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## The Google Enterprise Fabric

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In the last half of 2009, Google has been operating like a medieval wool mill. The basic technology works, and the mill operators have been focusing on increasing production. But Google is a 21<sup>st</sup> century company. What few of its competitors and customers have realized is that Google is now in production mode.

What evidence do I have that Google has shifted from applied engineering to output from its information factory? Consider these announcements:

ITEM: Los Angeles signed up to run its email and word processing via Google Apps.

ITEM: The Google Search Appliance now speaks “tweet”; that is, search results from content processed by the GSA can contain real-time content from the Twitter.com feed.

ITEM: Google Apps now interact with Google Groups. From a technical point of view, this is a modest change. From the Google Apps user in an enterprise, a new collaborative option is available to exercise.

ITEM: Google supports Outlook with Google Apps for email, calendar, and contacts. Not much more than a connector but an interesting development for Microsoft.

ITEM: Google rolled out a connector for the BlackBerry Enterprise Server. Gmail gains more utility for users of the popular Research in Motion devices which are standard equipment on Wall Street and in the US government.

ITEM: Google Translate can now be hooked into enterprise applications via a Google applications programming interface. Star Trek’s communicator seems poised to dock in organizations worldwide.

If we step back, Google’s recent announcements beg a question: “What is Google’s intent?”

The easy answer is that Google wants a great piece of the enterprise market. On the surface, the notion that a Web search and online advertising company can challenge the likes of IBM, Microsoft, Oracle, SAP, SAS, and dozens of other established vendors is silly. One person told me after one of my Google technology lectures: “Google is a bit like Don Quixote, charging at the windmills owned by some of the biggest, most entrenched, and powerful vendors in the world.” I don’t agree, and that sense of an upstart going after the likes of IBM or Oracle as futile or just plain crazy is held by some. I have a letter written by a senior IBM executive a year ago that told me in no uncertain terms that IBM knows plenty about Google. The implication was that Google was no threat to Big Blue.

A more informed response might relate Google's actions to the growing interest in cloud computing. The new buzzword is old wine in plastic bottles in my opinion. But the phrase "cloud computing" now evokes some powerful associations. These range from the popularity of browser-based access to information to cost reduction. If information technology is "out there" in the cloud, then the system professionals "here" in the firm's data center might be put on a slenderizing regimen. Employees are more difficult to manage than vendors locked down with a Service Level Agreement. Google is a cloud operation, and the company's push into the enterprise can be viewed as nothing more than a logical extension of Google's core business. Instead of advertisers and Web surfers, Google aims to serve employees of organizations. The cherry on the ice cream sundae is that the brutal license and support fees may be reduced or eliminated in certain situations.

The view my analyses of Google support is that Google is positioning itself to be the framework for business. Let me explain what this means. First, the push into the enterprise is a part of a larger initiative. The Google technology platform scales. As a result, there are significant economies that result from more than a decade of investment in the Google next-generation computing platform. The push into the enterprise with the items I mentioned at the outset of this column boil down to several strategic issues.

First, Google operates a more homogeneous software and applications delivery network than most of its competitors. The payoff is that Google can hook together different components quickly and economically. The new announcements are little more than applets despite their sophistication. The key point is that Google can deploy new features and services quickly and at a lower incremental cost than some firms. Consider the expense of moving an organization employees from Windows XP to Windows 7 and then migrating legacy SharePoint servers to the 2010 version. Google does not impose that burden on its customers nor does its approach to software trigger these massive efforts.

Second, Google has the magnetism of its ubiquity among the post 1994 cohort. There are some recent college graduates who want to bring Google solutions into their employers' organizations. Over time, Google will ride this demographic bulge into enterprise information technology organizations despite the push back from the incumbent vendors. Because of its subsidizing business model, Google is in no hurry to generate enterprise revenues. As a result, the company just needs to move with measured steps. The Google approach seems to be "why hurry". Google's reluctant bride approach exerts market pressure because competitors don't know what Google will do next.

Finally, the economic climate is forcing organizations to rethink the hockey stick costs that some enterprise software vendors impose on their licensees. One CMS vendor finds itself in hot water with a US government agency because of the cost of a system and the lengthy deployment time. The issue is a result of the system's not performing to the requirements in the statement of work. Enterprises want software that works. As important is the need to get solutions deployed that do not require continuous difficult-to-predict maintenance as well as customization services work. The appeal of a Google-like solution is easing the migraines that traditional enterprise software vendors trigger in some of their corporate clients.

Viewed from this perspective, Google's push into the enterprise is going to be increasingly disruptive. Let's look at two examples and then try to glimpse the future Google may be crafting.

Google Maps have become synonymous with next-generation applications. In the enterprise with a field sales force, I see increasing evidence that mobile devices that can display Google Maps and other Google information are becoming more commonplace. Apple made an effort to thwart some of Google's telephony services but Google continues to gain ground in providing mobile employees with useful information. The ability to access enterpriser content from a mobile device, regardless of telephone company or device manufacturer, means bottom up pressure from employees. Enterprise vendors have traditionally operated from the top down. The bottom up approach with Google Maps is a new competitive threat for incumbent enterprise software vendors. I don't know how these large vendors are going to deal with a revolution from grassroots.

Next, the Google Wave technology is a moving target. As I write this, Google Wave is a combination of email, search, and communications. Google has made some of the code available to anyone under an open source license. Most of the demonstrations of the Wave technology are similar to laboratory experiments. A popular legal podcast called This Week in Law uses Wave to give listeners a real time dataspace to exchange ideas. Over time, Google Wave could morph into a complement to Google Apps and Google mobile services. The impact of waves is visible over time. That's how Google Wave may work—eroding IBM's Lotus Notes and Microsoft's SharePoint a molecule at a time.

Looking forward to 2010, Google seems to be content with intermittent disruption. The idea is that each product or service perturbs the existing ecosystem of enterprise software. The consequences of disruption are tough to predict. But when cracks appear, those clever enough to spot them can exert more pressure. Like the wave analogy, cracking the foundation can cause change. At first, there is not much risk of collapse. As the months and year pass, the instability of the foundation increases. At some point, the structure built on that foundation can give way.

In 2010, I anticipate Google's causing some established enterprise software vendors to experience a collapse. The vendor won't go out of business. But some of the markets on which those incumbents depend may undergo a shift. Google may be the beneficiary of its strategy of disruption. The established enterprise software vendors are in the same precarious position as residents of San Francisco. The big one is coming. No one knows when. But it is coming.

Stephen E. Arnold, [www.arnoldit.com](http://www.arnoldit.com)

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