

META Group and DCI Present

The Enterprise Architectures Conference

..Redefining the Domain of Architecture

Hyatt Orlando • Orlando, FL
December 7-9, 1999

Two Complementary Events Co-Located—Bring Your Enterprise's IT Team

Running Concurrently ...

DCI's Enterprise Application Integration Summit

Bringing the Power of EAI to the Enterprise

December 8-9, 1999

DCI's Enterprise Application Integration Summit Chair

David Linthicum • SAGA

The Interactive Summit Features:

- FULL DAY Roadmap to Enterprise Application Integration (p. 4)
- Idaho Power Company's Best Practice (p. 6)
- Putting Vendors to the Test at the Battle of EAI Vendors Panel: Solving a Real World EAI Problem with Current Technology Solutions (p. 7)

Enhance Your Education at the Post Conference Seminar EAI with CORBA
PLUS Vote for the Solution Awards!

Produced by:



The Enterprise Architectures Conference Chair

Larry R. DeBoever • META Group

Featuring Industry Leaders Including: (See page 8)

- Richard Chang
Andersen Consulting
- Alfred Spector
IBM Corporation
- Johan Vinckier
McKinsey & Company
- John Zachman
Zachman International

Learn from Best Practices of:

- Eli Lilly & Company
- Ernst & Young LLP
- First Data Corporation
- Health Care Financing Administration
- Levi Strauss & Company
- State of Missouri
- US Army

Jump Start Your Education at the Enterprise Architectures Bootcamp, p. 10

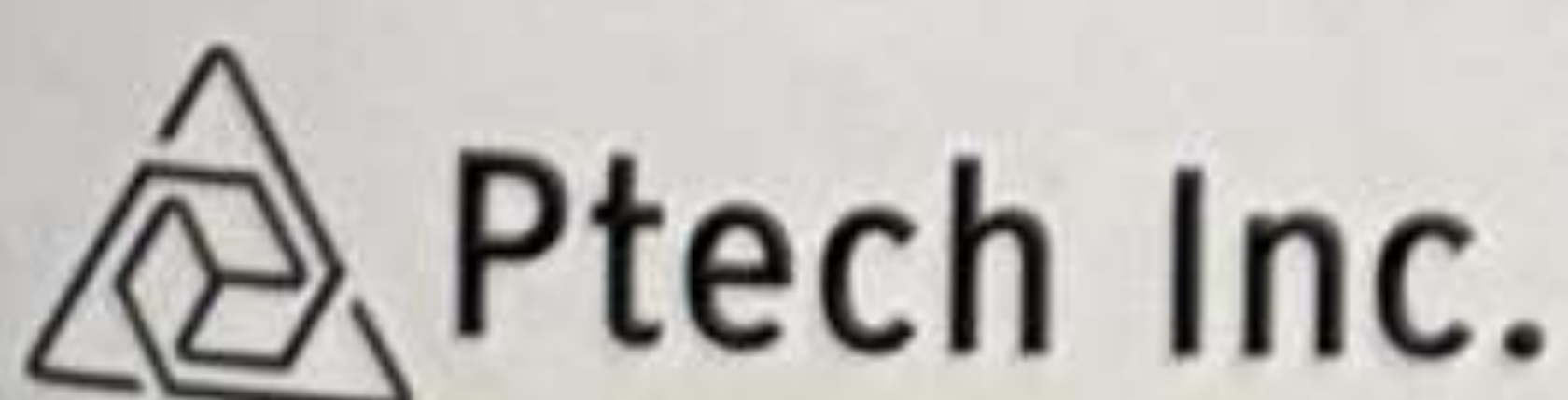
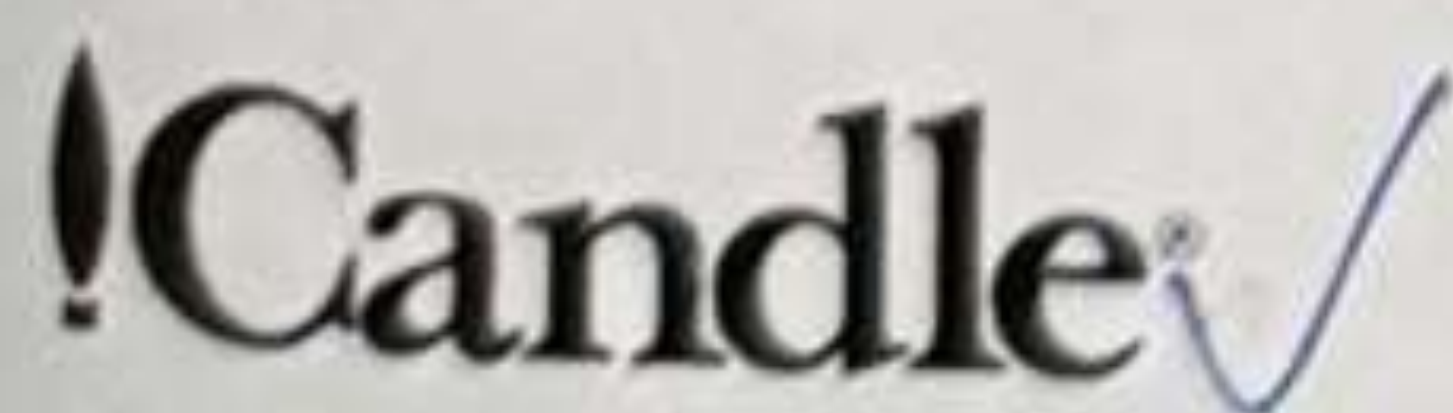
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JXBIH00

Visit Our Award-Winning Web Site
www.dci.com
See Page 4

Day 1 — The Enterprise Architectures Conference



Tuesday, December 7, 1999 • 2:00- 3:20pm
Valuing New Infrastructure Investments

Michael Marburg
Vice President and General Manager,
Packaged Consulting
META Group

About This Session

Even the best technical architectures stumble without proper funding. The "infrastructure asset" is rarely understood by those with budget control, forcing many architects into a justification tailspin. This session introduces an innovative new approach for valuing new infrastructure investments by tying them directly to business drivers.

Key Issues

- A rapid and repeatable method for performing infrastructure impact assessments
- Costs, high risk areas, resource requirements and key cost sensitivity points in two case study examples: deploying SAP and cost reduction strategies in the workgroup environment
- Using infrastructure value as a way to negotiate unreasonable or unbounded requirements
- The benefits of understanding infrastructure issues during the earliest stages of a new initiatives life cycle

Benefits of Attending

- Justify budget or new headcount requirements
- Link infrastructure investments with business drivers
- Improved communications between business, application, and infrastructure constituencies
- Costing accuracy and efficiency due to method's speed and repeatability
- Greater ability to understand costs for chargeback or bid evaluation

About the Speaker

Mr. Marburg oversees development and delivery of consulting "packages" in areas where META Group can mass deliver high value engagements by standardizing delivery and automating execution. Initial focus areas include predictive cost modeling, security risk surveyors, and value-sourcing scorecards. Prior to starting this new product line, Mr. Marburg held senior management positions within META Group Consulting, Service Management Strategies, and Global Networking Strategies, with an extended international assignment in Australia. He has worked with G2000 companies around the world to implement best practices in service management, infrastructure development, and outsourcing disciplines.



Tuesday, December 7, 1999 • 2:00-3:20pm
Ernst & Young LLP: A Practical EA Approach to Enable Success

Marc Lobell
Associate Director/Technology
Architecture
Ernst & Young LLP



Amy Freeman
Assistant Director/Application
Development Architecture
Ernst & Young LLP



About This Session

In rapidly changing business environments, Enterprise Architecture is viewed as a vehicle to allow companies to respond more rapidly to customer needs. Eighteen months ago, Ernst & Young LLP created an internal EA group to enhance its competitive advantage in a volatile industry. Come hear about the challenges and surprises the group encountered.

Key Issues

- Use Enterprise Architecture to speed time-to-market, increase quality and minimize costs
- Define a practical Architectural model for your organization
- Effectively communicate your Architecture
- How to enhance the traditional role of the EA group by delivering additional services
- How other IT teams can benefit from an inclusive Architecture process

Benefits of Attending

- Establish effective communications between business and technology
- Avoid dead ends that can result in shelf-ware
- Develop a process for Technology Governance
- Leverage the experts within your own organization to define your architecture
- Learn leading practices to converge the efforts of different domain architects, on an international scale

About the Speakers

Marc Lobell has most recently been involved in Windows 2000 and Netware 5 initiatives. Marc has 17 years of experience in systems and technology, and has held roles at Ernst & Young LLP, JPMorgan, and Price Waterhouse LLP.

Amy Freeman is the Chair of Ernst & Young's international Development Architecture committee. Amy has 14 years of experience in development, systems and technology, and has held prior positions at Ernst & Young LLP and Deloitte & Touche LLP.

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Redefining the Domain of Architecture

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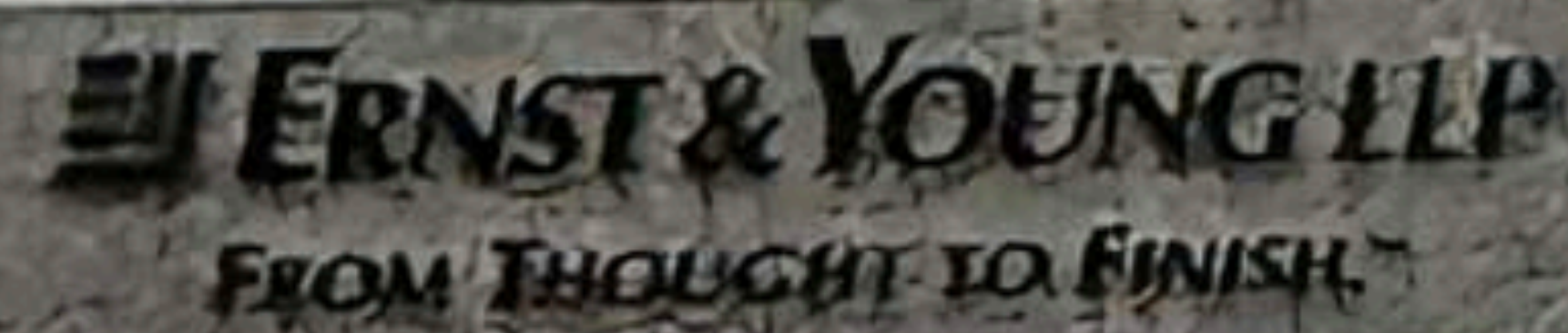
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Conference Proceedings



Enterprise Architecture Conference December 1999

CASE STUDY



A Practical Approach to Enterprise Architecture

Amy Freeman, Development Architecture
amy.freeman@ey.com

Marc Lobell, Technology Architecture
marc.lobell@ey.com

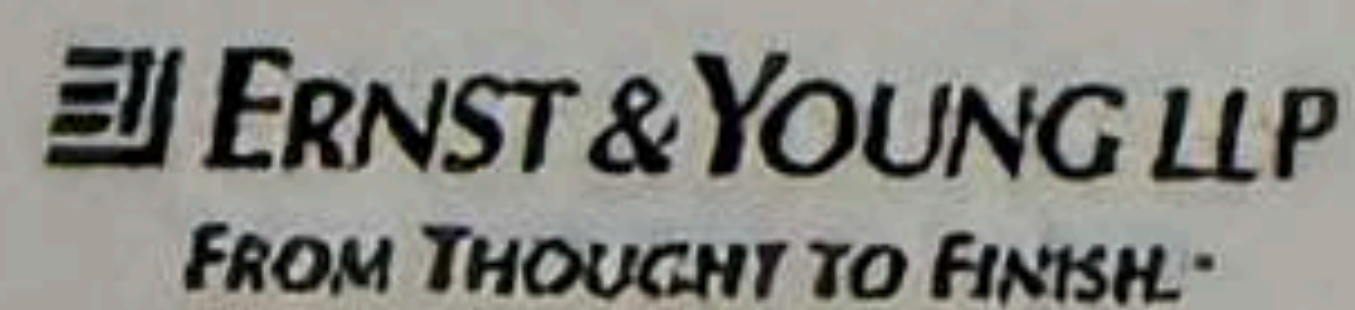
Enterprise Architecture Conference December 1999

CASE STUDY

A Practical Approach to Enterprise Architecture

Amy Freeman, Development Architecture
amy.freeman@ey.com

Marc Lobell, Technology Architecture
marc.lobell@ey.com



Introduction

Level setting

- Snapshot E&Y & the internal IT organization

Business/IT/Architecture challenges

- Why do we need EA?

Internal Enterprise Architecture at E&Y

- What did we do?
- What are we doing?
- Leading Practices
- What will we do?
- Where are we going?

E&Y Organization

Ernst & Young Internationally

85,000 people

133 countries/ 700+ cities

Global Revenues: \$10.9 billion

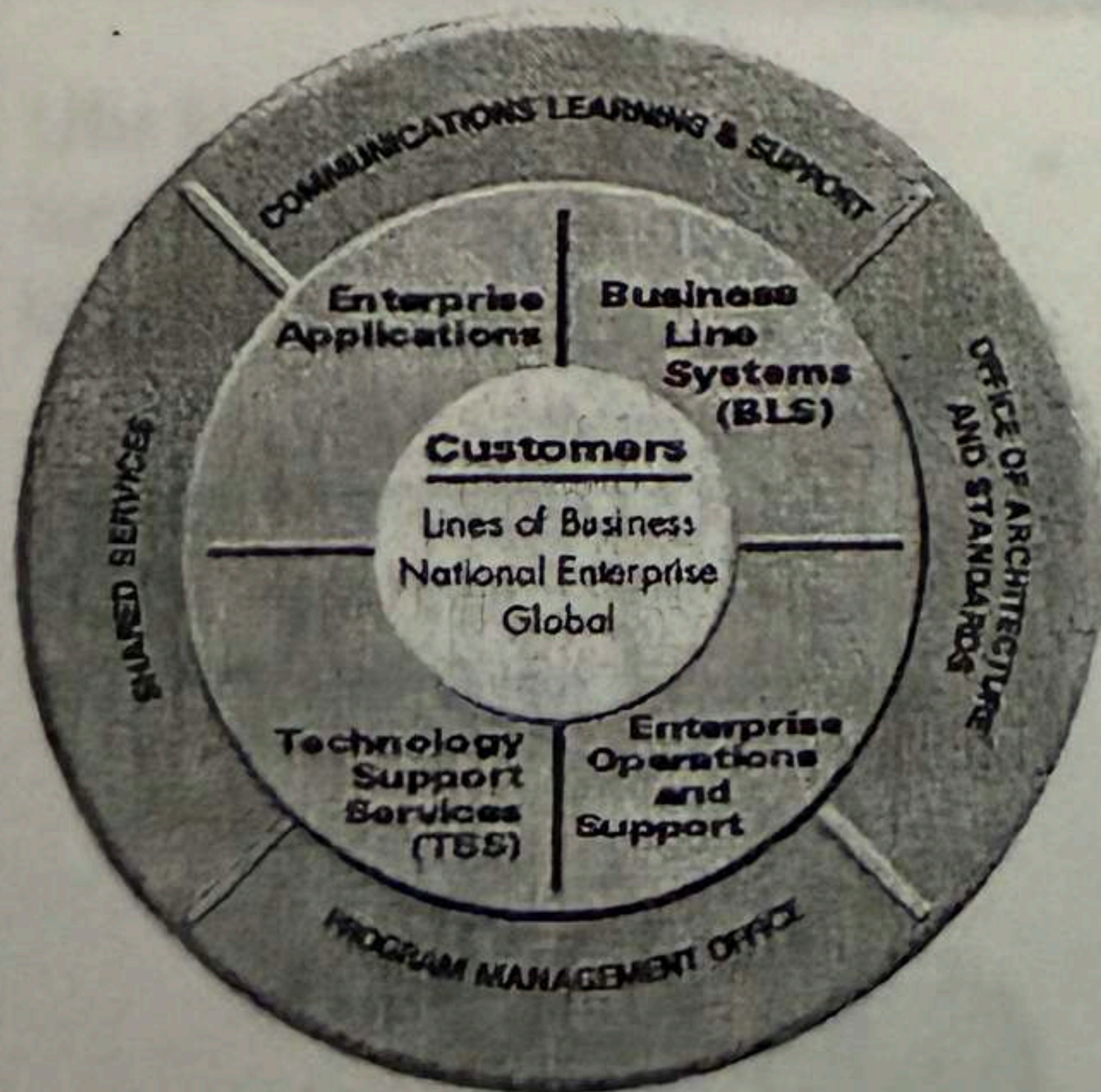
Member firms are autonomous but operate in a coordinated way

E&Y provides professional services

US Organization structure

- Client Service
 - Consulting Services
 - Assurance & Advisory
 - Tax
 - Other specialty practices
 - Audits 114 of the 1998 Fortune 500 largest U.S. corporations
 - 30,000 US Personnel
 - \$5.5 B Revenue 1998
- Industry Focus:
 - Retail and Consumer Products
 - Energy
 - Financial Services
 - Health Care
 - Insurance
 - Manufacturing
 - Real Estate and Construction
 - Technology, Communications and Entertainment
 - Client Support:
 - IT
 - Administration
 - Finance

IT Organization



IT Staff: 1,200 people

Chronology:

< 3 years

Area -> Centralized US

Some outsourcing

Now

Federated US

-> Regionalized Global

"Right sourced"

Future (crystal ball)

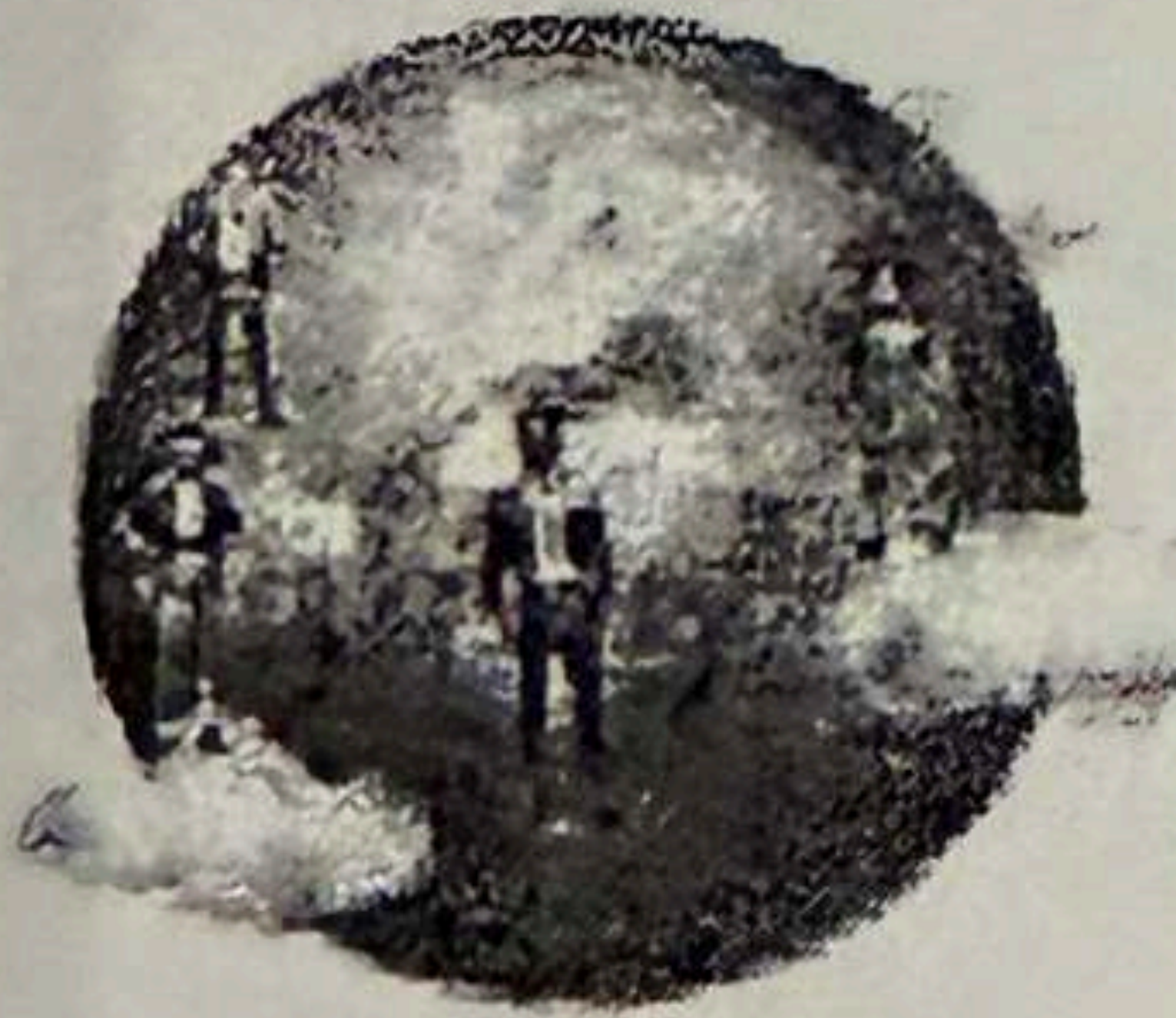
Global

Ongoing right sourcing

Business Strategies & Challenges: IT Impact...Why Enterprise Architecture?

■ Globalization

- consistent service delivery driven by our client (where and when)
- access to new markets
- economy of scale



Ernie[®]
Your online business consultant



■ "e"-everything

- Research Trends
- Partnering with our clients and suppliers (trend)
- Provide new and enhanced services
 - Ernie- the first Internet-based business consultant — providing online interactive support and business analysis to subscribers
 - TaxCast - the only non-subscription online service for corporate tax professionals
 - Moneyopolis, an education tool to enhance math and financial planning skills among school children in grades six through eight.

Business Strategies & Challenges: IT Impact...Why Enterprise Architecture?

■ Use knowledge and technology resources to best serve our clients

- Information economy/ knowledge worker
- High speed
- Mobile (anytime/anywhere)

■ Use technology to attract/retain/develop people

- Telecommuting - quality of life
- "Your Master Plan"
- Online learning



McINTIRE
SCHOOL OF COMMERCE
AT THE UNIVERSITY OF VIRGINIA



Business Strategies & Challenges: IT Impact... Why Enterprise Architecture?

- Use technology for competitive advantage
 - faster
 - better
 - service delivery location
 - cost effective

IT Challenges and Trends: Why Enterprise Architecture?

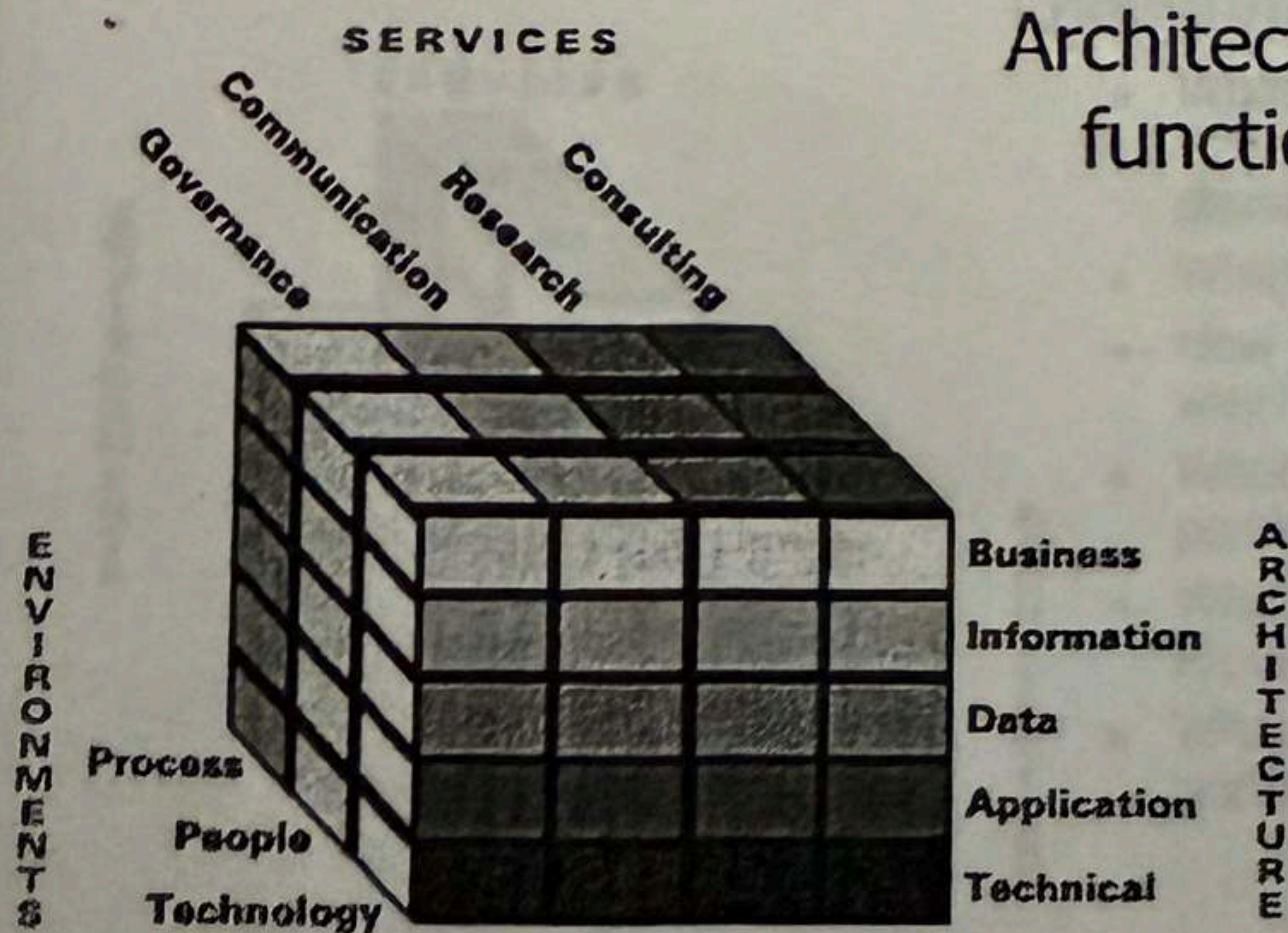
- Manage pace of change of technology and business climate
 - Internet and Web based technologies
 - Component based methodologies vs. Single standards
 - Ubiquitous computing & connections
 - high speed
 - anywhere/ anytime
 - Mobile computing / information appliances
- Use IT in the best way, to improve time to market and gain competitive advantage
 - Let Business value IT. They make the investment
 - IT should help Business calculate value by implementing Service level agreements, supplying performance metrics, & business cases for improvement

IT Challenges and Trends: Why Enterprise Architecture?

- Maximize value of ownership - contrast to just "reducing TCO"
 - Change in primary driver of need for Architecture.
 - Cost is only a factor
 - A Primary driver is need for adaptability
- Assure appropriate use of resources
 - Reuse
 - Maximize efficiency

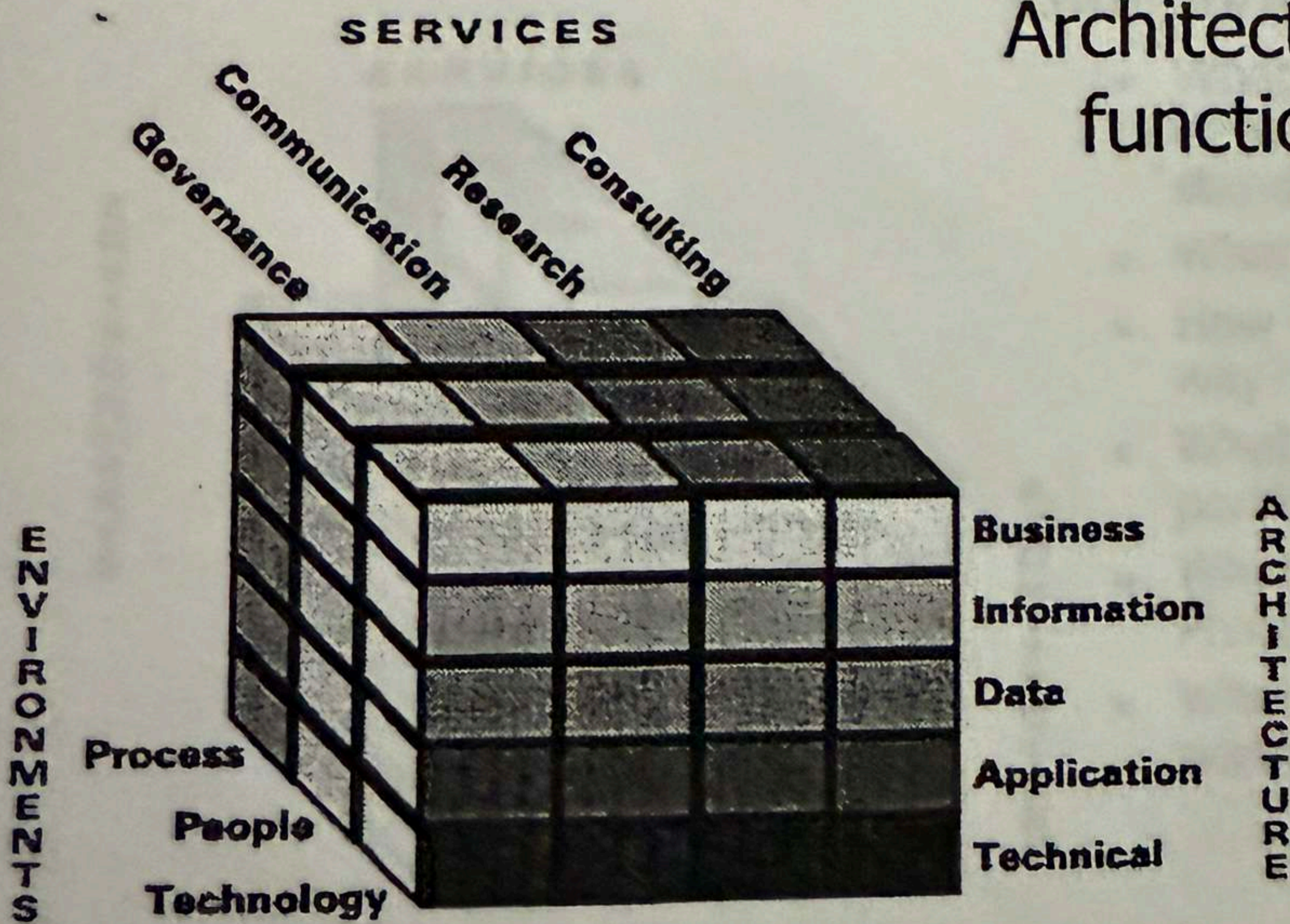
Architecture Challenges/ Role: Why Enterprise Architecture?

Architecture Model and functions

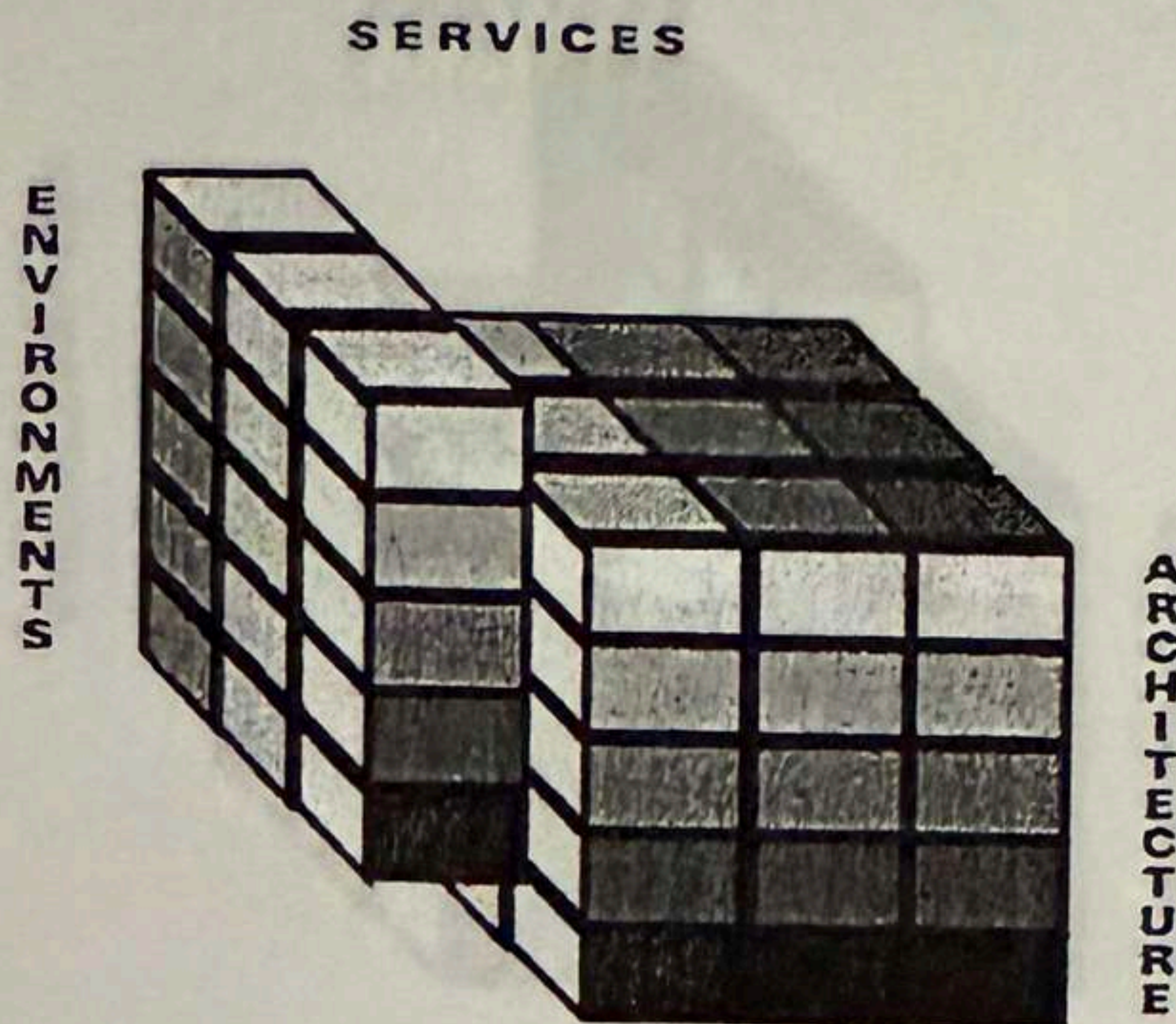


Architecture Challenges / Role: Why Enterprise Architecture?

Architecture Model and functions



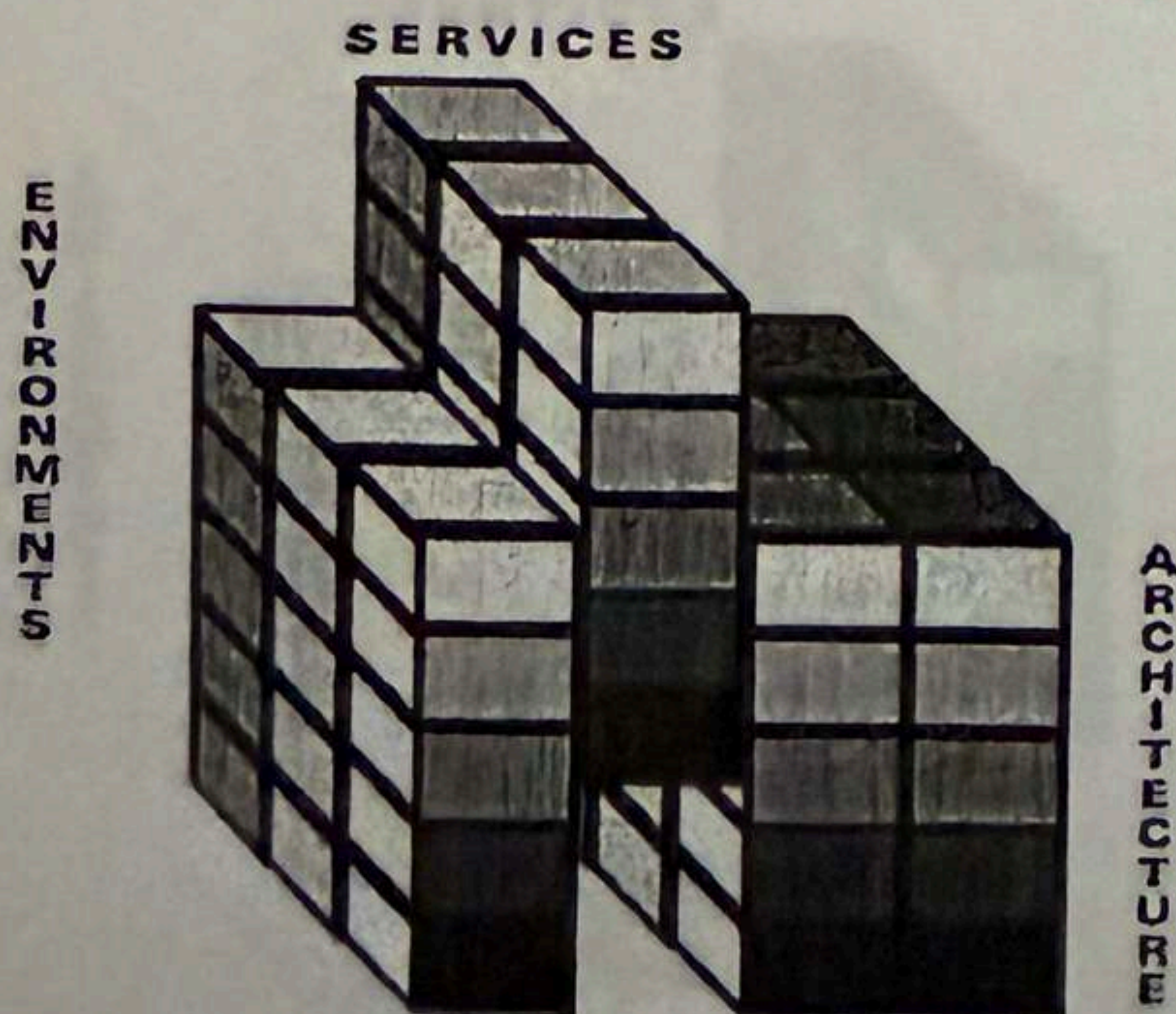
Architecture Challenges/Role: Why Enterprise Architecture?



Governance

- How do we manage technology change?
- How do we govern use of technology?
- How do we govern decisions about which new technologies to use?
- Why do we need standards?
- How do technologies become standards?
- What types of systems should we build as common resources?
- How do we retire technology?

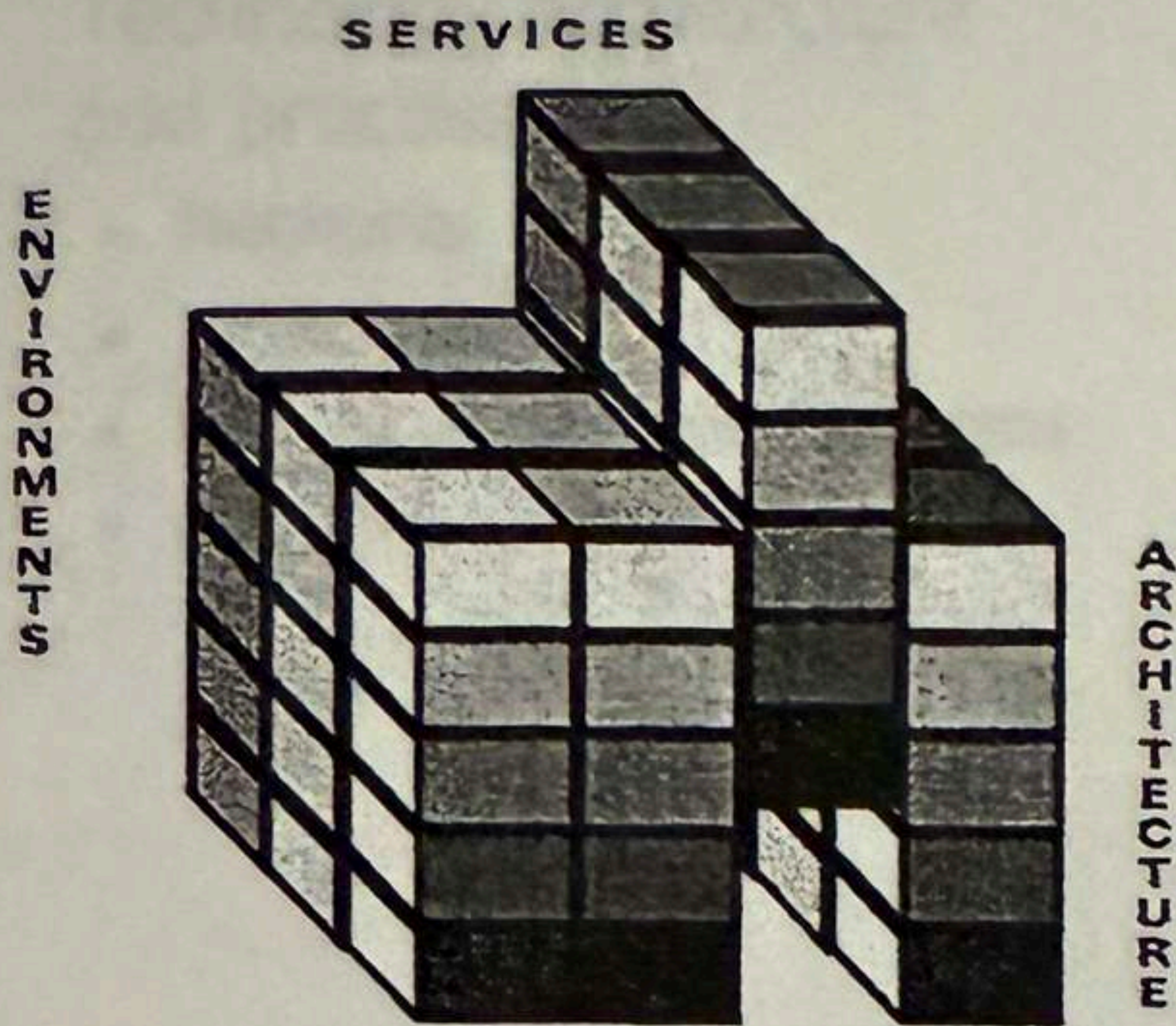
Architecture Challenges/Role: Why Enterprise Architecture?



Communications

- What are our current development and infrastructure standards?
- What are IT groups initiatives?
- How to communicate the best way?
- What is our application portfolio (inventory)?
- What is our Solution Delivery Process/ Life Cycle?
- What is our application portfolio (inventory)

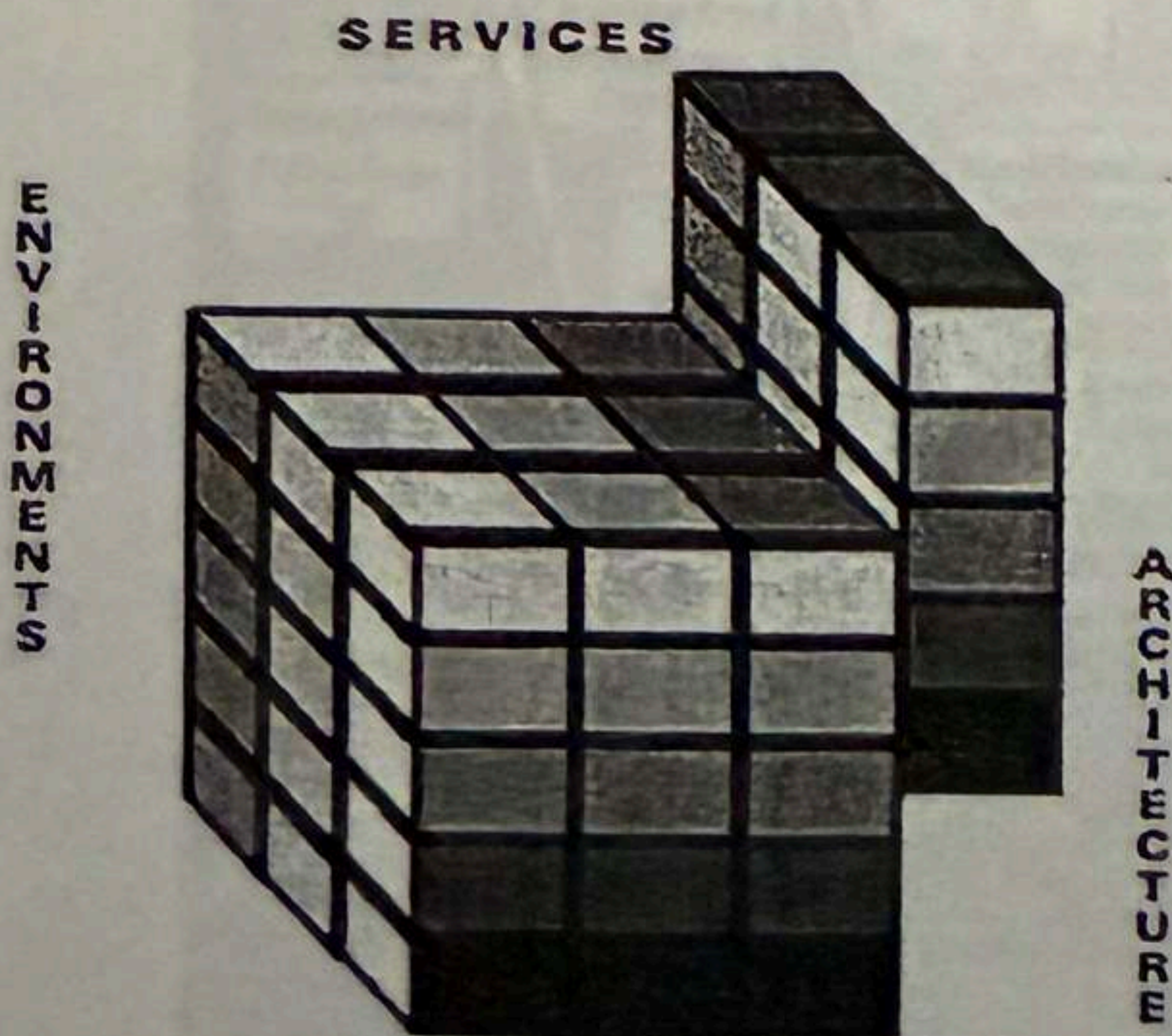
Architecture Challenges/Role: Why Enterprise Architecture?



Research

- What new technologies should become standards?
- How do we govern investigation of new technology?
- What technologies should we be investigating?
- What do our customers want/need (do they know?)

Architecture Challenges/Role: Why Enterprise Architecture?



Consulting

- How can we assure that standards are followed?
- What system designs issues and standards do application sponsors/developers need to be aware of?

Note:

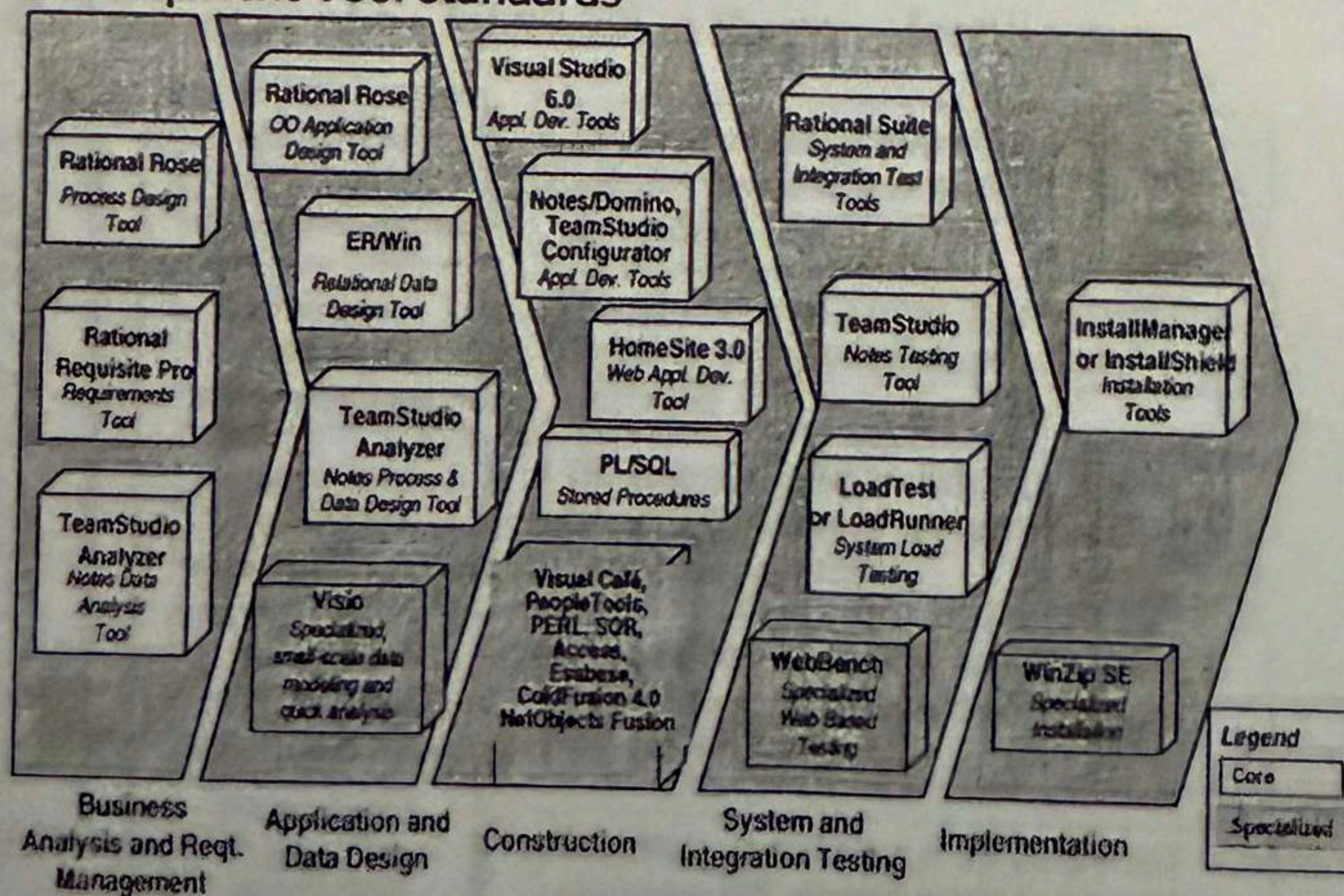
These challenges don't need to be solely owned by your architecture group. But the EA group is a major stakeholder

What has E&Y IT done, in "EA" terms?: Enterprise Architecture at E&Y

- Standardize & implement Technology architecture and processes:
 - Networks
 - Workstation
 - Mid tier & Back-end systems
 - Support
- Standardize and implement a Development architecture
 - Tools
 - Processes
 - Methods

What has E&Y IT done, in "EA" terms?: Enterprise Architecture at E&Y

• Development Tool standards

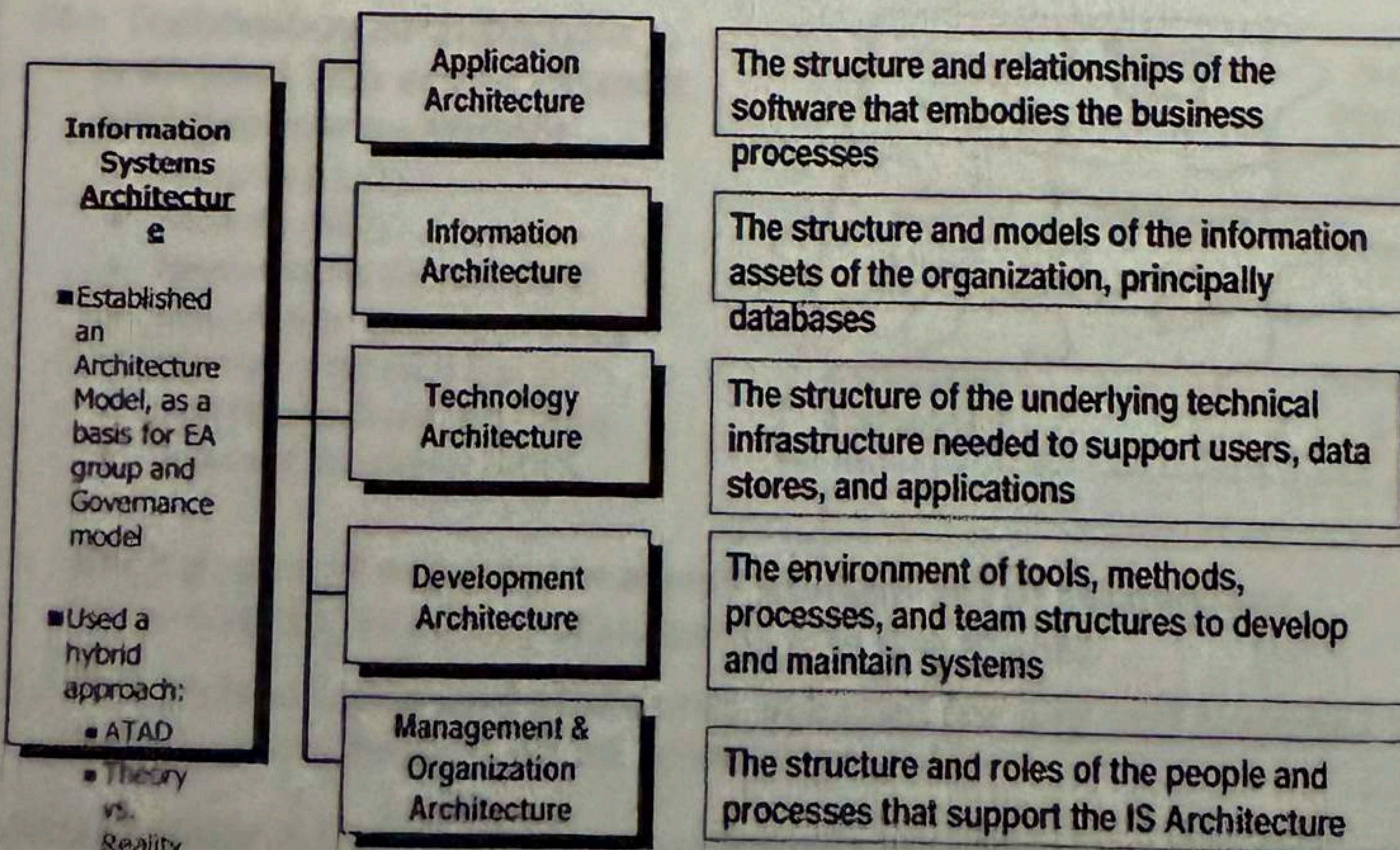


What has E&Y IT done, in "EA" terms?: Enterprise Architecture at E&Y

- Standardize and implement an Application architecture
 - Implement Enterprise Systems
 - Financial Systems
 - HR
 - Knowledge Management
 - Sales & Marketing
 - Implement BU Specific applications
- Standardize and implement a Data architecture
 - Data Warehouse
- Business architecture
 - Out of IT's control, however IT is member of executive level governance groups

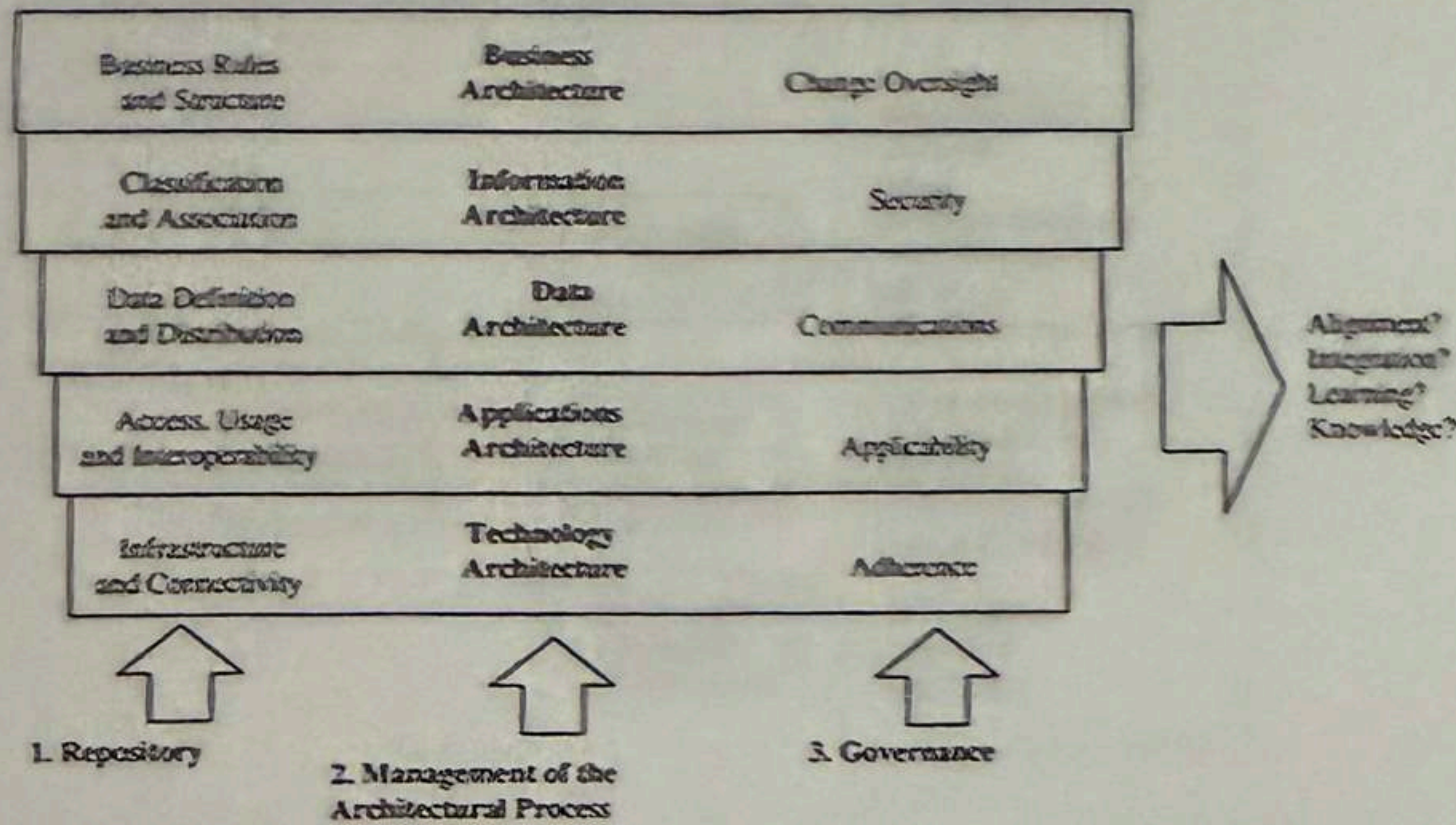
What was Done, and Why: Enterprise Architecture at E&Y

Components of an Information System Architecture



What was Done, and Why: Enterprise Architecture at E&Y

What is Architecture? – An alternate model

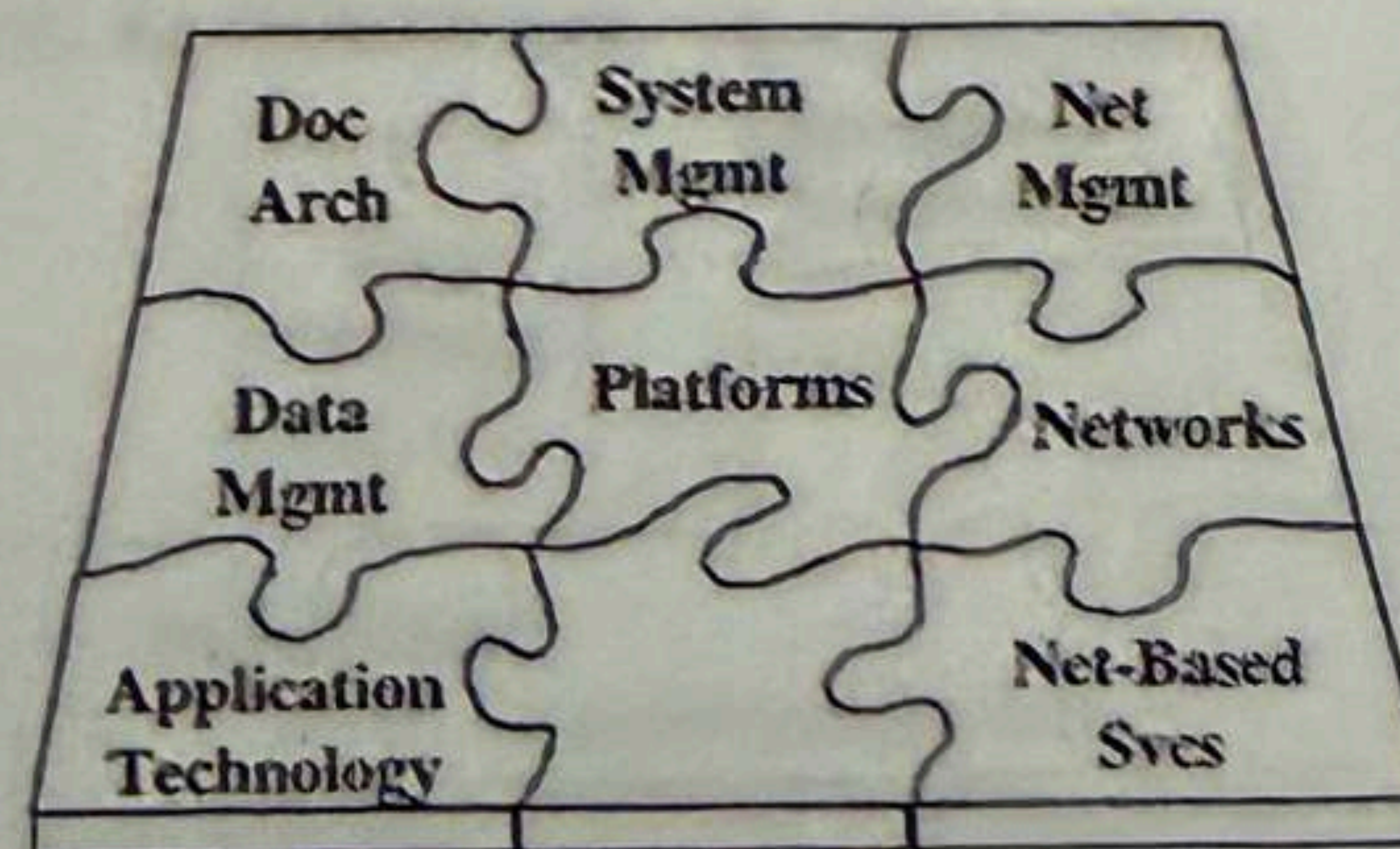


What was Done, and Why: Enterprise Architecture at E&Y

Technology Architecture Decomposition

The Technology Architecture is divided into seven distinct architecture segments

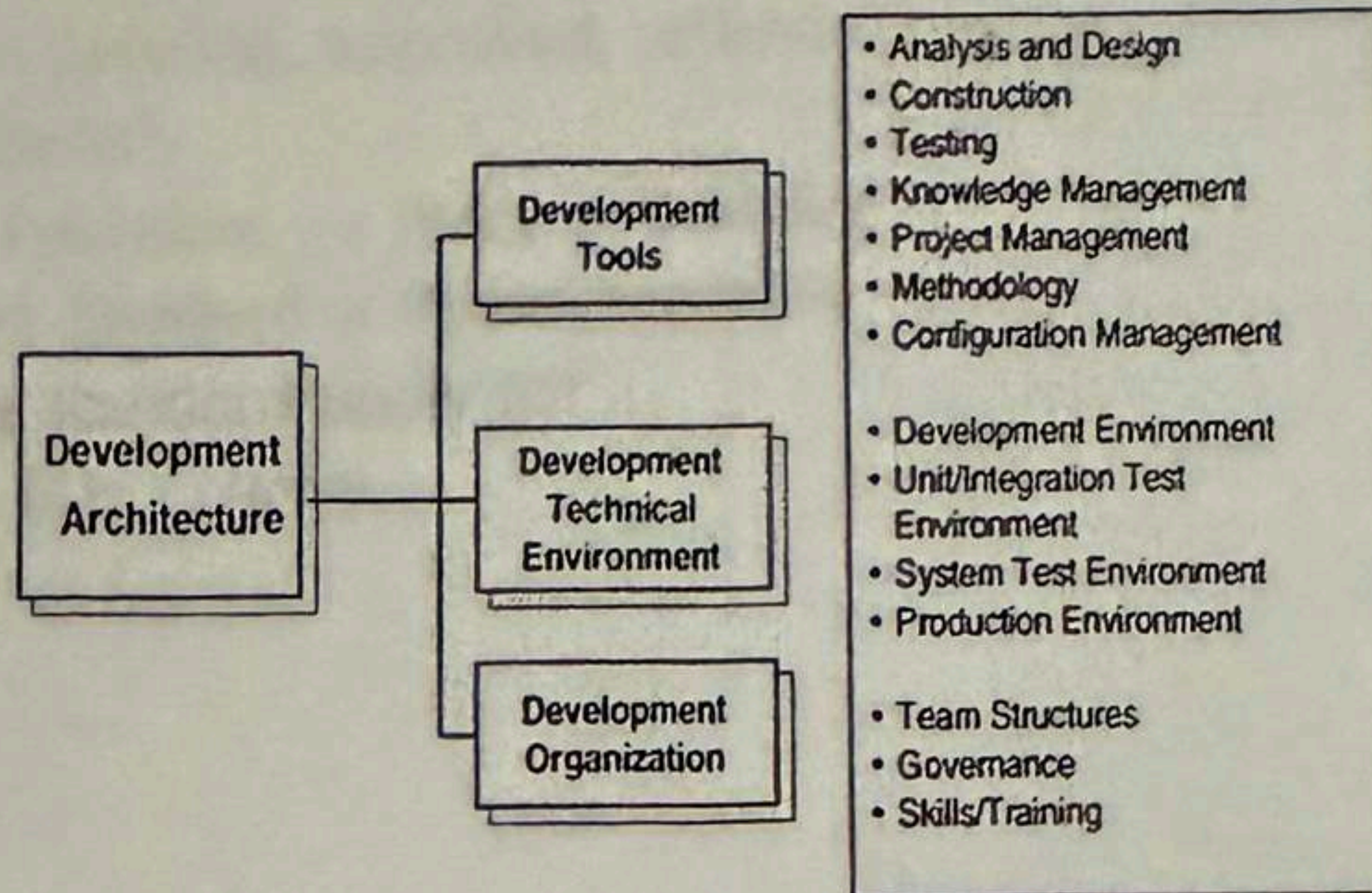
- Platforms (PLAT)
- Networks (NET)
- Network-based Services (NBS)
- Network & Systems Mgmt (NSM)
- Application Technical Env (ATE)
- Data Mgmt & Movement (DMM)
- Document Technology (DOC)



- Each segment represents a well defined set of technology components, vendors, standards, and disciplines
- The technologies and standards selected for any one segment have significant influence on all other segments

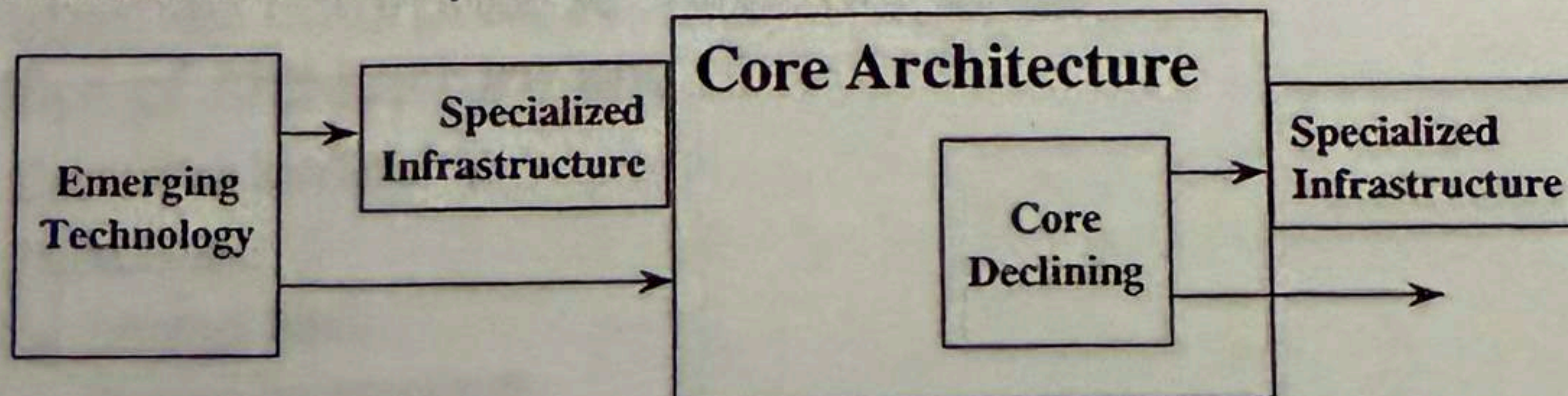
What has E&Y IT done, in "EA" terms?: Enterprise Architecture at E&Y

Development Architecture Decomposition



What has E&Y IT done, in "EA" terms?: Enterprise Architecture at E&Y

Architecture Component Classification



◆ Core Architecture

- Strategic infrastructure direction
- Replicated technology throughout an organization
- Full range of infrastructure services provided

◆ Core - Declining

- Broadly deployed infrastructure, but not strategic for the future
- Continues to receive whatever services are currently provided

◆ Specialized

- Isolated infrastructure needed to meet a specific and isolated business need
- "One off" solutions that are bolted onto the core architecture

◆ Emerging

- Technology which might move into the core
- Limited services initially available
- Competing emerging core technologies might replace other emerging core

What was Done and Why: Enterprise Architecture at E&Y

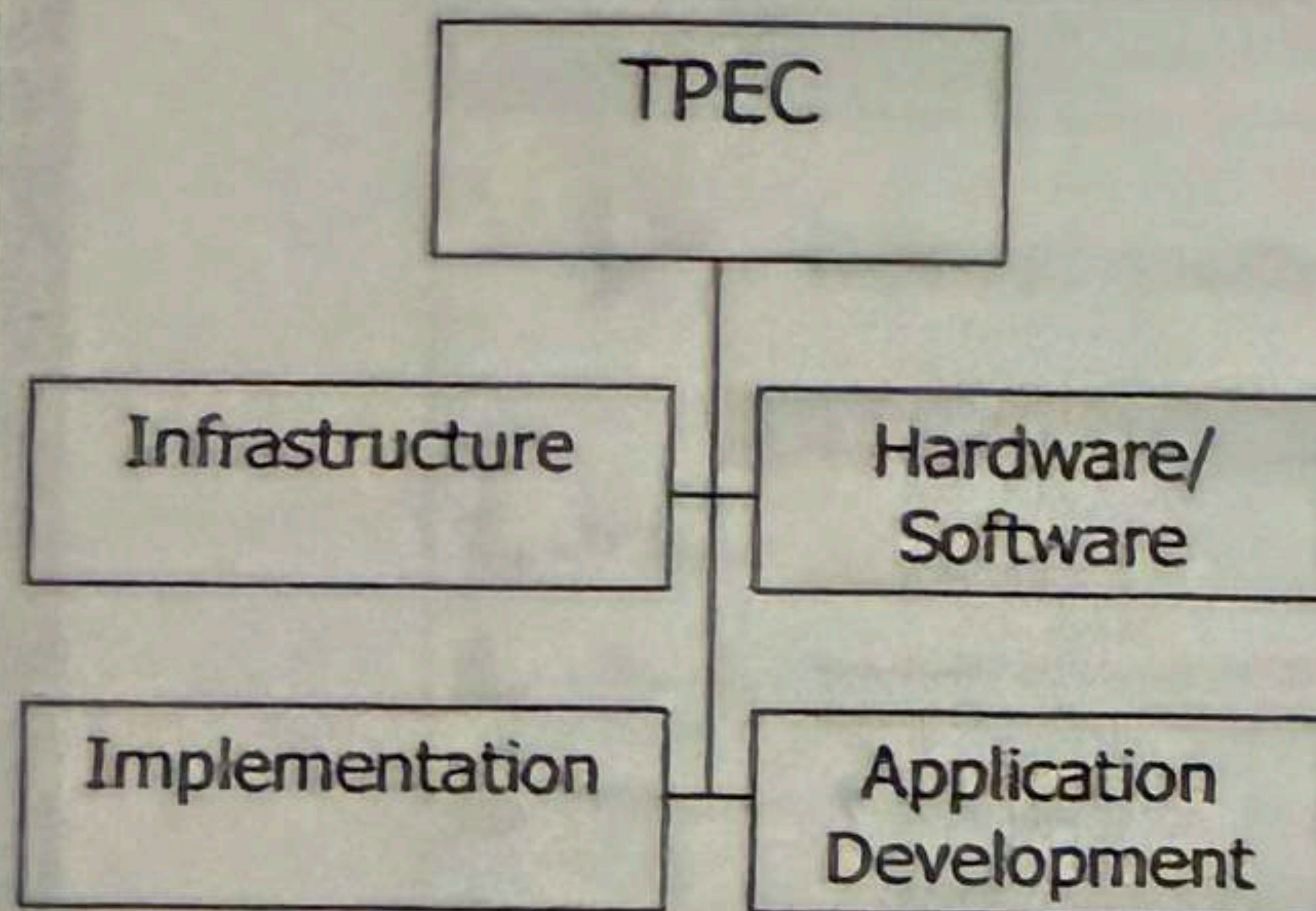
Standards - Taxonomy

- Classification => emerging, core, specialized, declining
- Timeliness => pending, approved, retired
- Type of "standard":
 - Process or Procedure => Policy or Guideline
 - Products => Standard or Recommendation
- Who does the standard apply to?
 - Enterprise, BUs, Country

What was Done and Why: Enterprise Architecture at E&Y

- Established Enterprise Architecture Group:
"Office of Architecture and Standards"
 - Executive leadership
 - Personnel:
 - Internal hires
 - Diverse backgrounds
 - Experienced - 21 average years in industry
 - Group structure reflects architecture model ... we focused on Technology and App Development layers initially

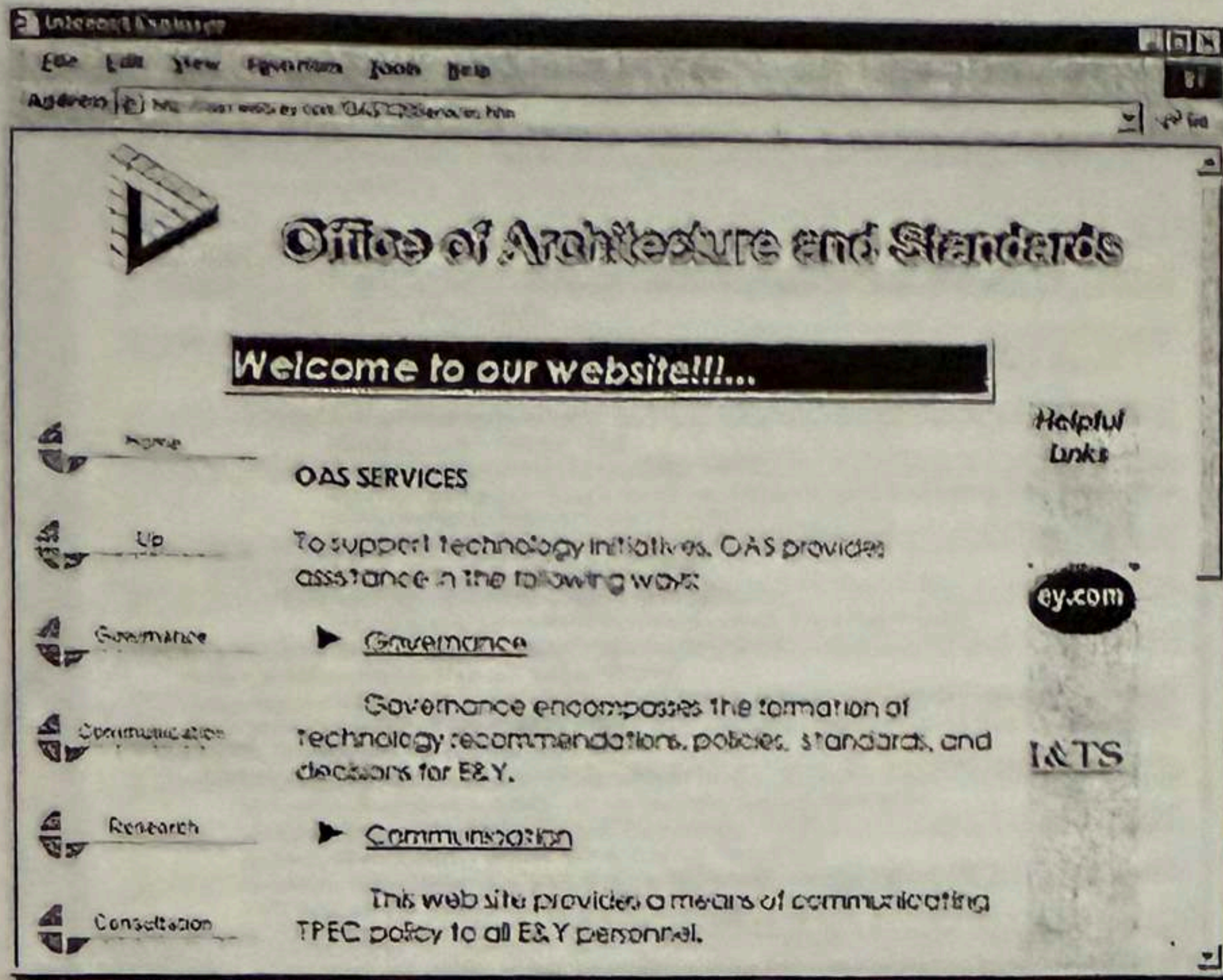
What was Done and Why: Enterprise Architecture at E&Y



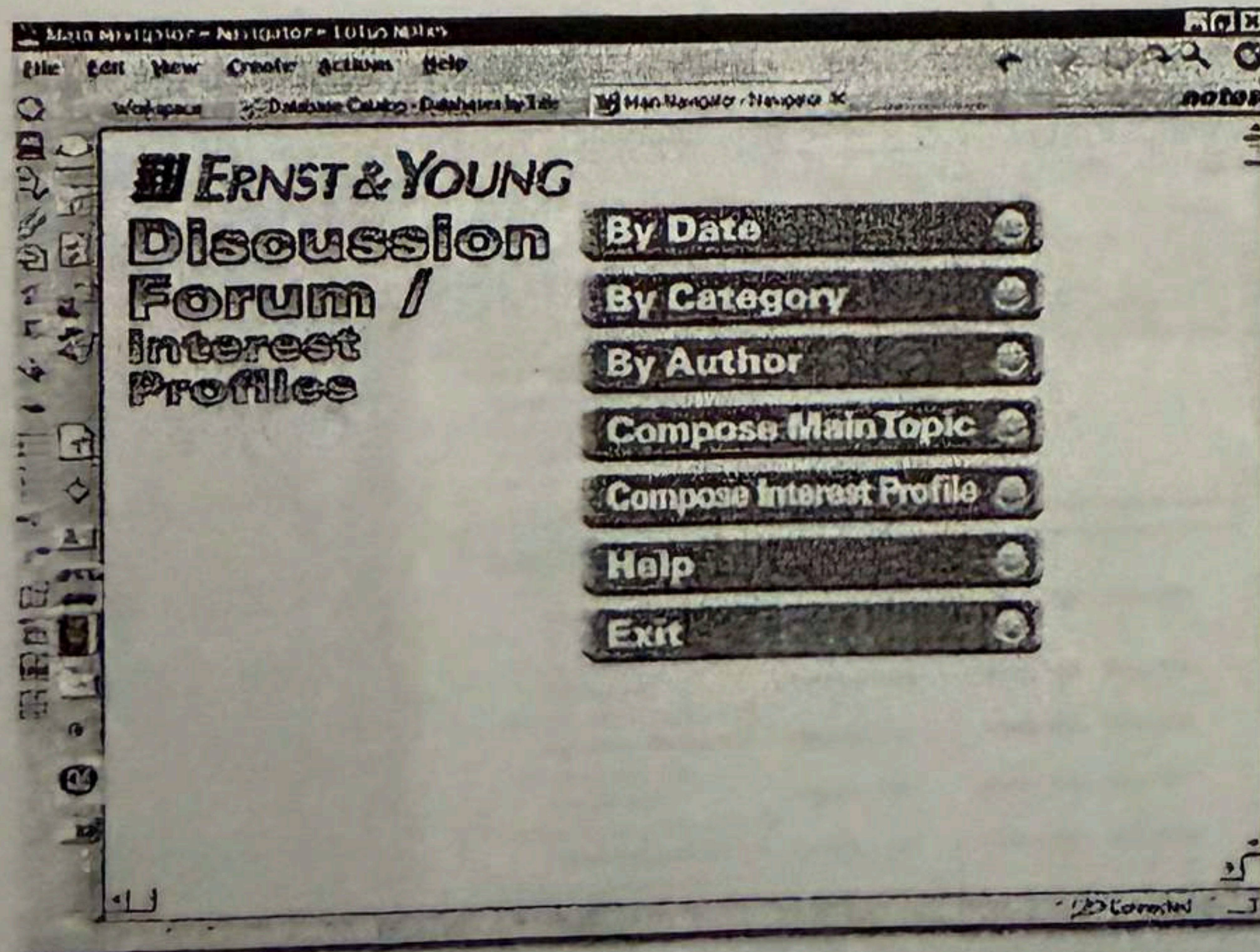
- Established governance process
 - Technology Planning Executive Committee
 - Reviews Recommendations
 - Approves Standards
 - Sets policy
 - Run by senior IT management (Executive/Architecture)
 - Subcommittees
 - Investigate
 - Recommend
 - BU and IT representation

What was Done and Why: Enterprise Architecture at E&Y

- Established Communications
 - Architecture Group web site
 - Architecture Standards Databases (Document Libraries)
 - Documents contain Links to "domain architecture" documents
 - Discussion Forums Databases



What was done and Why: Enterprise Architecture at E&Y



What was done and Why: Enterprise Architecture at E&Y

The screenshot shows a web browser window with the following content:

- Menu: File, Edit, View, Create, Actions, Help
- Address Bar: Workspace, Database Catalog, Products, OAS Discussion, By Category
- Buttons: Go Back, Corporate Home Document, Corporate Resources
- Section: Topics
- Category: Application Architecture
 - Technical vs. Application vs. Data vs. Development Architecture (Edward Rubenovich 09/20/98)
 - OAS Model (Amy J. Freeman 09/20)
 - Microsoft Data CORBA? (Ken R. Spohnagle 09/03/98)
 - So, where do CORBA (and COM) fall under the OAS Information System Architecture Model? (Edward Rubenovich 09/03)
 - Agreed (Ken R. Spohnagle 09/04)
 - COM/TA Fit (Liam A. Sperring 12/08)
 - CORBA/Architecture Information (Mark L. Bolton 08/18)
 - I think the information is quite in line with our decision to keep it open looking Enterprise Java Base for the time being. (Edward Rubenovich 12/18)
 - Internet Explorer 5 and Office 2000 Evaluation Initiatives (David Kozinn 11/18/98)
 - IES Evaluation Initiative Update (David Kozinn 12/16)
 - Some warnings and concerns... (Ken Hyslop 12/18)
 - The IES specific app is needed for a special purpose (David Kozinn 12/21)
 - IES Components and Options "Statement" (David Kozinn 02/19)
 - Version of BusinessObjects (Patricia F. Graber 02/16/99)
 - Unisys imposes QIF license fees - How should we E&Y deal with our hundreds of Internal and External Web Sites? (Question) (Mark Sternfeld 02/12/99)
- Category: Application Development Working Group (ADWG)
 - ADWG Meeting Minutes (5/25/99) (Laura A. Ogus 06/07/99)
 - Reference Presentation to ADWG - Jan van Groningen (Laura A. Ogus 06/08)
 - Canadian Presentation to ADWG (Laura A. Ogus 06/08)
 - UK Presentation to ADWG - Andrew Barnatt (Laura A. Ogus 06/08)
 - Application Profiles Update to ADWG - Greg Van Valkenburgh (Laura A. Ogus 06/08)
 - OOP Tools and Methods Presentation to ADWG - Col Swach (Laura A. Ogus 06/08)

What was done and Why: Enterprise Architecture at E&Y

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- Address Bar: Workspace, Database Catalog, Products, USIS Standards, UT of Service
- Buttons: Go Back, Corporate Home Document, Corporate Resources
- Section: OAS OFFICE OF ARCHITECTURE AND STANDARDS
- Navigation: By Solution Type, By Category, By Document Title, By Status, Search Database
- Search: Search, More
- Buttons: Home, Edit Document, Create Solution
- Table:

| Document Title | Status | Planning Condition | Effective Date | Expiration Date |
|------------------------------------|----------|--------------------|----------------|-----------------|
| Development Architecture | | | | |
| Development Tools | | | | |
| Construction | | | | |
| Implementation | | | | |
| List | | | | |
| Model | | | | |
| Tooling | | | | |
| Foundation Tools | | | | |
| Configuration Management | | | | |
| Configuration Management Standards | Approved | Core | 01 May 1997 | 30 Apr 2000 |
| Introduction | Approved | Core | 01 May 1999 | 30 Apr 2000 |
| Knowledge Management | | | | |
| Knowledge Management | Approved | Core | 01 May 1999 | 30 Apr 2000 |
| Methodology | | | | |
| Methodology | Approved | Core | 01 May 1997 | 30 Apr 2000 |
| Project Management Tools | | | | |
| Project Management Tools | Approved | Core | 01 May 1997 | 30 Apr 2000 |
| Naming Conventions | | | | |
| Two Topics Remaining | | | | |

What was done and Why: Enterprise Architecture at E&Y

- EA group provides non-traditional services
 - Consulting
 - System architecture reviews
 - Development tool selection
 - Confirm appropriate internal/external resources & people involved in initiatives
 - Research Management
 - Lead initiatives to investigate technologies; develop deployment recommendations

What was done and Why: Enterprise Architecture at E&Y

- Why? - address architectural challenges – create the EA group to meet a need
- How long did it take to do all of these things?
 - EA group in place since June 1998
 - Governance in place since 1995
 - Work in progress – still developing
 - When are you “done”?

Lessons Learned

- What's unique?
 - We backed into this
- Things that worked well
 - Governance
 - Technology Planning Council & subcommittees
- Things that are a challenge
 - Research Management/prioritization
 - Use existing experts when possible (resource constraints)
 - Technology process vs. Reality (budget)
 - world can through you a curve ... Get over it

Lessons Learned: Success Factors

- Define a model
 - It must make sense to IT management and Business
 - Do research ... use available stuff & get help
 - ATAD (We own this)
 - Meta Frameworks
 - NC State
 - Zachman Framework
 - Emerging IEEE standard
 - Use a hybrid bottom-up and top-down approach to define an architecture that works
 - Instead of only top down (or bottom up)

Lessons Learned: Success Factors

- Obtain Executive level **Leadership**
 - Not just sponsorship
- Evangelize architecture through communications
 - Value thought diversity & listen to your internal clients
- Constantly scan environment (technical & business) ...
Encourage Creativity ... Out of the box thinking

Lessons Learned: Success Factors

- Establish excellent processes
 - example: Architecture leads Governance process
- Facilitate standards - Don't dictate.
 - Establish Group consensus in Governance process
- Consult
 - You may not have all the answers, but you know the people who have them or where to look

Lessons Learned: Success Factors

- Quick Hits
 - Describe Technology as implemented & Publish a SNAPSHOT. Use that as a basis for standards description (seek approval of that description).
 - Don't try to "address" all architecture layers at once (unless you can) ... we focused on Technology and App Development layers initially
 - Set the stage for addressing bigger problems
 - Leverage existing expertise (Domain Architects)
- How do you get alignment with the business?
 - Wait till they see the need ... business needs to lead the investment in technology.

Current Technology Initiatives (led by EA group)

- Application Architecture (Profiles)
- Middleware
- Global Directory
- VPN
- Windows 2000
- Reuse

What's next

- Data Architecture
- Application Portfolio
- More International Focus

Questions

Parking Lot Review