



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

I can address the enterprise software space.

There is no question that SaaS, or the Cloud delivery model, will continue to grow as the preferred way to deliver business software applications. Point solution vendors such as Salesforce.com, SuccessFactors and NetSuite have led the way. It is inevitable that deep, vertical full-suite SaaS solutions will gain widespread adoption.

ERP Forecast

We see a changing of the guard in ERP. The major companies when I began my career were Cullinet, Walker, Dun&Bradstreet and McCormick & Dodge. Those mainframe players were replaced by a large number of client-server vendors. Many of the famous companies of the 80's and 90's have already disappeared into the abyss at Infor.

Many of today's ERP brands will not survive. The chasm is too deep and wide for them to get to a true and sustainable SaaS business model and technology.

As I see it, technology will be the least of their problems. Subscription pricing, SAS-70, Service Level Agreements and agile development will do them in.

More vendors of scale will likely offer deep and wide solutions to specific vertical markets. Generic ERP that must be heavily modified for each industry will give way to comprehensive, purpose-built offerings meeting the needs of users in a given market.

Community-Driven Development

This scenario will drive another macro trend - community-driven development.

Users of SaaS-based, industry-specific solutions will have more input as to the features that go into the software product. In turn, the vendor will build those features into the core product much more rapidly and offer them to the entire user community. This signals the end of customization and of software that becomes frozen in time due to the painful upgrade process of traditional software.

I also see the rise of continuous application improvement, in which the vendor develops and delivers new features every day, in a manner by which the customer "opts in" to activate them.

Finally, the ability to configure (or tailor) a solution without touching the underlying program code will continue in the decades ahead, as well a vendor's willingness to develop new functionality for an individual customer. The goal will be to keep all customers on the same, continually refreshed version of the software.

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

Compliance

Stricter regulations in the US food and beverage industry will drive a new class of technology solutions for processors.

An example is new legislation from the Food and Drug Administration (FDA) and Department of Agriculture (USDA) such as the Hazard Analysis Critical Control Point or HACCP. HACCP is mandatory for juice and meat products and voluntary for other food products. The Food Safety Modernization Act will increase oversight and impose further mandates for inspections and recordkeeping.

Given these compliance changes, web-based systems will become a game-changer. With the applications and database in the cloud, partners from the farmer, the rancher and fisherman to the retailer and even the consumer can update and access data as required to meet safety and quality tracking mandates.

We see a trend where even small growers and processors can be given access that requires only a web browser - no applications to install or maintain on their local device. This new generation of software for food processors combines traditional ERP functions with recipe and production management, supply chain management and quality and compliance.

In the years ahead, cloud-based information management will be a key tool for bringing smaller, distant, and foreign supply chain partners into the process to maintain a comprehensive record of all food ingredients, batch identification, test results, environmental factors, and usage throughout the life of the materials and products.

Similar technologies will help doctors, pharmacies and consumers determine whether their medications are authentic or counterfeit.

MOBILITY

We at Plex Systems anticipate a continued focus on making software applications available on whatever device is appropriate for the task - handhelds, tablets, thin client terminals or whatever makes sense - and to make full use of the onboard scanners, cameras, GPSs and so on.

This means vendors will develop applications so workers in factories can use wireless handheld devices to record production, scrap and inventory movements in real time. Tablets will be very useful for workers on the move in manufacturing facilities for preventive maintenance, tool tracking, and a variety of other functions where mobility is important.

For example, the mobile development platform could enable users to move inventory via GPS coordinates. At the executive level, performance and production metrics can be accessed "on the fly" via mobile devices and they can approve orders from wherever they may be. At the operational level, alerts on production problems might be useful for operations personnel.

Leveraging the multimedia aspects of a mobile device allows a quality inspector, for example, to take a picture of a bad part, create problem resolution request and automatically notify the suppliers, all from the mobile device.

SOCIAL MEDIA

Social media is changing the world for companies of all types - manufacturers, software vendors, anyone with a "brand" in which they have invested. Today, disgruntled customers or hostile competitors can create real problems if the vendor is not engaged.

As we look into the future, real time Tweets, Facebook postings or other social media updates will let vendors know about a dissatisfied customer immediately. They can then act on the information as an opportunity to reconnect and improve the relationship. Often, customers are unhappy when they feel disconnected from the vendor and are not up to date on recent offerings and developments. In the future the connection between vendor and customer will grow stronger via social media.

The real-time nature of social media also plays a role in providing integrated plant floor reporting via status updates via Twitter or other services. We see this trend continuing.

Tracking real-time data is ideal for creating awareness, which enables intelligent, effective use of resources. This is an important trend that facilitates an environment that encourages accountability and transparency.

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