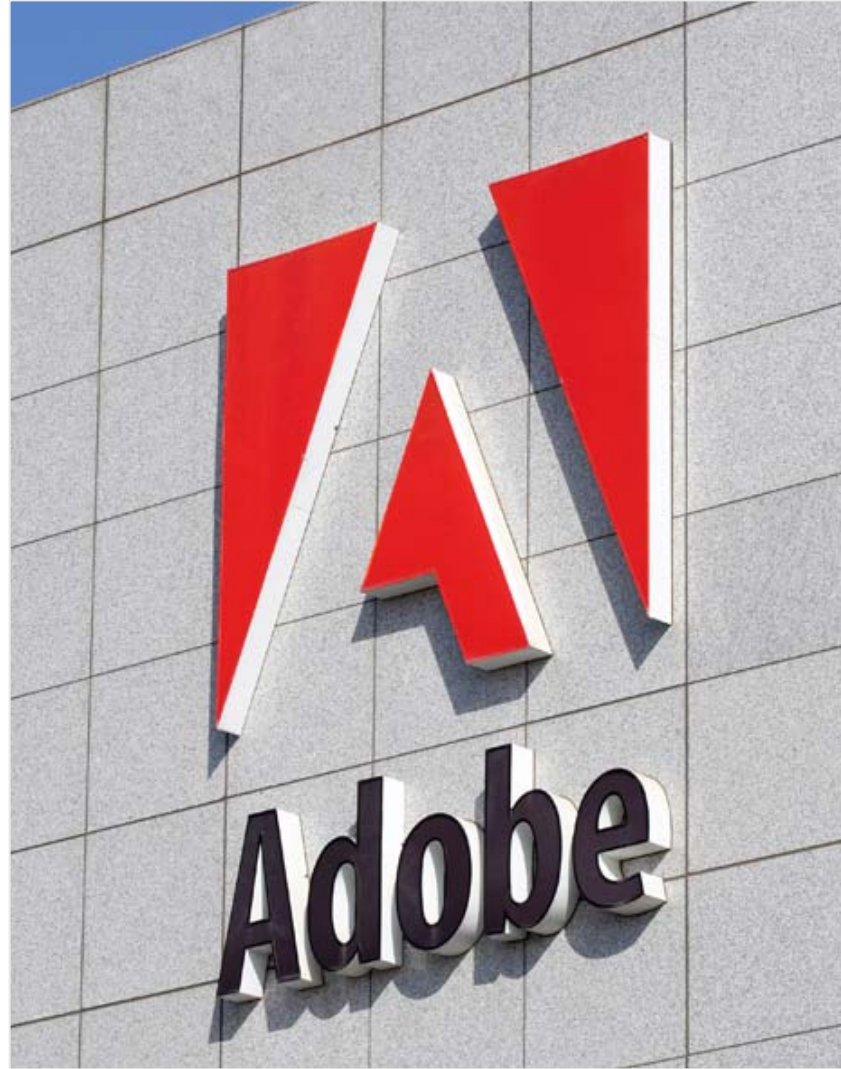


# Rich Internet Applications and Flex

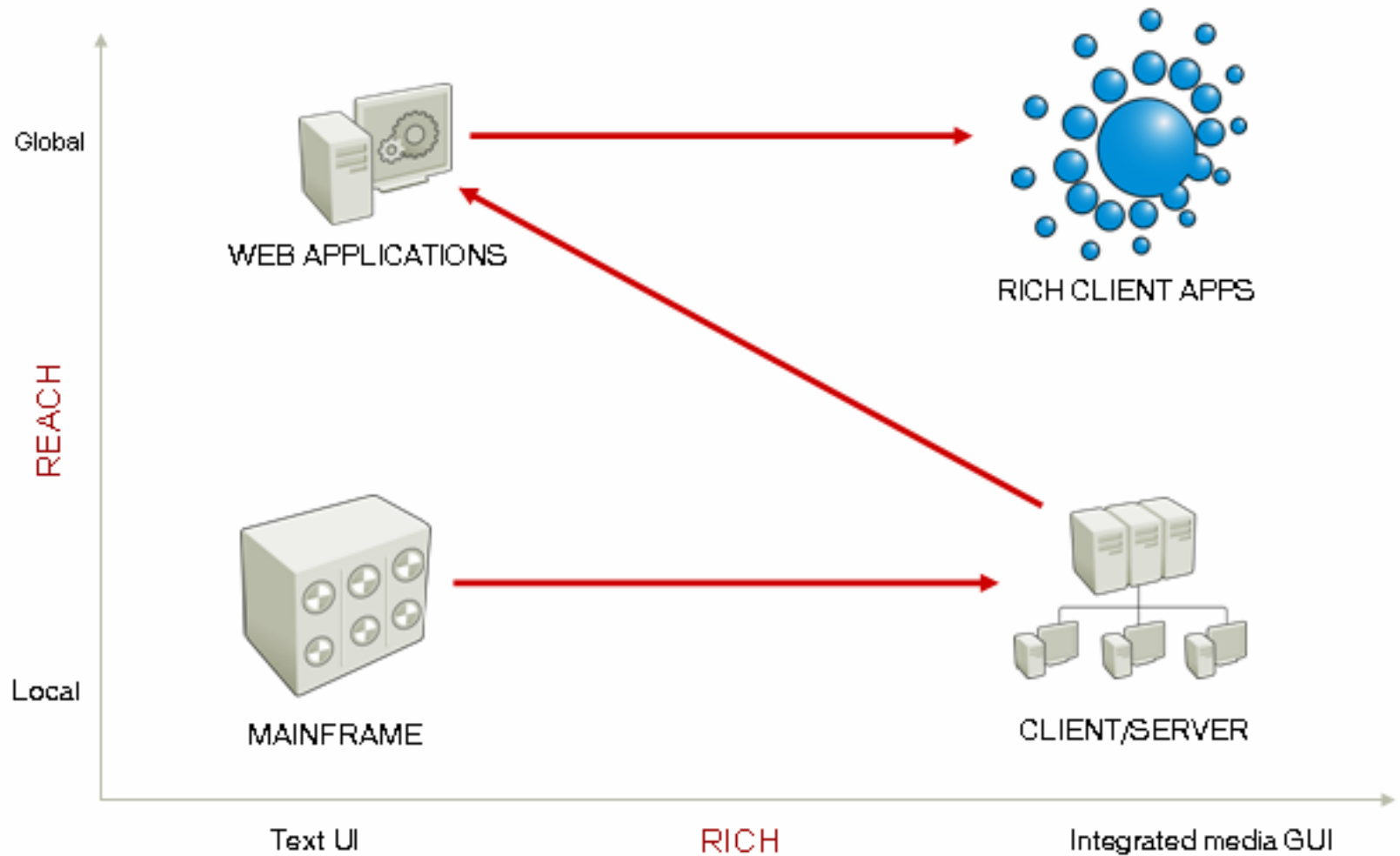
Ram. K and Manish J

Bar Camp Noida

4-Mar-2006



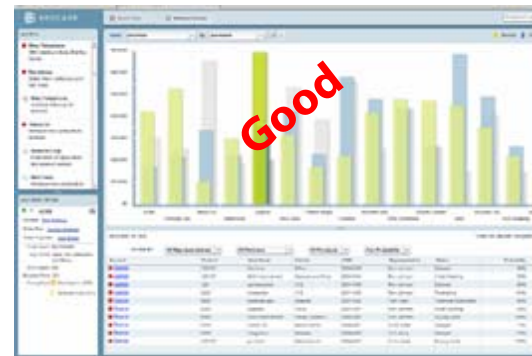
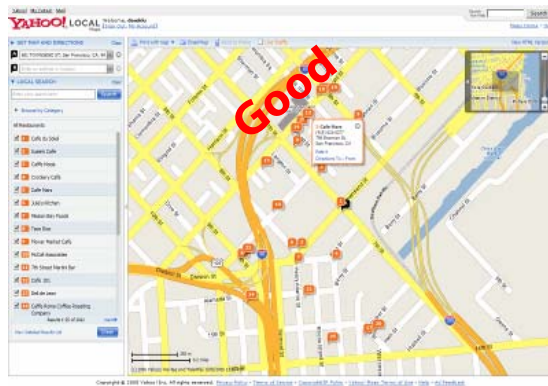
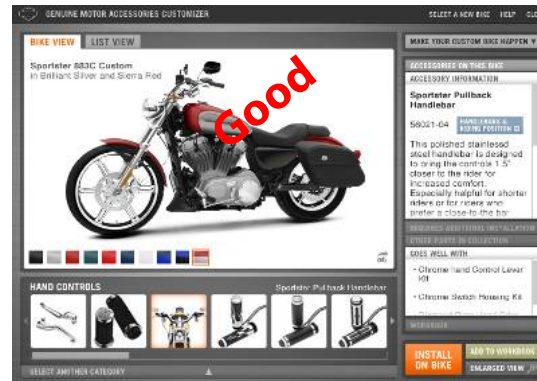
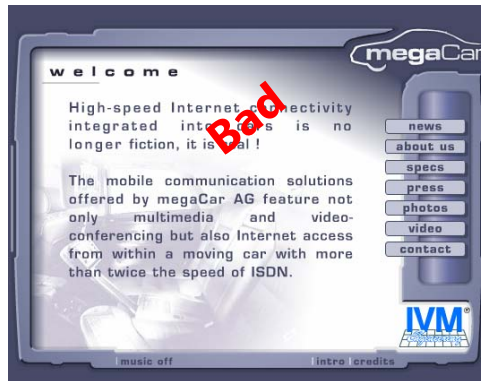
# Rich Internet Applications



# Rich Internet Applications continued ...

- Aspects of a RIA include
  - Every user interaction does not require request/web server response
  - Data can be obtained from server without redrawing entire page
  - Data, text, and audio/video are seamlessly integrated in the UI
- Best aspects of the web are inherited in a RIA
  - Ease of deployment
  - Ease of management
  - Ease of development

# What is a great digital experience?



You know it when you see it ...

# What is a great digital experience? Continued ...

- Broadmoor Hotel (travel)
  - 84% increase in online reservations
- TJ Maxx (retail)
  - 50% higher rate of successful check out
- Optimal Payments (customer service)
  - 120% improvements response time to customer issues
- Dai Nippon (business to business)
  - 25% reduction in errant orders

You know it when you measure it ...

# Why Flash?

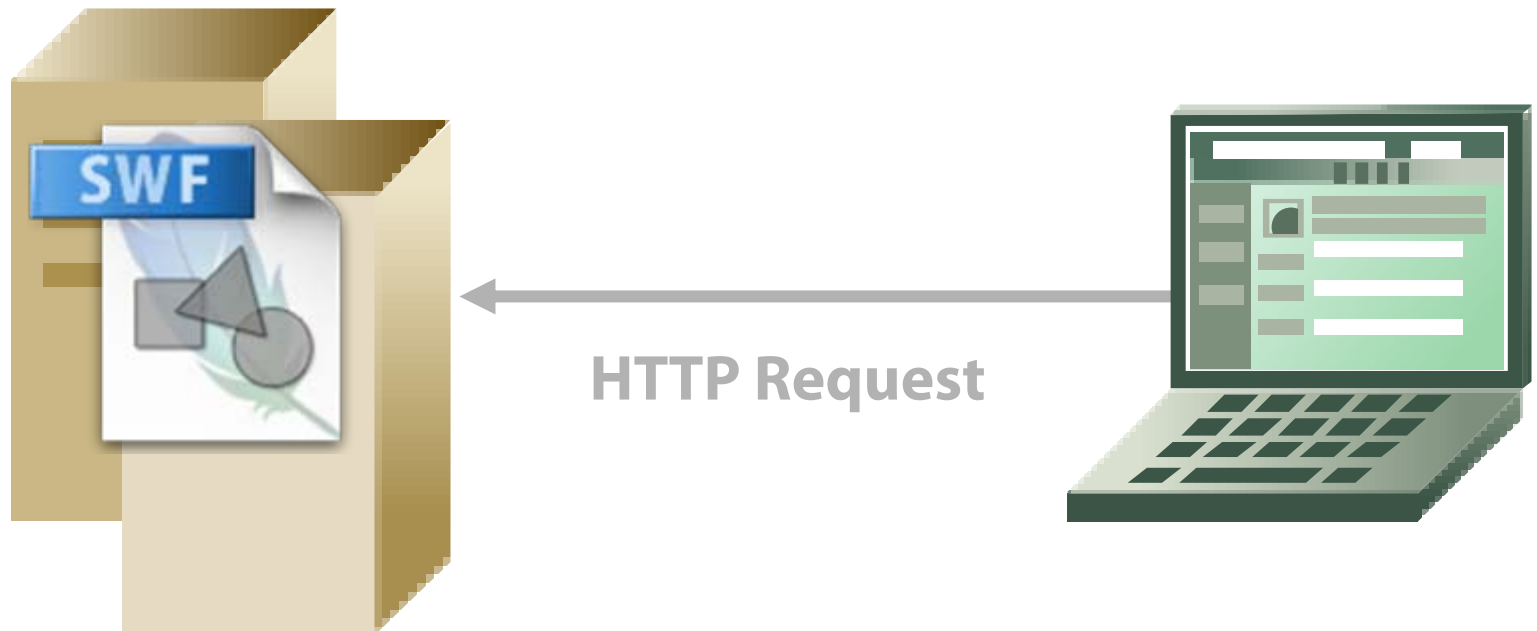
- Cross platform, cross browser, cross device
- Flash is ubiquitous and gets adopted faster than any other software in the world
- Most widely distributed video player on the web
- Binary sockets, integration with multi media and tons of other features
- Active open source community ([osflash.org](http://osflash.org))
- Integrates with HTML and AJAX
- Integrates with open data standards like REST, SOAP web services

Flash + HTML with the Ajax approach to build Web 2.0 applications

# Why Flex?

- Easy to learn and maintain the code
  - Standards based Object Oriented programming model (ECMA/ XML)
  - Flex Builder will be based on Eclipse open source framework
- Comprehensive set of features and an easy to extend framework.
- Ease of integration with legacy data sources
  - Plain old Java Objects , JMS, data synchronization
- Unparalleled and engaging experience
- Free Software Development Kit and Free limited edition of Flex Enterprise Services
- A very active Flex community ([flexcoders.org](http://flexcoders.org))

# The Flex Model





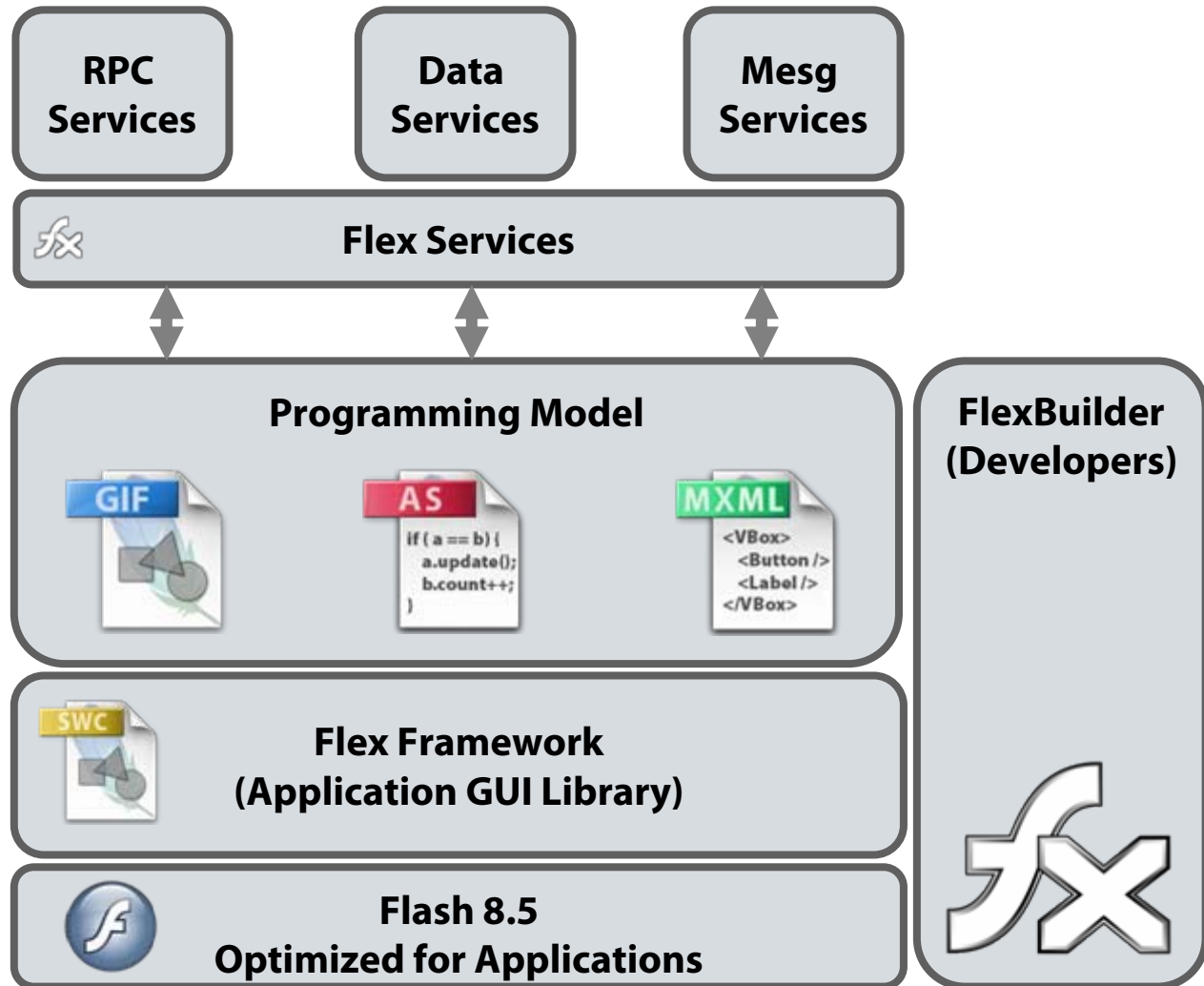
# The Flex Model



# The Flex Model



# Technical Deep Dive

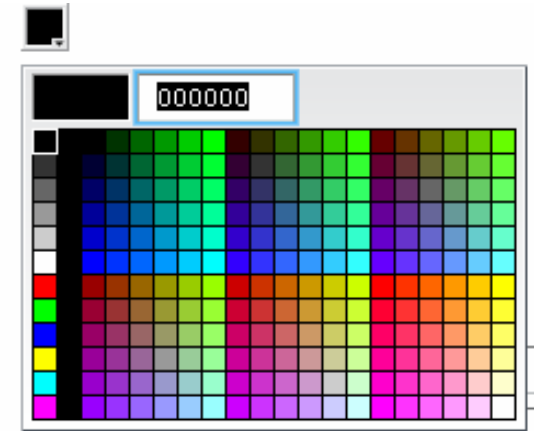
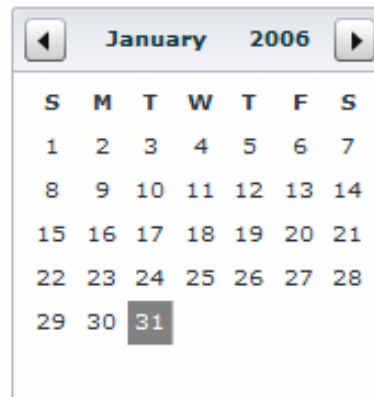
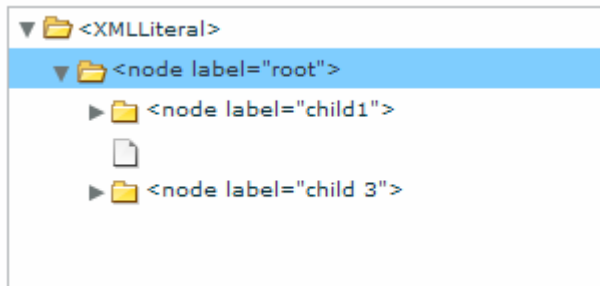


# Programming Model

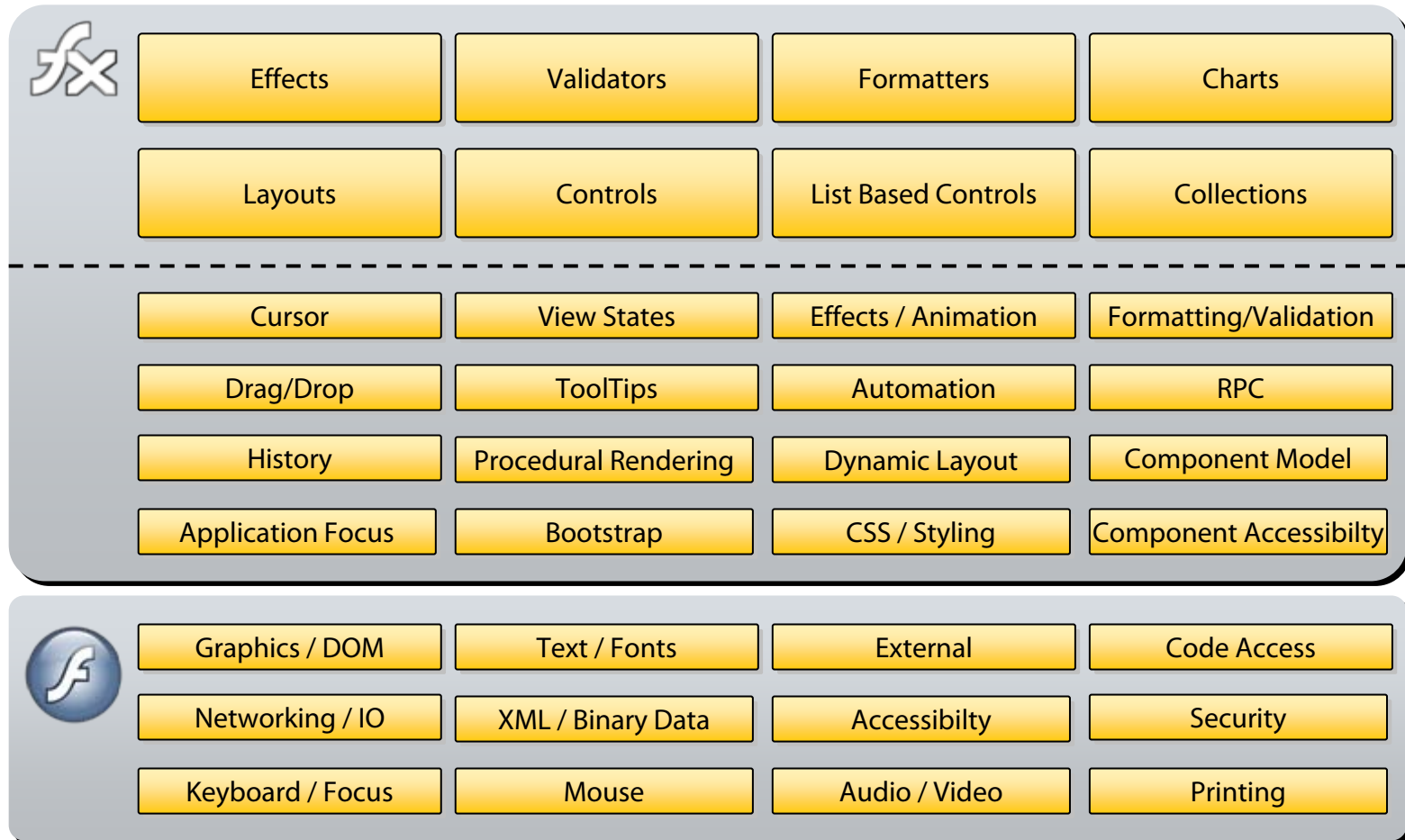
- MXML: XML based language for defining rich front-ends
  - Lay out of the application
  - Define non-visual aspects like data binding
  - More readable, maintainable and toolable
- ActionScript 3.0
  - ECMAScript-based language for scripting front-end logic (ECMA 262)
  - Classes, Packages, Interfaces similar to Java
  - Dynamic typing for 'script feel', strong static typing for larger projects.
  - ActionScript classes imported or instantiated in MXML

# Flex Framework

- Action Script Class library
  - Containers, controls, data modeling, data communication services, behaviors
- Included in SWF, not built into the Flash Player



# Flex Framework



# Flash Player

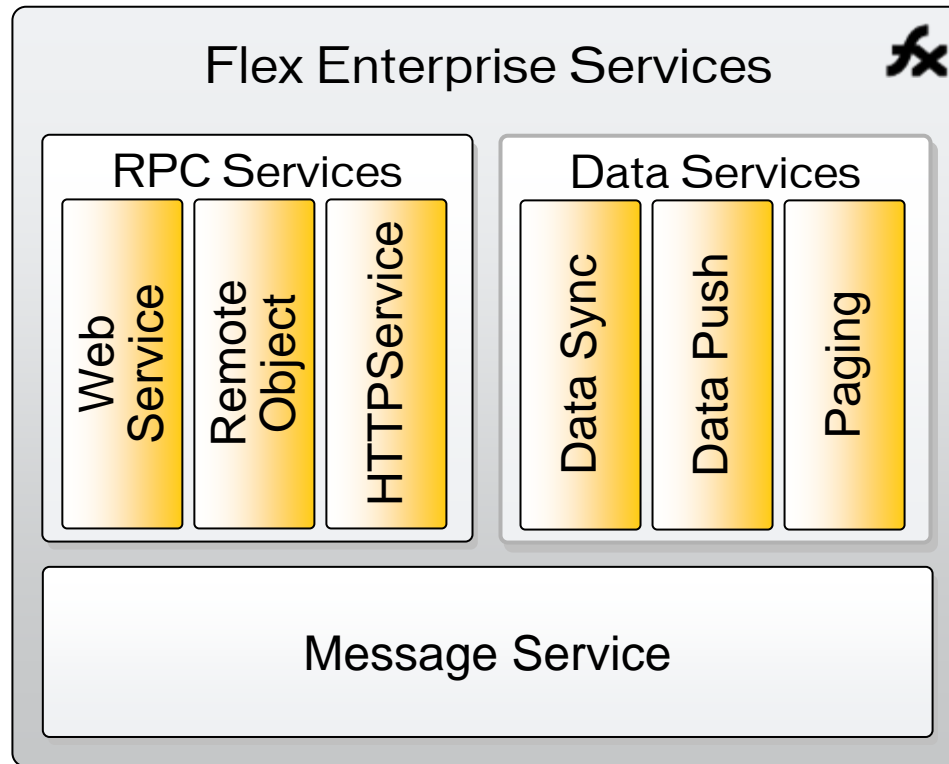
- High performance client runtime
- Action script Virtual Machine rebuilt from the ground up
  - Maximize speed
  - Minimize memory consumption
  - Core API targeting consistency and completeness
- backward compatible
- ECMAScript for XML

# Flex Builder

- Component based IDE for delivering rich Internet applications using the Macromedia Flex Framework
  - Eclipse based tools for coding and debugging
  - Visual tools for layout, styling, and interaction design
  - Deep integration with Flex Framework and Enterprise Services
- Debugging
  - Interactive step through debugger
  - Call stack, variables, expression windows



# Flex Enterprise Services



## Call for action ...

- Download the beta builds from Adobe Labs ([labs.adobe.com](http://labs.adobe.com)) and have fun building interactive web 2.0 applications.
- You can share your code with everyone in the community through “View Source”
- Spread the word:
  - Flex 2.0 SDK which includes the command line compiler and application GUI libraries will be free.
  - The Bangalore group is hiring smart developers and Quality Assurance engineers.

**Better by Adobe.™**