Making Progress Towards Boundaryless Information Flow

The Open Group Non-Member Meeting
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THE Open GROUP

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The Open Group

- International Consortium
  - 20 Years Experience
    - Merger of OSF and X/Open
  - Vendor and Technology Neutral
  - >200 members
    - Suppliers, Customers, and Academics
    - Requirements and standards
  - Offices in San Francisco, Boston, Washington DC, United Kingdom, Japan
  - Regional Chapters
    - Global, Including China

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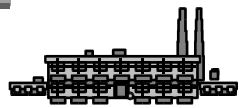
The Open Group Business Environment

Standards
Build standard specifications

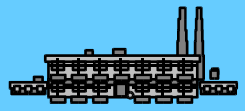


Open Source
Provides components

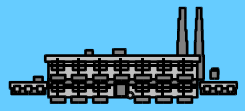
The Innovator
Provides new solutions/approaches to known or unknown problems

Interest group
Want to take a standard to market
Means they want to test and certify
Promote it

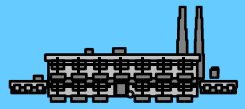
The customers
Has known or unknown problems
Has purchasing power to buy solutions
Buy preference is for "open" solutions
Buy preference is for complete solutions



Manufacturers
Provides components that are perceived as "open"

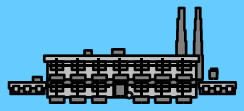


Application Providers
Provides value add on top of "open" components
Desire single, or a managed set of, platforms



Operators
Provides infrastructure for whole solution
Align with anything that demands more use of infrastructure

How are all these constituencies brought together?
Who assures conformance?
Who has the infrastructure for certification and testing?



Test and Certify
Test and certify product compliance to specification

THE *Open* GROUP
Brings the constituencies together in an open process!

Has a test and certification program and infrastructure!

The Store
Sells components, applications, services

Boundaryless Information Flow™

The Open Group Vision

- Boundaryless Information Flow achieved through *global interoperability* in a secure, reliable and timely manner

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Mission Statement

- The mission of The Open Group is to drive the creation of Boundaryless Information Flow achieved by:
  - Working with **customers** to capture, understand and address current and emerging requirements, establish policies, and share best practices;
  - Working with **suppliers**, **consortia** and **standards bodies** to develop consensus and facilitate **interoperability**, to evolve and integrate specifications and open source technologies;
  - Offering a comprehensive set of services to enhance the operational efficiency of consortia; and
  - Developing and operating the industry's premier certification service and encouraging the procurement of certified products.

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Sponsors and Members

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Consortia Services

Strategy Services

- Business Scenarios
- User Requirements
- Architecture Frameworks
- Specification Requirements
- Procurement

Innovation Services

- Collaborative projects
- Open source hosting or Homesteading
- Project Management
- Research

Testing Services

- Test Plan Development
- Automated Test Environment
- Test Suite Development
- Test Suite Maintenance
- Interoperability Events

Management Services

- Consortium formation
- Membership Operations
- Kavi® Groups - Collaboration
- Meeting Logistics
- Financial Management / Budgets

Standards Services

- Definition and Procedures
- Management - Building Consensus
- Support Services
- Best Practices for Specifications
- Publications Delivery

Certification Services

- Requirement Consultancy
- Policy definition
- Program development
- Legal Support
- Operations

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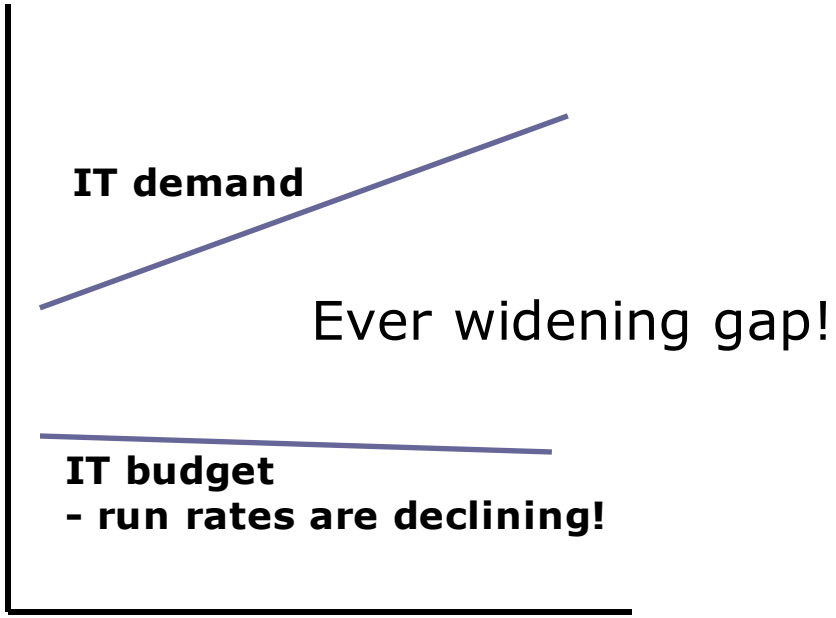
CIOs Have Issues in Common

- In general there is a trend
  - The demands on IT are growing
  - IT budgets are decreasing
- CIOs are being asked to *do more for less*, so
  - Look for leverage opportunities
    - Outsourcing
    - Off shore development
    - Open source
    - Collaborative development
    - …



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Business Has Problems in Common

- Access to integrated information
  - Across the organization
  - With business partners
  - Ubiquitous requirement
- More for less
  - Where is leverage?
  - Who has fixed this before?
  - Who has the skills?

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The Open Group Value

- Address “more for less” issue
  - Membership model is based on leverage
  - Work with others that have similar problems and get more done cheaper, better, and faster
- Access to tools to solve problems
- Access to people that have similar problems
  - At CIO level and the technical levels

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Value Proposition

- The Open Group provides a legal, safe, open, flexible, and highly leveraged environment where buy-side and supply-side organizations can work together and network on issues that concern the health of information technology resulting in faster, better, and longer lasting resolutions at a cost lower than if dealt with alone
  - Being involved in the creation of directly re-usable work
  - Influencing products and standards
  - Sharing information

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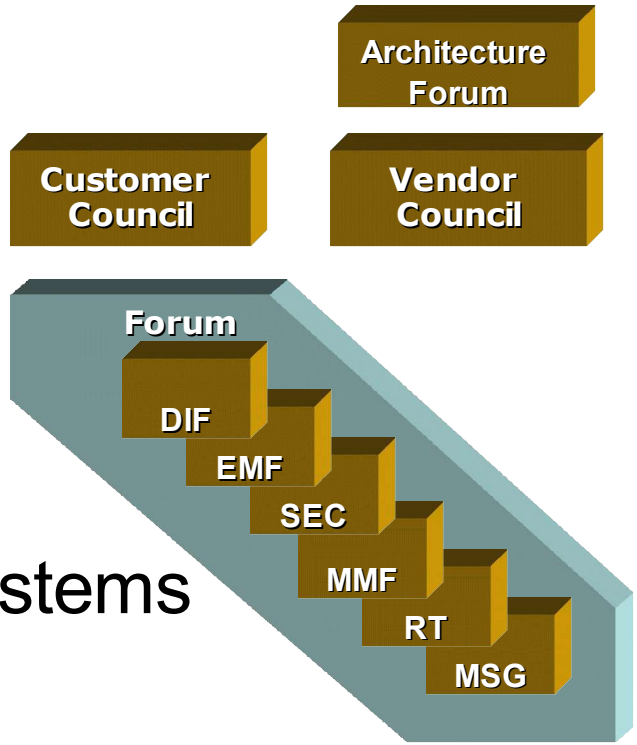
Membership Forum

- Architecture
- Directory Interoperability
- Enterprise Management
- Messaging
- Mobile Management
- Real-time and Embedded Systems
- Security



- *Information-Centric – being created!*

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Boundaryless Information Flow

The Business Imperative

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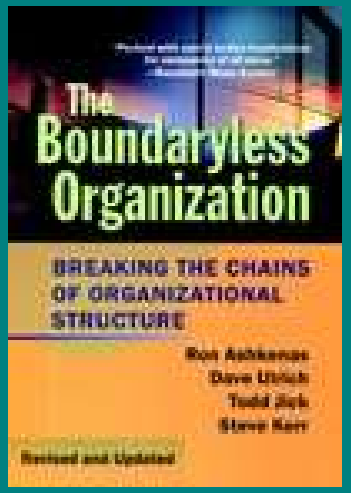
Vision

Boundaryless Information Flow

- achieved through global interoperability
- in a secure, reliable and timely manner



Boundaryless does not mean there are no boundaries – it means that boundaries are permeable to enable business.

Vision

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Creating the Concept

- CIO Forum
  - opened up the business issues
- Customer Council
  - spearheaded The Interoperable Enterprise workshop and white paper
- Lead author of the “Boundaryless Organization”
  - validated that we are in tune with industry

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Background

- 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!

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Business Scenarios

- 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

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What Is Meant by Interoperability

- 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"*

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Pain Points

- Lack of effectiveness of business operations
- Lost opportunity to add value to the business
- Increasing IT costs
- Lack of effectiveness of IT
- Reduced management control
- Increased operational risk

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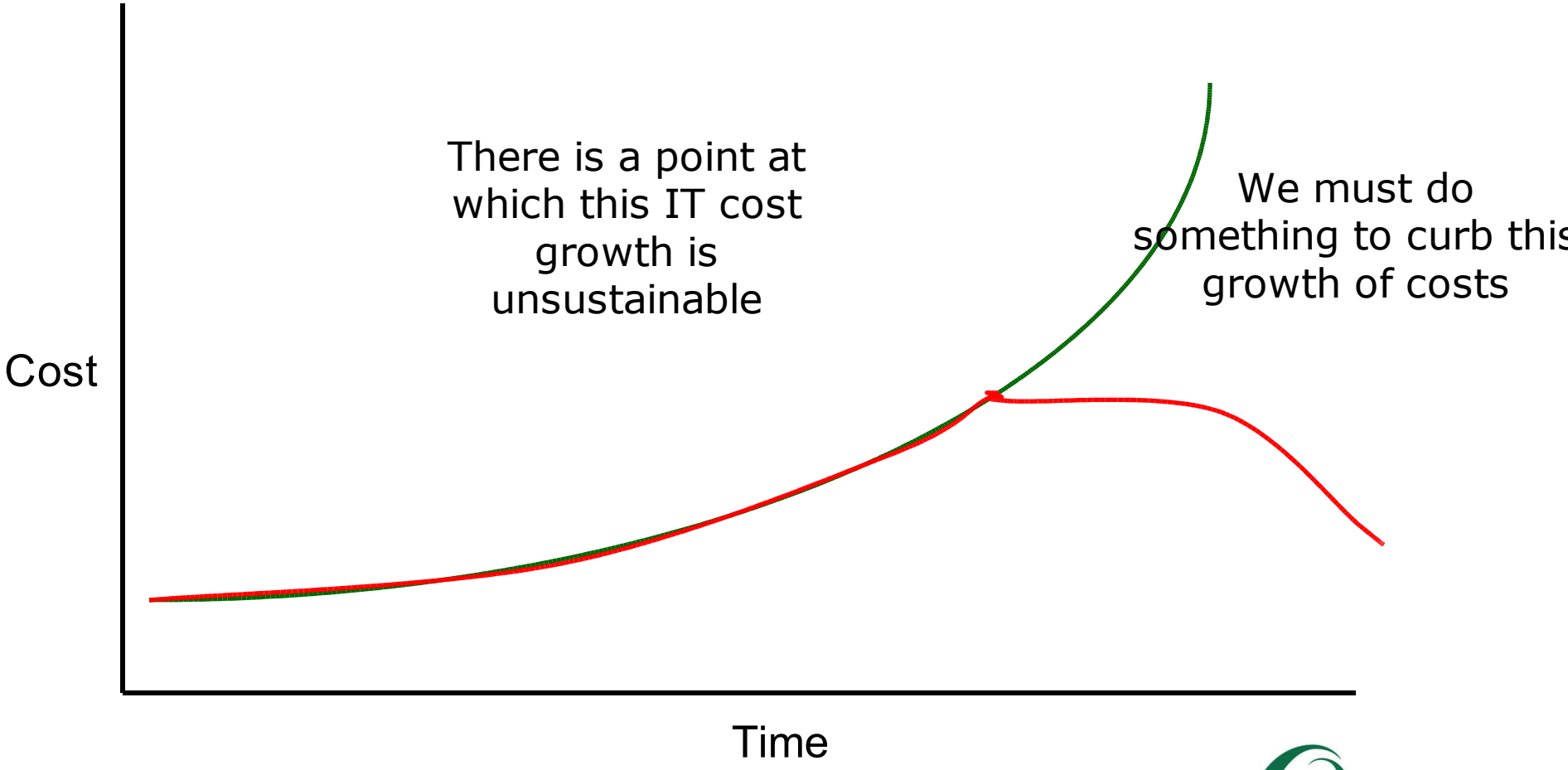
The Criticality of IT Costs



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Customer Problem Statement

- "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."**

Source: "The Interoperable Enterprise"
http://www.opengroup.org/cio/iop/index.htm

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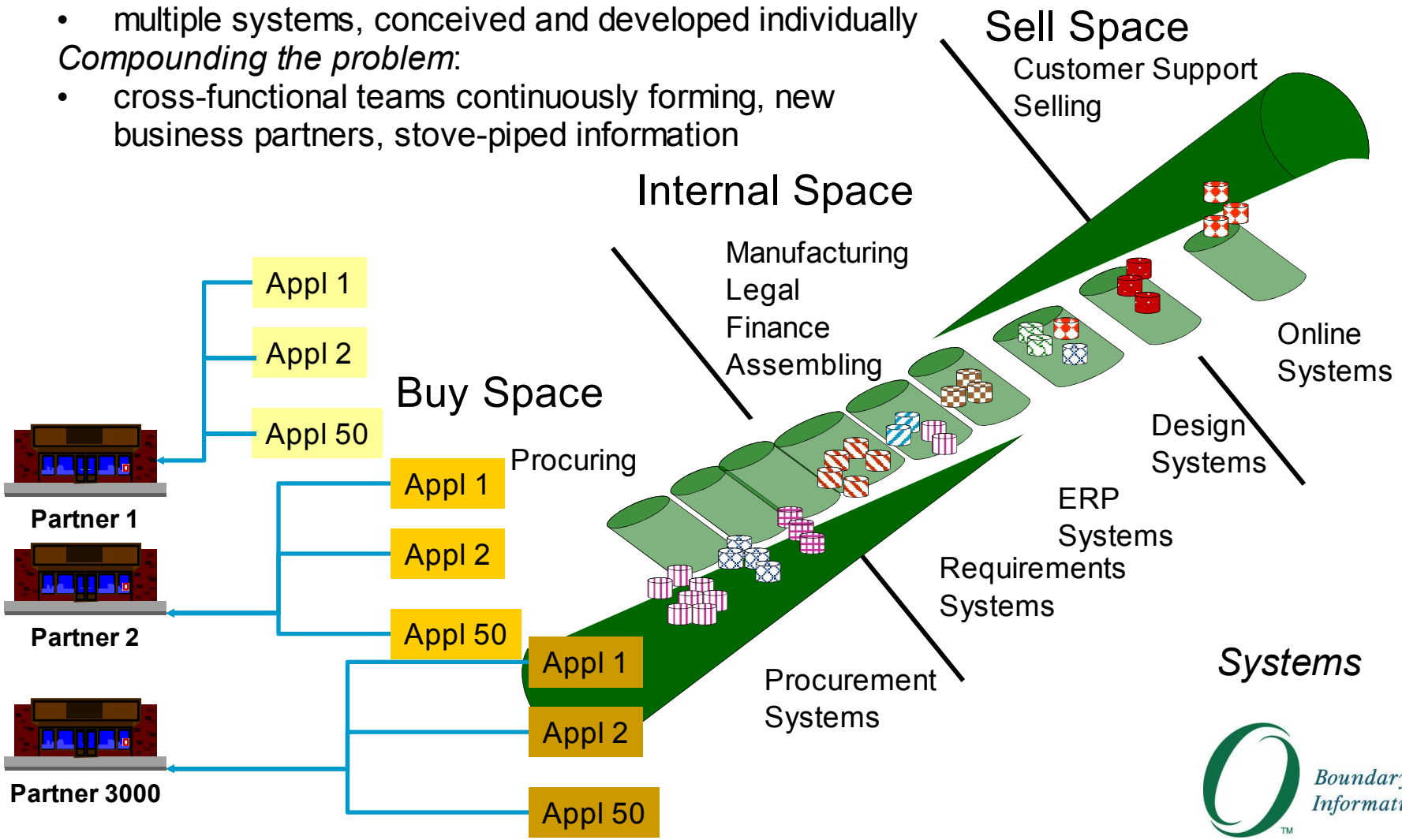
A Common Problem

The cause:

- multiple systems, conceived and developed individually

Compounding the problem:

- cross-functional teams continuously forming, new business partners, stove-piped information



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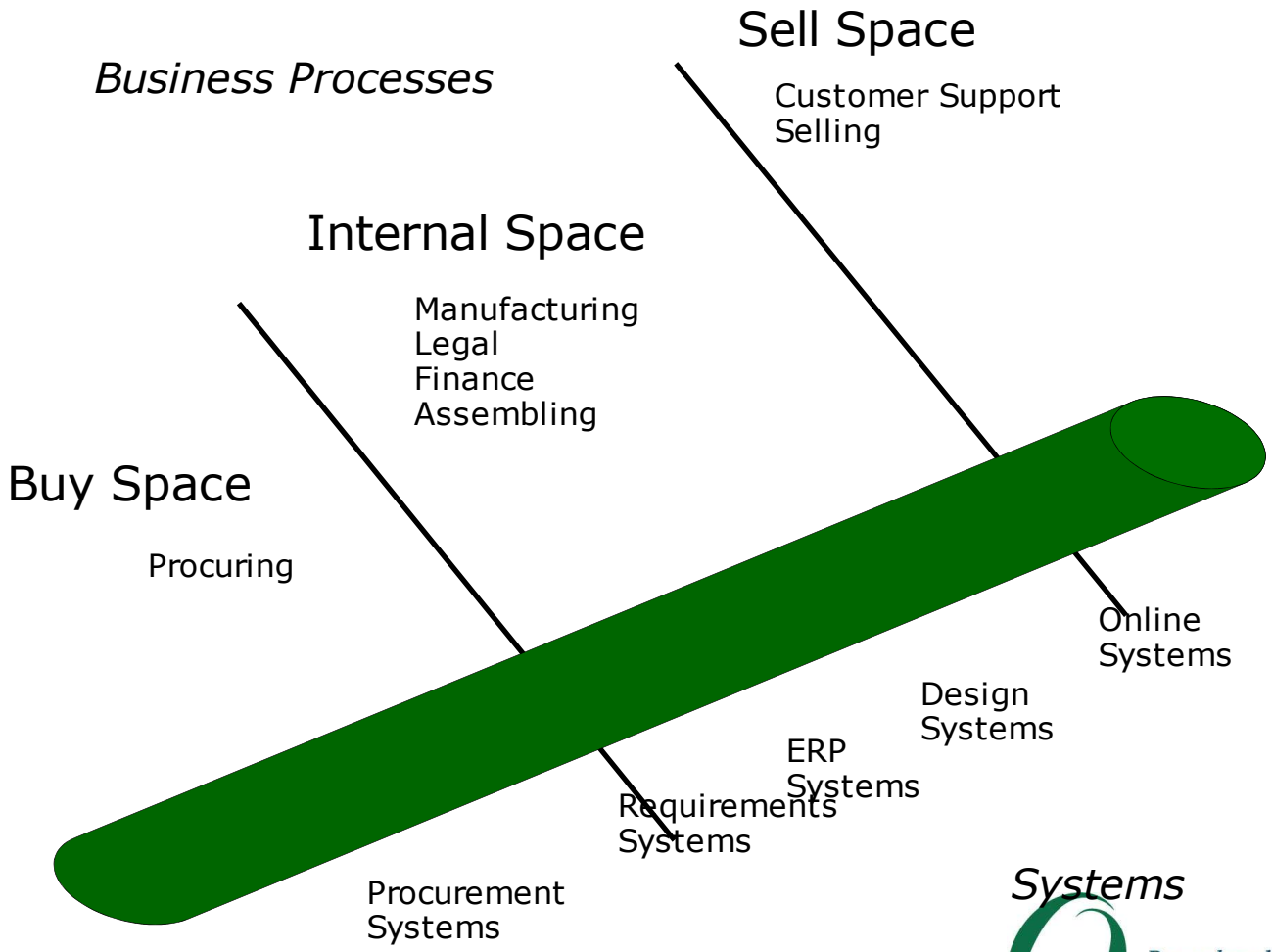
Problems From …

Need to integrate and optimize business processes



Systems

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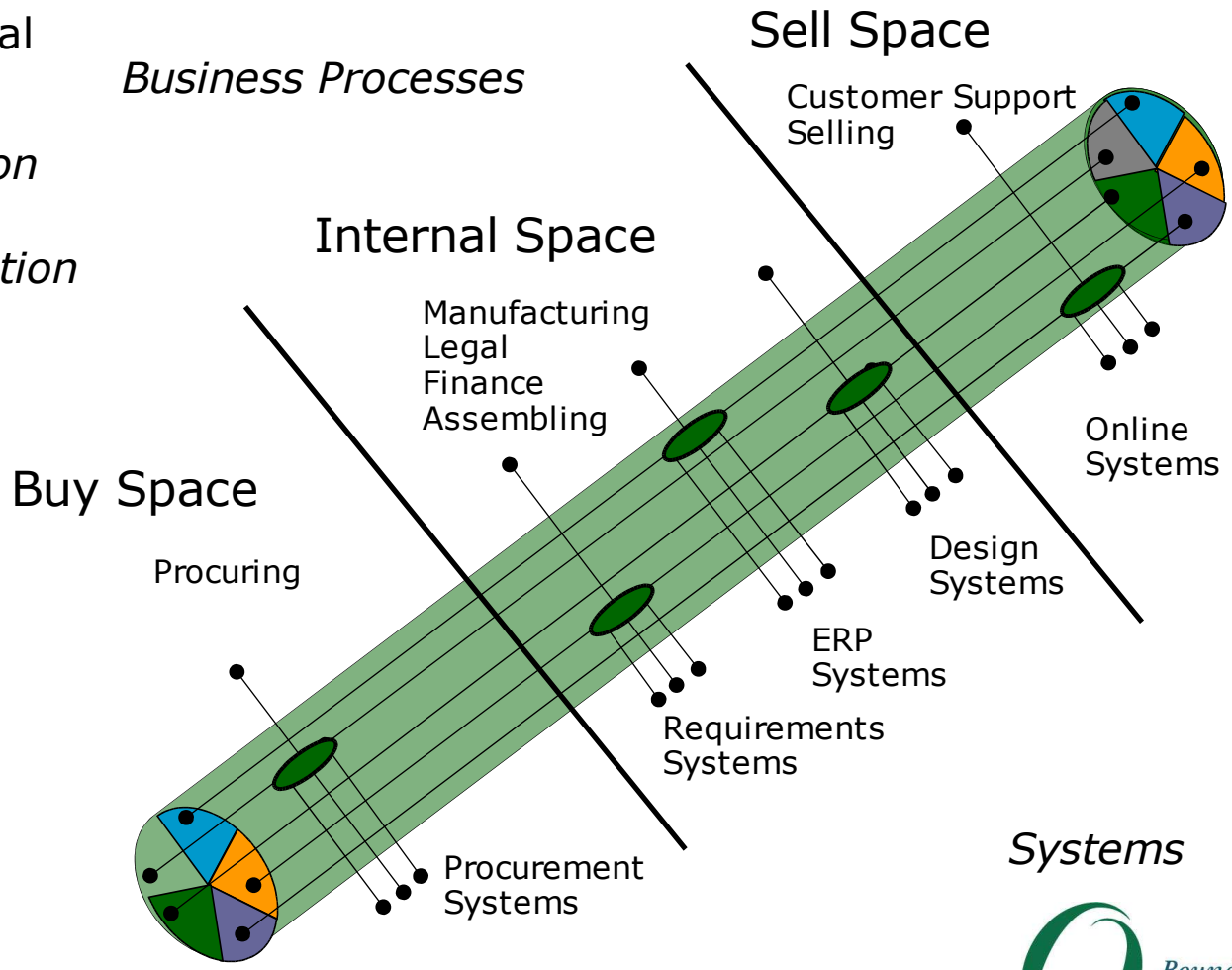
Problems From …

However fundamental issues are:

Integrated information
and
Access to that information



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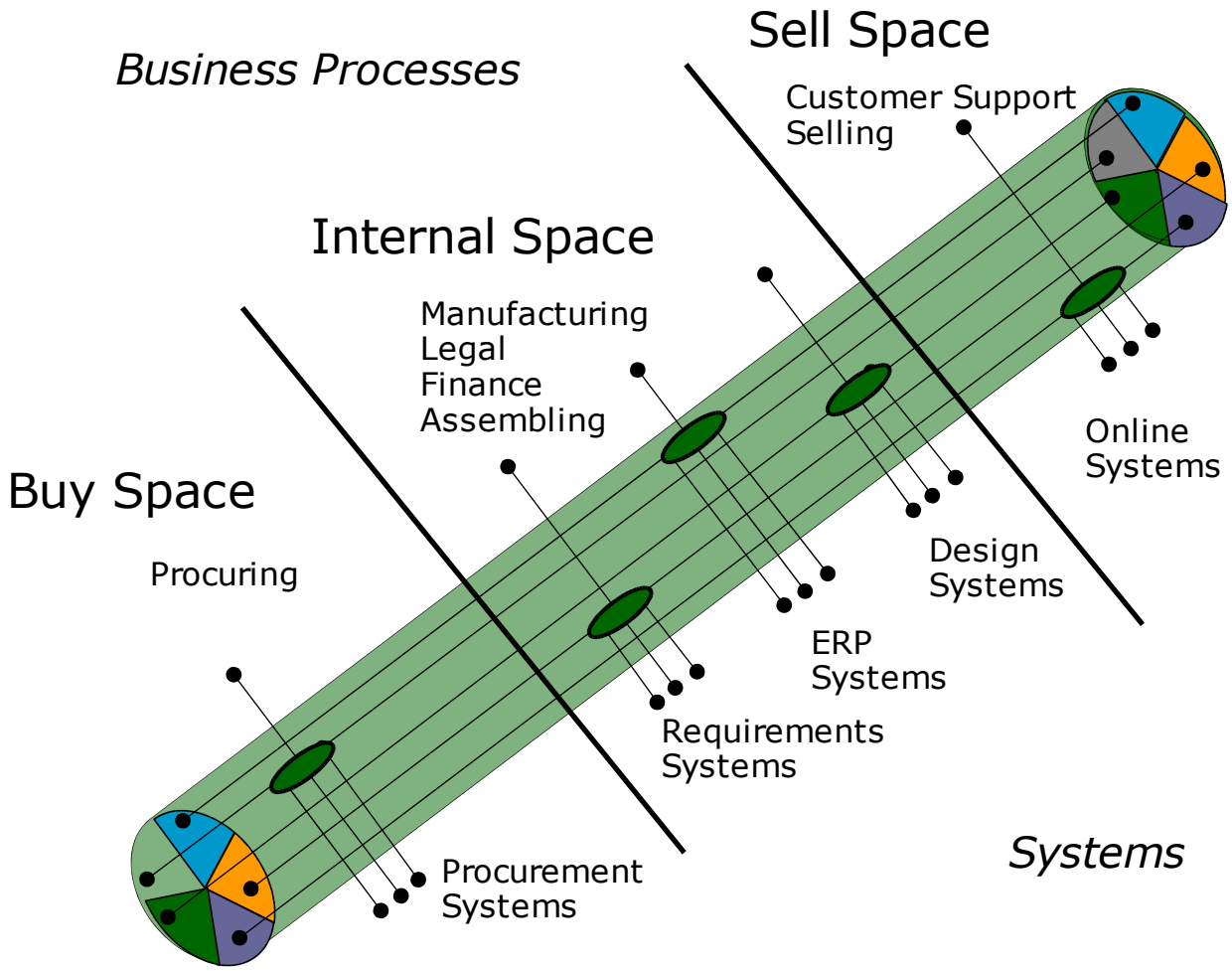
Actually Want This…



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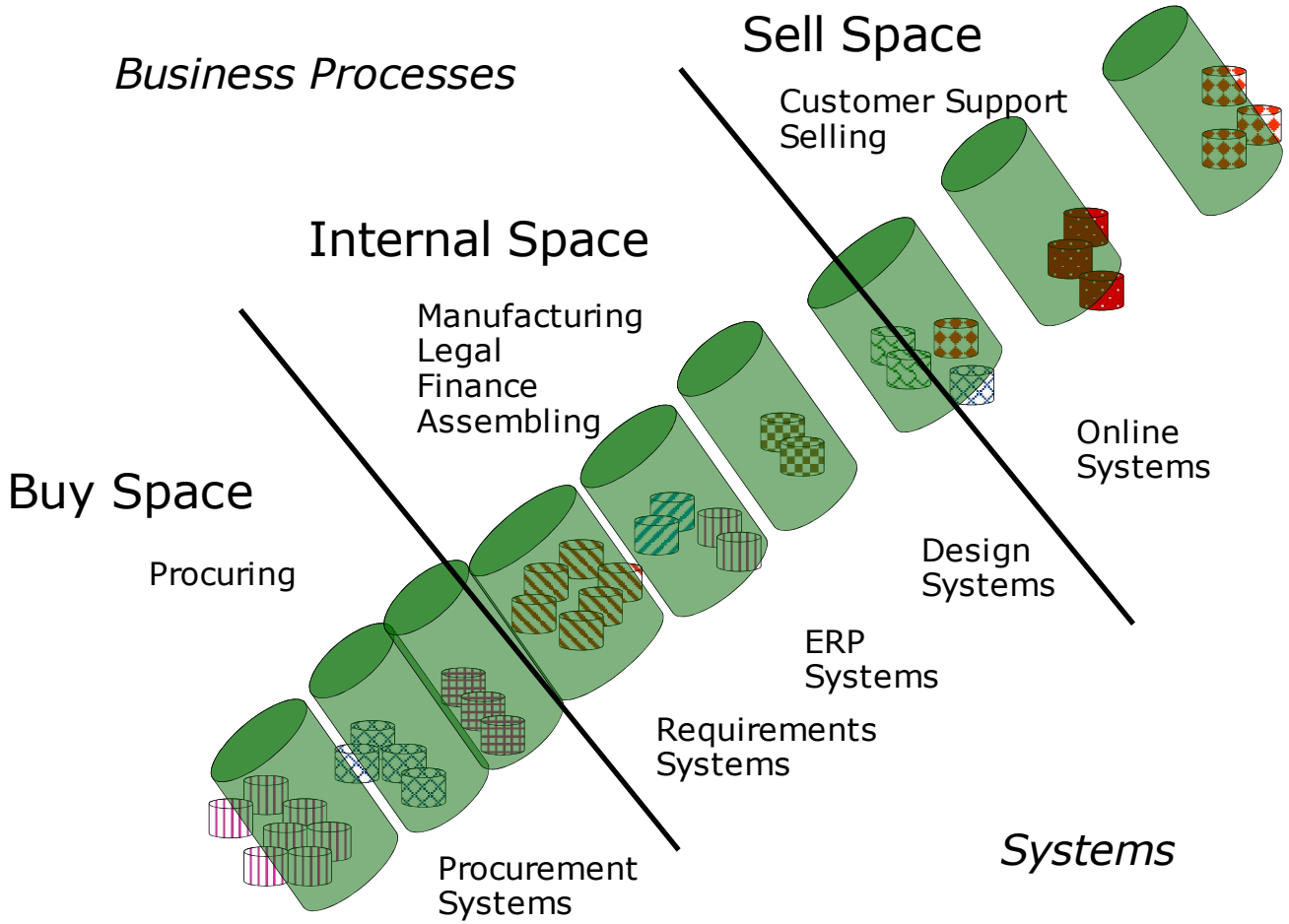
But Have This



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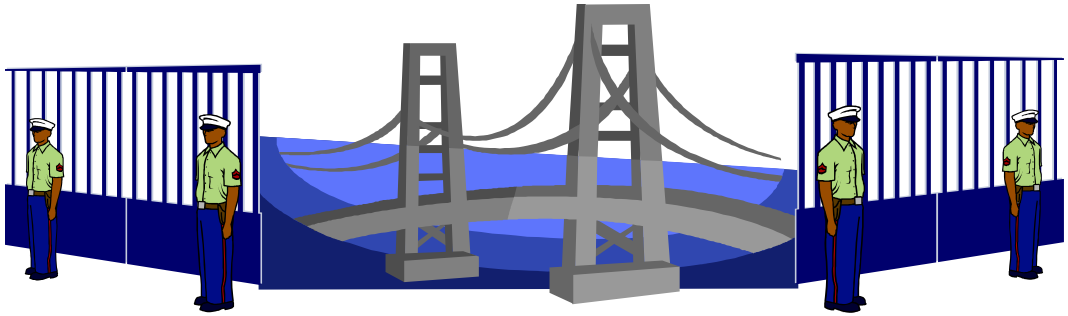
… But Safeguards Must be Preserved

- Appropriate technology boundaries can be effective



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How Important…

- 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

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Forecasts

- 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

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Boundaryless Information Flow

What is The Open Group doing?

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A Few Requirements for Boundaryless Information Flow

- Based upon open standards
  - Expressed as profiles of standards
  - Accepted by a broad community
- Products must be certified to conform to those standards for interoperability and other things specified
- **Otherwise any solution is bound to become one of tomorrow's boundaries**

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Role of Standards in Integration

- Integration is a big ticket item - costing about 35% IT spend
  - Addressing integration issues can start with integrating standards (profiles)
  - Focused standards are necessary but are silos that need to be integrated
  - Profiles that have integrated standards
    - UNIX ® profile of around 3,000 standards
    - WS-I profile around XML, SOAP, UDDI, …
- Job isn't done until products are certified!

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The Open Group Commitment

- The mission of The Open Group is to drive the creation of Boundaryless Information Flow achieved by:
  - Working with customers to capture, understand and address current and emerging requirements, establish policies and share best practices;
  - Working with vendors, consortia and standards bodies to develop consensus and facilitate interoperability, to evolve and integrate open specifications and open source technologies;
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Our Value Add and Benefits

- Development of profiles of “standards that work”
  - Reduces the cost of integration for vendors and customers alike at the most crucial stage - up front!
  - Remove road-blocks to selling more products to customers
- Certification of products against standards
  - Reduces risks associated with purchase for buy-side
  - Improves responsiveness of IT organizations
  - Lowers TCO
  - Lowers cost of certification for vendors
  - Increases system longevity
  - Increases product-line longevity

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Why The Open Group?

- Its members
  - Trusted partnership
  - Leading experts in critical areas
- Its broad industry scope
  - Unconstrained by a particular sub-set
  - Technology neutral
- Its openness to other groups
  - Enables integration across consortia
  - Enables verticals to build

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Why The Open Group?

- Its tools
  - Business Scenarios
  - TOGAF
- Its approach - not everything looks like a nail
  - Open Source - Open Standards
  - Challenges
  - Guides and best practices
  - Plugfests and bake-offs
  - Certification – self-certification to rigorous
- Its profiling ability
  - Integrate standards from many sources
  - Collections of standards relevant to customer needs

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Summary

- Boundaryless Information Flow is a relevant and real problem
- We are making progress in all areas
- Progress will be accelerated by an architected approach
  - Generating reusable assets for members
- Progress will be accelerated by more involvement
  - Generating reusable assets for members

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Boundaryless Information Flow

How you can get involved to address your Boundaryless Information Flow issues in a highly leveraged environment?

Thanks for Listening

Further questions?

Summary

- Ubiquity of problem
  - Solve common aspects together
- Partnership only way to solve
  - Don’t reinvent, lever
- The Open Group
  - Center of excellence
  - Tools, techniques & best practices
  - Experts and guidance

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Next Steps

(some steps can be done in parallel)

Ongoing

Call for architectures that vendors are using to deliver their version of boundaryless information flow

Look for areas of commonality where standards would help

Use to fill out details and refine areas below

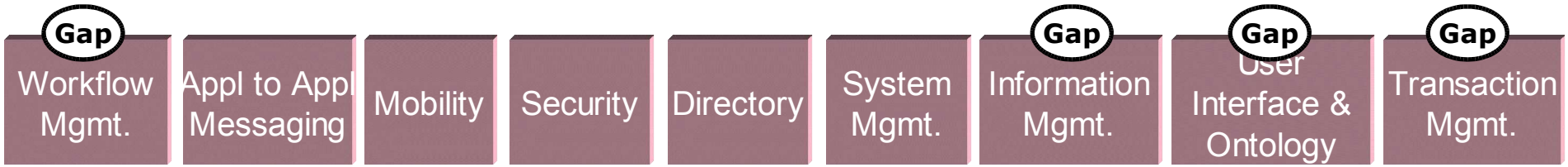
Upcoming

Identify the blockages to meeting requirements

Call for specifications for standards that address blockages

Feed

- Assemble them into meaningful profiles that are capable of being specified in products
- Build certification programs



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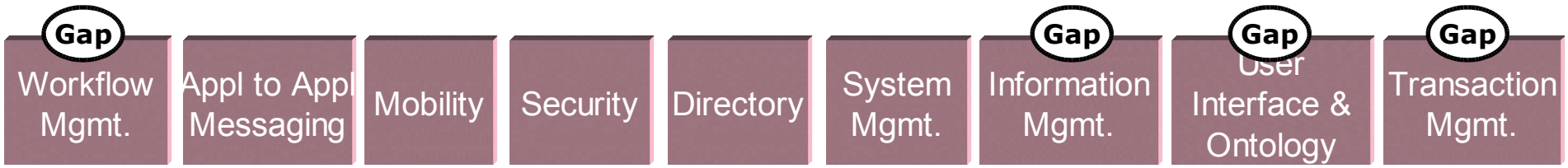
The Open Group Role

- The Open Group makes standards work for customers so they buy more certified products that support Boundaryless Information Flow in the Mission Critical space
- The Open Group's focal point:
  - It is all about removing obstacles to sharing of information across domains in IT, and in this respect we provide the "glue" to integrate existing standards and identify gaps where standards are needed to address the problem space



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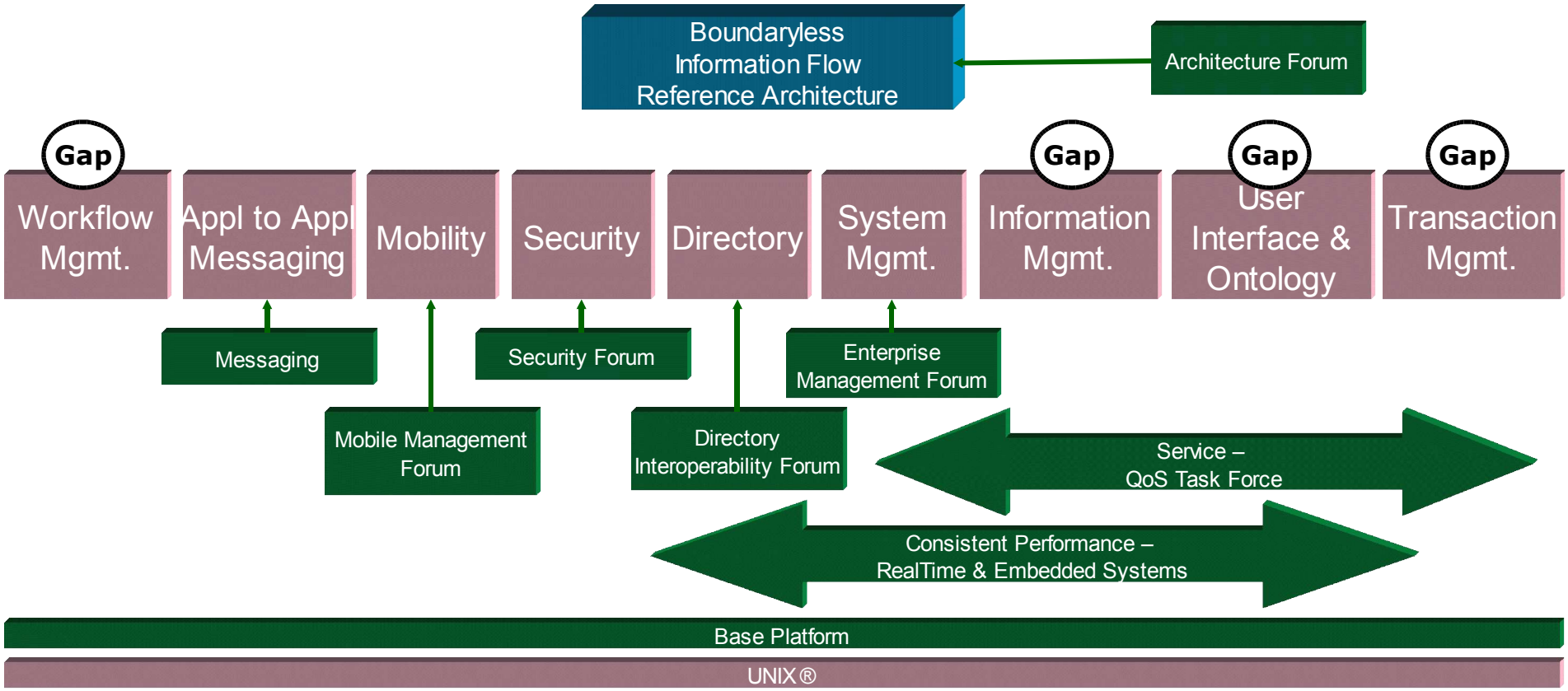
Relevance to *Current* Member Work Areas



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How Do You Measure Progress?

- Buy-in
  - To the concept
  - The Open Group is well positioned to tackle it
- Deliverables
  - Tangible
  - Timely
- Take-up
  - In vendor products
  - In customer usage

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Buy-in to the Concept

- Feedback from external presentations
  - Lockheed Martin
  - Association for Enterprise Integration
  - Multiple senior level meetings
  - Enterprise Architecture Conference
- EC funding
  - NetFrame
  - ALPINE
- Hearing about the problem from you all!

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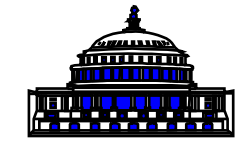
The NetFrame Project



- Accelerate growth in the extended enterprise
  - Production Processes
  - IT infrastructures and architectures
- Interoperability
  - Security
  - Messaging
  - Data exchange
  - Order transactions
- Architecture
  - Develop business scenarios
  - Establish architecture baseline
  - Develop target architecture
- Tools
  - Develop evaluation techniques for potential technical building blocks
  - Develop a certification program

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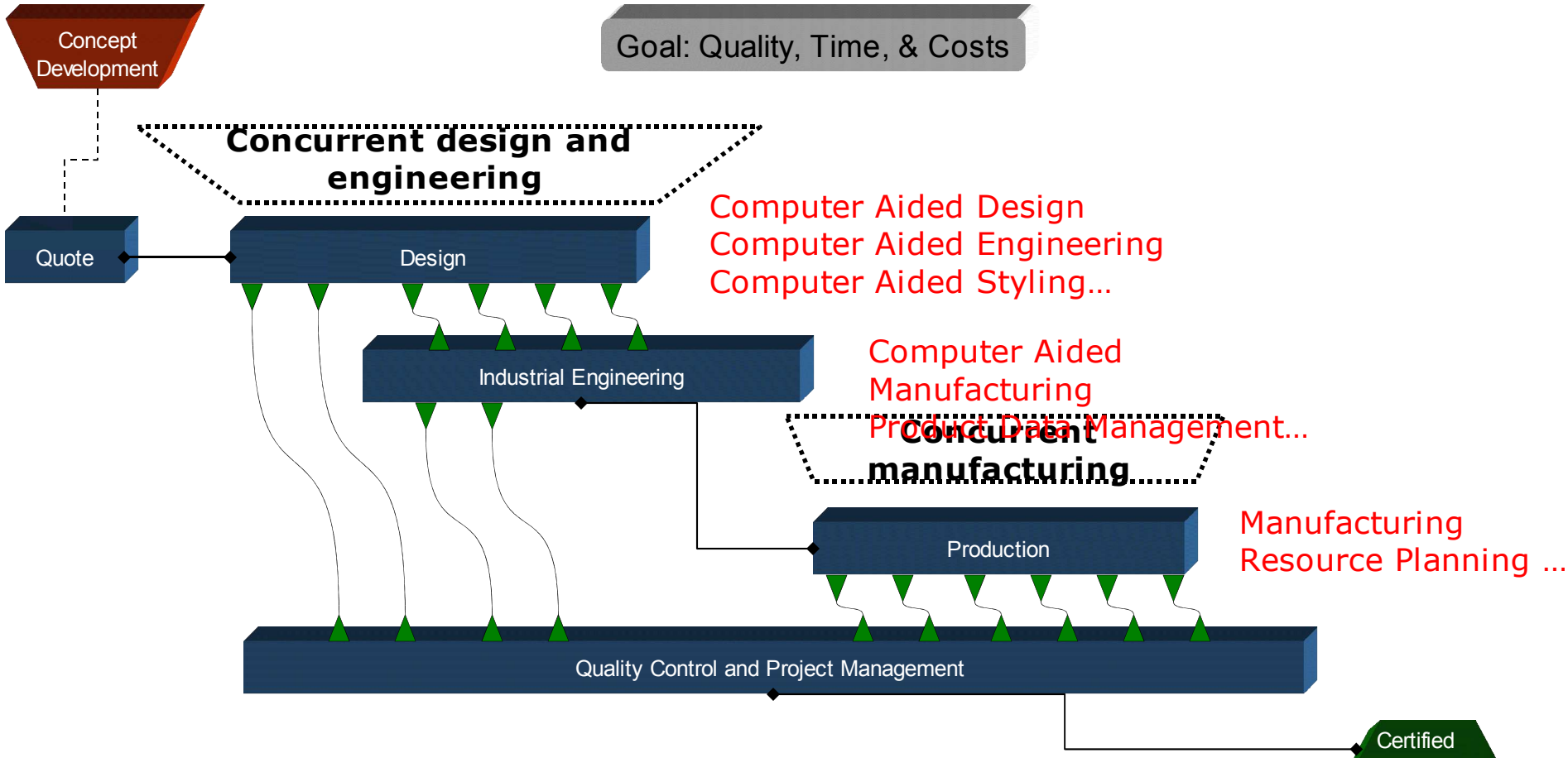
The NetFrame Project - A Manufacturer's Instance



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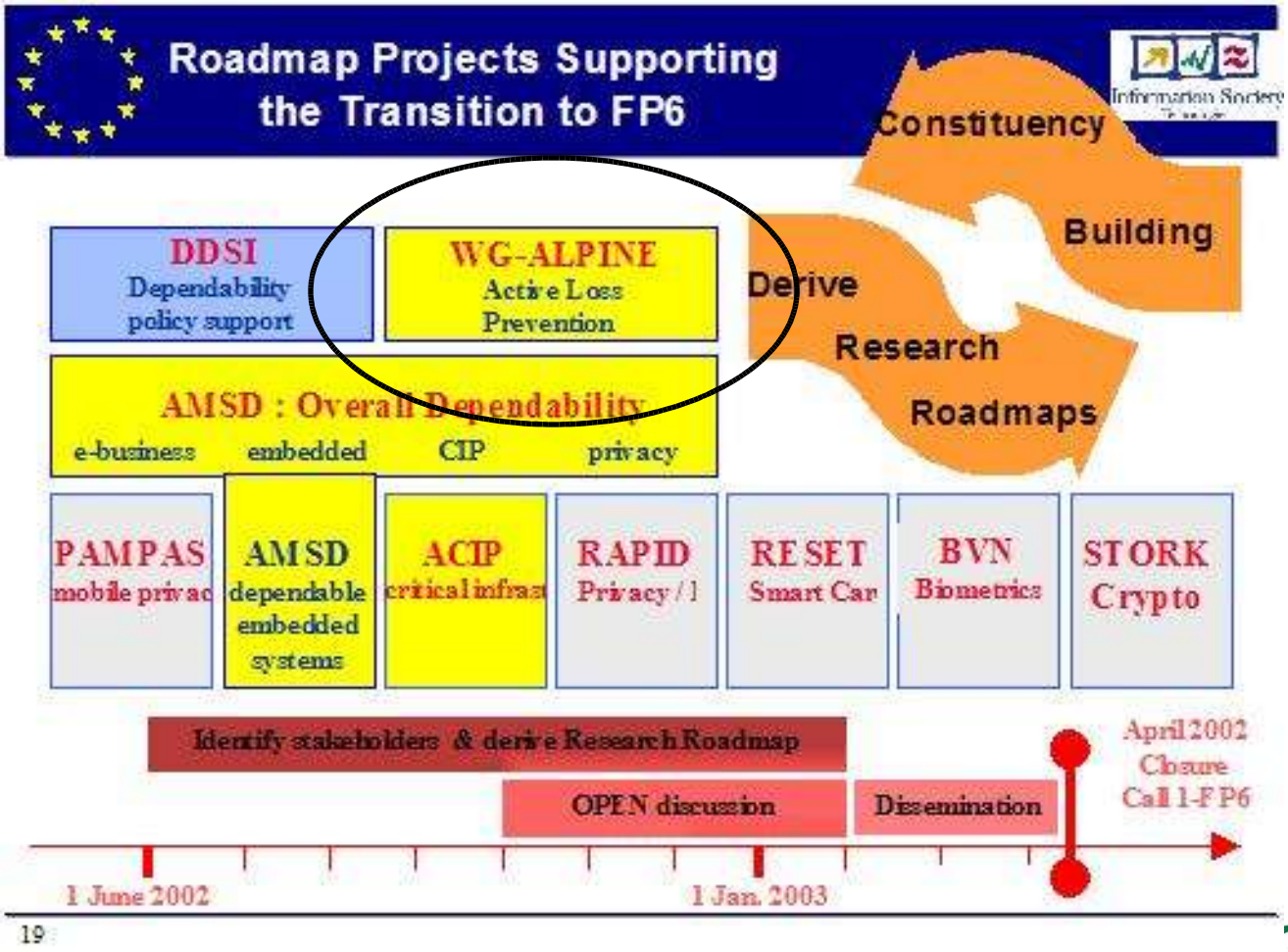
ALPINE – Active Loss Prevention for the IT- Enabled Enterprise

Government



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Buy-in to the concept

- “Most of today's IT infrastructures are not ready for the kind of dynamic, responsive, integrated business environment required to be a truly on demand business. But IBM is. We see four essential characteristics for the on demand operating environment:
  - Integrated
  - Virtualized
  - Open
  - Autonomic”

    - Source: http://www-3.ibm.com/e-business/

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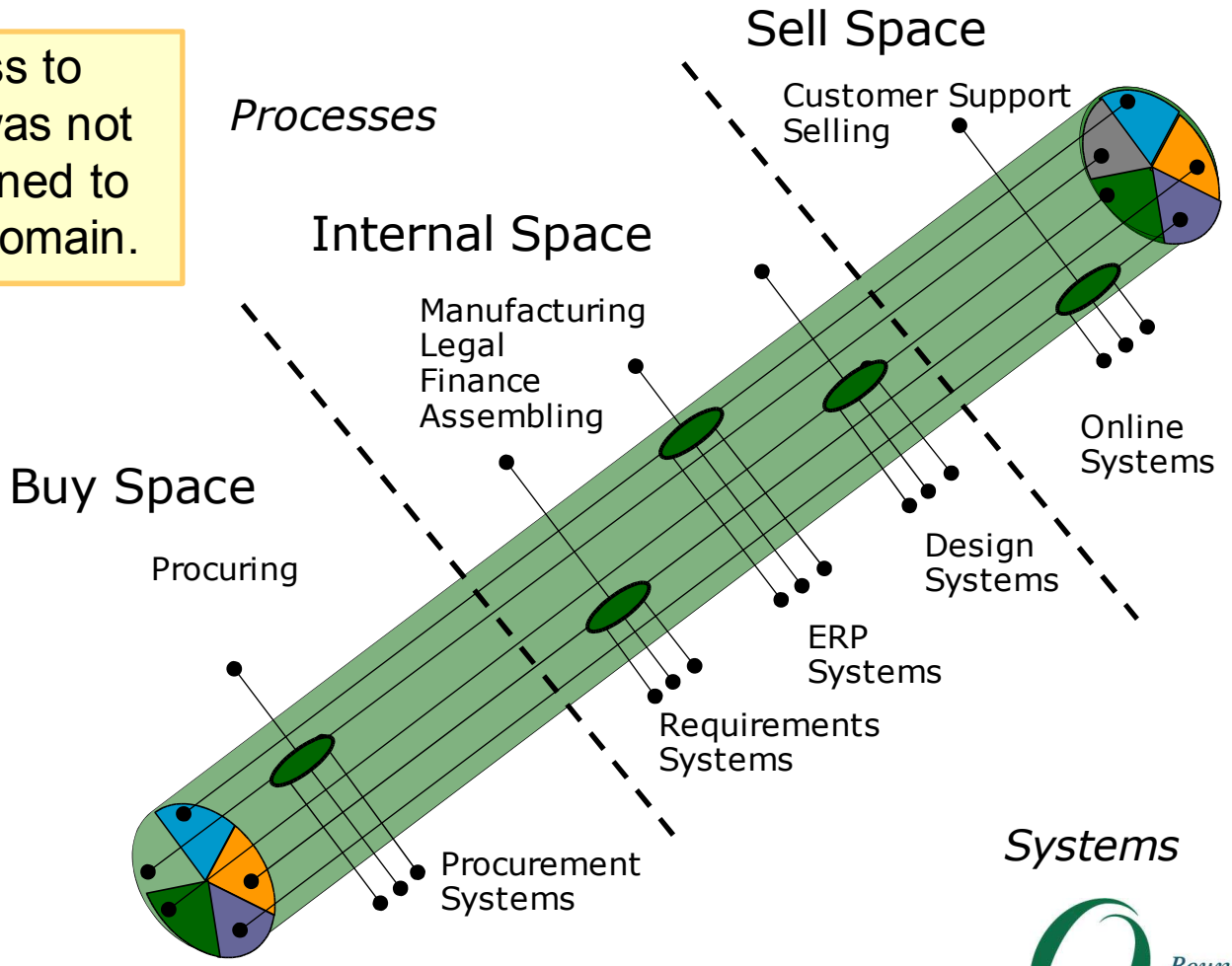
Integrated

… needs access to information that was not necessarily designed to leave its original domain.



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Virtualized

- Grid Computing
  - The Open Group Conference and Member Meeting,
    - Boston July 21st - 25th, 2003
  - OpenPegasus

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Open

- “With most companies already having made huge investments in technology, the ability to "rip and replace" an entire system is not an option. Open technical interfaces and agree-upon standards are the only realistic way the many business processes, applications and devices will be able to connect.”

•Source: http://www-3.ibm.com/e-business/

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Autonomic

- The convergence of cluster/modular/blade architecture with autonomic/self-managing/utility computing requires a new management paradigm.
- AQuaReuM
  - Application Quality/Resource Management
  - .... Ensuring Certainty in Service Delivery
- To develop an architectural framework, standards profile, and appropriate standards for an autonomic approach to managing applications across one or more modular, virtual, dynamic data centers within one or more real-time enterprises.

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How do you measure progress?

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  - Tangible
  - Timely
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  - In customer usage

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Deliverables

- Business taxonomy
- Technical architecture
- Member work areas

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The role of architecture

- “Architecture is fast becoming one of the main instruments for improving Business IT Alignment.”
- “It is time to broaden our view and build systems that last and that keep delivering value to the business. Business and IT Architecture play a pivotal role in achieving this goal..“

Raymond Slot M.Sc, MBA, Principal Consultant and Enterprise Architect for Cap Gemini Ernst & Young

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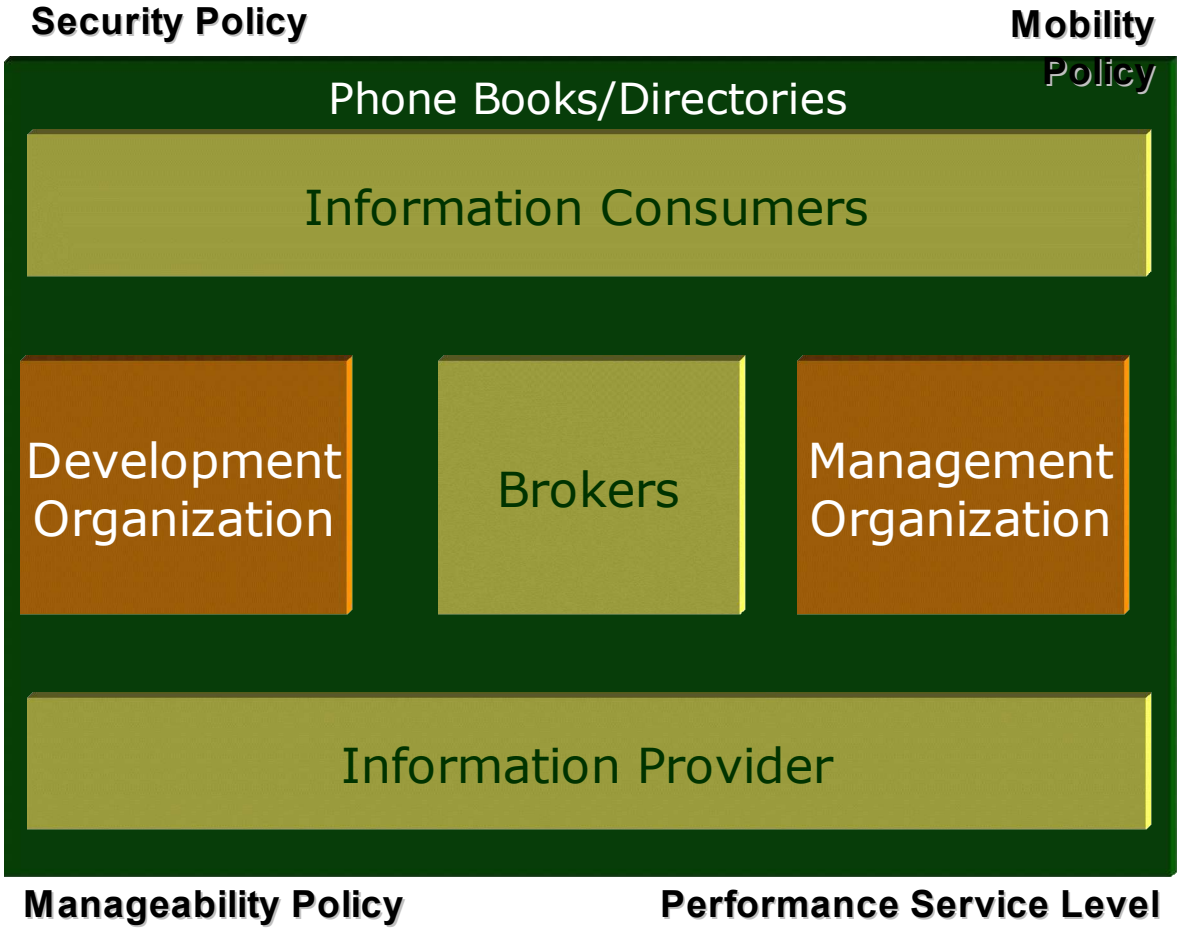
Boundaryless Information Flow - Business Taxonomy



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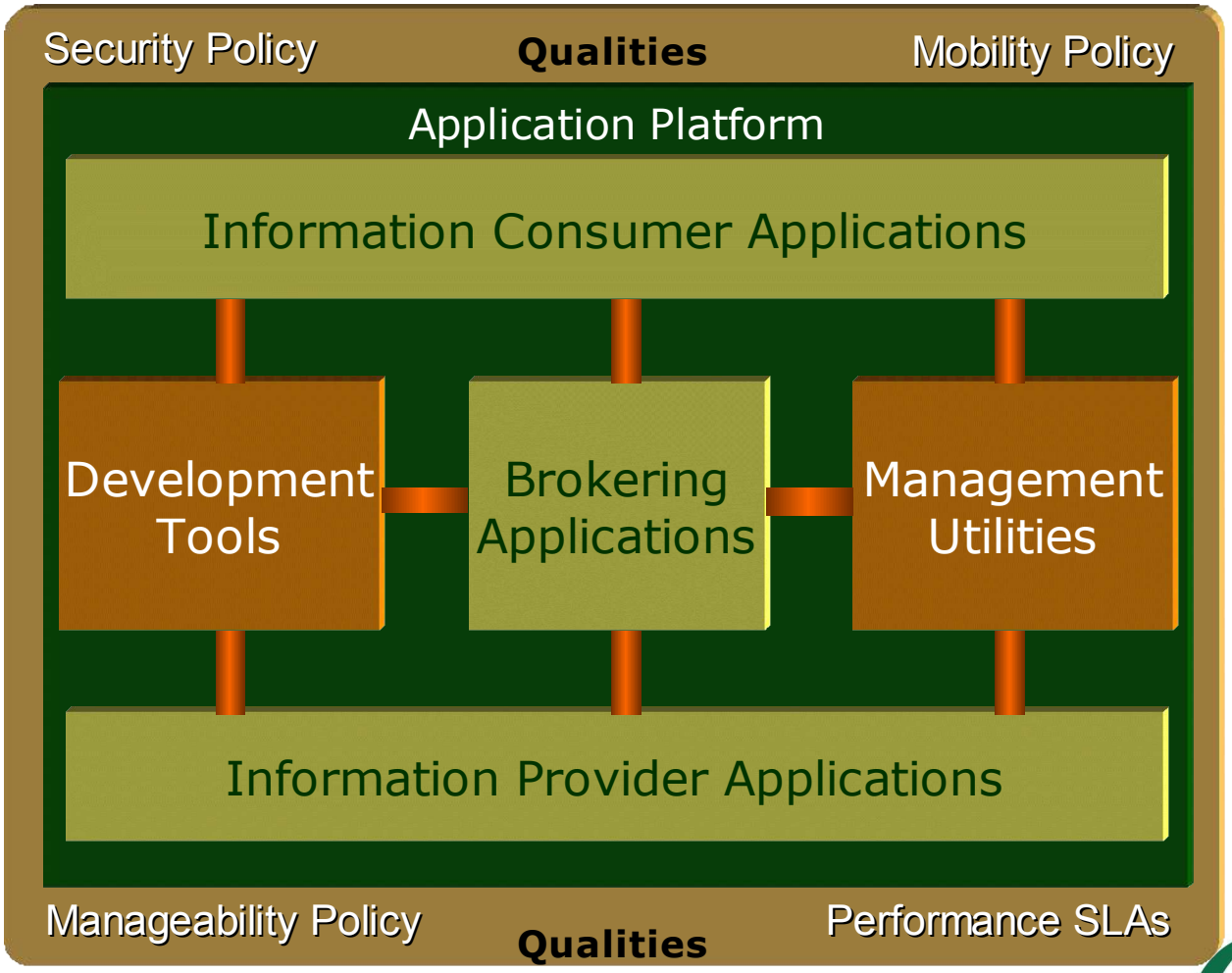
Boundaryless Information Flow - Technical Taxonomy



Classes of Interfaces - formats and protocols …

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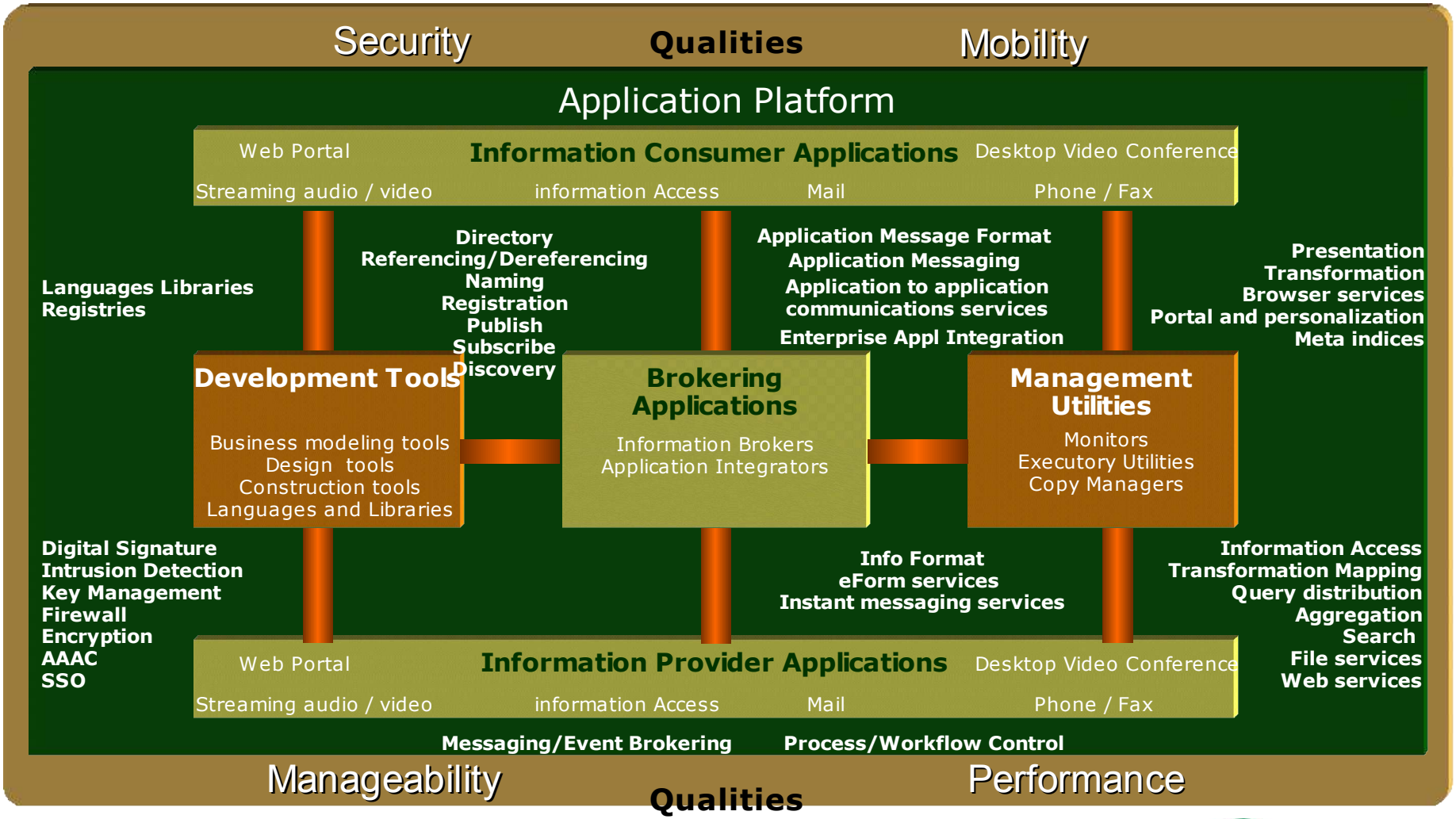
A Level 2 Model



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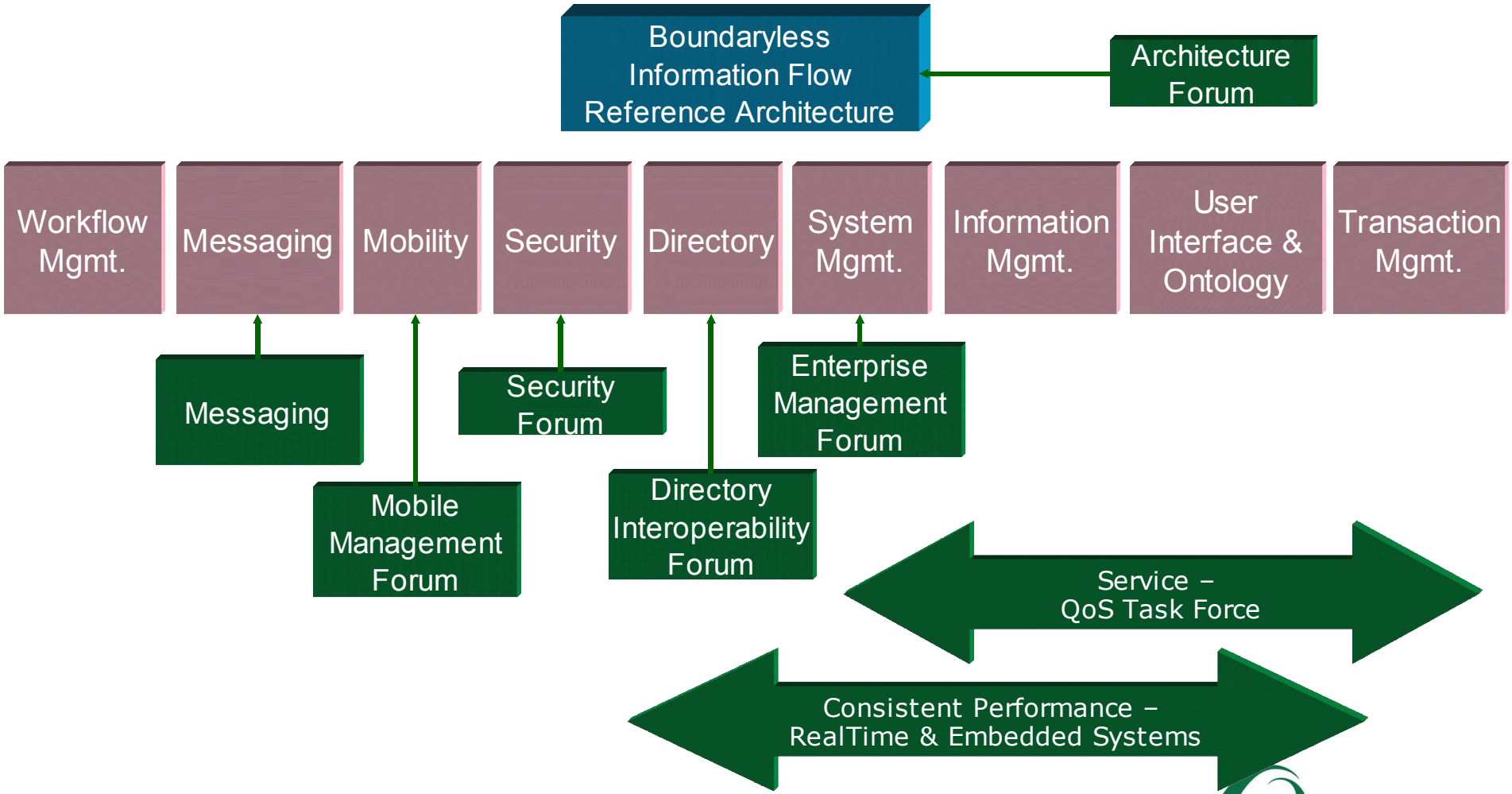
Member work areas



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What's Happened	Comments
Business Scenario	"Outstanding …. requirements" paper
Secure Messaging	Toolkit, workshops Plugfests Q3/4
Identity Management	New activity launched
Trust	ALPINE – Trust vocabulary
SPAM	White Paper Q2 Defense options Q2 Guide to legal action Q4
Unified Messaging	Business Scenario Q2
Instant Messaging	Problem statement Q3
Working certification program for Secure Messaging Gateways	Initiated work Q3

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What's Happened	Comments
Secure Mobile Architecture	Vision and architecture first draft Jun 03
Device Management and Provisioning	
Access control	Joint activities with Security Forum, Directory Interoperability Forum and Messaging Forum
Directories for Mobility	
Identity Management	

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What's Happened	Comments
Developing Enterprise Vulnerability Management initiative	Started lightweight Fast track review of ASC Risk Preparedness Index document
Other new projects	Identity Theft; Authentication Technologies
Proposed SAML version 2 certification program	Taking a leadership role in driving
Access control	Joint activities with Security Forum, Directory Interoperability Forum and Messaging Forum
Directories for Mobility	
Identity Management	

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What's Happened	Comments
LDAP Certified Program	Launched Q3
Directory Certification White Paper	Completed Q3
DSML/SOAP	Plugfest – all major directory vendors
PKI Management and Manageability	Joint with Security Forum
Access control	Joint activities with Security Forum, Messaging Forum and Mobile Management Forum
Directories for Mobility	
Identity Management	

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What's Happened	Comments
Common Manageability Infrastructure OpenPegasus 2.2, 2.2.1 released	Continuing development of open source and accompanying Technical Standards
Application Quality / Resource Management	New activity launched First draft Architecture Q3 First draft Technical Standards Q4
Application Response Measurement	Version 4 Technical Standard Q2
Software License Use Management	Revised Technical Standard Q4
Service Level Agreements	Survey/White Paper TMF Handbook Q4
Application Information Model	Run-Time Management Model Q2 Life-Cycle Model Q4

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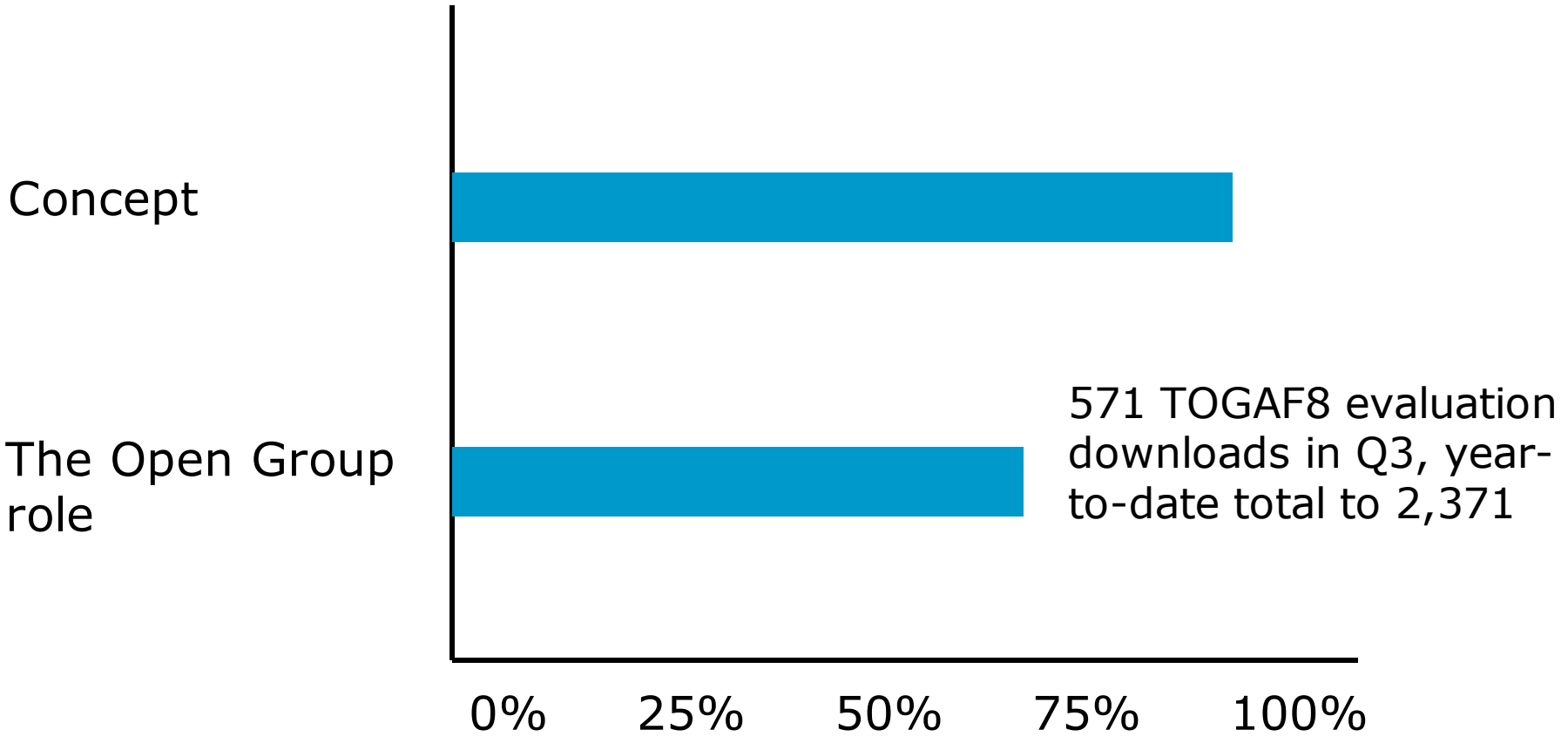
Measuring Progress – Buy-in



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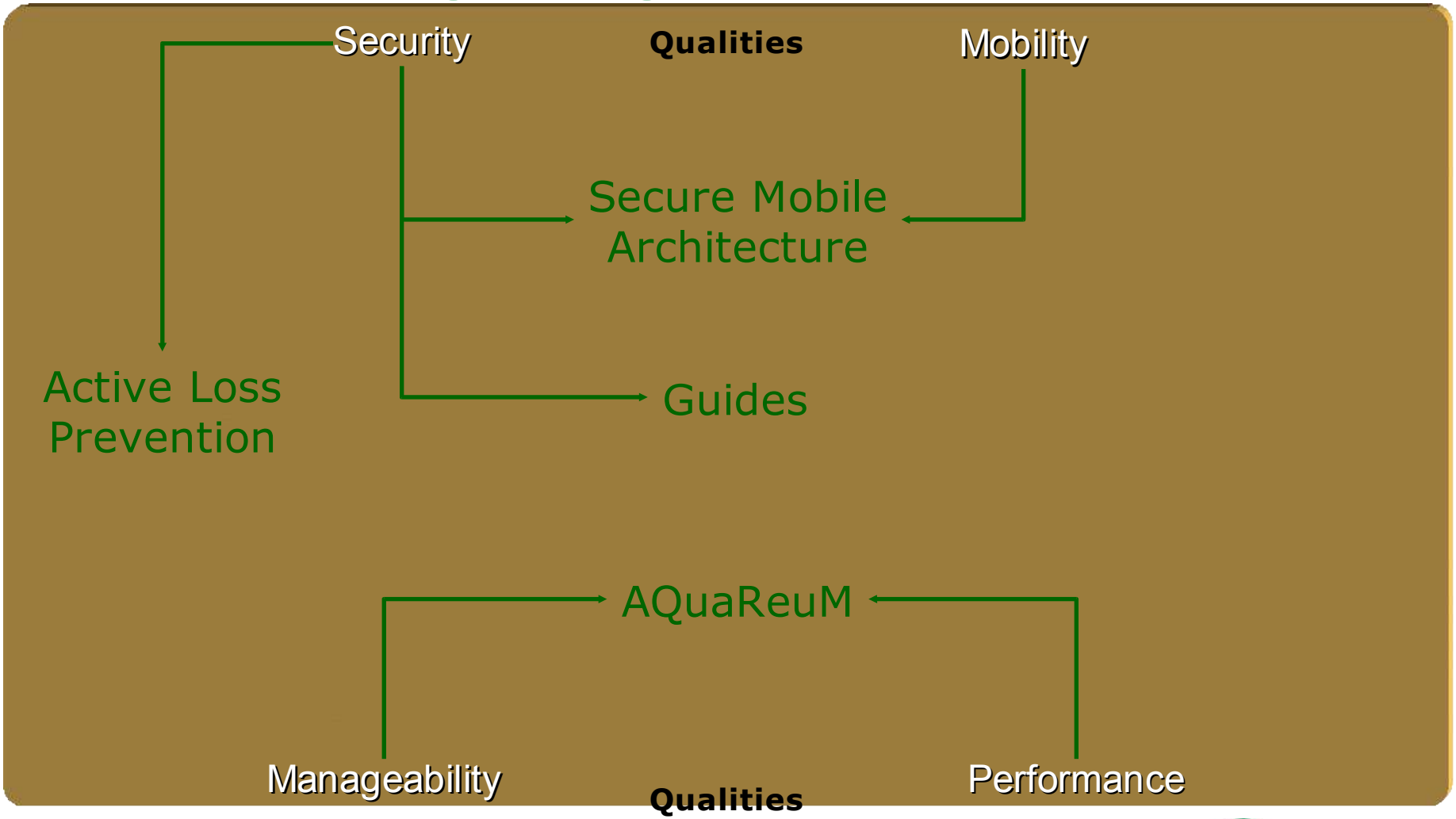
Measuring Progress Deliverables



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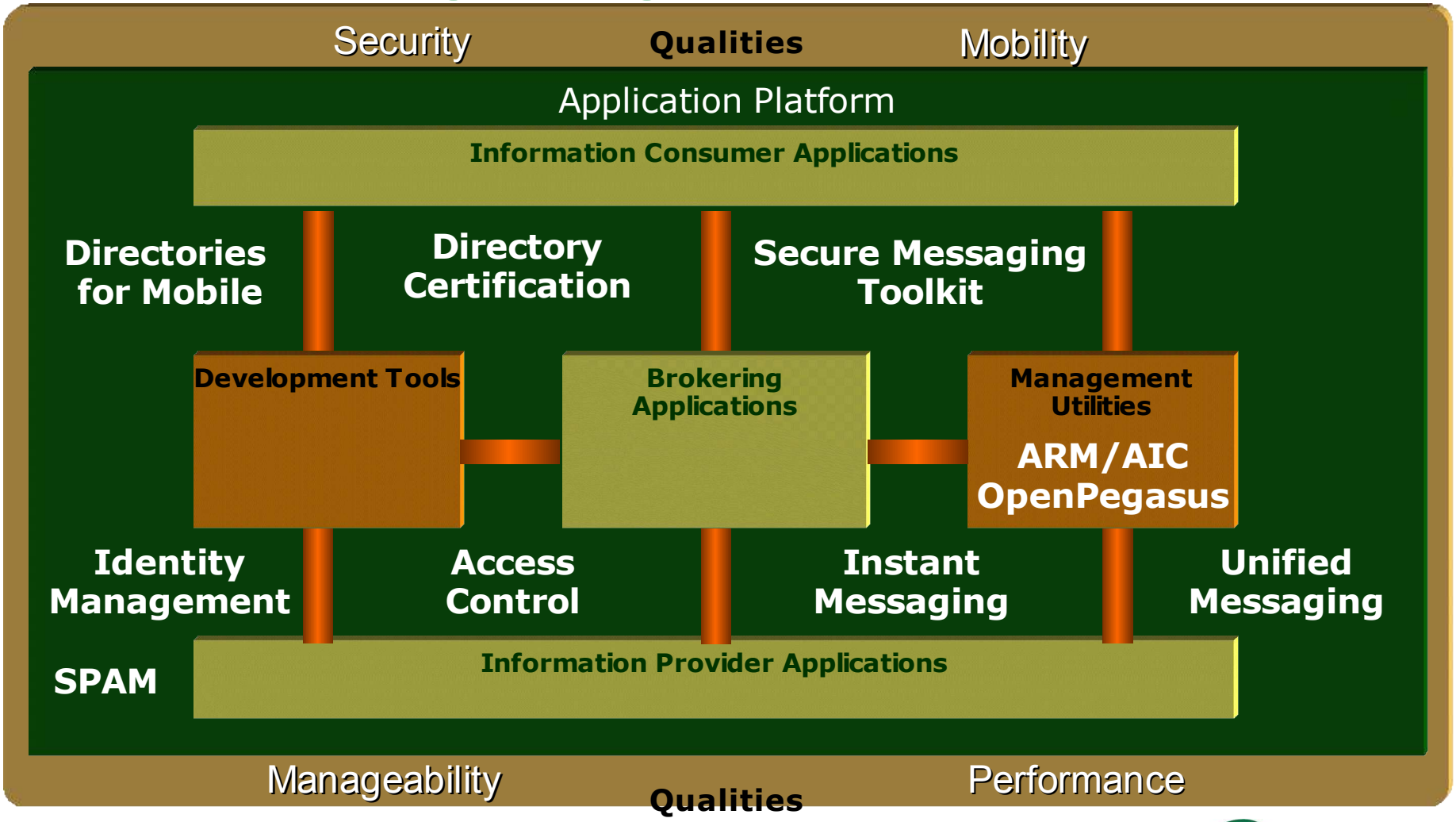
Measuring Progress Deliverables



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Measuring Progress – Take-up

- Difficult to measure
  - Secure Messaging
    - Workshops
    - Up-dates to e-mail clients?
  - OpenPegasus
    - Being built into vendor systems management offerings
    - referenced in Grid standards
- Too early to tell

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