Cap Gemini Ernst & Young Government Solutions LLC

Presentation

for the

Air Force Enterprise IT Services Industry Forum

3-4 February 2004

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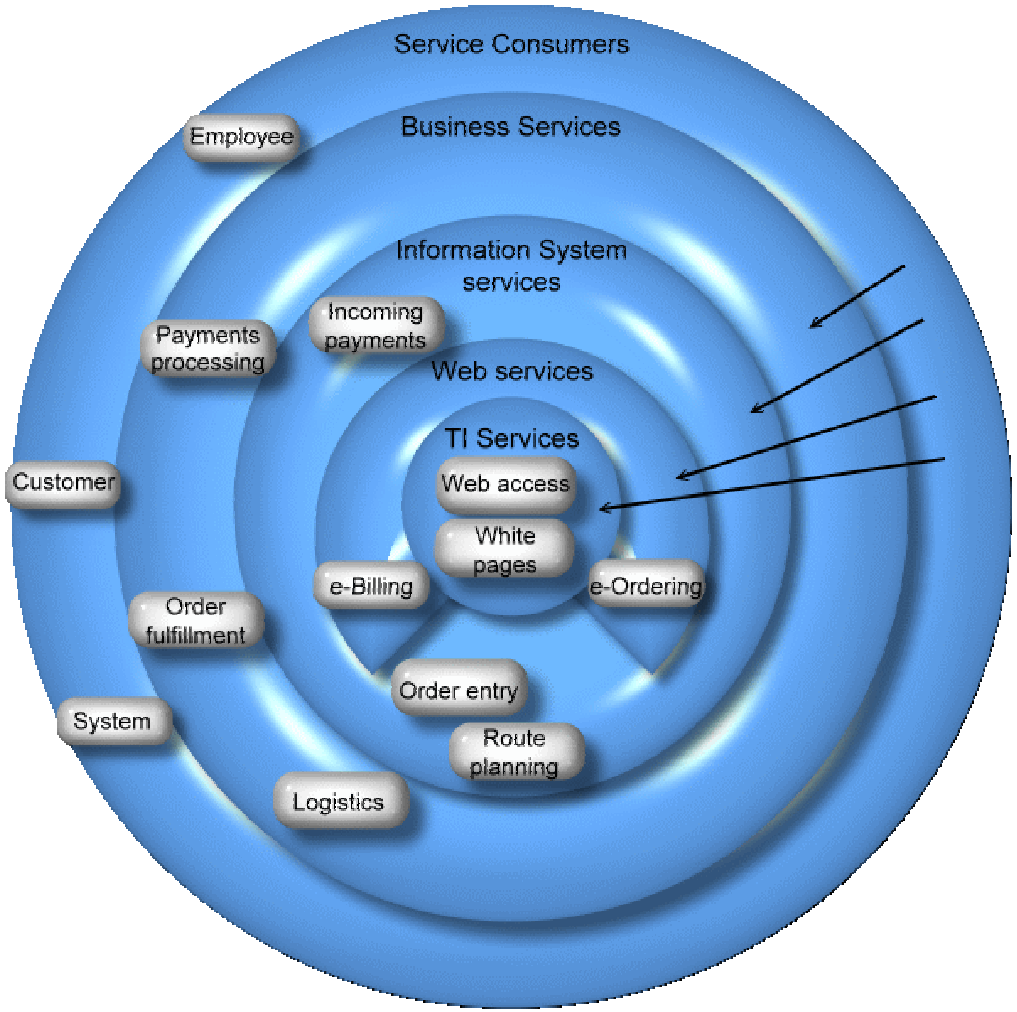
CGEY views Services architecture holistically, taking into account all service types.

Business services are delivered by (combinations of) people and information systems

IS services are automated business tasks.

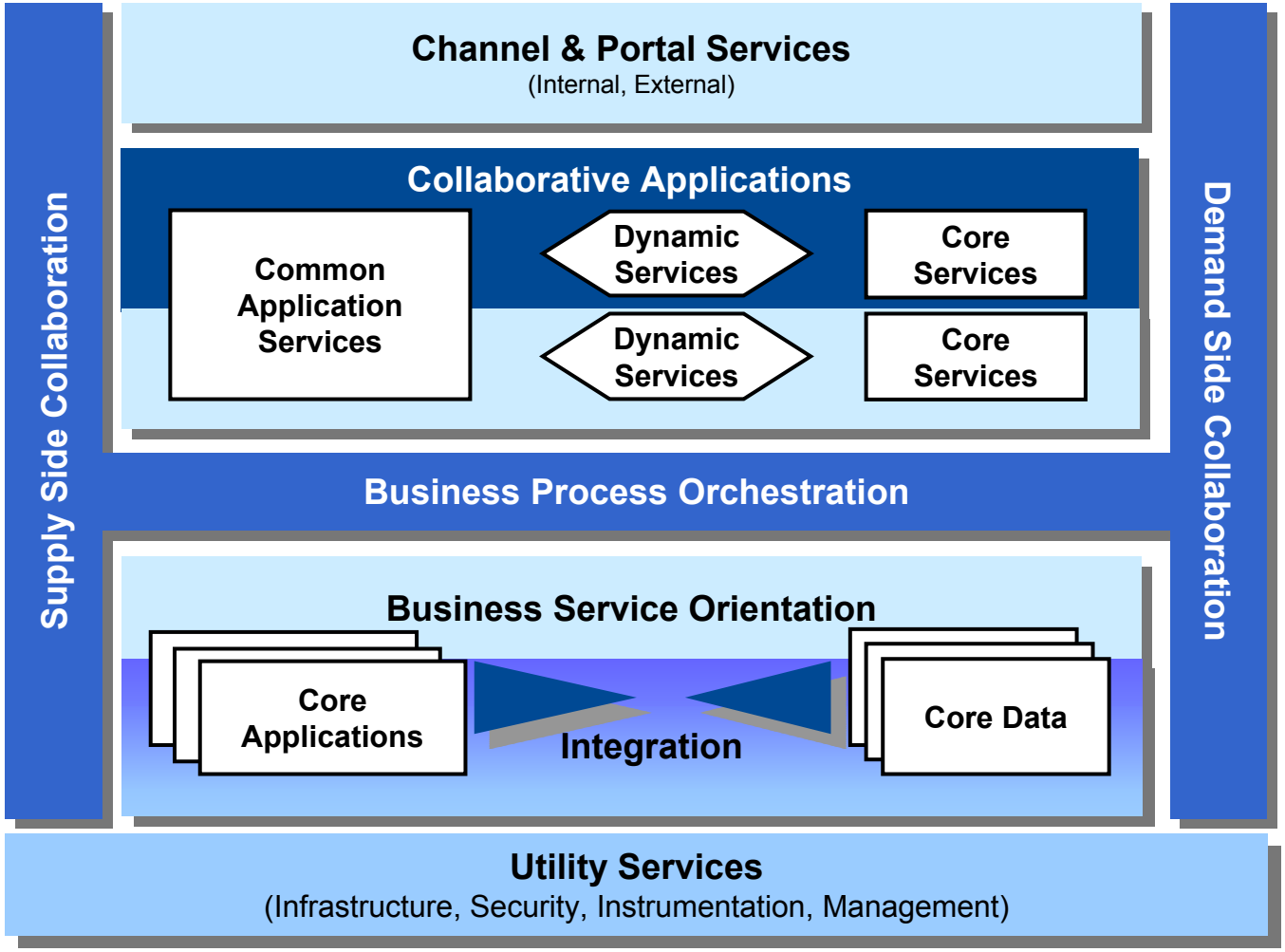
Web services are special IS services that leverage web service standards (XML, SOAP and other web services standards)

Technical infrastructure (TI) services are the infrastructure enablers for IS Services.



All types of services have to work together as one system…

Services Architecture Framework©



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The Utility Services reference model has evolved over time

Management Services

Infrastructure Management
- Application Delivery Management
- Systems and Network Management
- Security Management

Application Technology Services

Channel Services
- Personalization / Customization
- Presentation (Channel-Dependent UI)

Common Services
- Application Environment (J2EE / .Net Servers)
- Portal Services
- Commerce

Integration Services
- EAI: Process
- EAI: A2A
- EAI: B2B
- Web Services

Information & Knowledge Services

Structured Data Management
- RDBMS / DBMS
- Catalogue Management
- Metadata Management

Unstructured Data Management
- Document Management
- Content Management

Data Movement Services
- Extract, Transform & Load
- Replication

Access Services
- Reporting
- Analysis
- Discovery
- Search

Security Services

Identity Security
- Authentication
- Authorization / Entitlements

Content Security
- Encryption
- Virus Scanning

Access Security
- Partitioning/ DMZs
- Firewalls

Network Services

Connectivity
- LAN
- Campus / MAN
- WAN
- Remote Access
- Business Partner Connectivity
- Internet Access
- Voice / Video Networks

Protocols and Performance
- Performance Enhancement
- QoS
- Legacy Protocols

Network-based Services

Common Applications
- File
- Print
- Fax
- Email / Calendaring
- Collaboration / Groupware
- Voice Services
- Audio/Video Distribution

Resource Location
- Directory
- Address Management

Platform Services

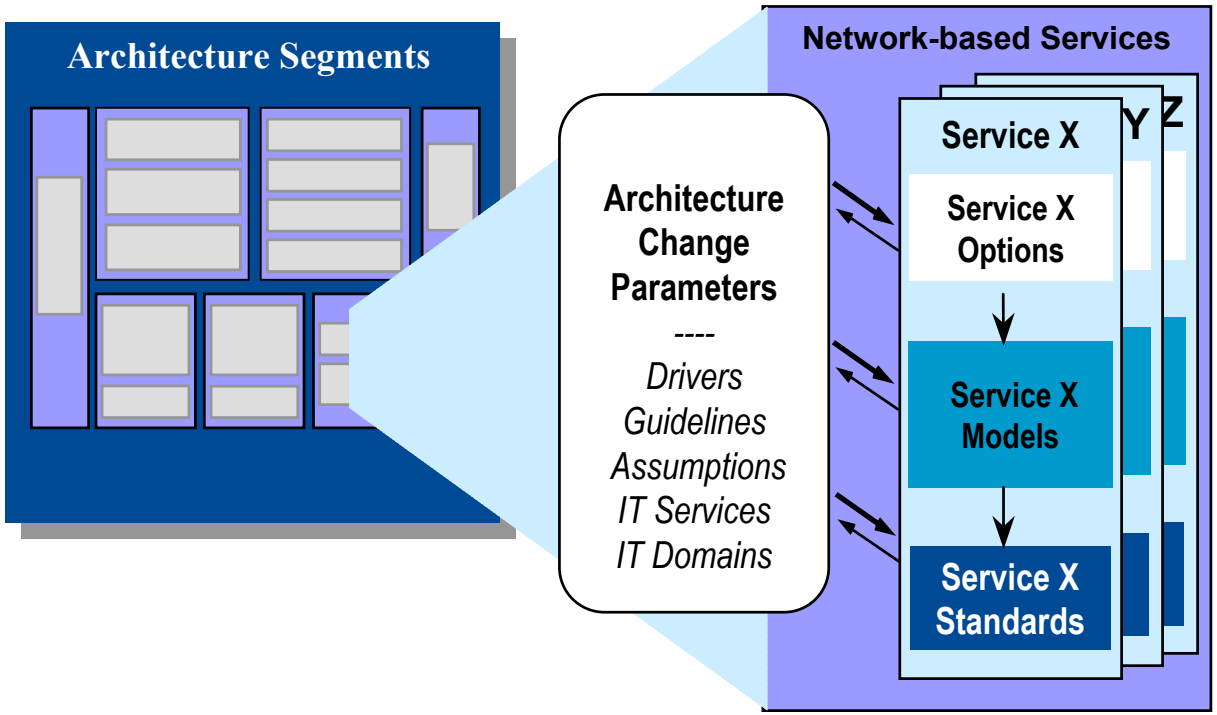
Enterprise Storage
- Network Storage
- Archival & Retrieval

Server Configuration
- Operating System
- Avail / Load Balancing / Clustering

CGEY's ATAD Workshop Process

The Architecture is defined iteratively in the workshop:

- ***Services and Options are selected first,***
- ***Then Models are built from the Options***
- ***Then Models are reviewed for accuracy, sanity, interoperability, and completeness***



- *Options* Show Fundamental Alternatives: Illustrate the realistic technical options for providing a portion of a service
- *Models* Show How Services Will Be Provided
  - "Blueprint" illustration of assembled Options for a service
  - Reveal interaction between Option decisions and across segments
- *Standards* Are Used to Implement the Models
  - Accepted Technical Standards and Product Recommendations
  - Sensitive to Transition Issues

Challenges to Implementing a Services Architecture

Shortage of qualified, experienced architects

Lack of standard approaches and tools

- **Adopting a services management mindset**
  - **Governance model implications**
  - **Discipline to define the right services to meet customer needs**

Architectures are defined too rigidly

Can't be modified to accommodate changing business needs

Granularity / Variability

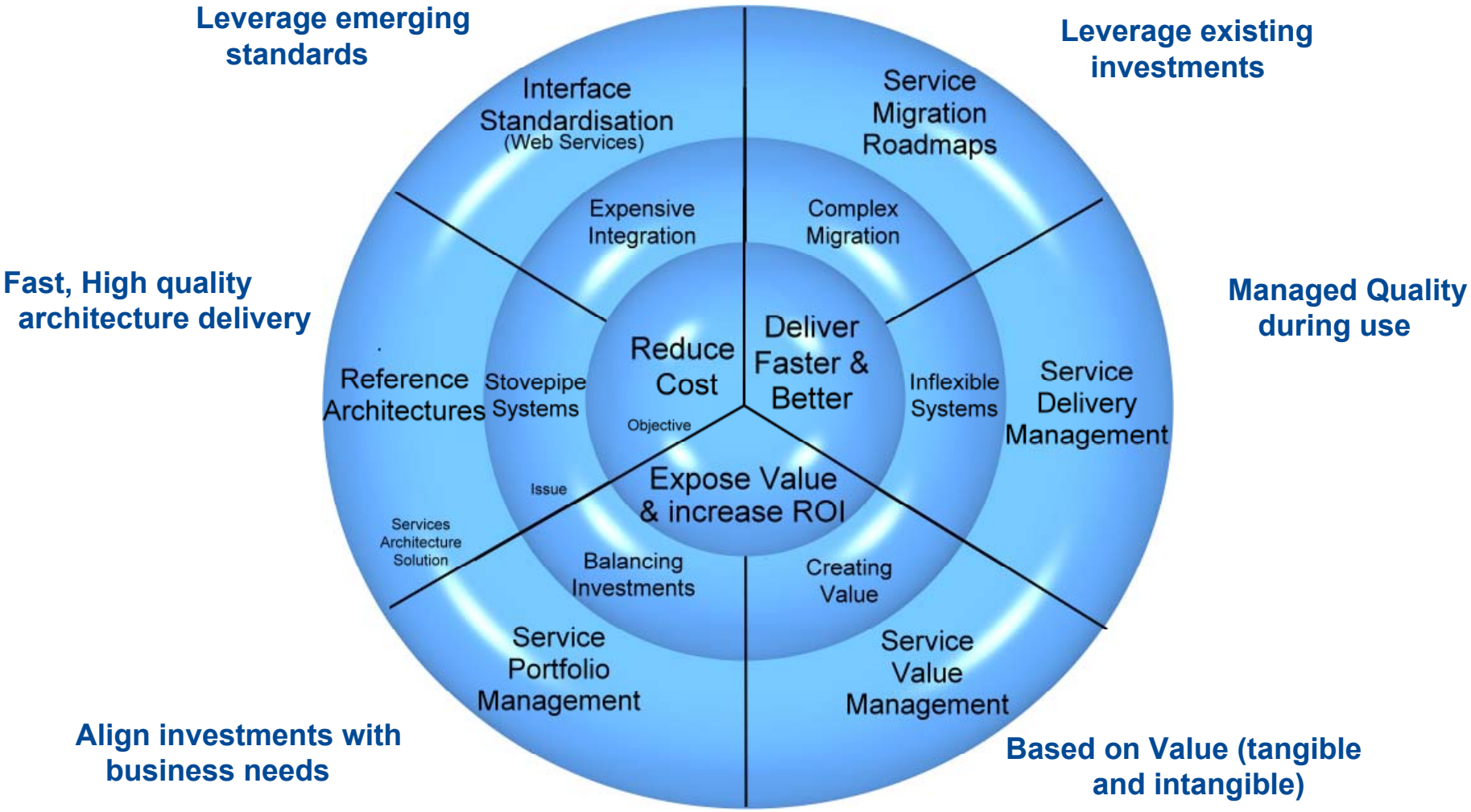
- **Sourcing guidelines**
  - **Service level agreements and measurement systems**

Financial transparency

Establishing an appropriate cost model for the customer

- **No ownership or consensus**
  - **Architecture is defined by academics, or by a consultant**
  - **Practitioners don't "buy into" enterprise architecture concept or details**

The management of a Services architecture focuses on six areas to deliver the desired benefit.



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Critical factors to the success of investments in services architecture (1)

Service value management	
Objective	*Approach*
Determine real service value	Value based on TCO,ROI, real usage & alignment
Measure real usage	Capture demanded versus delivered QoS

Service delivery management	
Objective	*Approach*
Monitor & control service execution	All services are equipped for monitoring & control
Cope with emerging standards	Isolate security, workflow etc to avoid rebuilds
Deliver dynamic QoS	Demanded QoS is part of the service request

Reference architectures	
Objective	*Approach*
Avoid re-inventing the wheel	Base them on real life
Accelerate architecture design	Based on Services architecture concepts

Critical factors to the success of investments in services architecture (2)

Service Portfolio management	
Objective	*Approach*
Balance investments	A decision process using value as main principle

Service Migration roadmaps	
Objective	*Approach*
Leverage existing investments	Re-use migration and integration experience

Interface standardization	
Objective	*Approach*
Reduce integration costs	Adopt and extend Web service standards
Improve intra & inter company communications	Standardize interfaces for all service types