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# RICH WEB APPLICATIONS FOR THE ENTERPRISE

Rich Internet Applications and their value to business

*Analysis without compromise*



**A Butler Group Strategy Briefing**  
Tuesday 28 October 2008 – London

# Introduction

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The Web is gaining in significance for businesses today. For example in retail, a major UK department store John Lewis revealed an increase of 25% in overall profits on the back of a 70% rise in online sales compared with a year ago. The Internet is also allowing big name high street stores to leverage brand loyalty and expand into areas beyond

their original competence, for example the diversification of Tesco beyond groceries.

The transfer of business to the Web has also placed greater demands on the user interfaces, the old-style HTML pages have their limitations and for a successful Web presence there needs to be some careful thought and planning carried out. There are two aspects here: the design of the Web interface graphics and wording, and the choice of technology to contain the Web pages. Web design remains a creative activity and tools such as Adobe's Dreamweaver and Microsoft's latest Expression Studio support this activity. The graphic designers also tend to be comfortable with basic HTML writing but will shy away from genuine programming languages, such as JavaScript and Java.

The availability of Rich Internet Applications (RIAs) has opened up a host of new possibilities for Web-based business channels. These range from online hotel booking to insurance applications for agents working in the field, visiting clients and processing forms offline and then re-synchronising online when next in the office. Another example is pharmaceuticals submitting regulatory forms to a government drug agency.

The principal distinguishing features of an RIA to the user

are desktop-like application look-and-feel, fast response to screen interactions, and the delivery of new types of applications - part of what is called Web 2.0. These new applications encompass users providing the main content and 'mash-ups' - the combination of Web services that generate the 'sum greater than the parts' value. An example of user driven sites is [www.myspace.com](http://www.myspace.com). Its purchase by Rupert Murdoch's News Corporation unlocked further business value when the rights to search MySpace was sold to Google for US\$900 million. Web sites that allow users to interact and exchange information and multi-media content have expanded significantly in the last few years.

Technically, RIAs involve data being passed asynchronously between the client side and the Web server. This allows data to be fed to the client whilst the user is interacting with the screen; this typically involves opening a second channel. Asynchronous communication improves the interaction speed with the application and the whole experience of the application: an application will typically use a single Web screen rather than multiple Web pages, and with just parts of the screen changing in response to user interaction without the whole page refresh that mars the traditional HTML Web experience. Architecturally RIA models allow a separation of the presentation layer from the data layer, enabling the adoption of a Model View Control (MVC) pattern, so that changes to one layer do not affect the other layers, simplifying changes to Web-based applications.

The briefing will cover the advantages and value benefits for business in using RIA to enhance presence on the Web, as well as leveraging the Web for internal use. The competing technologies will also be explained with the pros and cons of the leading solutions.

## Key Topics

- Rich Internet Applications (RIAs) make Web-based applications as flexible, responsive, and rich as the purely desktop user experience.
- The phenomenon of Web 2.0 is being driven by RIAs.
- The wide range of RIA solutions can appear confusing but there are clear demarcation lines which will be explained.
- Out-of-browser RIA tools are appearing, widening the range of possible applications that can be built, and including the capability to use local machine resources.
- Businesses can become more agile by adopting a RIA development strategy.
- RIAs can help lower operational IT administration and maintenance costs.