Why Websphere?

Asking Why

A Discussion of e-business Deployment on iSeries Systems

Business Portals · Business Integration · **WebSphere** · Foundation & Tools
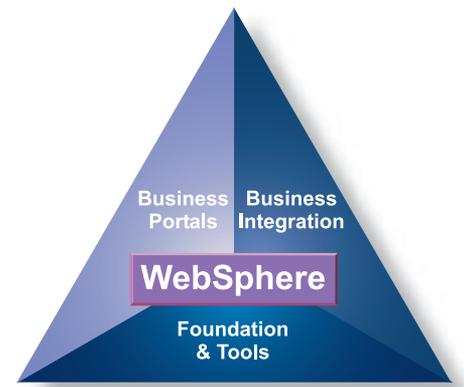
By Doug Fulmer

Before you start down the path toward becoming an on demand e-business, there are several questions that you ought to consider. The answers to these questions will serve as a framework for decisions that you make concerning architecture, application design, software and hardware. At the upcoming TUG Meeting of Members, we will explore these questions in depth, but as a warm-up, keep in mind that the iSeries e-business model is centered around the following key concepts:

Server Centric Application Deployment

- The last 15 years have seen the pendulum swing back and forth from centralized, server centric deployment of character based applications to decentralized, client server deployment of graphical applications and now back toward centralized, server centric deployment of graphical applications in a browser. Server centric application deployment has proven to be much easier to control and administer, and has yielded much more efficient use of corporate I/T resources – both hardware and software.

Thin Client Application Design

- The early days of client server applications leveraged Moore's Law of microprocessor design (processor speeds doubling every 18 months) to move increasing amounts of application function to the desktop and away from the central processors, leaving very little but the database on the server. This "fat" client model led to several serious I/T problems that resulted in higher cost of ownership.

First was the time consuming nature of doing client installs at every desk. Next was the difficulty of keeping application code on all the desktops synchronized. High function client applications resulted in having to replace desktop workstations with increasing frequency in order to provide enough megahertz to run the new applications. And then these high powered desktop systems sat idle for much of the working day. As a result of these as well as other factors, the focus has now changed back to "thin" client design where applications are executed on the server with no desktop install, less frequent desktop system replacement and easier management of applications and performance. Server centric deployment of applications also leads to more effective use of the I/T department's computer resources and reduces the cost of administration significantly.

Client Neutral User Interface - The early days of the Client Server movement were focused on Microsoft and its Windows technologies. As a result, applications tended to end up using a high function form based Windows GUI that only worked from a Windows desktop. In today's world, applications need to be able to be accessed by users with Windows, Linux, MacOS and other desktops. The browser becomes the client neutral visualization of those applications. It is available across every major operating system and hardware platform and can be utilized by end users attached via intranet, extranet or Internet.

Graphical User Interfaces - Not every application requires a graphical user interface (GUI). In some cases (typically heavy data entry), a GUI may even slow the end user down and result in lost productivity.

But today's end user has come to expect application visualization that is mouse driven, colorful and graphical - characterized by menus, scroll and tool bars and a windowed presentation on the desktop. Many applications today contain streaming audio/video or other graphical content that requires a GUI.

Open, standards based network connectivity - The days of proprietary, SNA direct cable connected devices (5250, 3270, VTxxx) are largely over. Most desktops today are connected via high speed local or wide area networks. These networks utilize industry standard TCP/IP communications and offer ever increasing bandwidth for today's graphical application content. Workstations tend to be connected via industry standard Ethernet hardware adapters, whether they are Windows/ Intel, Linux or Apple Mac. Today's world of e-business is a wireless one in which the devices of choice for many end users are Personal Digital Assistants and cellular phones.

Availability via the World Wide Web - Today's work force is an increasingly mobile one. It is distributed across the city, county, country and globe as the economies of the world become increasingly interconnected. The Internet has emerged from the exclusive use of academic and government organizations to the most widely used network connection of employees and consumers all over the world. Uniform Resource Locators (URLs) are used by browser based end users to connect to educational, governmental and corporate resources of every kind from every conceivable location.

Now for those questions:

Why the World Wide Web?

It seems to some too obvious a question, ... but many companies are still justifying the reasons to expand their business applications to the World Wide Web. Thousands of businesses reap the benefits of the Web every day. For some of those who are still evaluating the move to the Web, the benefits may not be as clear.

Why WebSphere?

It is legitimate to ask yourself why you should invest in IBM's premier technologies for creating the on demand e-business applications of the 21st century. The WebSphere family is conveniently divided into three categories of products:

• *Foundation and Tools* - A high quality foundation to rapidly build and deploy applications for high-performance e-business on demand
• *Business Portals* - Enhance customer, partner, employee and supplier user experiences for optimal satisfaction
• *Business Integration* - Integrate applications & automate business processes for operational efficiencies & business flexibility

Each of these product categories generate their own sets of question that must be considered.

Why WebSphere on iSeries?

Having made a decision that the Web is the place you want to be and that WebSphere has the infrastructure and tools to get you there, and that IBM has the resources to help you be successful with WebSphere, the remaining question is, "Why would I choose the iSeries to deploy WebSphere and my e-business applications? What makes the iSeries the server of choice for deployment of the most critical parts of my application portfolio?"

Even if you plan to deploy simple WebSphere-based applications today, it is easy to envision a future that includes a robust, mission-critical suite of e-business applications and services that leverage more robust technologies, such as Enterprise JavaBeans, Web Services, and messaging, and that require greater scalability, higher availability and reliability, tighter security, and lower overall cost of ownership. The iSeries platform is positioned to help customers start building their e-business infrastructure today as well as to meet the tougher demands in the future. There are many compelling reasons for choosing the iSeries platform.

Why Java and J2EE?

A fundamental part of moving to WebSphere on iSeries is the cultivation of skills in the areas of Java programming and J2EE application design which are widely used in the design and creation of Web deployed applications. It is fair to ask, "What is the benefit to me of moving to Java and J2EE?"

Summary

Not every iSeries customer needs to invest in the Internet. Not every customer or ISV that invests in the Internet will choose to use Java and J2EE design concepts to leverage the Internet and its resources. Not every customer that chooses to leverage Java and the Internet will select an IBM iSeries as their platform of choice. But let there be no doubt whatsoever that the IBM iSeries server is a premier platform for creating and deploying J2EE compliant open architecture applications for the world of e-business both today and in the future. It is an outstanding platform for extending existing applications as well as creating new applications. And it is in synch with the IBM eServer initiatives for open, standards based computing.

Invitation

Join me at the next TUG Meeting on November 19th, where I will be presenting the answers to these and other compelling questions regarding the deployment of WebSphere on the iSeries. *Note: This article is an excerpt from a more comprehensive white paper, which can be read in its entirety on the TUG Website (www.tug.ca).*

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The 5th Wave — By Rich Tennant
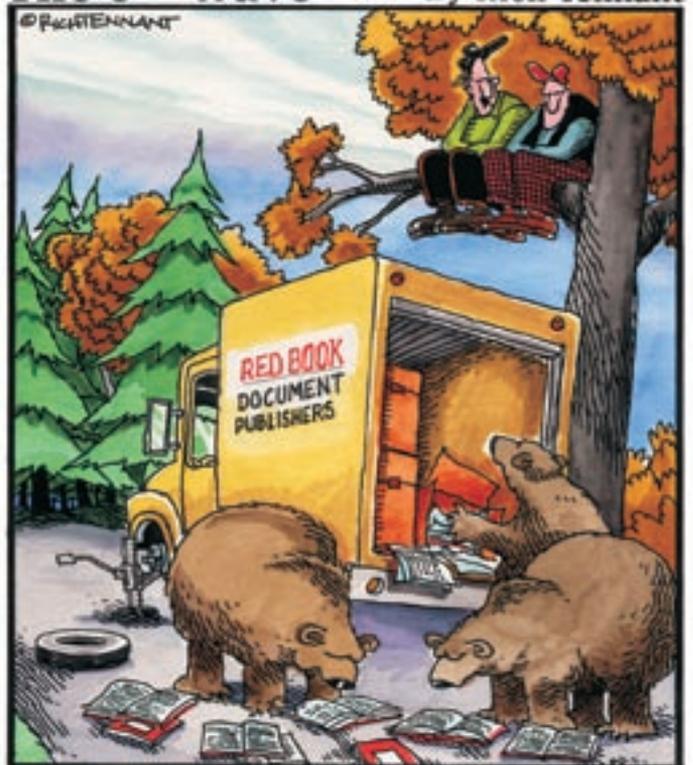
"They're moving on to the WEBSPHERE section. That should daze and confuse them enough for us to finish changing the tire."

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