



AJAX

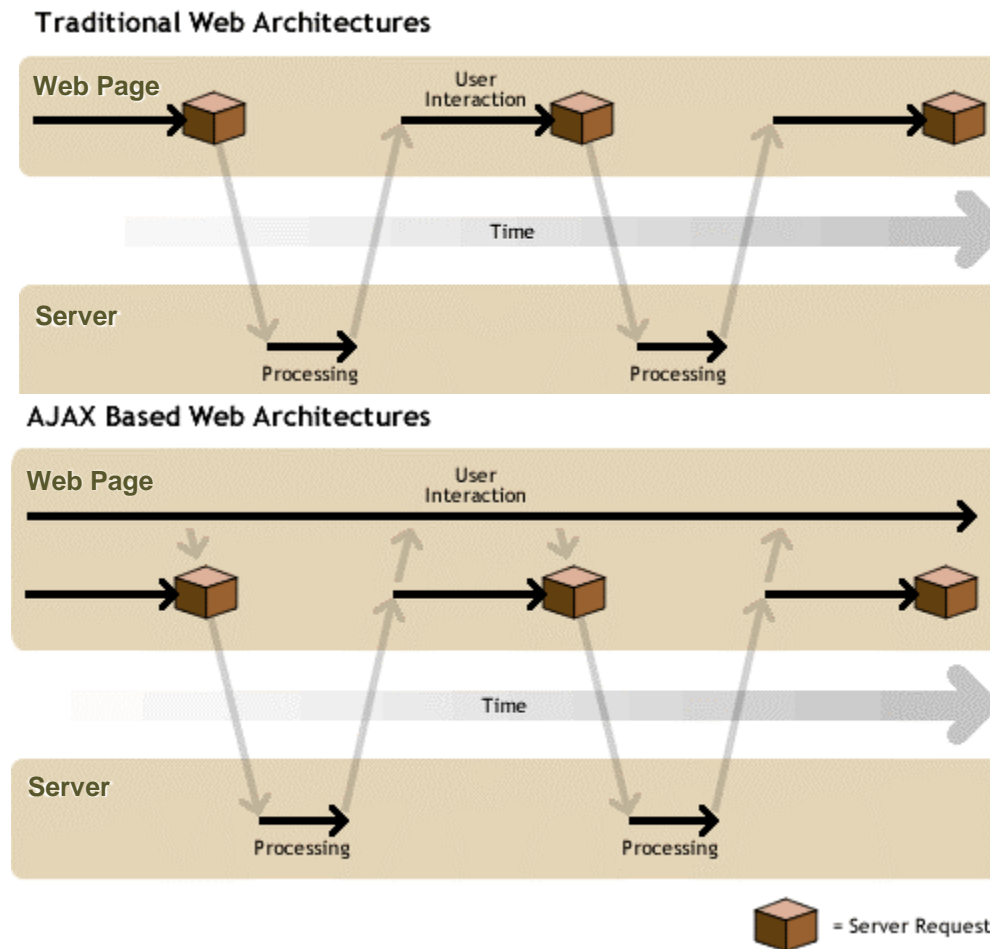
The new hot technology for building Rich Internet Applications?

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What is AJAX?

- AJAX = Asynchronous JavaScript and XML
- JavaScript
 - Document Object Model (DOM)
- XMLHttpRequest object
 - asynchronous
 - encapsulated to handle browser differences
- (X)HTML
- CSS
- Any language and platform on the server

Traditional vs. AJAX Web Architectures



Demo

- Rico Framework
 - <http://openrico.org>

Demo

Response

AJAX Sequence Diagram

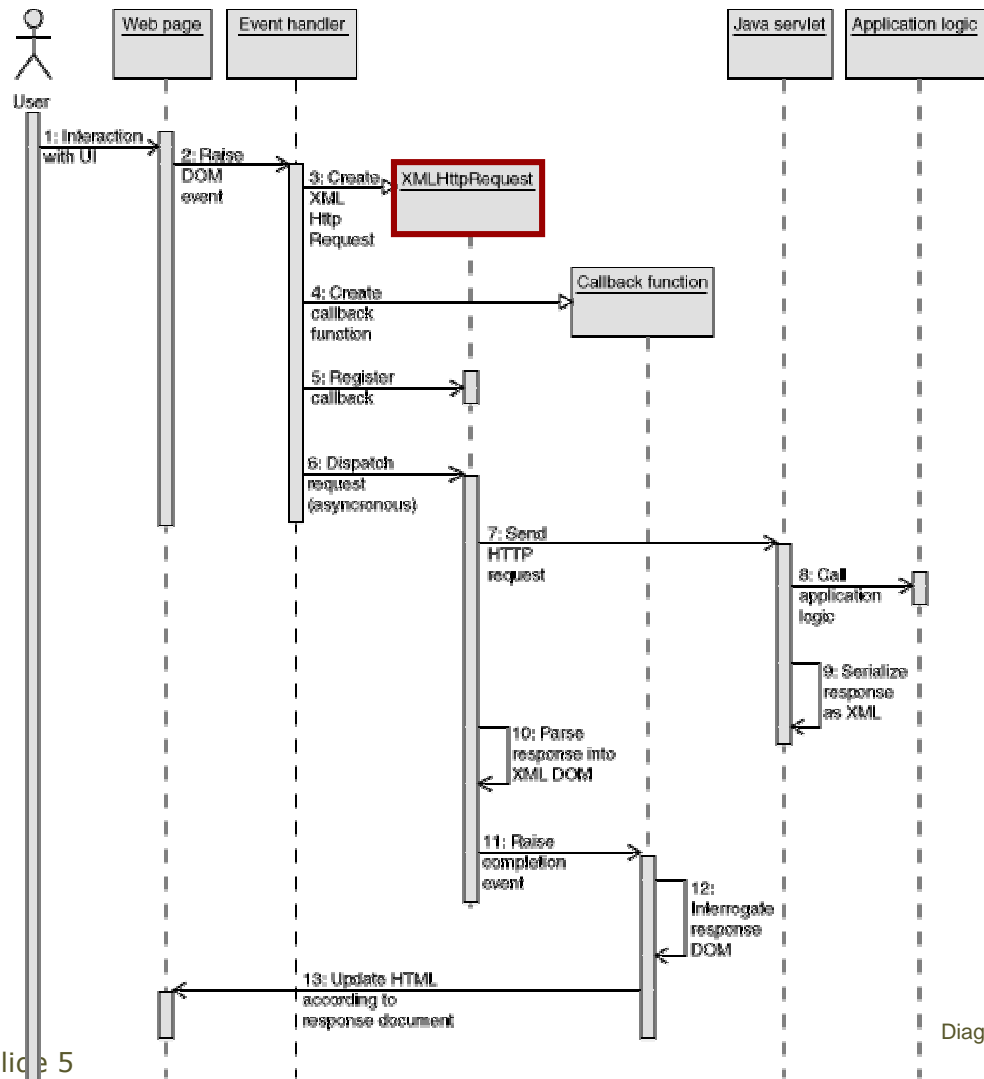


Diagram from IBM

Frameworks and toolkits

- Frameworks are under heavy development
- A few examples:
 - Client-tier frameworks
 - Prototype <http://prototype.conio.net/>
 - Dojo <http://dojotoolkit.org/>
 - Server-tier frameworks and web frameworks with AJAX support
 - DWR (Java) <http://getahead.ltd.uk/dwr/>
 - AjaxTags (JSP) <http://ajaxtags.sourceforge.net/>
 - AjaxAnywhere <http://ajaxanywhere.sourceforge.net/>
(JSP/JSF/Struts/...)
 - WebWork <http://www.opensymphony.com/webwork/>
 - TacOS (Tapestry) <http://tacos.sourceforge.net/>
 - Ruby on Rails <http://www.rubyonrails.org/>

Weaknesses and Strengths



- JavaScript
- AJAX requires strong JavaScript coding competence
- Browser differences
- Back button, Bookmarks
- More simultaneous TCP/IP connections required on the server
- More complex interaction between client and server code



- Improves the end-users experience and productivity
- Low barrier to entry
- No vendor lock-in
- Can reduce bandwidth
- Web sites can adopt it incrementally
- Lots of frameworks and toolkits
- Suitable for SOA business services

Summary

- AJAX is a new name for a way of using technologies that have been around for a few years
- AJAX has become extremely popular in a short time
 - increases user experience
 - easy to get started
- Lots of frameworks and toolkits under development
 - knowledge is shared
- JavaScript competence is essential
- Too early to tell to what extent AJAX can be used