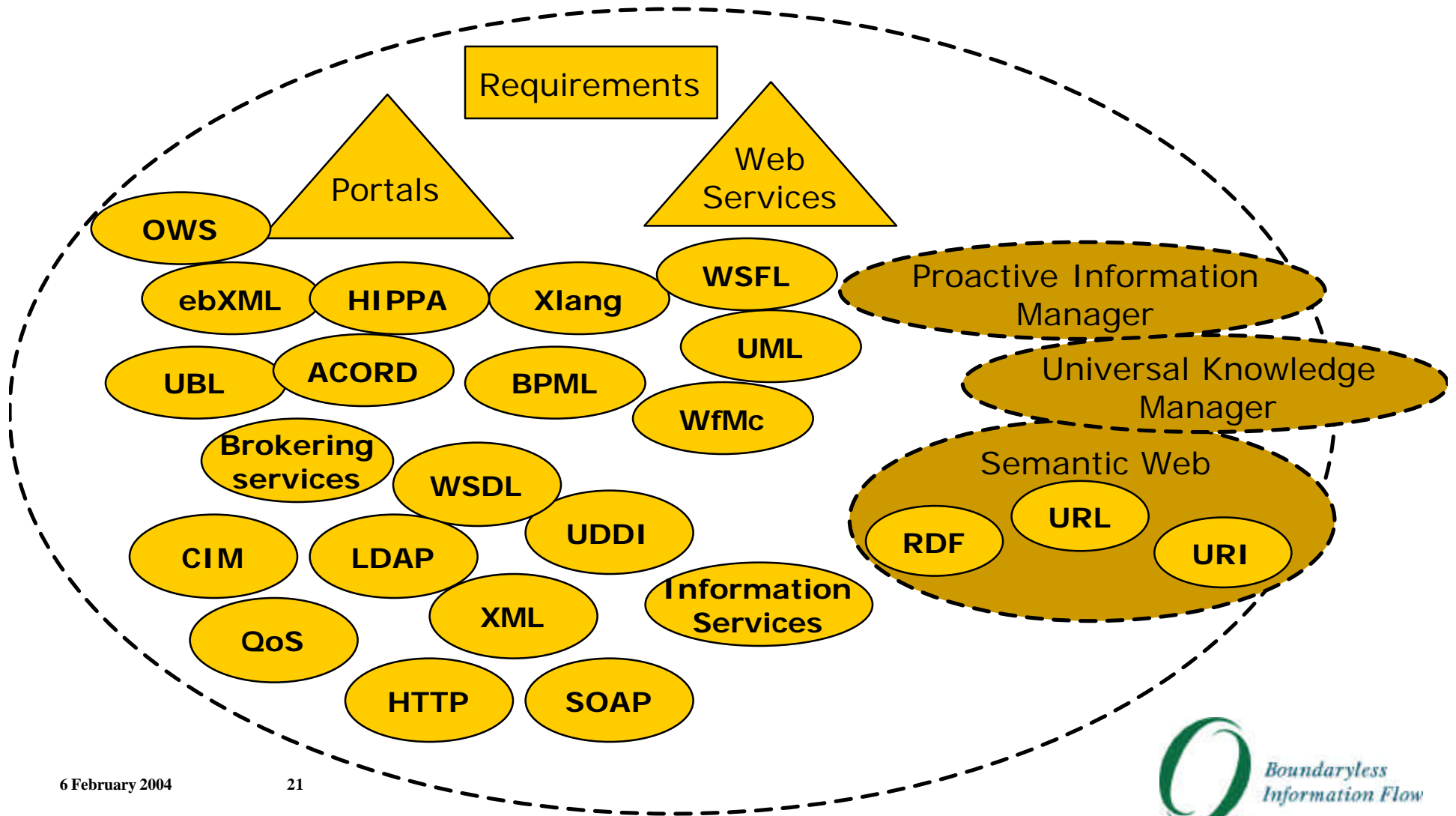


# ... but safeguards must be preserved

- Appropriate technology boundaries can be effective



# Boundaryless Technologies...



# Challenges

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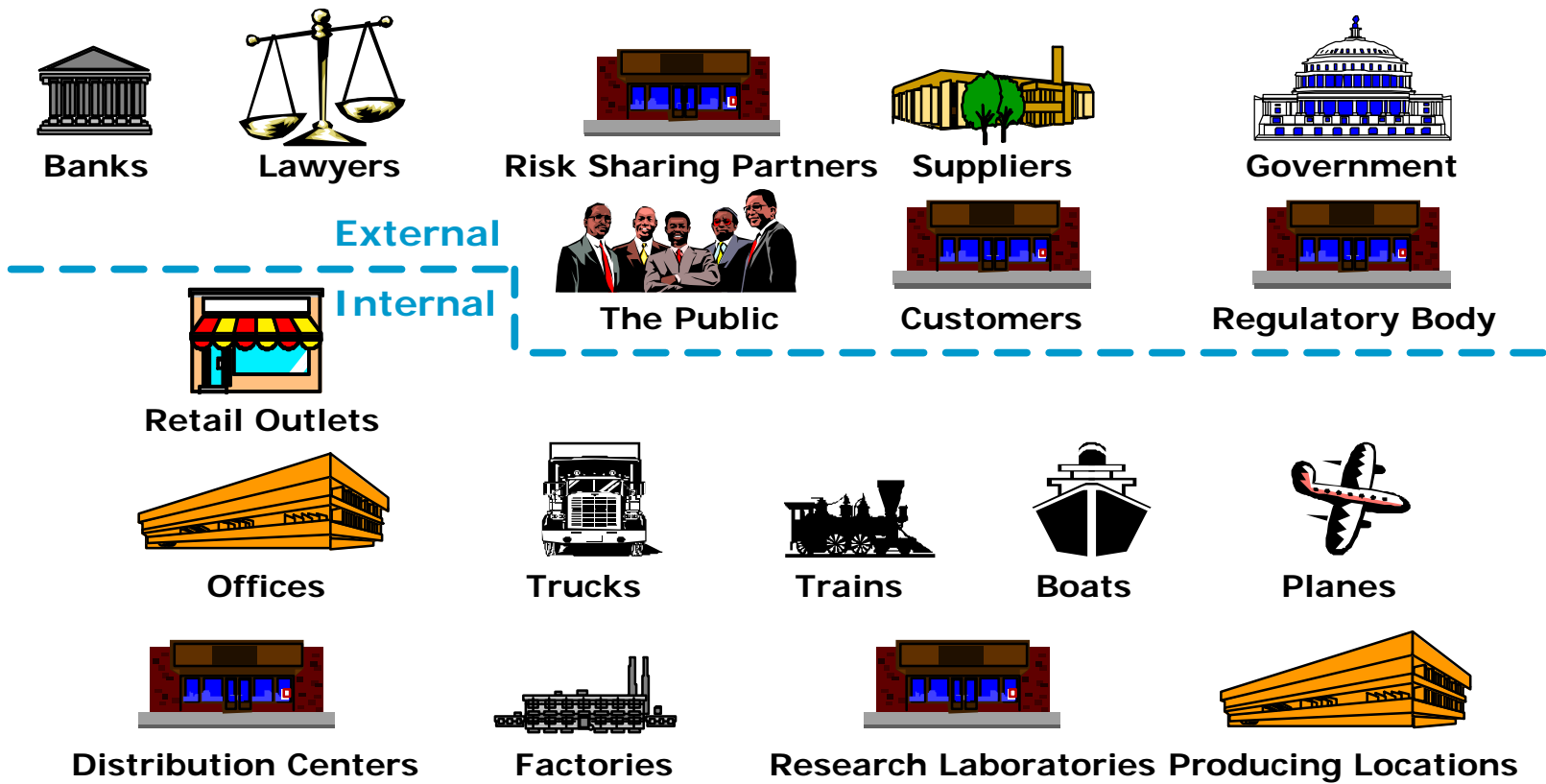
- ❑ What about managing data
- ❑ What about extracting data from legacy
- ❑ Expensive--requiring skilled professionals
- ❑ New security risks

Will I get what I need and quench my thirst with information?



Or will I be flooded and drown in data?

# Business Environment



# Business Environment

(product lifecycle)

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- Internal processes include processes like:
  - Product definition
  - Manufacturing process design and definition
  - Inbound logistics
  - Workflow / shop floor logistics
  - Outbound logistics (fulfillment/delivery)
  - Maintenance, and
  - Discontinuance

**Success is measured in terms of process efficiency and accuracy!**



# Examples of Human Actors

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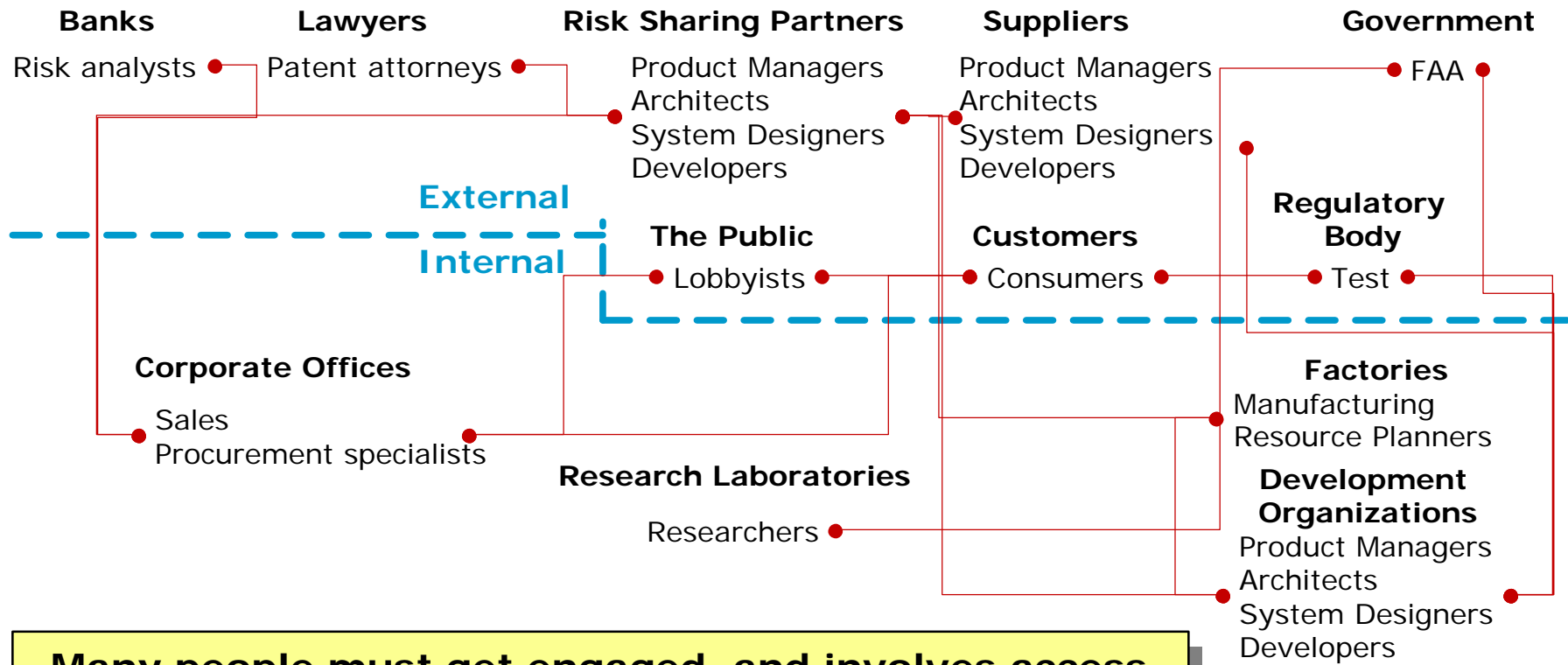
- ❑ Clerks
- ❑ Analysts
- ❑ Engineers
- ❑ Materials acquisition and procurement specialists
- ❑ Shipping and delivery personnel
- ❑ Researchers
- ❑ Security specialists
- ❑ Suppliers
- ❑ Shop floor workers and technicians

People executing processes are **always** in the value chain!

# Business Environment

## Consider a “Product Lifecycle” Example

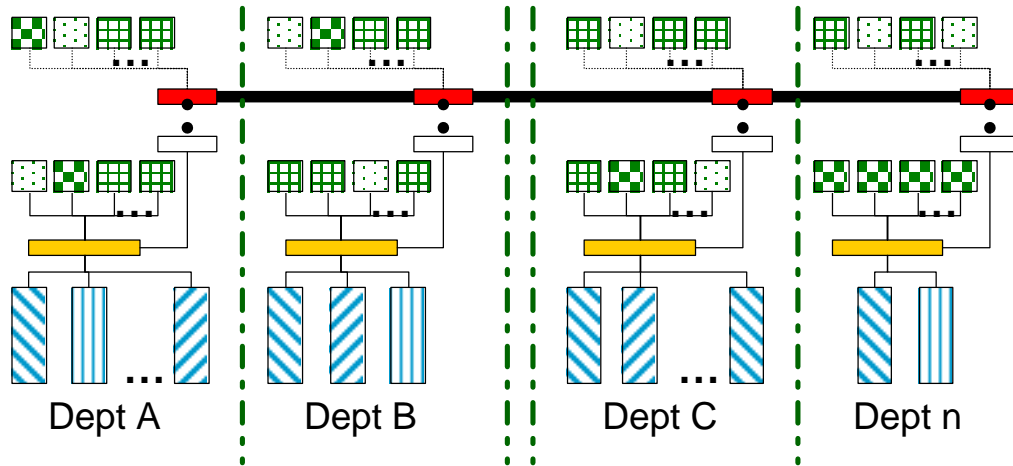
Simple question, what is the impact of offering internet connectivity on an airplane or in a car?



**Many people must get engaged, and involves access to much information that requires integration!**

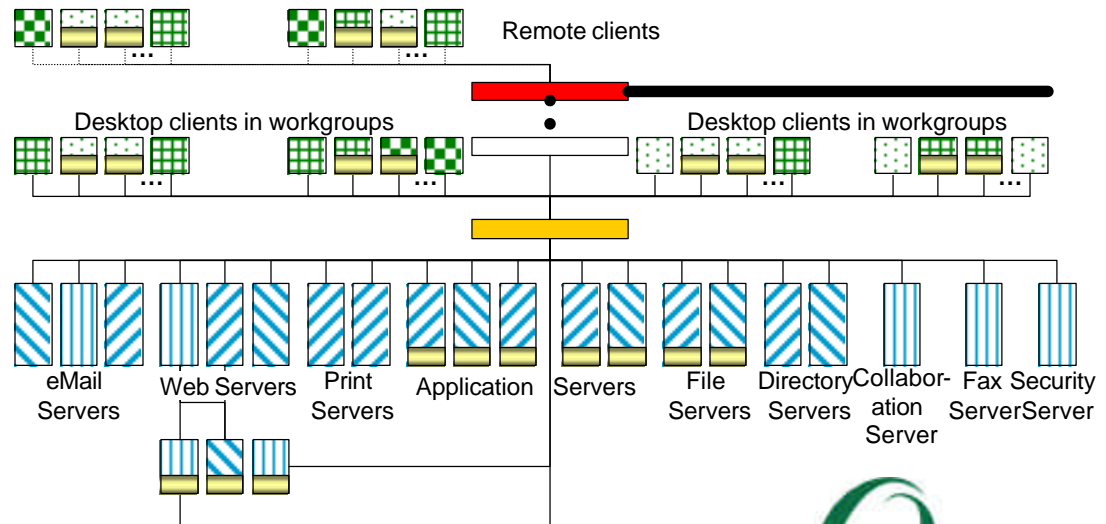
# Technology Environment

## Network View



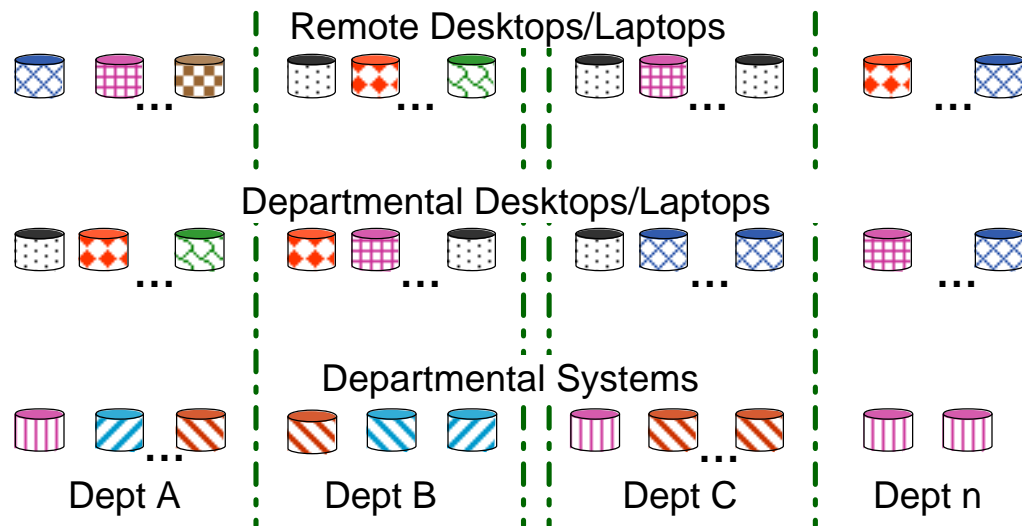
- ❑ Highly complex
- ❑ Heterogeneous
- ❑ 1000s of systems
- ❑ Information throughout
- ❑ Need for some level of information sharing

- ❑ Too much information that just can't be easily accessed and managed!



# Technology Environment

## Information View



- ❑ 1000s of information sources
- ❑ 100s of different formats
- ❑ Information throughout the network
- ❑ Need for some level of information sharing

- ❑ Too much information that just can't be easily accessed and managed!



# Objectives and Measures

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- ❑ Improve business productivity and effectiveness of business operations
  - Improve select process performance metrics
  - Revenue growth
- ❑ Shorter cycles to return on IT investment
  - % of procurements against standards
  - Spend on customizations
- ❑ Improve effectiveness of information technology organization
  - Asset utilization
  - Cycle time for rolling out upgrades
- ❑ Improve service
- ❑ Improve management efficacy
- ❑ Reduce risk

# So What Is Boundaryless Information Flow?

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- ❑ **Boundaryless Information Flow** is a desired state for an enterprise's infrastructure specific to the needs of the organization
  - It has *open standard components* that provide services in a customer's extended enterprise that
    - Combine multiple sources of information
    - Deliver information to the places where that information is needed and
    - In the right context for the people or computer components using that information

# “Boundaryless” Means...

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- ❑ Structuring the IT so it doesn't create boundaries for its own sake
- ❑ Being able to deploy IT so that its boundaries align with “real” boundaries that have value and utility
- ❑ Not creating the sorts of boundaries that make it so you can't get there from here.

# “Boundaryless” Means...

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- ❑ Boundaries can be eliminated or surmounted easily when (*and only when*) appropriate
  - Bridges and gateways are made part of the fundamental complement of IT infrastructure element
  - Appropriate gatekeeper functions are available to ensure security, privacy, and other forms of autonomy

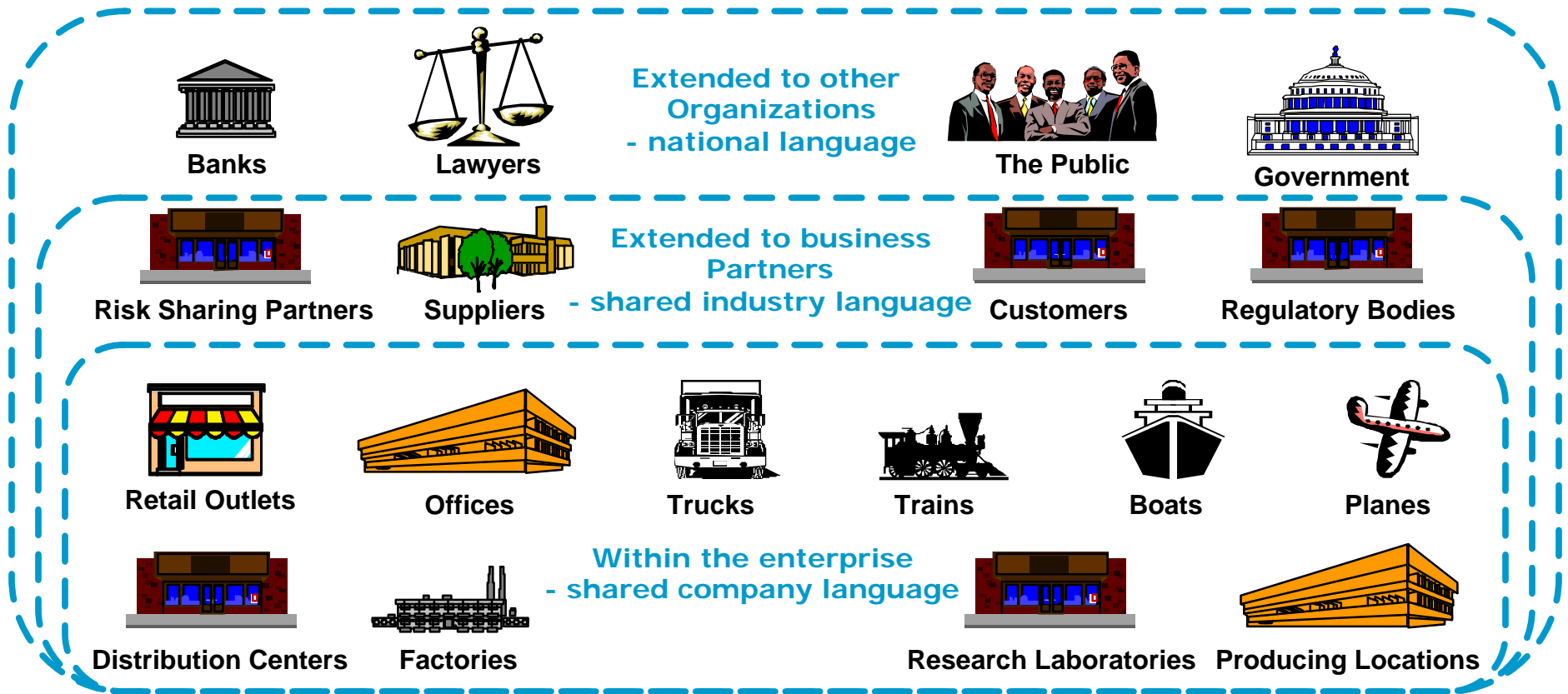


# “Boundaryless” Means...

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- ❑ Boundaries can remain effective but be transparent
  - Like a shopkeeper’s glass display case
- ❑ The contents of domains with opaque boundaries can be selectively exposed using directories and locator services
  - Like a merchant’s catalog

# Extending the Reach



# So What Must One Do...

	Information	Infrastructure
Business	<ul style="list-style-type: none"><li>□ Understand business processes and information<ul style="list-style-type: none"><li>▪ Prioritize and Assess</li></ul></li><li>□ Create/adapt policies and best practices<ul style="list-style-type: none"><li>▪ General management guidelines</li><li>▪ Use, management, security policy</li></ul></li></ul>	<ul style="list-style-type: none"><li>□ Identify and prioritize business information flow</li><li>□ Identify sources of information</li><li>□ Assess mechanisms for information flow</li><li>□ Register sources and destinations of information</li><li>□ Develop business architecture</li></ul>
Technical	<ul style="list-style-type: none"><li>□ Research<ul style="list-style-type: none"><li>▪ Security services</li><li>▪ Information services</li><li>▪ Brokering services</li><li>▪ Access services</li><li>▪ ...</li></ul></li></ul>	<ul style="list-style-type: none"><li>□ Plan, develop, test and deploy<ul style="list-style-type: none"><li>▪ Security services</li><li>▪ Information services</li><li>▪ Brokering services</li><li>▪ Access services</li><li>▪ ...</li></ul></li></ul>

# One Would Have a Lot to Do

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- ❑ Takes Time
- ❑ Costs Money
- ❑ Judged on quality and results

## Option 1 - Go it Alone

- ❑ Longer elapsed time
- ❑ High costs
- ❑ Unpredictable quality
- ❑ No lasting guarantee
- ❑ High risk

## Option 2 - Leverage

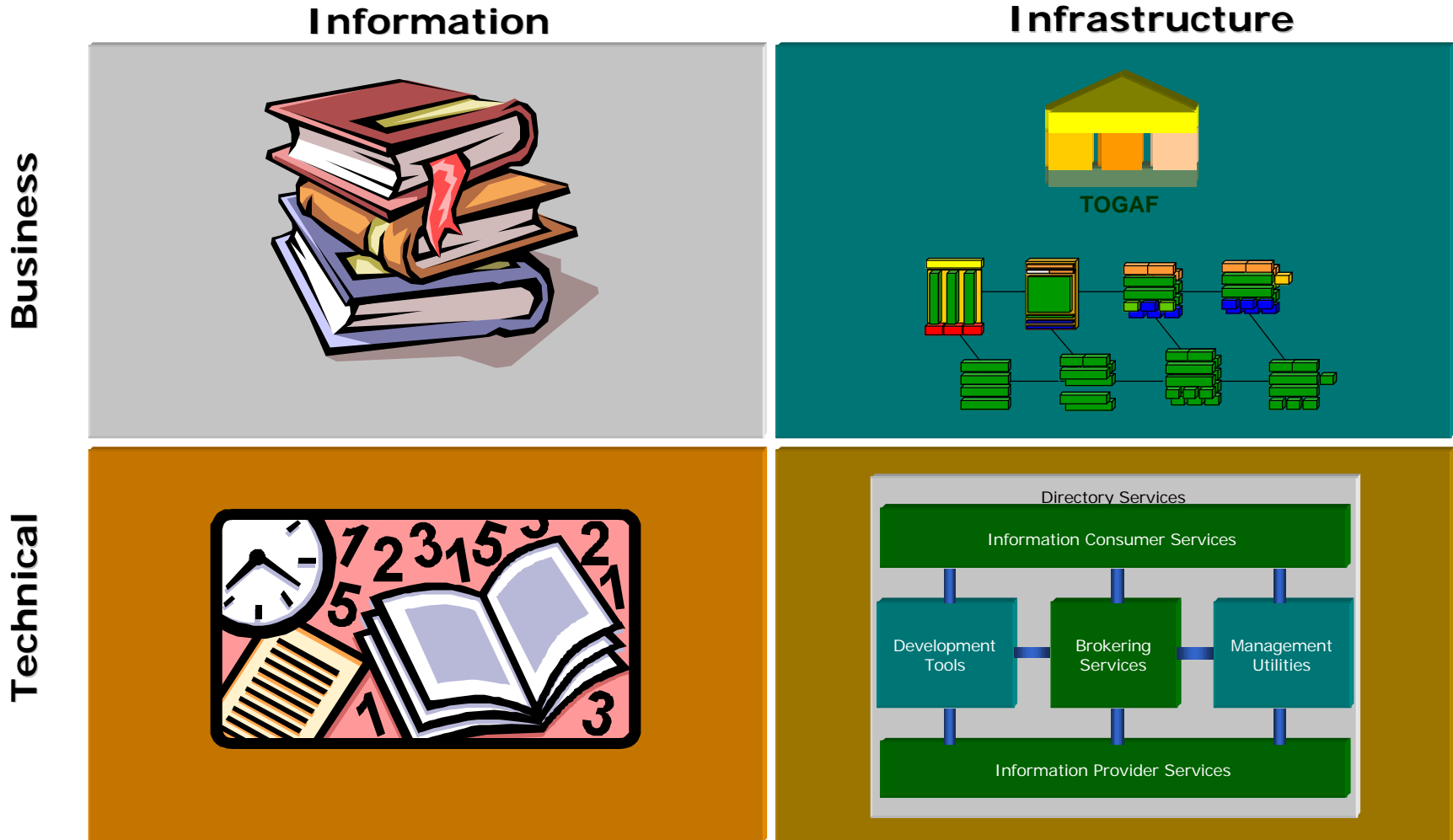
- ❑ Shorter elapsed time
- ❑ Greater industry investment
- ❑ Lower organization costs
- ❑ Safety in numbers
- ❑ Safety in certified standard products
- ❑ Shared risk

# The Open Group is Looking at...

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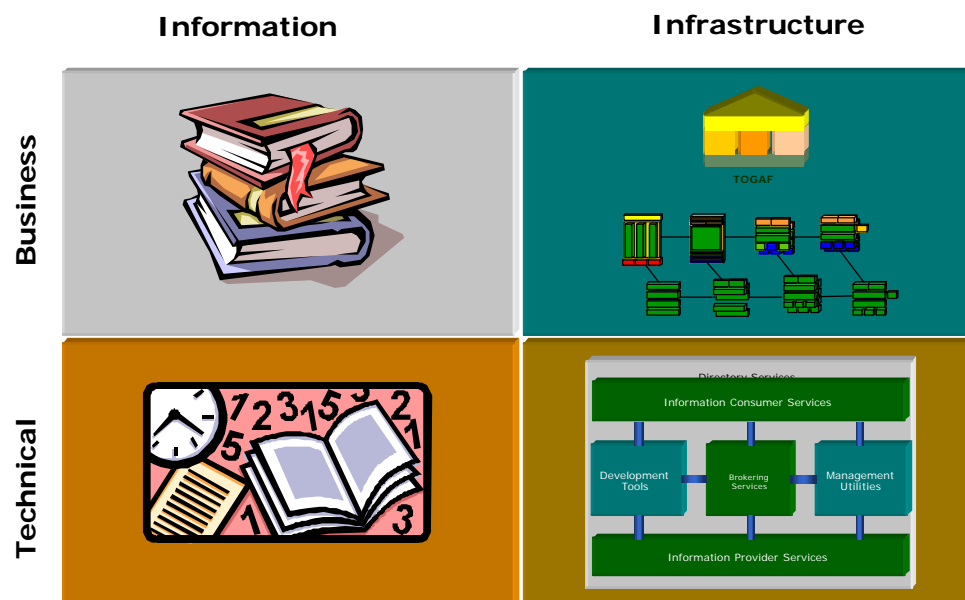
- ❑ Boundary services for protected systems: security, integrity, discovery
- ❑ Political and regulatory limits on information flow
- ❑ Property rights in a boundaryless world
- ❑ Information aggregation and disaggregation: portals and beyond
- ❑ Turning data into information, and knowledge into understanding

# So What Can You Do In The Open Group?



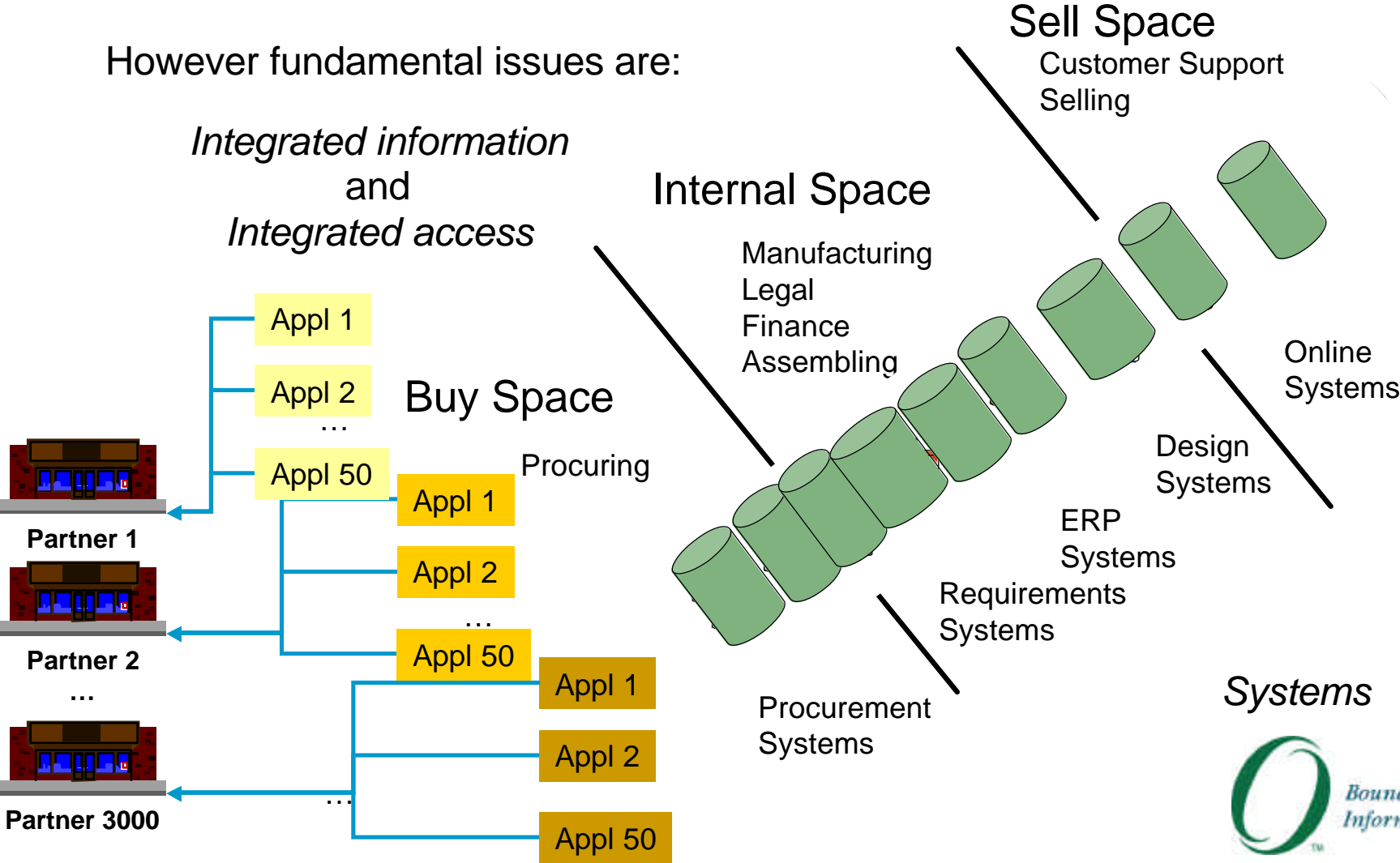
# What Else Can We Do?

- ❑ Communicate to CxO levels on the importance of the issue
- ❑ Muster support from major customer and vendor organizations
- ❑ Bring the right organizations together; DMTF, OASIS, OMG, W3C, IETF, ...



# Boundaries Isolate Information

However fundamental issues are:



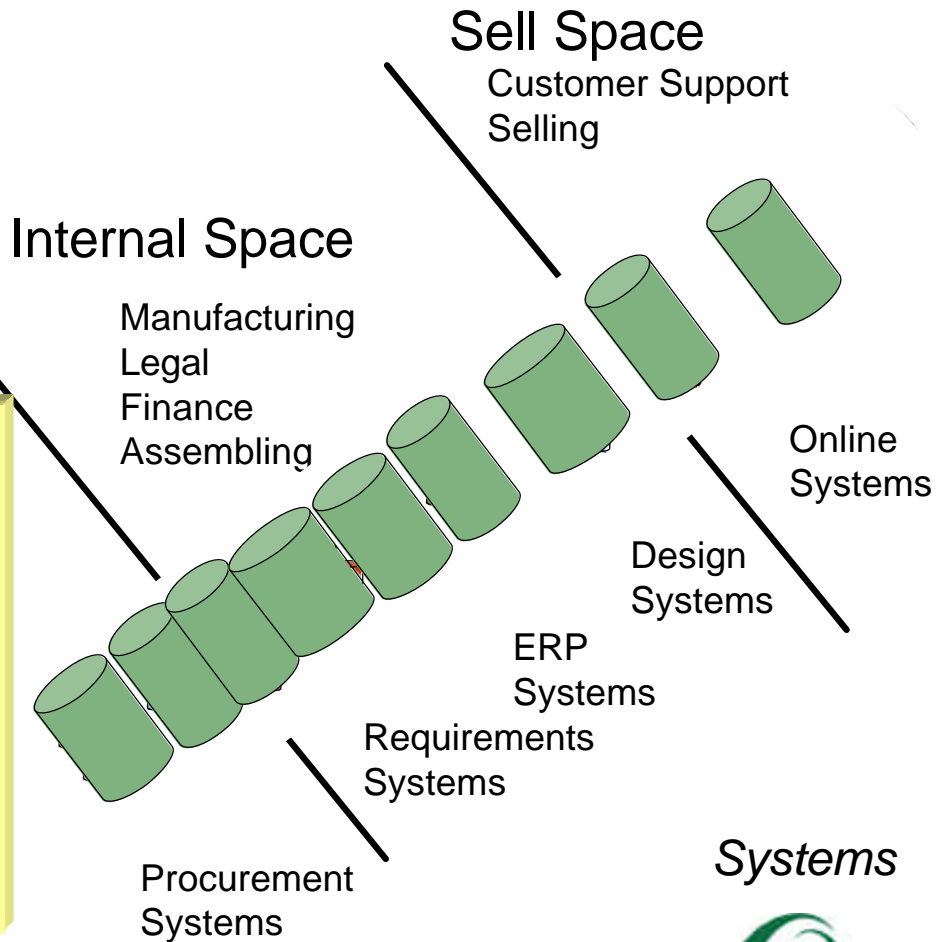


# To Remove the Barriers

## Business Information Needs

- Relevant
- Digestible
- Secure
- Timely

Liberate the data  
 Integrate data  
 Securely deliver data  
 Register data  
 Enable the flow of data  
 Develop  
 Manage  
 Adhere to policies

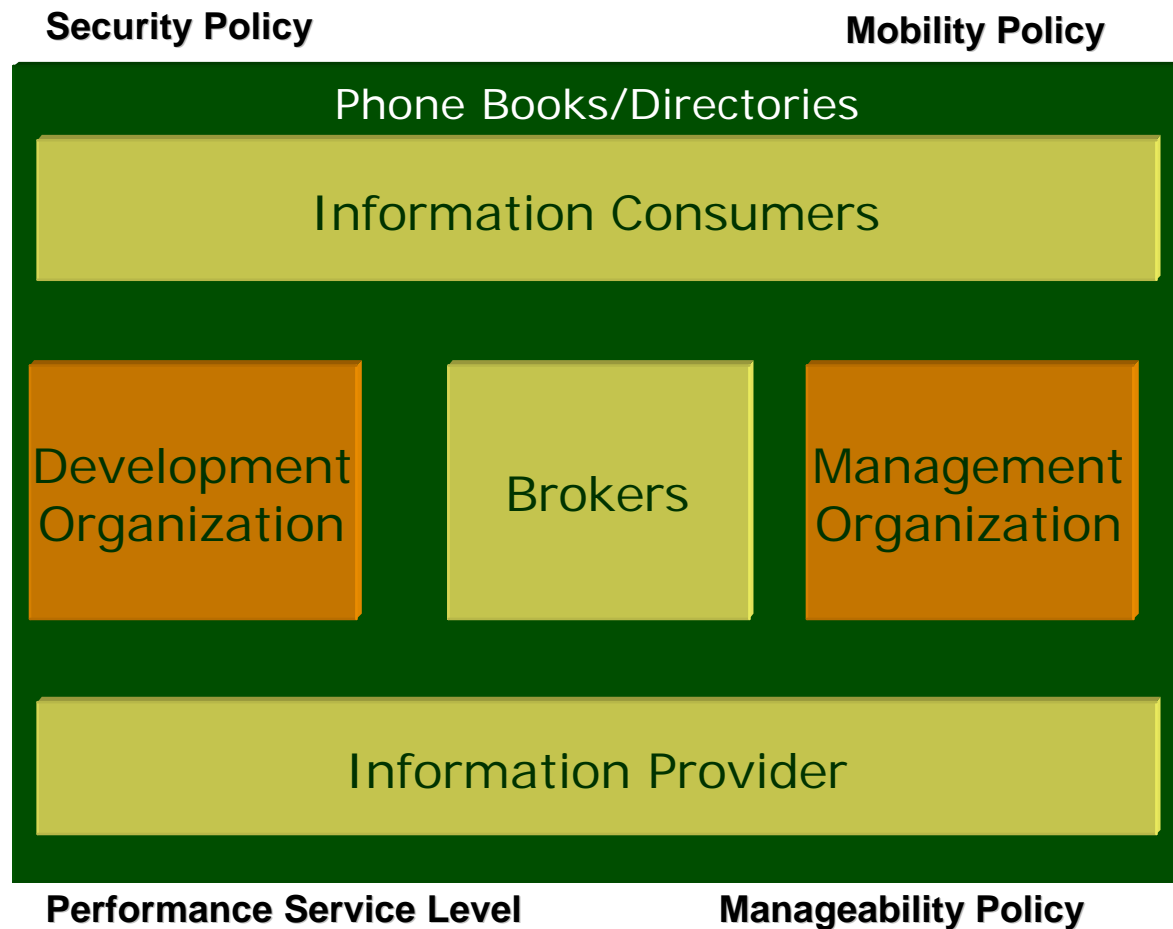


*Systems*

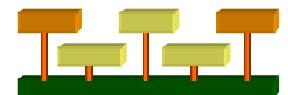
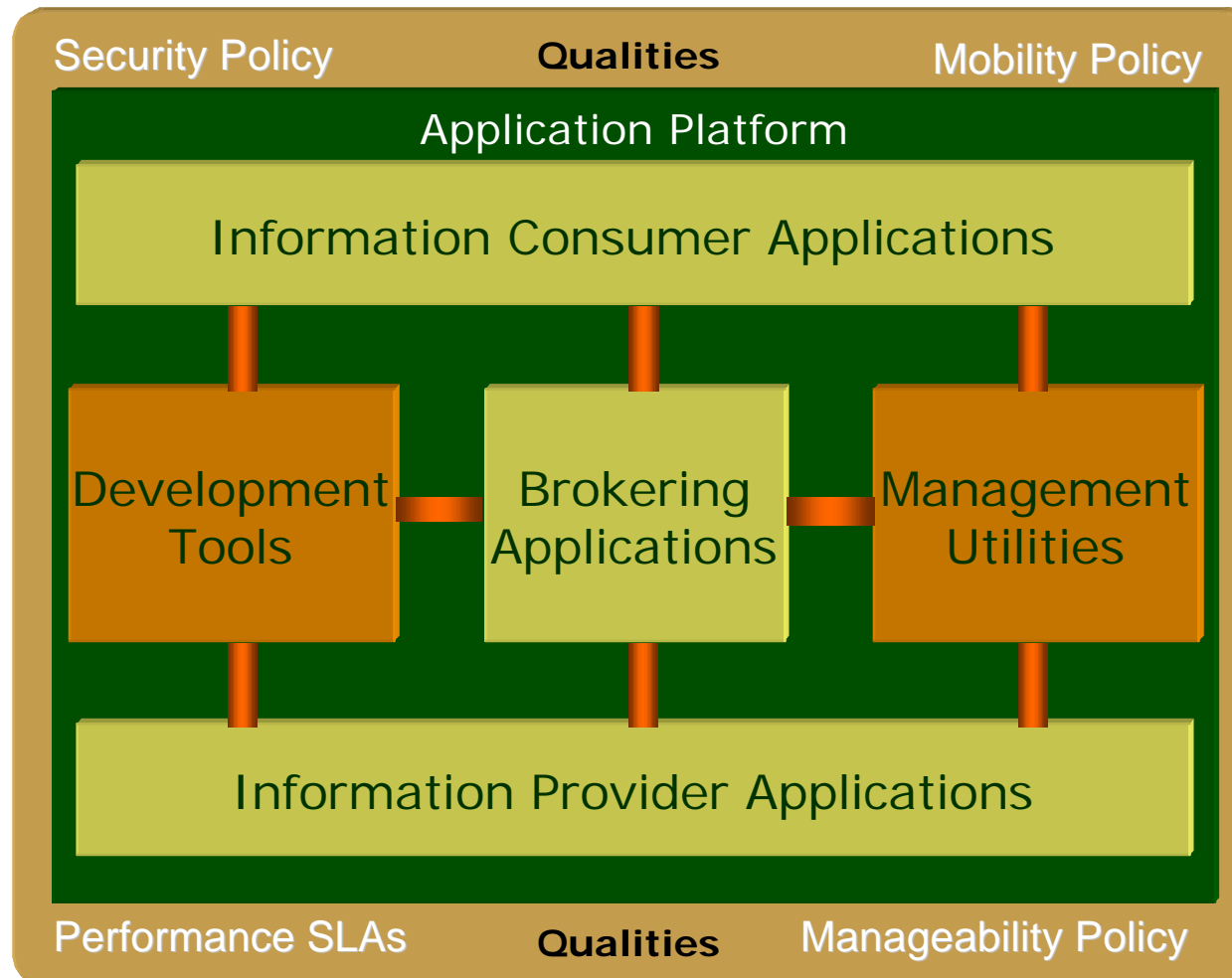


# Boundaryless Information Flow - Business Taxonomy

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# Boundaryless Information Flow - Technical Taxonomy



Classes of Interfaces - formats and protocols ...

# Boundaryless Information Flow

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- IPS** Information provider services respond to requests and provide rudimentary access to information
- BS** Brokering services manage the requests from any number of clients to and across any number of service providers
- ICS** Information consumer services deliver content to the user of the system, and serve access requests to the information
- DS** Directory services locate information and/or application services
- WF** Workflow services automate the delivery of information in support of a business process
- DT** Development tools provide modeling, design, and construction tools
- MU** Management utilities provide all the necessary utilities to operate and manage information and the system
- QoS** Plus qualities such as security and reliability

# What's the Difference?

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- ❑ There are many efforts going on in this space,
  - Global Grid, Global Information Utility, Internet Operating System, etc...
- ❑ Most efforts either focus on a particular aspect, approach, or technology
- ❑ The Open Group
  - Works with customers on 'end-to-end' business problems
  - Develops Business Scenarios
  - Publishes best practices and product standards
  - Is an established Certification Authority
    - Ensuring that the pieces and parts have lasting guaranteed value to the enterprise

# Won't it be nice when...

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- ❑ The Open Group membership announces the availability of profiles that represent collections of standards that can be used to produce products that are certified to interoperate as specified.
- ❑ These profiles represent major building blocks necessary for companies to put in open standard based services in place which is estimated to save companies *billions* per year and improve operational efficiencies.

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**Thanks for listening**