RIA Meets Enterprise SOA

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Open Source

Enterprise Architecture

Akira Technologies

Data Grid Solutions

Service Oriented Architecture

Rich Internet Application

Enterprise Integration
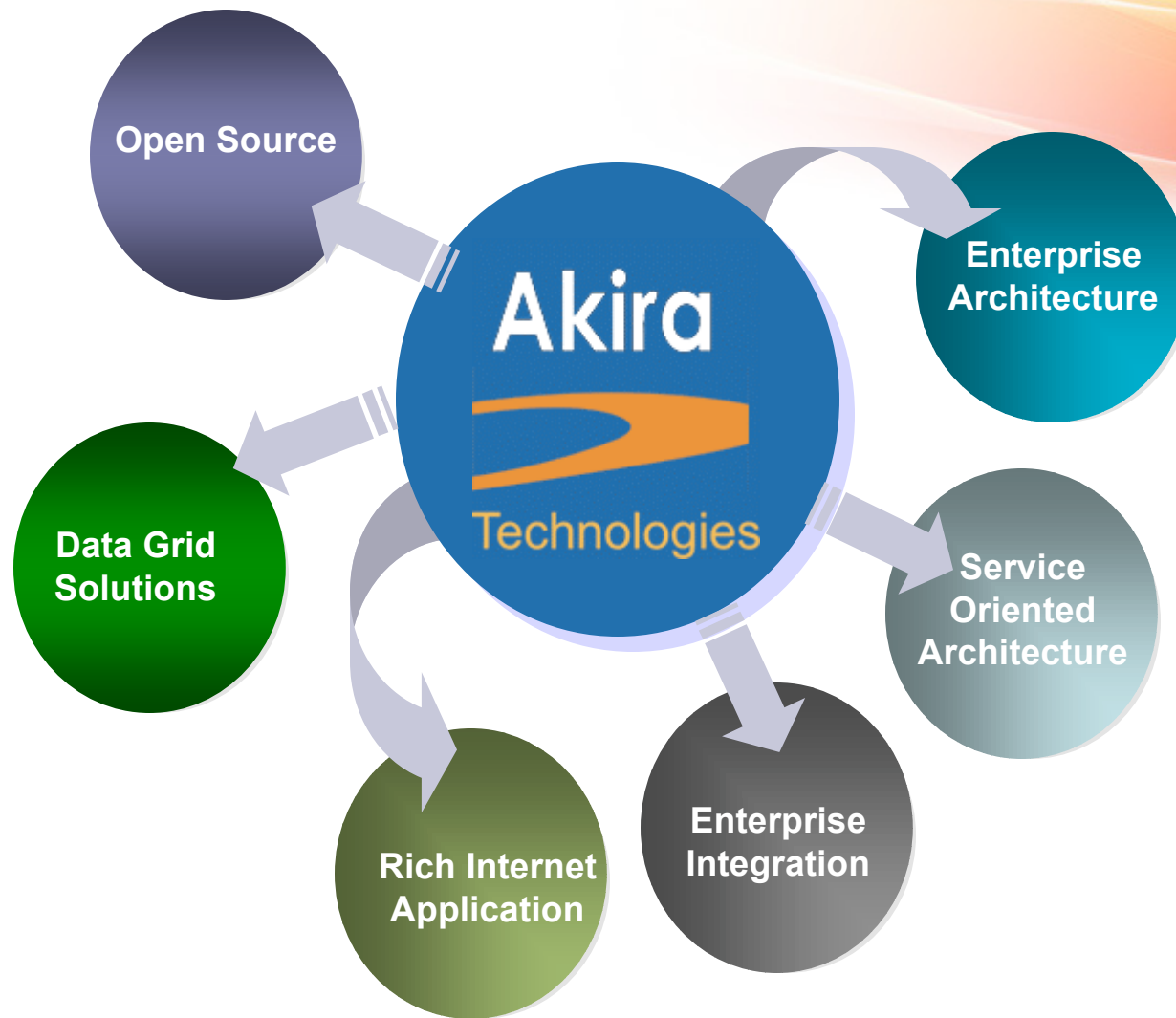
Domains

- Federal
- Healthcare
- Transportation
- Financial Services
- Telecommunication

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Rich Internet Applications

Rich Internet applications (RIA) are web applications that have the features and functionality of traditional desktop applications. RIAs typically transfer the processing necessary for the user interface to the web client but keep the bulk of the data (i.e maintaining the state of the program, the data etc) back on the application server.

http://en.wikipedia.org/wiki/Rich_Internet_application#History_of_RIAs

What are Rich Internet Applications

- **Expressiveness**
- **Rich media integration**
- **Performance / Responsiveness**
- **Real time**
- **Offline**
- **Deep back-end integration**
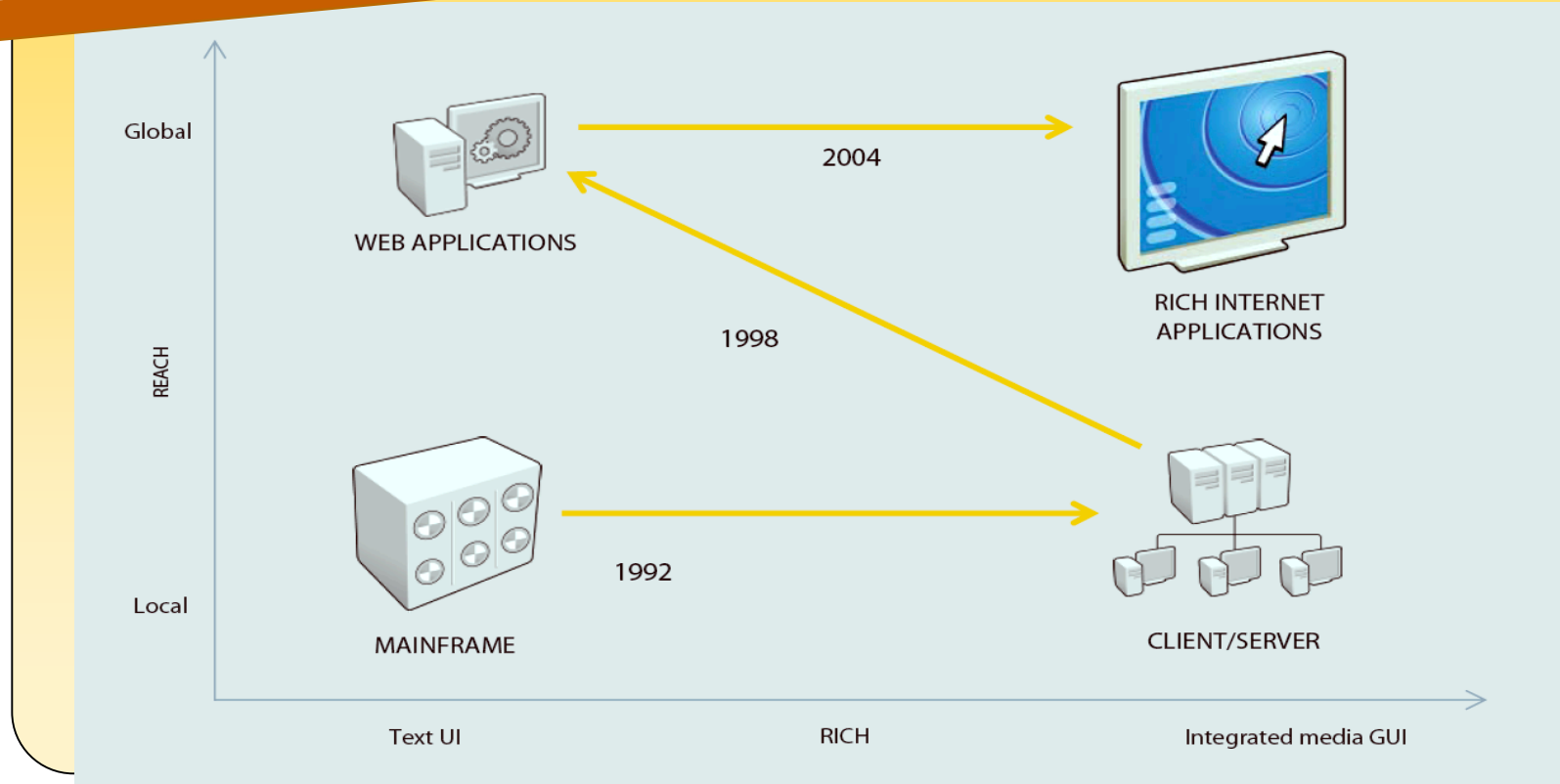- **Web deployment model**

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Evolution : RIA

Few RIA Examples

- Data visualization
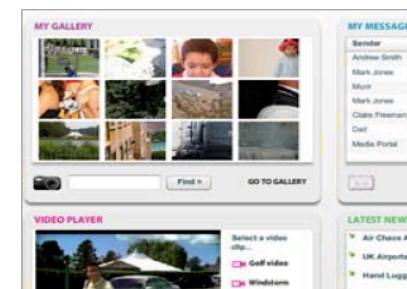
- Collaborative media experiences

- Business applications

- Guided self-service

RIA Technology Trends
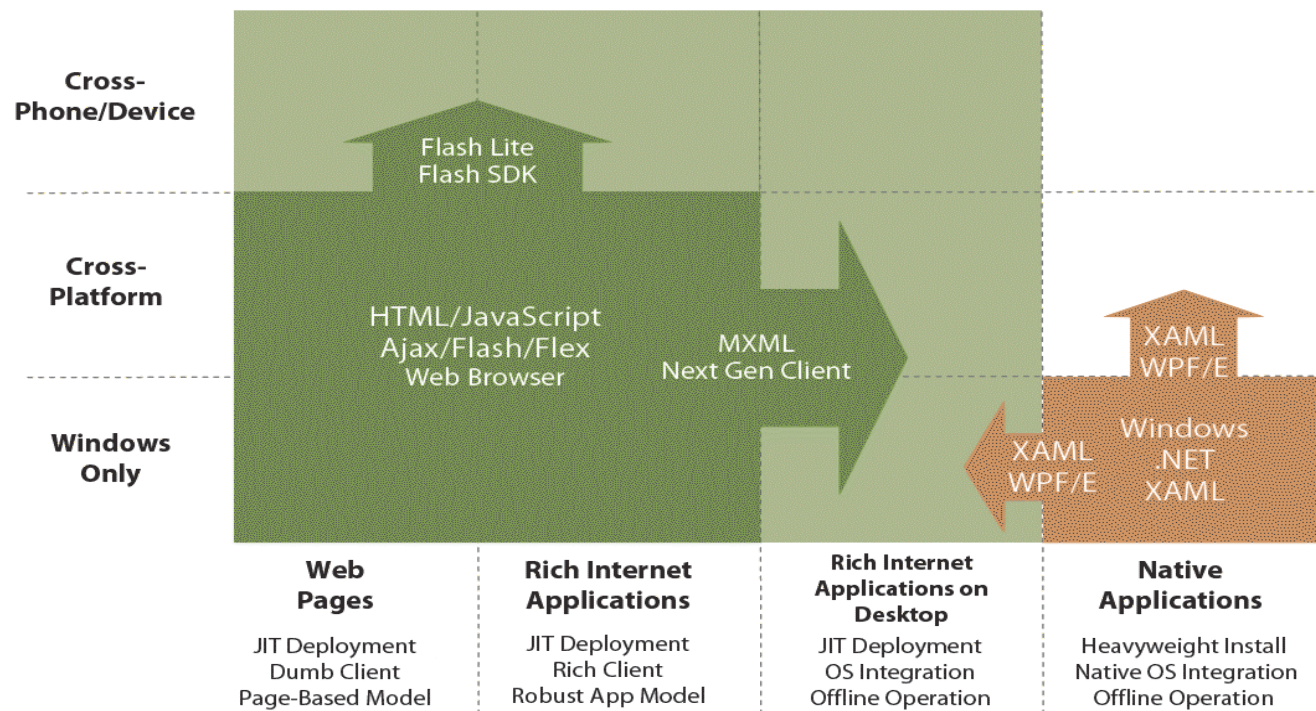
	Web Pages	Rich Internet Applications	Rich Internet Applications on Desktop	Native Applications
Cross-Phone/Device		Flash Lite / Flash SDK		
Cross-Platform	HTML/JavaScript Ajax/Flash/Flex Web Browser	MXML Next Gen Client	XAML WPF/E	XAML WPF/E
Windows Only			XAML WPF/E	Windows .NET XAML
	JIT Deployment Dumb Client Page-Based Model	JIT Deployment Rich Client Robust App Model	JIT Deployment OS Integration Offline Operation	Heavyweight Install Native OS Integration Offline Operation

Typical RIA Structure
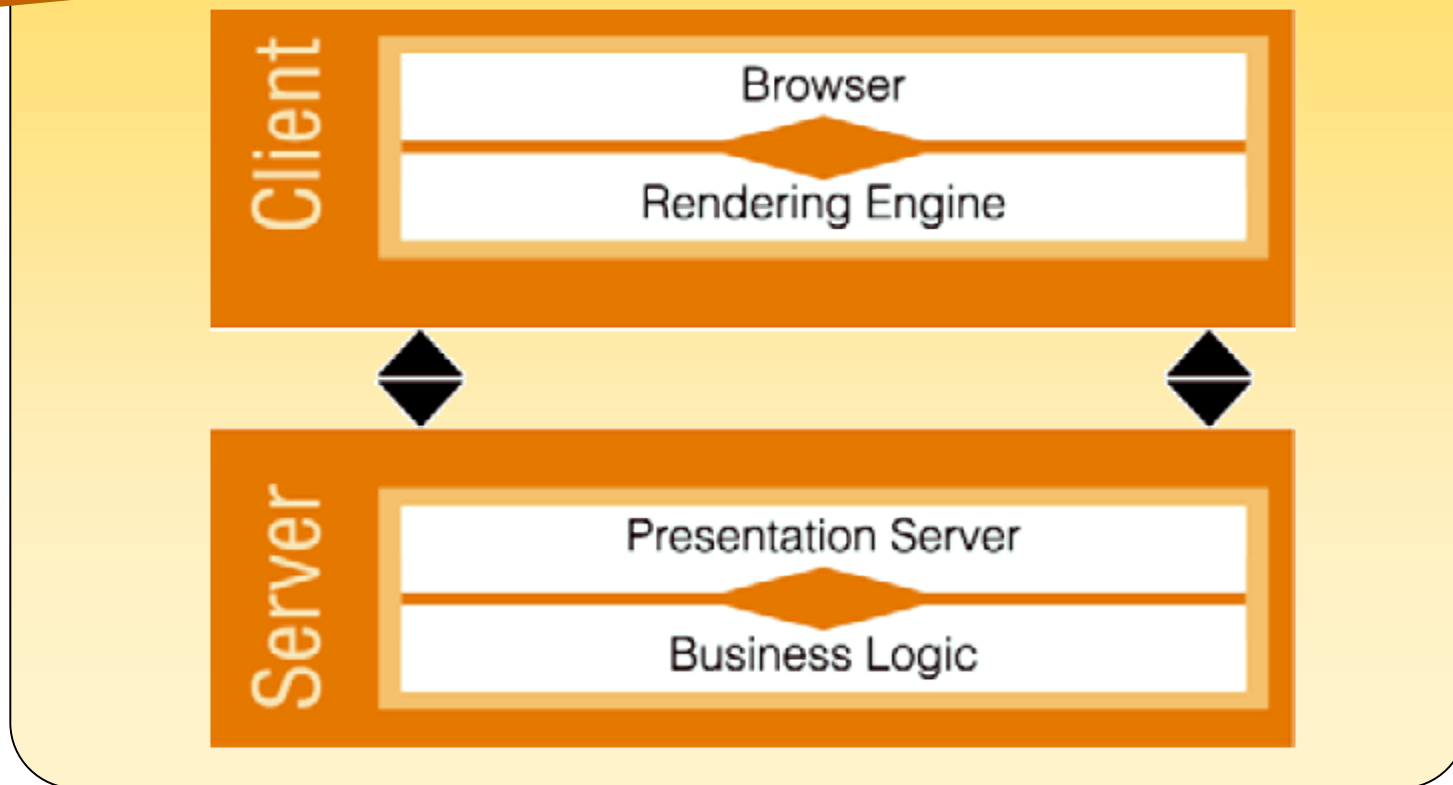
New Possibilities

- **RIA as the face of SOA**
- **RIA as SaaS (Software as Service) enabler**
- **Defining UI Capabilities of MASHUPS**

RIA as the face of SOA

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RIA as SaaS Enabler
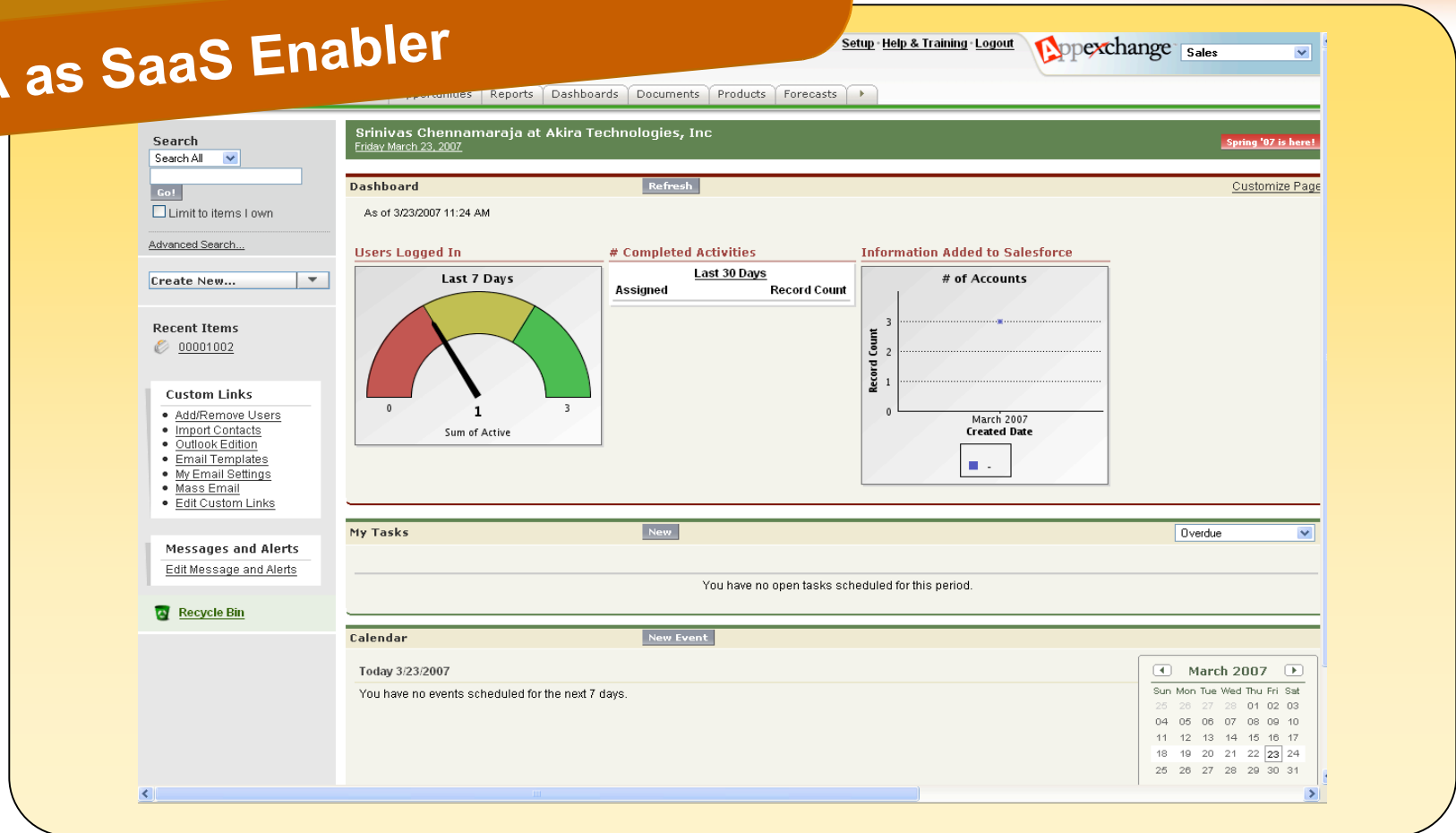
So what's a SOA and where does RIA fit?

- **SOAs are like snowflakes ....**
  No two are alike.

- **SOA is strategic framework of technology that let all interested systems, inside and outside an organization, expose and access well-defined services, and information bound to those services, that may be further abstracted to orchestration layers, composite applications, and interfaces to solution development.**

SOA Logical Architecture

Interface

Orchestration/Processes

Infrastructure Management

Enabling Technology Standards

Abstract Services

Data Services   Legacy Services   New Services

Platforms and Messaging

Network
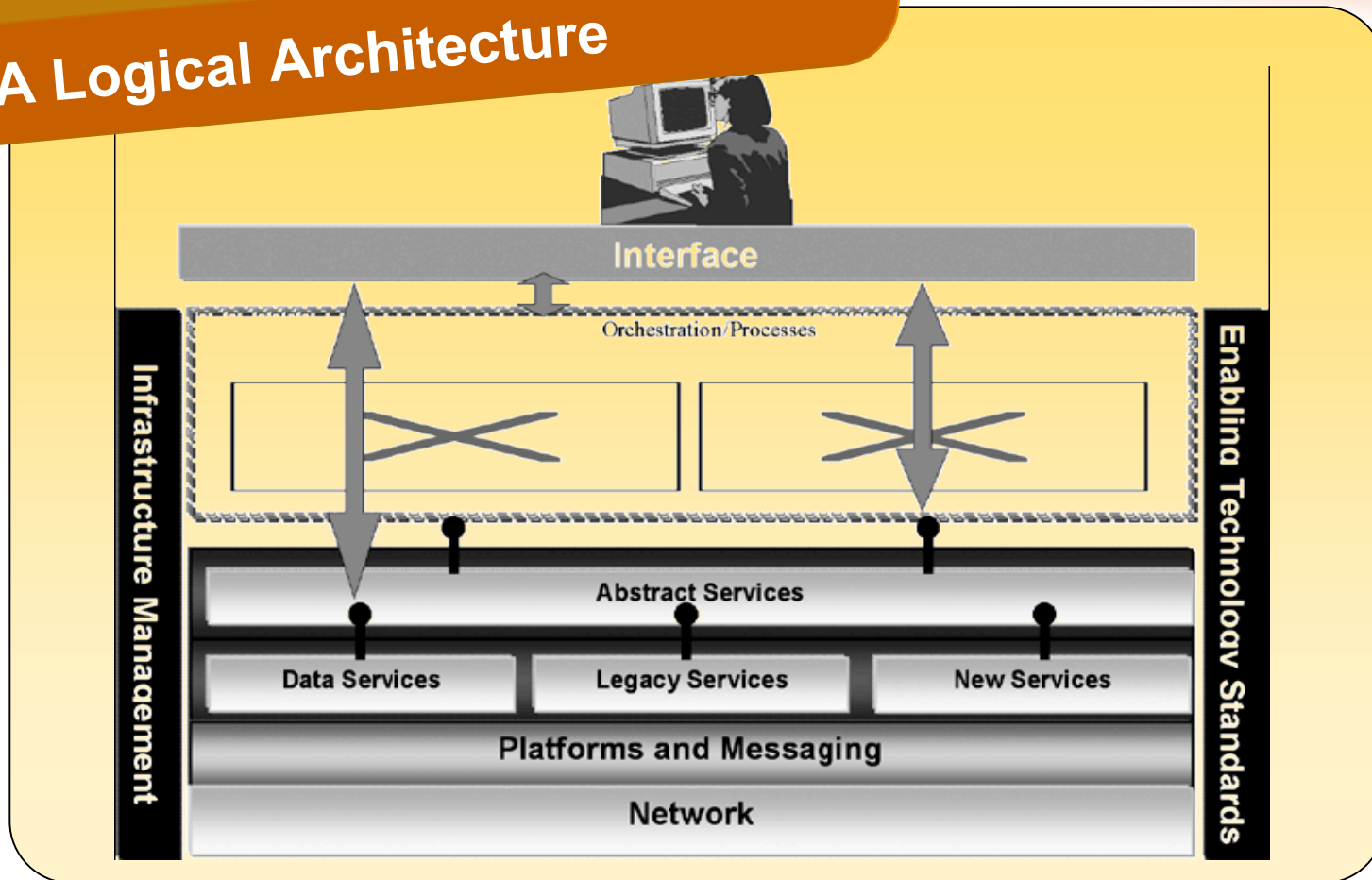
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Interface Layer

Checking System · Savings System · Mortgage System · Equities System

Web

AJAX

Customer checking on account
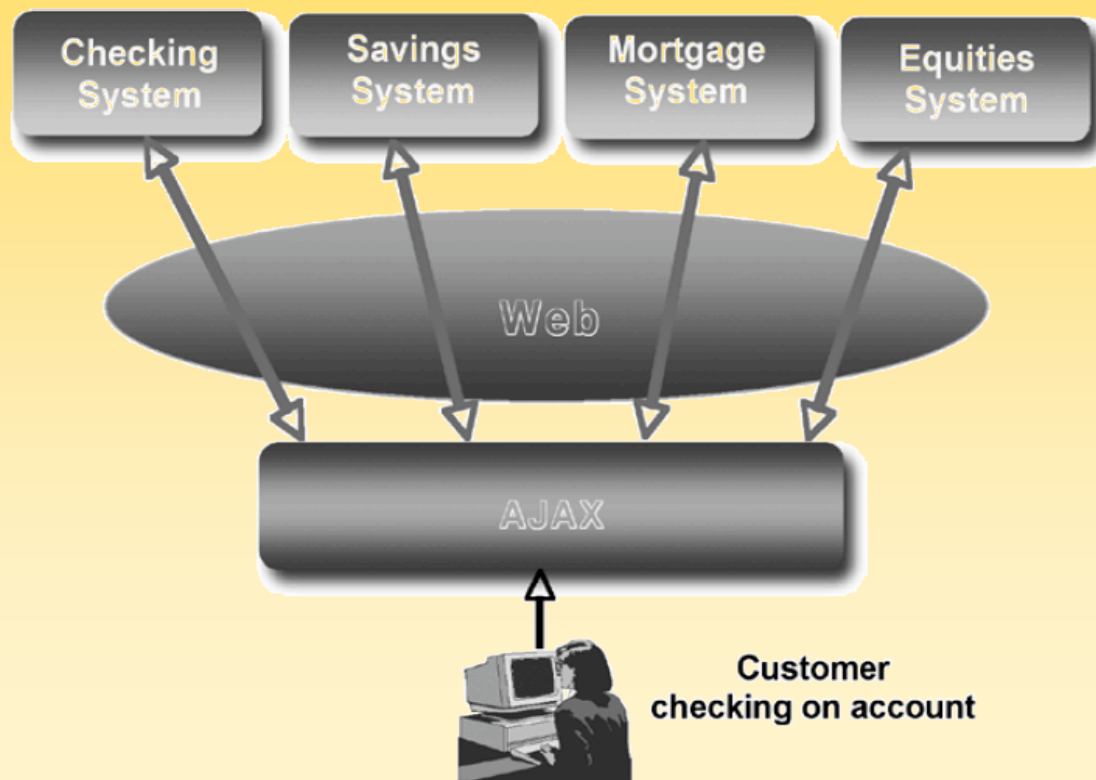
RIA Platforms: The Major Choices

- Java Applets
- Adobe Flex
- OpenLaszlo
- Microsoft Windows Presentation Foundation (WPF)
- Ajax

Adobe Flex 2

Flex 2 apps run cross-platform in a ubiquitous Flash Player 9 that's a lightweight virtual machine. The platform includes:

- **MXML**
- **ActionScript 3.0**
- **Flex Data Services**
- **Charting and Multi Media Components**
- **Eclipse-based IDE**

Ajax

- Stands for Asynchronous JavaScript and XML
- The term was Coined By Jesse James Garret in 2005
- XmlHttpRequest Object

Ajax Toolkits: Commercial

- **Backbase**
- **JackBe**
- **Tibco General Interface**
- **Nexaweb**
- **ICESoft**
- **Bindows**

Ajax Toolkits: Commercial

Four Aces of AJAX
These four SDKs are closely matched in capabilities. The main differences lie in server-side support and fine points such as visual editing and debugging.

	Browser support	Server platforms	Visual editing tool	Debugging support
Backbase 3.2	Internet Explorer 5+ on Windows, Firefox 0.8+ on any platform, Mozilla 1.5+ on any platform, Netscape 7.2+ on any platform, Camino 0.8+ on Mac OS X; support for Opera and Safari forthcoming	Client application works with any standard Web server; additional integration with Java-based frameworks, including JSF and Struts available	Basic interactive Web page compiles and displays Backbase XML	Integrated
Bindows 2.5	Internet Explorer 5.5+ (on Windows), Mozilla 1.4+, Netscape 7.1+, Firefox, K-Meleon, Camino, Opera (partial support); Safari support forthcoming	Static XML, HTML, and JavaScript can be delivered from any standard Web server	Basic interactive Web page compiles and displays Bindows XML	None; Firebug recommended
JackBe NQ Suite 4.6.1	Internet Explorer 5.5 and later, Firefox, Netscape, Safari	Basic client works with any standard Web server; forthcoming Presto will link together Web services in the server farm and translate them into JackBe's JSON protocol	Yes, Eclipse-like IDE	None; Firebug recommended
Tibco General Interface 3.2	Internet Explorer 6 and Firefox 1.5; IE 7 support forthcoming	Web services and Tibco's Web service bus	Yes, Eclipse-like IDE	New step-through debugger for Internet Explorer; Venkman recommended for Firefox

Source: InfoWorld

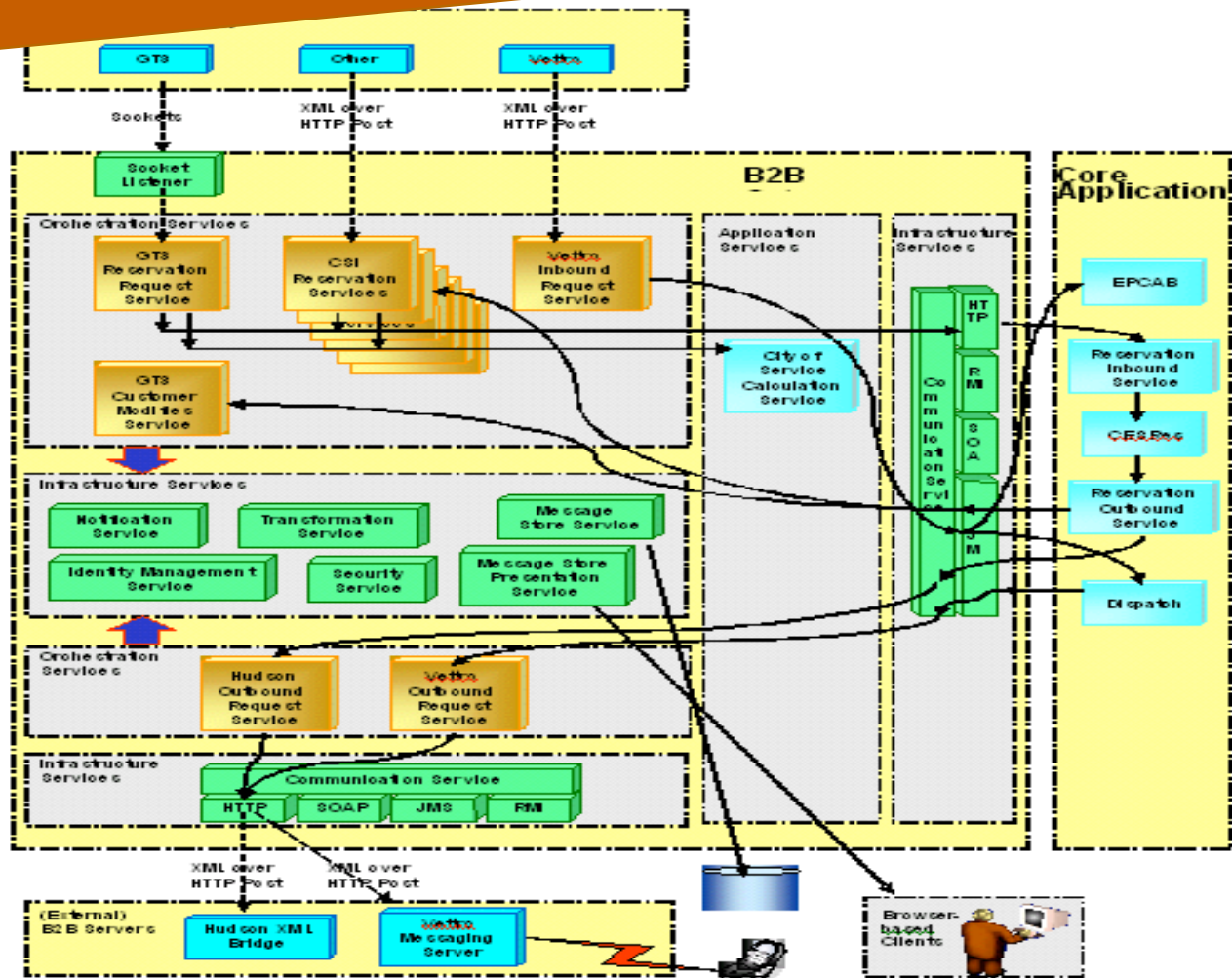**CONSULTING**   **TECHNOLOGY**   **SOLUTION**

Ajax Toolkits: Open Source

- **Dojo Toolkit**
- **Google Web Toolkit (GWT)**
- **Microsoft Atlas**
- **Open Rico**
- **Yahoo Ajax Library**
- **Zimbra Kabuki**

Case Study: Transportation Company

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