simplisys
SERVICE DESK

Briefing Paper

Back to the Future with PowerShell

Introduction

Integrated Business Systems or a single Business System? Who doesn't want a single business system running the whole enterprise; one software application, one server with resilience built in, reduced running cost etc. etc.? This briefing paper discusses this utopia, its credibility as an objective, its shortcomings and alternative strategies available to IT professionals.

So, what are the issues?

In recent years there has been a trend to look for a single vendor and ideally a single product to cater for all your needs. Software solutions that will do everything from host your in-house intranet, provide a service management system, monitor your IT infrastructure, manage your customer relationships, run accounts, stock control and production, everything.

Some companies have tried this, which has lead, as you would expect, to large monolithic systems with large numbers of bolt on modules being pressed into service to do things that their core design and philosophy was never devised for, from network monitoring tools that try to become a service management solution to Intranet software that takes on the mantle of a document management solution to the Enterprise Resource and Planning (ERP) solution that provides Facilities Management. The common factor here is the tendency of software vendors to try to maximise their products penetration by adding features and functionality outside the core design and raison d'etre of the original software concept.

This in turn leads to software bloat and because the new added functionality was not part of the original design concept, the system becomes something of a monster. Managing the poorly integrated elements becomes a complex mess and security holes abound in the gaps between the added functionality. The end result is a system that does a myriad of things but none of them well, which in turn has an incalculable negative impact on the business!

So what is the alternative? Why do IT professionals chase the one system utopia? It's possibly because the alternative of using different "best of breed" software solutions has historically had its own issues. It is seemingly obvious, commercial software, developed with

specific functionality to address well-defined business needs makes perfect sense, or does it? Traditionally, in the windows world at least, this approach has come with its own problems. Chief amongst these are the issues around data silos and integration. Getting one software product to talk to another, even when from the same vendor, has become a well-documented nightmare with ETL (**Extract, Transform, Load**) solutions becoming the glue that attempts to bind things together by duplicating data in many different data stores.

How will PowerShell help?

What has been missing from the equation until recently is a technology that is powerful enough to provide both automation and data manipulation while at the same time being flexible enough to perform the many tasks involved in stitching together many disparate systems. We say absent until recently but the technology we see as filling the integration gap has been with us since 2006 it has just not been recognised for what it is, a powerful cross application integration and management tool. We refer to PowerShell! [Click to Review Technet](#)

PowerShell performs the tasks that various Unix shells have been doing for many years, it allows scripts to be created that take inputs from one system, perform transform operations on the data and pipe the results out into a second system. With the delivery model of business solutions rapidly becoming a heterogeneous field, with SaaS solutions needing to communicate with on-site Server Hosted infrastructure systems and powerful End User Computing software all playing their part, the challenges in data integration and process flow has become more acute than ever. With an increasing number of modules and APIs accessible to PowerShell from third party applications ranging from Simplisys Service Desk to SAGE to JDE to SAP, PowerShell is becoming the tool of choice for those needing to integrate different systems.

PowerShell goes even further, its native integration with the windows stack, from system features such as Active Directory, IIS management and System Centre integration to its database and Web API connectivity capabilities it has the power to connect to almost any data source. At Simplisys for example, our Service Desk solution uses PowerShell to provide integration to both SCCM and Active Directory allowing key assets and user information to be available from within

our applications. This integration model extends to other third party applications and platforms with PowerShell providing the connectivity to social media platforms such as Twitter.

There are many benefits in leveraging PowerShell to integrate applications as follows:

1. Ability to respond rapidly to changes in requirements while maintaining a consistent interface.
2. Ability to decouple different applications, add new or upgrade existing applications quickly while maintaining a level of integration that allows for seamless operation.
3. Data security, which is provided by the fact that PowerShell sits outside of applications. Linking databases with PowerShell provides a natural security buffer whereby applications are 'air gapped' from each other but remain in close contact.
4. Data transform capability; data sets from very different applications can be presented in incompatible formats and manipulated in PowerShell in a near real time transformation process eliminating the need for expensive, and often slow ETL processes.

Conclusion

Above all, modern business systems need to be configurable and agile enough to cope with changing demands. For many dynamic businesses the adoption of fit for purpose, best of breed solutions that can leverage the features in PowerShell is the way forward. This approach enables businesses to gain the advantages of using systems designed from the ground up to a specific job and do it well while not sacrificing the benefits of tight and timely integration, all without the need for expensive middleware. Moreover changing one system doesn't mean changing the whole infrastructure; PowerShell can connect to the new solution and present its data back to the rest of the infrastructure in a standard format ready for consumption by those other business systems.

Simplisys Ltd the specialist in Service Management.

Simplisys Service Desk is designed, developed and supported by a team of dedicated staff at Simplisys Ltd based in Bristol, England.

Simplisys Ltd is an ISO 9001 registered company and delivers solutions to industry best practice and quality standards. Steve Payton said "Our design philosophy is to maintain leadership in our space by listening to our customer requirements, plotting industry trends and monitoring new and emerging technologies, then creating a software development roadmap that future proofs our solutions".

For more information go to:

http://www.simplisys.co.uk/solutions/it-service-management/

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