



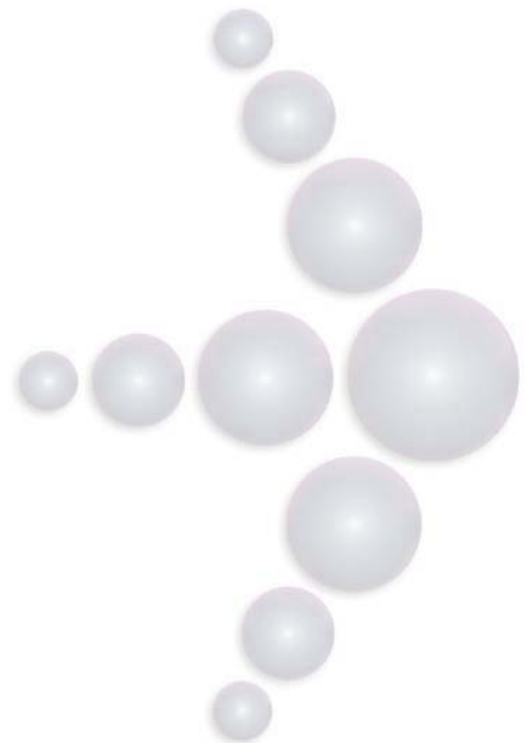
Web-based Applications vs. Traditional Software

Technical White Paper

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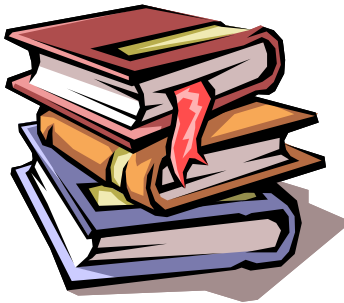


May 1, 2003

Web-based Applications vs. Traditional Software:

“Many people think that web-based application development is only used for Internet applications.”

With what is referred to in the current decade as “Traditional Software Development” there are a few benefits but a number of disadvantages that will be discussed in this paper.



Overview

When executives think of software development, they immediately think of the common desktop applications they have installed on their computer. The word “install” has its own basket of horrifying goodies that commonly goes along with it. With what is referred to in the current decade as “Traditional Software Development” there are a few benefits but a number of disadvantages that will be discussed in this paper. It will be shown how web-based application development can save your company time and money even if the initial cost may seem hard to swallow.

Traditional Software Development

Most of the software that people use on their computers today falls into this rather large category of traditional software. Word processors, spreadsheets and many of the custom software products that have been written to solve company specific problems are generally installed on the computer that they will be used on.

This installation process needs to take into account the operating system that the computer is using, how much available disk space the computer has, which version of the software is being installed and whether or not there are any compatibility issues with other software that is already installed on the computer.

Recently this arduous process has been made simpler by vendors adding “auto-update” functionality to their products. When you run an application on your computer, the first thing it does is try and connect, over the internet, to the vendor’s site to see if there is a new version of the application available. If there is, you are given the option to automatically download and install the upgrade. For people with broadband internet connections, this is a really nice feature. There are, however, some security concerns with all this “automatic” stuff that is going on behind the scenes.



There are some advantages to traditional software. One of the most important is that the developer can take full advantage of the capability of the operating system.

There are some advantages to traditional software. One of the most important is that the developer can take full advantage of the capability of the operating system. The most common use of this feature is accessing files on the user’s computer. Many applications load/save files directly on the computer they are being run on. Some even store configuration information or user preferences in special files.

In general though, almost all applications can be summed up with a simple sentence. Computer software allows the user to create and modify information with an intuitive user interface, store the information for later retrieval and produce reports on that information. It does not get much more complicated than that.

Really, if you think about it, most of the other things that software does are just bells and whistles. That is not to say that some of those bells or whistles are not required to make the application useful to the user. In fact, there will likely always be some applications that are best suited to be traditional software applications. It is all the other ones that we are here to talk about right now.

Web-based Application Development

Enter a new era in software. Ok, well it is not really that new. At the time of writing this paper, people have been developing web-based applications for at least 6 or 7 years. Before that, there were some developers creating “dynamic” websites with richer content that was being retrieved from databases and such. Technically they could be classified as applications, but they were really just impressive websites.

The most important thing to understand about web-based application development is that it does not have to have anything at all to do with the Internet.



The most important thing to understand about web-based application development is that it does not have to have anything at all to do with the Internet. If your system administrator can set up a web server on your local area network (LAN) then you can have web-based applications produced that are accessible by everyone on the LAN that is allowed to access them. If your company is larger with multiple locations around the world, the same applications can be available across the corporate wide-area network (WAN). Yes, obviously if you want to make your application, or parts of it, available to the entire world, then you can allow the application to be available on the Internet.

How do Web-based applications work?

Web based applications are kind of like an interactive website on steroids. The user interface of the application is composed of web pages. Each web page, like the screens of traditional applications, presents information to the user. The information normally comes from a database server and the user can view, modify or delete the information they have access to. Valid changes are saved back to the database and the user can continue working.

Really, the only major noticeable difference between a web-based application and a traditional application is that

on a traditional application, many things can happen on the screen that the user is working with. On a web-based application, one web page performs one task and the user will be taken to another web page to do the next task. Although this may sound awkward, it actually turns out to be much more intuitive to the user. They are always working with only the information they need to. All other extraneous information is not displayed.



When an individual in the company needs to use the application, they are given their access information and they just pull up the web browser on their computer and start working.

Ok, why web-based application development?

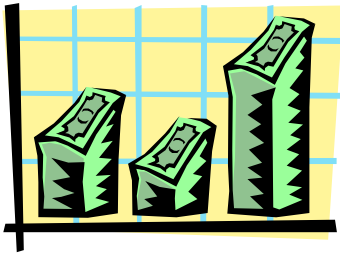
There are many excellent reasons to produce web-based applications. One of the most obvious, once you understand how web-based applications work, is the simplicity of deployment and lack of headaches for the IT department. Because the application is hosted on a web server and not installed on everyone's computer, there is only one place to repair or upgrade should the need arise. Once the application is deployed on the server, it is instantly available to the entire company on their network.

When an individual in the company needs to use the application, they are given their access information and they just pull up the web browser on their computer and start working. There is no installation required. If a user's computer breaks down, or they need to work off-site, there are no complications as long as they have access to the network.

A company's IT personnel are able to spend their time working on important system upgrades and regular maintenance rather than running around the building installing applications on peoples computers. This helps to keep a company's IT infrastructure running smoothly and efficiently which will no doubt affect the bottom line.

There are some major advantages during the development and later upgrading of web-based applications. Most applications have distinct areas of functionality. Because of the nature of web-based applications, these distinct areas can be completed and rolled out in phases. From the user's perspective, they are working with the application and all of a sudden there are more features available. If the applications are built properly, there is no downtime when new functionality is added. It just happens magically behind the scenes.

Depending on the nature of the application and whether or not it is suited for a web-based application; the cost of development can be lower than that of traditional software.



Common pieces of functionality can be easily shared amongst different applications, even across servers and physical locations. For example, a head office in Calgary can host the main financial aspects of the application while a plant in Edmonton can host the manufacturing aspects of the application. One web page can pull information from any number of different sources. That information can be edited by the user and then posted to another corporate server to be stored and produce reports. Actually, the possibilities are endless.

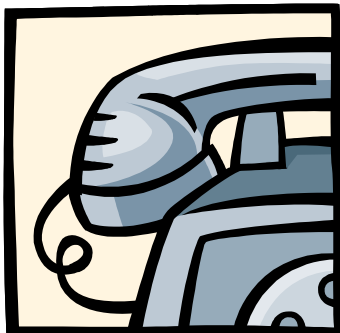
What about cost?

Depending on the nature of the application and whether or not it is suited for a web-based application, the cost of development can be lower than that of traditional software. The ability to share common functionality across applications can make the cost of company-wide development significantly lower. The time it takes to develop web-based applications is often much shorter than traditional software. If the project is a complete rewrite of an existing traditional application, the cost MAY be very low due to the fact that the database might be able to be reused with very little modification. If stored procedures were used in the original software then that can save significant time and money.

Where do we go from here?

Simple, give DKTek Software Corporation a call and let us meet with you to go over your existing infrastructure. We can let you know how well you're set up for web-based applications and even review the existing applications that your company uses day in and day out. We will be honest in talking to you about what applications are suitable to be re-written and how much it will likely cost to perform the work. We may even be able to suggest areas of the existing applications that could be upgraded without having to do a major re-write of the entire application. In some cases there are only a few people that use the main functionality of the application, but there are many that need to view reports or other summary information.

Let our experience with web-based technologies help you improve your company and save you money.



Let our experience with web-based technologies help you improve your company and save you money. Give us a call today.

Contact Us

If you would like more information on web-based application development or any other product or service offered by DKTek Software Corporation, visit our website at www.dktek.com or call us at: (403) 703-9853.