



IBM Professions

IBM's IT Architecture Profession

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Middleware is Everywhere ... and so is Architecture

and Architecture
 Middleware is Everywhere. Can you see it?

Operating Environment Architecture – Solution View

ENTERPRISE ARCHITECTURE: A FRAMEWORK

Rational	Key	MIDDLEWARE IS IBM SOFTWARE
1. Software built on development platform.	2. Web site or app designed without a glitch.	MIDDLEWARE IS IBM SOFTWARE. Software like Rational® is the power behind the IBM Software Development Platform and the key to creating real competitive advantage. It integrates, builds, modernizes, extends and deploys software efficiently. Open and modular, you can build on existing assets. And your business maps rewards that's ON DEMAND BUSINESS.
3. Latest interface deployed on order budget.	4. New product launched ahead of schedule.	
5. Better software leaves competition in dust.		

See how companies succeed using the IBM Software Development Platform at www.ibm.com/ibm/develop

Category	Product	Architecture	Integration	Deployment	Management
Application Development	Rational	IBM Rational	IBM Rational	IBM Rational	IBM Rational
Integration	IBM Integration Bus	IBM Integration Bus	IBM Integration Bus	IBM Integration Bus	IBM Integration Bus
Deployment	IBM WebSphere	IBM WebSphere	IBM WebSphere	IBM WebSphere	IBM WebSphere
Management	IBM Tivoli	IBM Tivoli	IBM Tivoli	IBM Tivoli	IBM Tivoli

Several trends & techniques are dramatically reshaping the practice of architecture ...

- **Architecture & the business domain**

 - Flexible business is an imperative

 - Solution design more tightly coupled with the business domain

 - “Business architecture” emerging

- **Service Oriented Architecture (SOA)**

- **Increasing levels of abstraction**

 - Virtualization

 - Loose coupling, other manifestations ...

- **From custom crafting to composing**

 - Leveraging architectural and solution assets & services

- **What isn't changing**

 - The “base” still exists ... and matters

 - Infrastructure and management of it
 - Legacy applications & data

Questions You Need to Consider

- **What is Service Orientation and SOA and why is it important for your business?**
- **Is it real? Are customers really using it today?**
- **What are the core elements brought together under SOA?**
- **How can you get started?**

What is?

... a service?

A **repeatable business task** – e.g.,
check customer credit;
open new account

... service orientation?

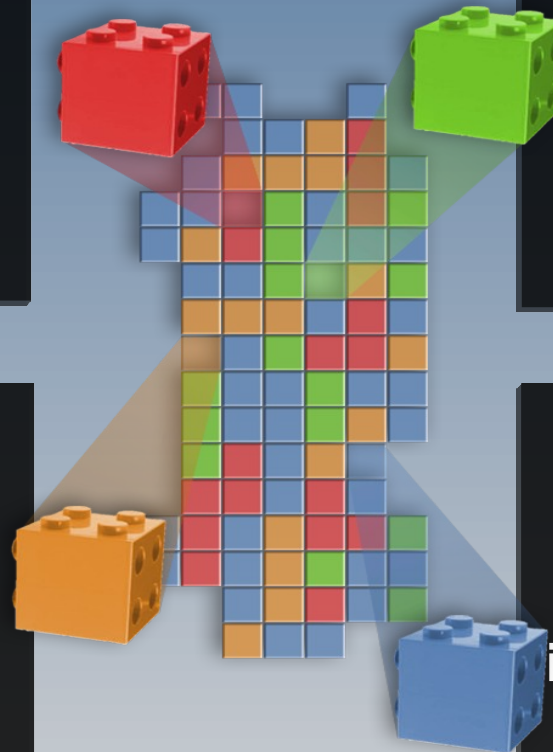
A way of integrating your
business as linked services
and the outcomes that
they bring

... service oriented architecture (SOA)?

An IT **architectural style** that supports
service orientation

... a composite application?

A set of **related & integrated** services that
support a business
process built on an SOA



What differentiates SOA from claims like this in the past?

Standards

- Broadly adopted Web services ensure well-defined interfaces.
- Before, proprietary standards limited interoperability

Organizational Commitment

- Before, communication channels & 'vocabulary' not in place
- Business and IT are united behind SOA (63% of projects today are driven by LOB)*

Investment Protection

- Leverage existing business application assets, isolate the impact of change
- Before, Rip and replace

Degree of Focus

- SOA services focus on business-level activities & interactions
- Before, focus was on narrow, technical sub-tasks

Connections

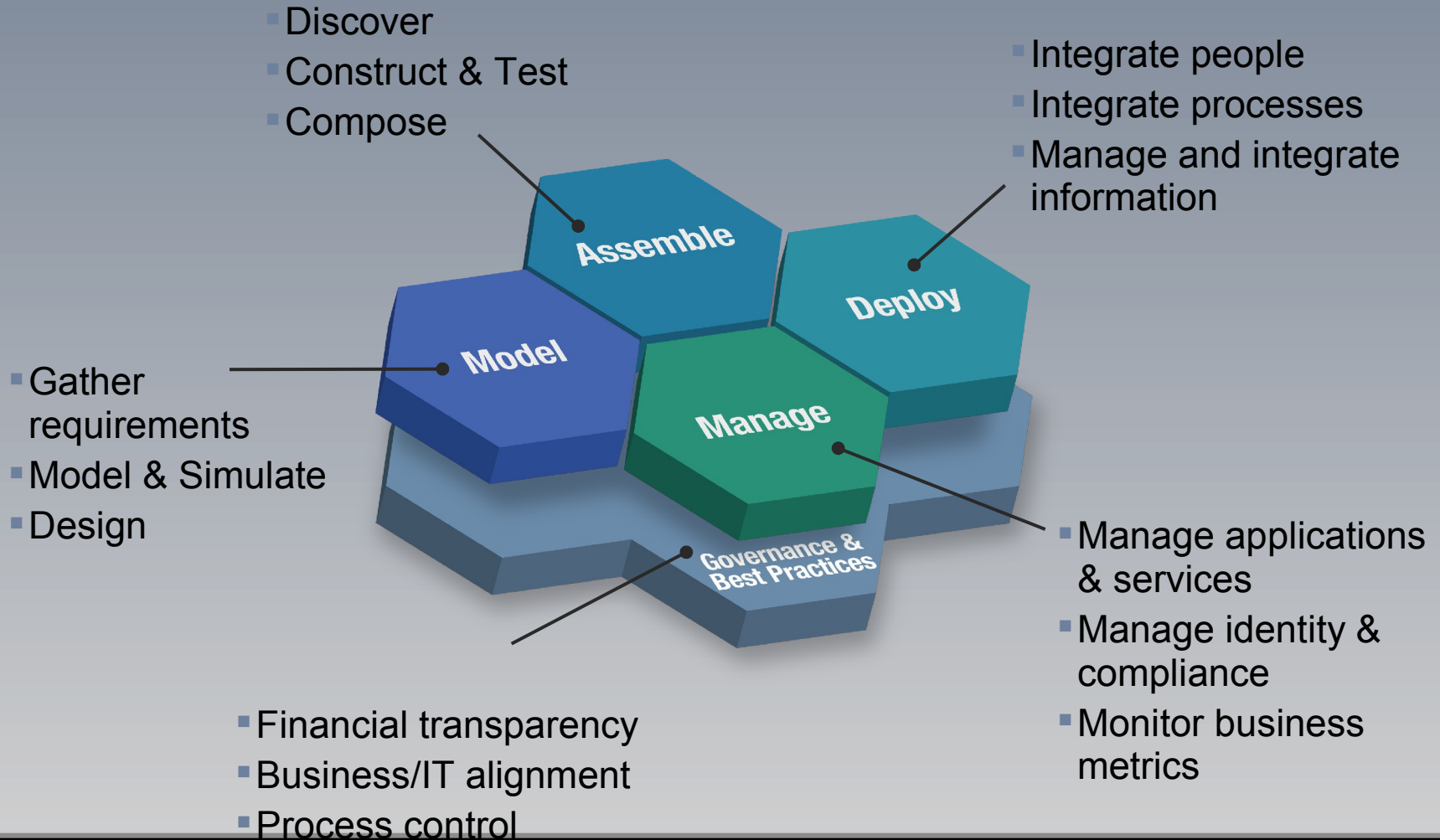
- SOA services are linked dynamically and flexibly
- Before, service interactions were hard-coded and dependent on the application

Level of Reuse

- SOA services can be extensively re-used to leverage existing IT assets
- Before, any reuse was within silo'ed applications

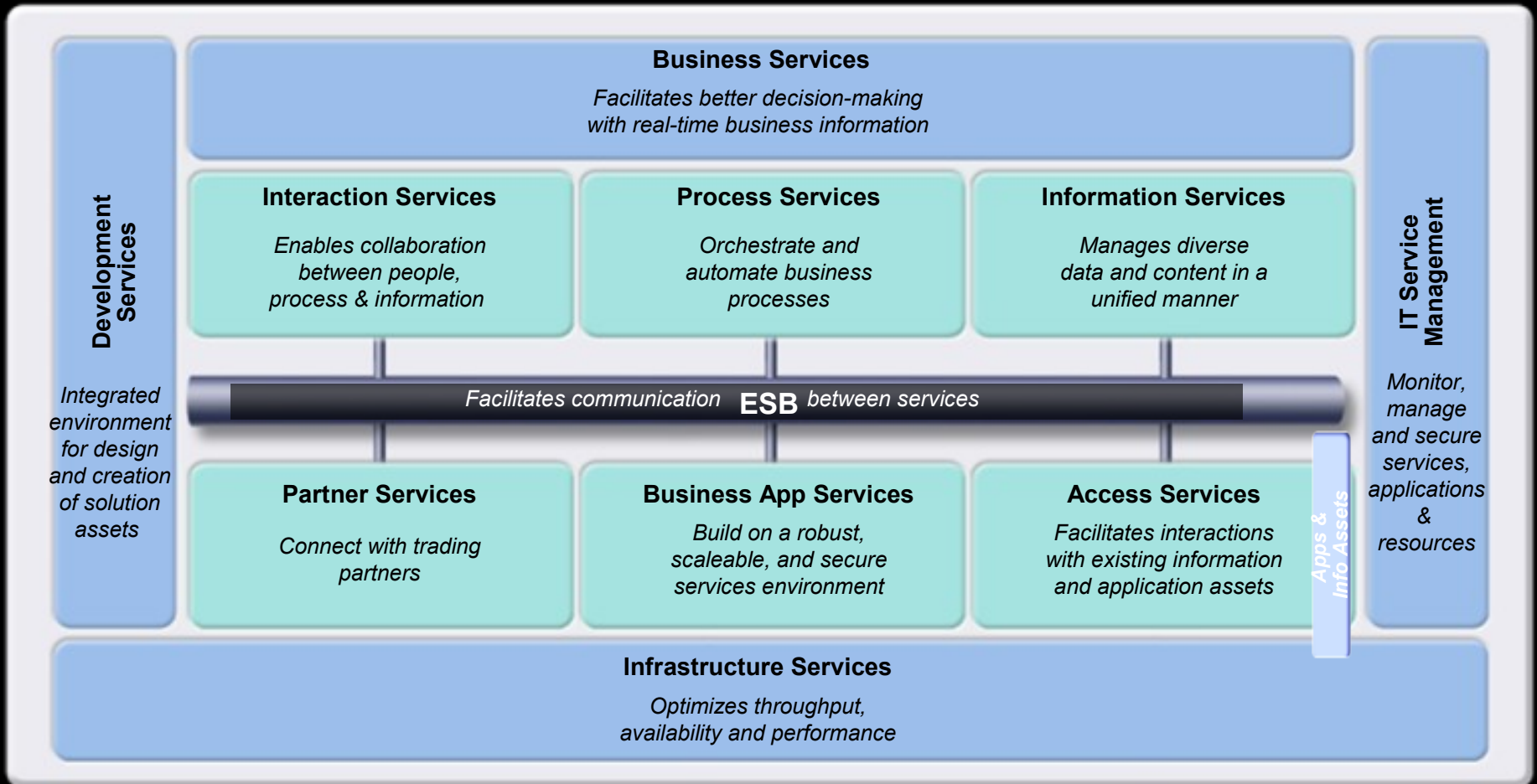
*Source: Cutter Benchmark Survey

The SOA Lifecycle



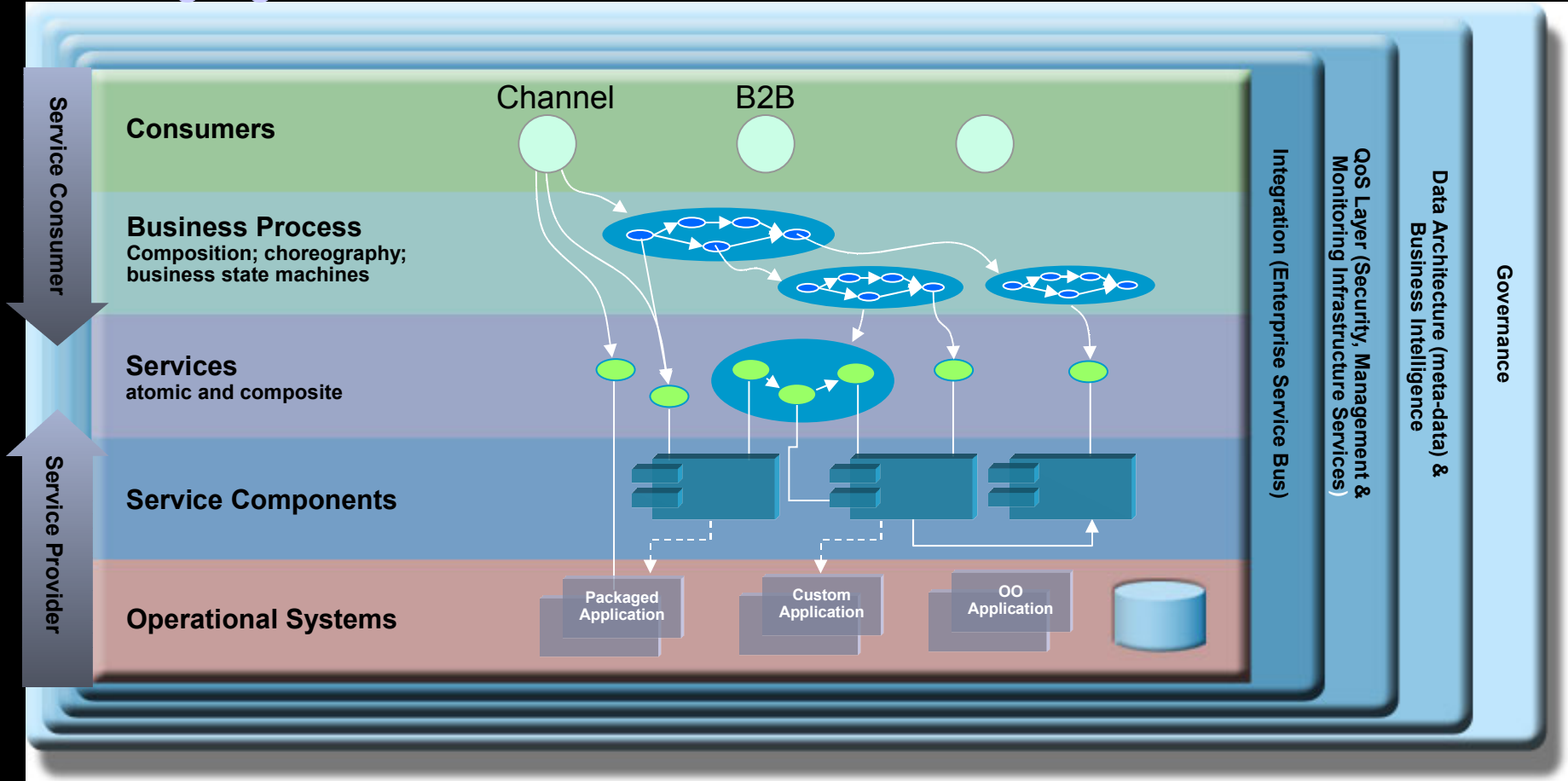
SOA Reference Architecture

Supporting the SOA Lifecycle



SOA Solution Layering

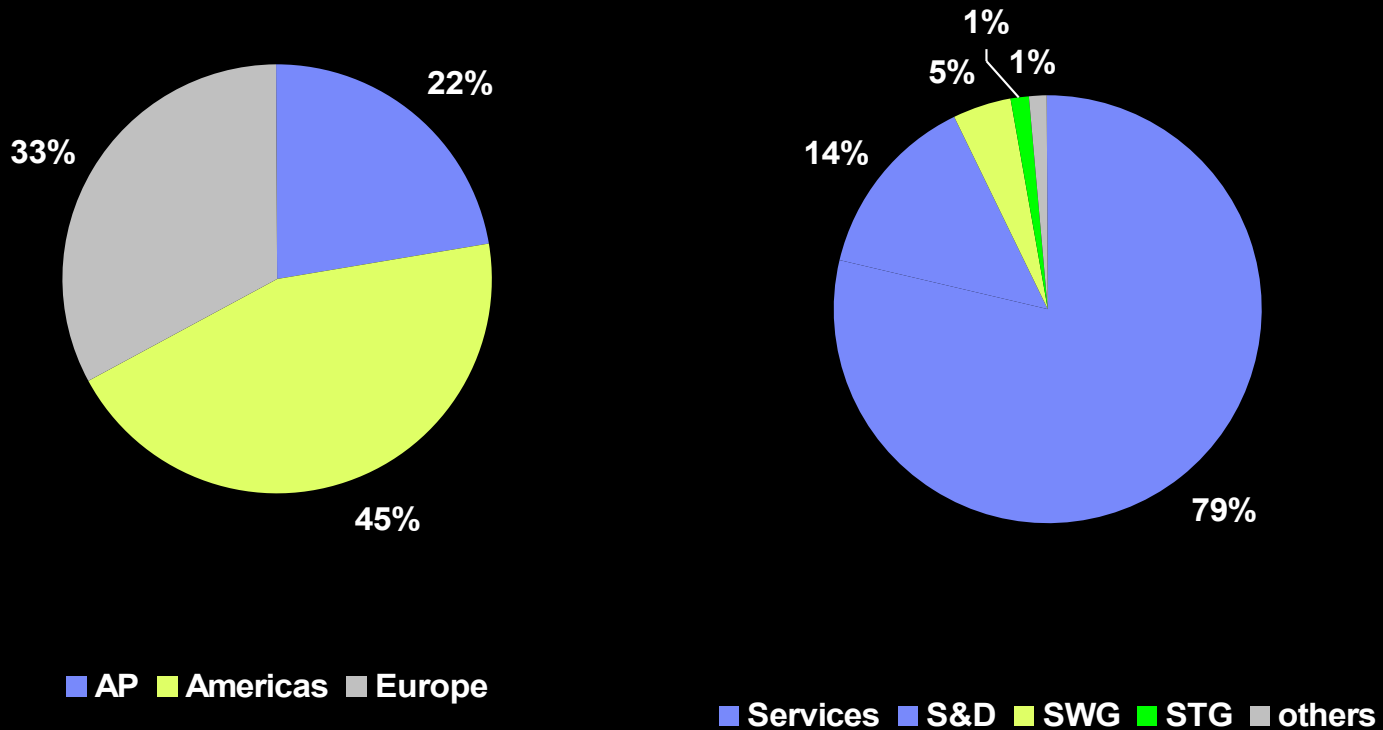
Leveraging the SOA Reference Architecture



The IT Architect population in IBM is diverse, mature, and growing

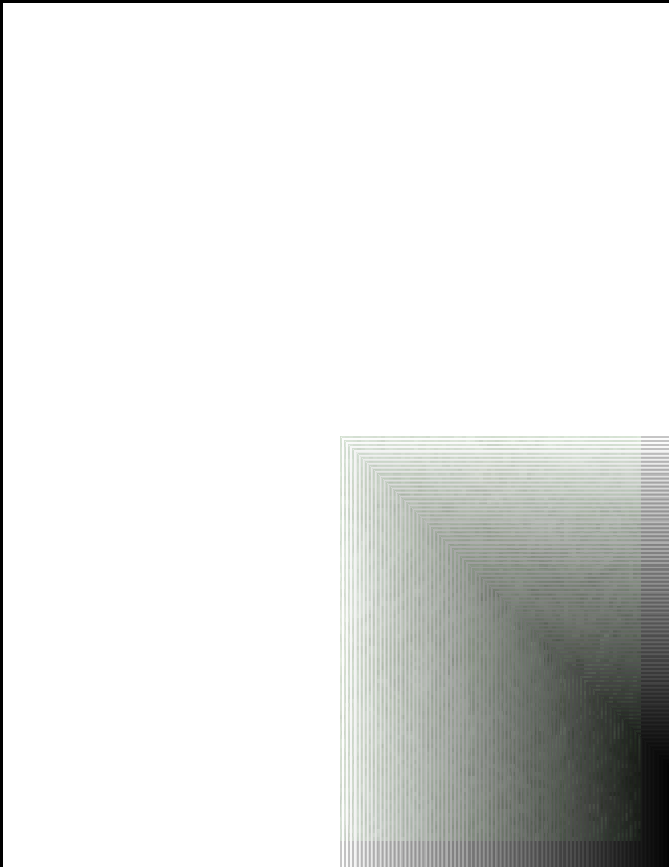
- **8,500 IT Architects worldwide**
 - All geographies, 47 countries, multiple organizations
- **Information technology background**
 - Education and experience
- **Most involved in customer facing activities**
 - Services
 - Technical sales support
 - IT outsourcing
- **Technical community affiliations**
 - Architecture & technology
 - Business role
 - Professional interest

The IBM IT Architect population is over 8500 ... and growing



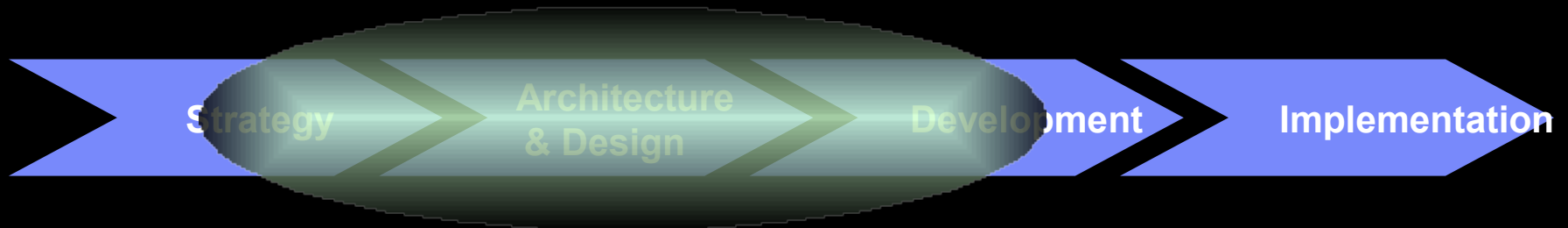
YE2006

The IBM IT Architect exists to ...



- Define the principles-based structures of solutions – architectures – to
 - Specific customer business problems, and/or
 - Applications of technology within an “enterprise”
- How?
 - Applying design and architectural techniques, preferably guided by an appropriate method
 - Drawing upon broad skills and experience which enable, as necessary, the application and integration of a variety of business and IT components, technologies and service elements

Architecture models & areas of concentration



■ Multiple Views

Functional	Application/Services	Component Model
Non-Functional	Infrastructure	Operational Model
Information	Data/Content	Information Models
Management & Ops	Sys Mgmt & Security	Management Models
Strategic	Enterprise IT	Enterprise Architecture

Building and supporting a Profession

- **IBM IT Architect Profession announced in 1992**

- Response to client demands for expertise in a variety of areas involved in client-related professional engagements

- Part of a portfolio of (mostly) IT services related Professions

- **Certification activities are a centerpiece ...**

- ... but the Profession is much more



The IBM IT Architect Profession exists to provide value to IBM, our clients worldwide & cross-BU community of IBM IT Architects through programs that foster...

- **Capability - Knowledge and skills**
- **Community – Collaboration, Innovation and Sharing**
- **Excellence and effectiveness – Common processes across the globe**
- **Assurance – Mentoring, certifications**
- **Vitality – Growing**

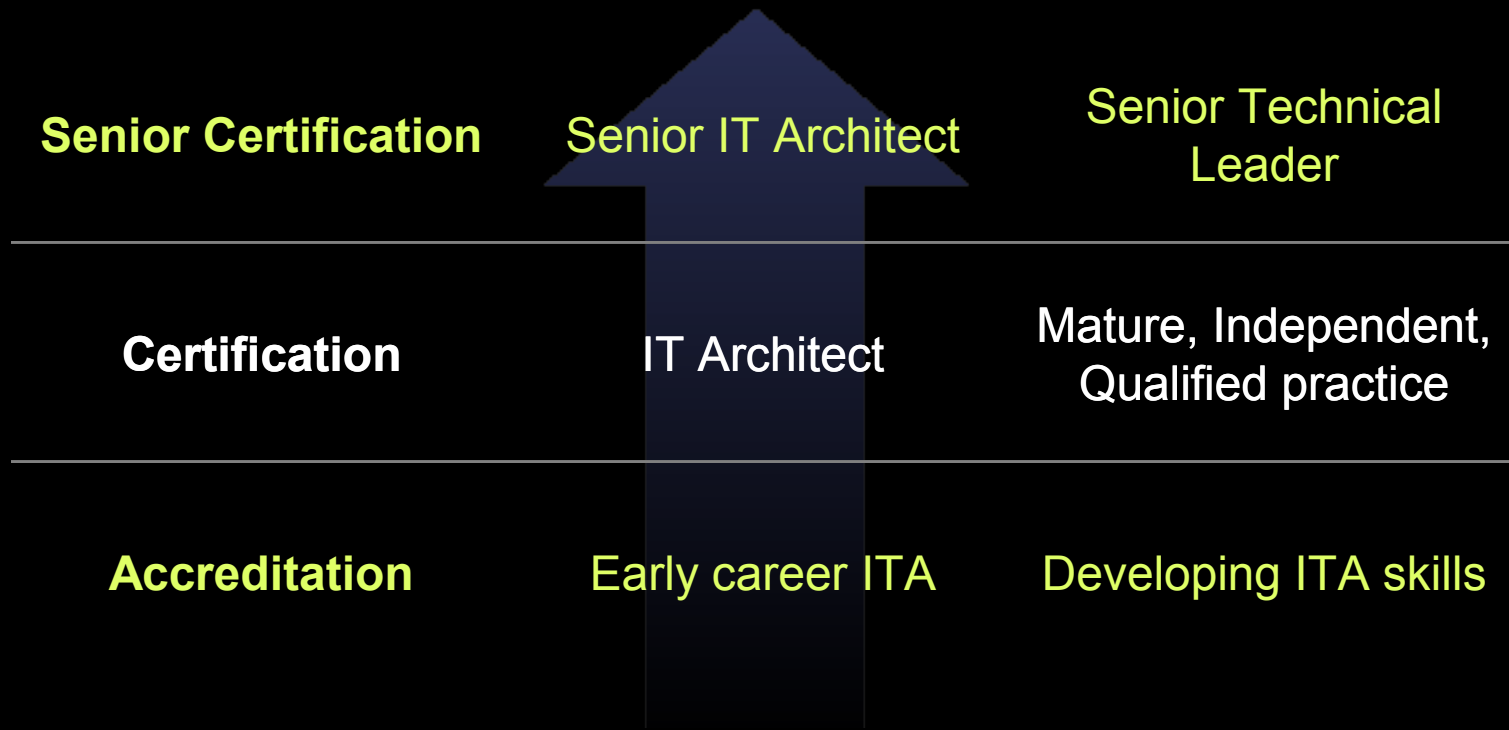


Professional Development Program

- **Profession characterized by skills**
- **Skill development defined by roadmaps**
- **Roadmaps identify education and experience**
- **Professional Development measured by passing capabilities checkpoints**



IBM assesses qualifications at three levels



IBM Enthusiastically Supports ITAC

ITAC provides strong value for our clients, the industry, and for IBM and our technical professionals

- **Open Group Support**
 - Developed a quality program process and materials
 - Recognized as an industry leader in developing IT certifications and open standards
- **IBM demonstrates leadership in the IT Architect profession as the first company accredited by the Open Group IT Architect Certification program**
- **1800 IT Architects are ITA Open Group Certified**
- **Strong Industry Participation**
 - Major IT industry players involved in development of ITAC
 - Interest and discussions with several other major IT organizations
- **Represents the next logical step in the maturation of the IT Architect Profession**

Why does IBM believe ITAC is the right program?

- **Open industry IT Architect Certification program**
- **Offers Flexibility**
 - “Certify the certifiers” model for corporations/company programs
 - Direct certification for individuals
 - An evolutionary framework that can change as IT industry requirements change
- **Includes a “Masters Level” program**
 - Skills and experience based – goes beyond validating the existence of knowledge, with board review
- **Active participation and support by several major industry vendors and client organizations, and the backing of the Open Group**
- **Has a strong commitment to IT Architecture as a practice and can leverage industry recognition**
 - Leads in promoting the use and science of IT architecture

Industry recognition of IT Architect value is growing

- **Increased acceptance, adoption, development ... and convergence on definition**
- **Traction, interest in industry “certification” programs**
 - The Open Group active in development of first of a kind**
 - **“Certify the certifiers” model**
 - **IBM and other vendors active players**
 - Microsoft announced IT Architect certification (04/2005)**

Learning from a master ...



- *“Architecture is frozen music.”*
- *“The architect must be a prophet...a prophet in the true sense of the term. If he can't see at least ten years ahead, don't call him an 'architect'.”*
- *“Form and function should be one, joined in a spiritual union.”*
- *“Less is only more where more is no good.”*
- *“The physician can bury his mistakes, but the architect can only advise his client to plant vines.”*
- *“An architect's most useful tools are an eraser at the drafting board — and a wrecking bar at the site.”*

Frank Lloyd Wright (1867 – 1959)



IBM Professions

Thank You

