Improving End User Efficiency: A Better View

INTRODUCTION

With a large percentage of business-critical IT functions running on older core IT environments such as mainframes, iSeries, Wyse or HP/MPE, it is a considerable challenge to introduce new technologies and still remain competitive. The question which perplexes many IT leaders is, "How do I leverage the investment in the existing core business system, while quickly introducing new technologies at low cost, low risk, and reduced time to market?"

This paper introduces a unique alternative to User Interface (UI) modernization: one that will visually enhance the UI and extend its reach through the latest technologies, enabling organizations to fully embrace innovation.

COMPETITIVE ADVANTAGE CHALLENGE

The competitive business landscape is more aggressive than ever before. Organizations have to quickly adapt to the fast paced demand of change, concentrating priorities on the most effective way to provide a better, differentiated and contemporary customer experience. The modernization of core, or so-called 'legacy' applications, is a must for many organizations in order to comply with such demands. Nevertheless, it is not an easy goal to accomplish. Some established core applications, developed using traditional programming languages, have been running for over thirty years. These unique applications give organizations their well-defined competitive advantage.

Over time these applications have developed rich functionality while maintaining the basic appearance of green screen[1] mainframe interfaces. The business logic is stable, secure and consistent. However, the UI is outdated and the functionally is limited, making it increasingly difficult for today's typical operator to use. As UI trends continue to evolve, the distance between green screen applications and the latest advances in UI and platform availability continues to grow.

MODERNIZE TO COMPETE

For years organizations have been building and maintaining core mainframe applications, creating priceless value that is critical to the organization's success. However, to take these applications forward and prolong their value, they need to be adapted and modernized. A business application modernization project can easily become a very complex and lengthy operation, often involving unforeseen costs and risks. Whether organizations opt to rewrite applications, move them to a modern platform - virtualized or cloud environments - or even replace them with an off-the-shelf solution, the balance of cost, risk and speed of delivery often impacts the organization's business goals.

Disruptive technology such as mobile, cloud, big data and social networking, are adding even more pressure. Keeping a competitive advantage cannot be focused just on leveraging and maintaining core business applications anymore. It is also about adding agility and ensuring that existing applications can quickly adapt to the growing backlog of new business requirements.

In recent research, Gartner predicts that "By 2016, 25% of external application implementation spending will be on mobility, cloud, analytics and social computing services." The research also highlights that "more than 50% of application modernization efforts will address the demand for enhanced functionality to legacy applications." The research shows a clear trend where organizations will look at ways to bridge the technological platform gap while continuing to leverage existing applications.

The graphic from the same Gartner research shows percentage estimates of application modernization projects focused on enhancing functionality, and how the landscape has changed since 2010.
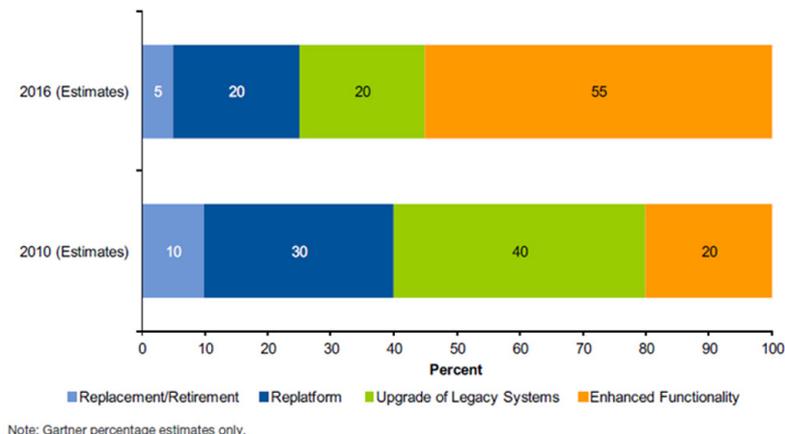

Figure 1: Gartner estimates of primary focus of legacy application modernization projects
Source: Gartner ID: G00230299 – Predicts 2013: Business Impact of Technology Drives the Future Application Service Market, December 2013

Further, with an increasing amount of employees using a variety of devices in the workplace, organizations are struggling to ensure secure yet simple access can be achieved to mainframe applications via these devices. This industry trend towards BYOD (Bring Your Own Device)[2] and CYOD (Choose Your Own Device)[3] is on an upwards spiral: according to Information Week, 65% of organizations expect adoption of such policies to increase[4].

Facing unprecedented levels of change, current interfaces are struggling to face the modern day demands of technology.

THE TRADITIONAL INTERFACE

Traditional 3270 or 'green screen' applications, which were designed and built decades ago, are seldom, if ever, enhanced. These green screen applications are in many cases - to a contemporary end-user - outdated, difficult to navigate and learn, and lacking even in basic mouse operation. The function key interface seems old fashioned and the applications present a limited area to display data. These aspects often frustrate the user, therefore lead to reduced productivity and adversely affect customer service.

However, giving a green screen application a face-lift takes more than a quick technical conversion. It involves taking into consideration all the key functions the application offers throughout a user cycle, identifying a better order perhaps, and pin-pointing the quick win changes that will not disrupt day-to-day business during implementation phases. Bringing the latest UI technology to these applications ensures greater agility through availability from many different platforms, easier maintenance of the interface function, faster deployment, and easier adoption of future usability features.

RUMBA+: A NEW ALTERNATIVE

Micro Focus Rumba+ (hereafter called Rumba) introduces an innovative solution for modernizing core applications. The Rumba terminal emulation[5] and user interface modernization technology now offers organizations the ability to quickly modernize mainframe applications by adding built-in or customized controls directly into the application interface. This instantly adds a contemporary look and feel to the application reducing the gap between these old views and the modern interfaces of Windows, the latest tablets and internet web browsers. Rumba is a quick, safe way to start the modernization journey with immediate benefits for the end user. Rumba is a realistic approach to modernizing the green screen – it exposes the key application functions in an entirely modern way without the risks involved in rewriting parts of a core application. Rumba gives end users the appropriate changes to modern screens at a pace that suits the business, and requires little or no specialist knowledge.

Understanding and achieving modernization with Rumba is simple. It is designed to fit, from the most simple to the most complex green screen modernization requirements. Rumba terminal emulator is based on three core principles: **simplicity**, **efficiency** and **mobility**.
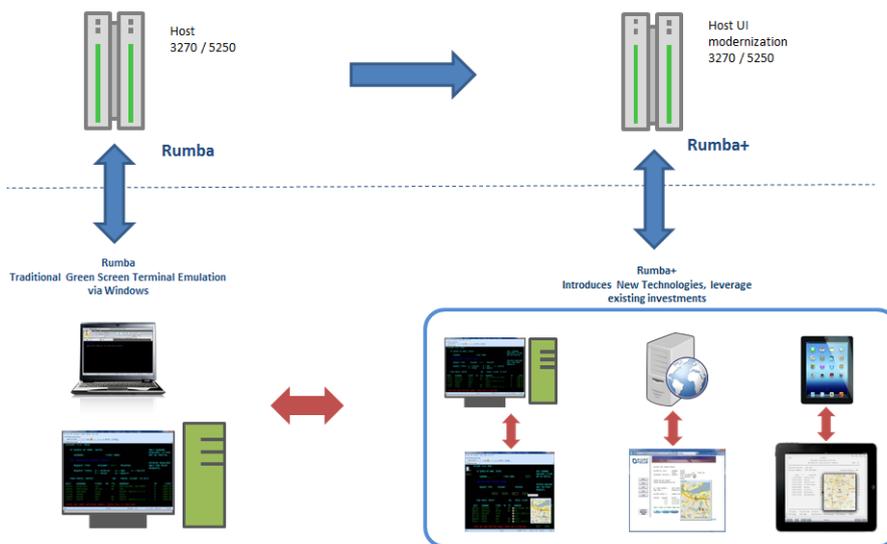

Figure 2: Rumba and Rumba+ capabilities

Simplicity

Complex multiple screens can be sanitized into simpler interfaces to reduce the complexity, time and risk of error for end users. The following table summarizes the range of capabilities designed to simplify the user and business operation.

Core Capability	Functional Specifics	Outcome
Unified Terminal Emulation and UI modernization solution	Supports 3270 and 5250 terminal emulation and UI modernization	Industry standard, with proven mature technology that brings the flexibility and agility of the workstation to the IBM mainframe, or iSeries environment
Intuitive support for new user functions - no need for specialized knowledge	Advanced development tooling to modernize green screens: ❯ Green screen multi-page list scroll down ❯ Field and column manipulation ❯ Automatic chart control ❯ Automatic interface to other apps such as Google Maps, VOIP, etc	No need to train or hire new resources: ❯ Allocate existing IT/developers resources ❯ Quickly modernize host applications by adding simple but familiar usability controls Fast, secure and risk free green screen modernization: ❯ No downtime ❯ No additional requirements
Manageable application changes	Customization of business function display and manipulation can be ad hoc per user, groups of users or entire organizations. Allows a mix of user capability for the same basic application depending on the business needs.	Changes can be implemented at a pace that suits. No 'big bang' approach necessary - therefore no disruption to day-to-day business.
Enhanced User Access	Core applications are now available 24/7 through web, desktop and mobile interfaces, providing greater operational flexibility and access.	Users are more productive with the introduction of mobility, and the merging of business data across multiple platforms.
Integration with third party applications	Ready built library of Drag and Drop controls offers choice to use the latest familiar supporting functions from the world of Google, SaaS, VOIP, etc.	Focused on productivity, easily integrates with applications such as: ❯ Google Maps, for quick display of maps based on addresses returned from host apps ❯ Skype or any VOIP, to call phone numbers with a single click ❯ SaaS CRM solutions, to query data based on content returned by host apps.

Efficiency

Modernizing core applications without having to change the underlying application accelerates vital business improvement. Meanwhile, modern controls provide a more intuitive, efficient interface for users and customers.

Typically, green screen users have to navigate away and switch between multiple screens causing inefficiency and restricting workload. Rumba users have instant access to all the information and applications they need to do their job in one place – access to Google Maps, graphs, tables, calendars, VOIP and more. Such features boost productivity and improve customer service.

Mobility

The enduring value and importance of core applications are now available 24/7 through web, desktop and mobile interfaces, providing greater operational flexibility and access.

Rumba offers a seamless connection between host applications and the latest technologies. With the introduction of Rumba+, organizations have the ability to select Windows, mobile devices and tablets or internet browsers, as clients. Rumba+ helps organizations bridge the technology gap between old so-called 'legacy' systems and modern technology.

Rumba+ Clients	Benefit
Windows	Applications can quickly be modernized to take advantage of the look and feel of Windows applications. Drop-down menus, pick lists, action buttons, integration with other applications including Microsoft Office, Google, VOIP, etc.
Mobility on iPad	Mobility is offered through iPads, transforming older application interfaces in order to take advantage of the productivity and reach of the tablets such as gestures, skins, and much more.
Internet Browsers	Provide legacy applications with the reach of internet browsers. Through using pure green screen interface or by taking advantage of the usability and popularity of the internet browsers, legacy applications can now reach further than ever before.

CONCLUSION

Micro Focus Rumba offers a new, highly effective approach to the core business application modernization journey. It is an alternative that offers organizations the ability to quickly embark on their modernization project, while cutting out risks and eliminating the need for specialized knowledge. Rumba modernizes green screens dynamically, making applications available on a wider range of platforms, adding new user controls where it makes sense, and ultimately providing a level of service delivery to the business which is not achievable with any other form of modernization.

Micro Focus Rumba uniquely and very simply delivers modern application features that take advantage of Windows, the internet and mobile devices, without any application code change or disruption to the end user community. Rumba is simply the fastest and most cost-effective way to achieve business application modernization.

In short, by providing class-leading capabilities to improve simplicity, mobility and efficiency, Rumba helps you get more out of your business applications and your team – the result: improved efficiency, productivity and higher customer satisfaction.

References

[1] "Green screen" refers to host applications that were designed to interact with end users via terminals. The display color on the terminal of these host applications was typically green on black.

[2] Bring Your Own Device refers to a policy allowing employees to bring their personal electronic devices to their workplace to access company information and applications and work from.

[3] Choose Your Own Device refers to policy allowing employees to choose from a selection of company approved devices. This ultimately helps the organization with security and standardization.

[4] Moerschel, Grant, November 2011. Mobile Device Management, Information Week: http://reports.informationweek.com/abstract/18/8484/Mobility-Wireless/research-mobile-device-management.html

[5] Terminal emulator is a software program that enables access to host systems, emulating the display of 3270 / 5250 terminals via other display architecture, Windows being the predominant one.

About Micro Focus

Micro Focus, a member of the FTSE 250, provides innovative software that allows companies to dramatically improve the business value of their enterprise applications. Micro Focus Enterprise Application Modernization, Testing and Management software enables customers' business applications to respond rapidly to market changes and embrace modern architectures with reduced cost and risk.

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