

Abstract

A widget is a packaged interactive client-side application developed using Web standards and techniques. Widgets present an opportunity to formalise the approaches that are used to develop and deploy Rich Internet Applications (RIAs) for multiple platforms. The objective of the research presented in this report is to evaluate whether widgets successfully meet the requirements of a RIA, which are identified by behaviour, ease of development, security, portability and presentation concerns. A review of the widget landscape has been conducted and used to develop a conceptual widget framework. A film rating and recommendation service has been developed based on this framework and is used to evaluate whether widgets meet the requirements of a RIA. It has been determined that widget-based development approaches assist in reducing the complexities of RIA development. This is achieved by providing developers with simplified interfaces that abstract the complexities of accessing local and remote behaviour. The main weaknesses identified are the vast incompatibilities between existing implementations and the relaxed security measures being used. Further standardisation efforts are required to reduce the incompatibilities in the landscape and improve the security and portability of widgets.