And now for something completely different….

Business Information Server – CoolICE Revisited.

For a while now it's been clear that the vanilla "out of the box" Business Information Server offering has been falling behind other industry leaders in a few key areas. It's been starting to look more like a legacy system than a contemporary business architecture and, as a result, it's become increasingly difficult for IT managers to justify further investment and development in BIS. One of those key areas is CoolICE - the web interface for BIS. It is essentially unchanged since its inception in the mid 90's and during that period the web has changed out of all recognition.

Modern IT infrastructure is a many layered thing and that means IT managers have multiple options to consider in their strategy for systems development. BIS is just one aspect of that IT landscape and for it to be the favoured option it has to tick a number of boxes.

New York City are long term BIS users. They like it and it has served them well over the years. They have a very substantial investment in intellectual property and software but there was a problem. For future developments, there was a question mark hanging over whether to use BIS.

Thom Sanderson, IT manager at New York City, takes up the story: -

As with many MAPPER legacy shops in large organizations, we have an established BIS system that is hefty and reliable with tendrils of connection that reach from the Mainframe world to the Oracle and MS-SQL database worlds, with perhaps hundreds of nightly file feeds coming and going from and to disparate departments which in our case stretch across the City of New York. This BIS system had been front-ended with CoolICE, GUI, and legacy "green-screen".

But we are in competition with development shops who, while they envy our connection to the Main Frame, nevertheless have front-ends that are largely .NET and hit all the industry buzz-words head on and whose labour costs are as low as this trade allows. In order to maintain our position as the Organization Leader in all things MIS, we realized we needed to upgrade our front-ending capabilities. But how to do this?

New York City's requirements for the new application were by no means exceptional and may be summarised as: -

1. Modern, flexible, maintainable browser based user interface.
2. Utilise available resources for development.
3. Affordable solution.
4. Timely delivery.

One of the key problems facing users that want to continue development in BIS is the difficulty in finding talented and experienced developers. There are not that many BIS coders about and when you add the additional requirements for CoolICE – HTML and javaScript the pool becomes smaller. Whichever way you cut it, if they were to continue to use BIS/CoolICE New York had to find a way to effectively use their .Net resource.

You want to design, build and maintain a truly modern web application with HTML5 compatibility, complex JavaScript and CSS? Then CoolICE does not jump out at you as the preferred option. BIS data handling and connectivity may be second to none but it's very hard for it to compete with the complex user interfaces developed by the .Net houses and even more difficult to compete with their cost base.

So why is that? The problem, in a nutshell, is that CoolICE and .Net do not co-operate easily. Without getting too technical, the core of the issue can be traced back to Active Server Pages "ASP" a legacy technology from Microsoft - not to be confused with ASP .NET it's better known successor. The link that bridges the gap from the Web to BIS is based on legacy ASP and the problem with ASP and ASP .NET is that they do not talk to each other, at a fundamental level they are different and as ASP does not talk to ASP .Net so CoolICE does not talk to ASP .Net. That essentially leads on to the next problem. Without being able to utilise the extensive available pool of .NET developers you are left with that much rarer breed, the BIS developer and, naturally, scarce resources are more expensive.

Ed White was working at New York City and introduced them to Snug Information Technology and its CEO Jeremy Branscombe. Jeremy has a long history of developing web applications in BIS and ASP .NET and recognised a few years ago that it was time to take a radical new look at how to develop web applications with BIS. Essentially what Snug have done is to bridge the gap between .NET and BIS to enable the two technologies to work seamlessly together

Thom Sanderson again: -

In combination with SNUG, we came up with a solution that allows .NET to communicate via the existing CoolICE object as-is, to get data in and out of MAPPER at a rate that actually exceeds similar transactions to/from MS-SQL and that allows our MAPPER developers to do what they do best: write MAPPER code that encapsulates business needs and that allows .NET coders to do what they do best: write slick front-ends with all the widgets and gadgets that modern users love and upon which they now rely.

This approach takes away the main reservations that IT Managers have to continued development in CoolICE and BIS.

1. Enables easy involvement of IT resources outside of the somewhat closed world of BIS. Being able to utilise those resources directly brings BIS back into the mainstream.
2. Reduces costs by being able to utilise a wider resource pool.
3. Perhaps most importantly this approach preserves existing investment in software and infrastructure whilst offering a "future proof" development avenue. It's not a case of starting again in something else or rewriting existing applications but of leveraging existing expertise in a modern framework. Evolution not revolution. Safer and cheaper.

The modern IT manager has to be multifunctional and able to utilise many diverse tools at need. Business Information Server can be one of those tools, and a very effective tool it is too but the days of a monolithic BIS solution are long gone. BIS must co-exist seamlessly in the contemporary IT landscape and .Net integration is a fundamental part of that requirement.

Postscript – Jeremy Branscombe.

This paper was always planned as a collaborative piece between Ed White and myself. I have known Ed for a number of years but this was the first time we had the opportunity to collaborate on a project. Ed was an enthusiastic supporter of the approach and we were looking forward to publicising it and promoting it across the BIS user base. Sadly, Ed passed away in October 2016 after a short battle with cancer. RIP.

For more information on any of the aspects raised in this paper please contact

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