



*What will the software industry look like in 3, 5, even 10 years from now?*

Cloud computing in combination with web technologies will change and define the software industry during the next 3-10 years. During this time most client-server applications will be replaced by those with a web-based user interface in order to simplify deployment and management of applications. Web development platforms will allow for rapid customization and integration of cloud-based applications. Some of these applications will be deployed on internal clouds, some will be deployed on external clouds, and some will be offered as a service (SaaS) requiring nothing except a browser.

Applications with less complexity and standard implementation processes will be predominately offered as SaaS. Complex applications with rigorous integration requirements and multiple customization settings will remain a mix between SaaS, on-premise, and hosted deployments. Regardless of the deployment model, web-based and cloud technologies will allow software customers to obtain a rich set of software applications that can operated independently of the type of device and the location of access.

*And what customer demands and business trends will drive changes in software products, how they're developed, and the industry that provides them?*

These trends will be driven primarily from competition and globalization. The Cloud will help businesses lower hardware costs and enable rapid scaling of infrastructure so businesses can quickly adapt to market changes. By using the cloud in combination with web-based technologies, companies can react to global market changes because the web allows access to

software applications from anywhere. For example, a company experiencing increasing demand in a new location can deploy solutions to new offices and warehouses in a matter of minutes. Once deployed with appropriate security permissions, remote employees and processes can immediately access core data and business processes. For sales, this delivers the ability to collaborate on customer accounts. For operations, this delivers a global view of inventory and resources. For finance and management, this delivers a global view of results and financials. But most importantly, all organizations can work together.

Companies using legacy client-server solutions will lose their competitive edge because they will have to spend more time updating and maintaining software on end-user machines. This will be especially true in cases where employees are isolated in remote offices and home offices. When using a web-application, real-time data, reports, dashboards, and approvals can be granted instantly using only a browser.

The proliferation of different access devices and platforms also plays a role in the adoption of cloud and web. The need for cross-platform compatibility is forcing companies to move to web-based architectures with device independent user interfaces. Software development companies that rely on client-server architectures will find it difficult to move quickly and maintain low costs because separate client software will be required for the large proliferation of user devices. A web-based software company will be able to maintain one set of developers while a client-server company will have to maintain PC developers and handheld device developers on multiple platforms.

Customers will have the option to self-select among different deployment models offered by cloud and web solutions. Customers with knowledgeable IT departments, spare IT resources, or excess server capacity can purchase a software license and choose between an on-premise or hosted deployment. Customers with few IT resources and little infrastructure will save money by purchasing their software as a service (SaaS). To accommodate these different delivery models, successful software vendors will have to make their solution available through these different methods. Some software companies may offer both solutions themselves, but others will outsource the operational aspects of SaaS to solution providers. Successful companies will allow customers to switch between SaaS and on-premise deployments so customers can save money and meet compliance requirements - even if their needs change.

The changes brought about by cloud computing and web architectures will be positive for the software industry in terms of meeting customer requirements and demands. In addition, the Cloud will help companies deliver SaaS offerings quickly by taking advantage of the scalability. Successful applications and add-ons can expand globally while non-popular applications can be

quickly eliminated so resources can be repurposed.

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