

The Evolution of the AEC Application Service Provider or Utility Company?

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Theoretically Speaking

Imagine receiving an invoice each month for using Microsoft Office. For example on the first of the month you would receive a bill very similar to your electricity or water bill, only it would be for software. This bill would say that you used Outlook 175 times, Word 50 times, Excel 30 times, and PowerPoint five times. Your grand total for the month will cost you \$16.48. At first this may seem outrageous, but no one questions this age-old method of pay as you go and being charged for what you use when it comes to electricity or water. We just assume because the lights work all month we will pay the bill without much fuss.

Software as Most of Us Know It

To get a better idea of how this may become a reality we have to take a look at the general evolution of how you buy software. Without dipping into the history of mainframe computing, for the last 20 years most of us have purchased software over the counter, via mail order, online, or even online with an instant download. Each of these methods has generally resulted in making a lump sum transaction and in turn receiving software that we must install, manage, support, and upgrade. This model has been popular since the birth of the personal computer and the first spreadsheet program. We could buy additional support or service, but for the most part we received a floppy disk or CD and were sent off with an installation manual to figure out how it works. This is generally referred to as a perpetual license, which is sometimes a big headache.

The Impact of the Internet

When the Internet exploded in the 1990's, thanks to HTML and a user friendly way to look at information on the World Wide Web, a new method of buying software emerged called the application service provider (ASP). We were now able to buy the software and some combination of systems, which we could access via the Internet and a browser. In addition to paying a vendor to use their software, we were able to pay them for use of their information technology (IT) resources and have them manage the unseen and often troublesome backend systems.

Prior to the Internet boom in the mid 1990's there were ways to access software via the Internet, but the user friendly Web browser and related technologies triggered a new generation of software vendors that was welcome to the migratory architecture, engineering, construction (AEC) industry. Of course there was also software that we could manage on our own and access via the Internet, but it was the single subscription fee for the combination of software, service, and deployment that defined the ASP of the 1990's.

The ASP Dilemma

Whether we are simplifying accounting, forecasting, and jobsite billing or leveraging resources, system management, and the ability to accommodate migratory construction teams, the ASP of the 1990's has proven itself to be useful for many companies. The dilemma is that the ASP industry has been primarily comprised of vendor specific point solutions. For example, you can buy project management, scheduling, document management, accounting, and customer-relationship management software from a number of different ASP's. What you can't do is buy them all from one vendor.

Many software developers are trying to expand their core products to do everything, but the bottomline is we all want to choose the point solutions we like the best and have in most cases standardized on in our organizations. With the ASP model of the 1990's the result is we

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end up with five Website addresses and multiple usernames and passwords to gain access to various applications. We also get multiple support numbers, contracts, invoices, and headaches.

Redmond leads the way with the ASPLA

Within the last few years, Microsoft has rolled out a program called the application service provider license agreement (ASPLA). In a nutshell this program enables partners to resell applications like Microsoft Office in the subscription model made popular by the vendor specific ASP's that are common today. The ASPLA program extends beyond the desktop applications to include operating systems, database servers, and many other unseen parts of software systems that we use in our every day lives. This has triggered the next phase of the evolution of the ASP or "open ASP" where we will begin to see multiple applications from different vendors rolled into single ASP solutions.

The AEC software industry is catching on as heavyweights begin to offer similar Service Provider Network programs. As the construction community adopts this change, the model will enable a new breed of ASP's to focus on service instead of developing software. In turn the traditional software developer can focus on core functionality and better-engineered software instead of service and systems. The ultimate end user may some day be able to pay a single monthly fee for project management, scheduling, accounting, CRM, office and email software of their choice. They will be able to access it all via the Internet with a Web browser and have little or no system management and billing headaches.

The New Software Utility Company

Now let's get back to my opening statement about buying software as a utility. As the users, developers, and ASP's evolve so will the way we pay. We have gone from a lump sum purchase to renting one application, to renting many applications. Now we are headed toward renting systems on a subscription model and the next step may be to pay by metered usage leveraging economies of scale much like we do with electricity or water—essentially on a grid. The systems that provide this utility will be accessible via the Internet and likely managed by the new face of ASP's. This emerging group of companies may act much like your current energy provider powering your home with various value added service options. One day all of our double-clicks may lead back to Silicone Valley.

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