

Under the Buzz

Commentary on Business Strategy for Tech Company Executives

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Under the Buzz is an email "viewsletter" published by Philip Lay, managing director at TCG Advisors, a Silicon Valley-based firm that helps executive teams in tech companies to deal with complex strategic, organizational, and operational challenges. Now in its eleventh year, this journal is published periodically and delivered free to subscribers via email on an opt-in basis. It is also posted on TCG Advisors' website, <http://www.tcg-advisors.com/Library/utb/utb.htm>, where back issues are also available.

Thoughts on Critical Leadership Qualities...

"...There is no such thing as the perfect leader... In any great leadership team you find at least four personalities, and you never find all four in a single person... You need a strategist or visionary, who sets the goals for where the organization needs to go... You have to have the classic manager – somebody who takes care of the organization, making sure that everybody knows what they need to do, that tasks are broken up into manageable action... You need a champion for the customer to translate your product into something that customers are going to pay for, who empathizes with and understands how customers will see it. ... Lastly, you need the enforcer, who says "We've stared at this issue enough. We're going to make a decision and deal with whatever conflict we have. ... You very rarely find more than two of those personalities in one person."

Paul Maritz, CEO of VMware interviewed in the NY Times, Sun. 10/03/10

"...The discipline I believe in so strongly is HR, and it's typically the last discipline that gets funded. Marketing, manufacturing – all these things are important. But more often than not, the head of HR does not have a seat at the table. Big mistake. ...I would say one of the underlying strengths of a great leader and a great CEO – not all the time but when appropriate – is to demonstrate vulnerability, because that will bring people closer to you and show people your human side."

- Howard Schultz, CEO of Starbucks interviewed in the NY Times, Sun. 10/10/10

The Future of Enterprise IT – The New Stack

Wrong! In the March issue of this publication, I wrote about a "new" version of the enterprise IT stack that some industry and securities analysts have referred to as the "Datacenter" Stack. This new definition is intended to combine key elements of traditional mainframe and client-server computing with elements of cloud computing. One key thrust of my article was to offer an assessment of which vendors currently "occupy" most layers, and therefore have the greatest chance of providing a consolidated set of offerings to their customers, as the recent M&A race gathers steam in coming months. The list I arrived at was headed by IBM, with coherent offerings in ten out of the twelve layers, followed by Oracle in nine, Microsoft in eight, HP and the Cisco/VMware/EMC alliance each occupying seven layers out of the twelve (*).

As it turned out, this article ignited a debate among certain clients and friends of the firm, which in turn provoked an intense discussion among all six partners in our firm at our quarterly offsite two months later, in June. The debate was further intensified by the conclusions contained in the lead article in the same issue, titled “Global Systems Companies - Changing of the Guard”. The main gist of this piece was the assertion that IBM, Oracle, and Cisco are now the lead candidates to be the top three global systems providers to enterprise and government customers. HP, a current incumbent for one of these positions, might find this idea hard to swallow, as to a lesser degree might the management teams at Microsoft, SAP, Dell, and EMC, but that was my conclusion. By the end we reached a different conclusion regarding the stack - instead of one evolving stack containing a mix of new and old product/service categories, we now believe that there are in fact *two distinct stacks*, one that is consolidating more rapidly than ever, and a newer stack that is emerging just about as rapidly as the other is consolidating.

We decided to find names that were more suggestive of the main “themes” of each stack. The result was that we named the maturing and consolidating one the “Systems of Record” (SOR) stack, since it mainly represents customer investments in transactional computing (OLTP and the like). Our name for the emerging stack was “Systems of Engagement” (SOE), since this is largely about on-demand, real-time, communications-based computing, “engagement” being the operative word to convey the immediacy and real-time nature of the new categories in each layer. Although many of the categories in this stack have been developing for some time, it is the divergent experience that consumers have had in recent times with technology via mobile devices such as the iPhone and iPod or online e-commerce versus the relative misery that employees have been experiencing with their rigid enterprise IT systems that, more than any other direct influence, helps to explain the accelerated urgency today around Systems of Engagement among enterprise and government CIOs.

To make it easy to contrast the two stacks, they are outlined side-by-side in the chart below.

Two Different Trajectories

Systems of Record Stack

Consulting Services
Desktop Environment
Transaction Applications
Business Intelligence
Document-based Communications
Web Application Infrastructure
Systems Management Infrastructure
Database
Operating System

Mainframes
Servers
Storage Systems
Network
Microprocessors

Systems of Engagement Stack

Adoption Services
Mobile Clients
Interaction Applications
Real-Time Analytics
Live-Session Communications
Mobile Application Infrastructure
Public/Private Cloud Management
Distributed Data Grids
Platform as a Service

Infrastructure as a Service

Voice/Data/Video Network
Microprocessors

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Now let's contrast the dynamics that are driving the two stacks.

The Systems of Record Stack (SOR) – Not Growing, But Not Going Away

This venerable 40 year-old stack consists, from top to bottom, of the following layers, with the historically prominent players in parentheses :

- In *Business Applications*, there are 1) Consulting Services (Accenture & PWC/IBM), 2) Desktop Environment (Microsoft), 3) Transactional Applications (SAP & Oracle), 4) Business Intelligence (Cognos, Business Objects & Hyperion – all now acquired – plus SAS and data-warehousing vendors such as Teradata and Netezza), and 5) Document-based Communications (Documentum, FileNet, Interwoven, and others);
- In *Compute Processes* you find 6) Web Application Infrastructure (Oracle/BEA, IBM Websphere & Tibco), 7) Systems Management Infrastructure (BMC, CA, Compuware, HP & IBM), 8) Database Management (Oracle, IBM & Sybase – now part of SAP), and 9) Operating System (IBM, HP Unix, Microsoft & Sun Solaris – now part of Oracle);
- Finally, in *Compute Engines*, we have 10) Mainframes and Servers (IBM, HP, Sun, & Dell), 11) Storage Management Systems (EMC, HP, IBM, & NetApp), 12) Networking (Cisco & Juniper), and 13) Microprocessors (Intel & AMD).

It is important to note that while Systems of Record investments are not experiencing new growth, they are most definitely not going away. Besides being mission-critical in their own right, they will provide critical support to Systems of Engagement (SOE) for years to come; SORs, however, are no longer the drivers of new investment, and indeed are a major source of “coins in the couch” going forward - which is to say that they will continue to be

consolidated at an increasing pace for economies of scale, and architectural integration to achieve interoperability. Witness Oracle's continuing roll-up of business applications and BI, from Peoplesoft to Agile to Retek to Hyperion, to ... next, as well as its multi-year investment in Fusion, which as the name suggests is intended to "fuse" all of the disparate systems and architectures resulting from its sixty-five or more acquisitions since 2005. More recently, the acquisitions of McAfee by Intel (to get beyond the commoditizing microprocessor layer into security for mobile and other applications), HP's acquisition of 3Par for multi-tenant data storage and Arcsight for user ID and network security, and the speculation surrounding HP and SAP following the hiring of Leo Apotheker and Ray Lane by HP, as CEO and chairman respectively. All these developments testify to the accelerating consolidation in SOR in addition to forays into SOE.

One further conclusion we reached is that winners in the Systems of Engagement game are likely to be a somewhat different set of players as compared with the main winners in the Systems of Record stack. In other words; IBM, Oracle, Cisco, and HP are major systems companies that may have sufficient resources to eventually transition, more via acquisition than invention. In all probability they will play instrumental roles in the Systems of Engagement game while other companies such as SAP, Microsoft, Dell, Cisco, EMC (not counting VMware), and others may well lose relevance in an increasingly SOE world.

That said, what is so different about the Systems of Engagement stack that will produce a set of new winners? Let's take a look below.

The Systems of Engagement Stack – The Focus of Most New Investment

It is important to reiterate that this is not an either/or game. As we have stated, Systems of Record will continue to exist, though more in consolidated, maintenance mode. In contrast, the layers of offers in the Systems of Engagement stack are increasingly becoming the main focus of new investment in enterprise IT.

Business Applications

Besides the existing offerings in the SOR stack there are a new set of offerings:

- 1) Adoption Services: aimed at driving adoption of new services by customers' customers. For example; adoption by bank customers of mobile banking services or adoption by employees of collaboration and "enterprise" social networking
- 2) Mobile Clients (Apple/iPad, RIM/Blackberry, and Google/Android)
- 3) Interaction Applications (Salesforce.com, SuccessFactors, NetSuite, RightNow, apps developed on platforms such as Force.com, and many others)
- 4) Real-Time Analytics (Omniture, Compuware/Gomez, and others on the web and behind the firewall)
- 5) Live-Session Communications (Cisco with Webex/Tandberg/Telepresence among its unified communications offerings, Avaya with equivalent offerings, collaboration and messaging systems from Citrix, Microsoft, and others)

Compute Processes

In addition to the SOR layers, you find:

- 6) Mobile Application Infrastructure (for example, Clairmail, Sybase/SAP and others in mobile banking)
- 7) Public/Private Cloud Management Infrastructure (Compuware/Gomez, Rackspace, and others in public cloud, VMware and IBM for virtualization, the primary thrust in private cloud)
- 8) Distributed Data Grids (IBM, Oracle, & Sybase/SAP)
- 9) Platform-as-a-Service (Amazon's Elastic Compute Cloud, Google's App Engine, Microsoft's Azure, the Rackspace OpenStack, and Salesforce.com's Force.com)

Compute Engines

The traditional SOR offers are augmented by:

- 10) Infrastructure-as-a-Service (Amazon, Google, Microsoft, Rackspace and other managed hosting/cloud providers, plus providers of mainframes, servers and storage management systems such as IBM, HP, EMC, and NetApp)
- 11) Voice/Data/Video Networking (Cisco, Juniper, and others)
- 12) Microprocessors (Intel & AMD, and Nvidia among rich-media microprocessor specialists).

Let me make clear that the vendor/offering names mentioned in the parentheses above are not exclusive, particularly since this stack is still in the process of being formed, but it does contain some familiar and slightly less familiar names. Systems of Engagement are either nascent, emerging or growing depending on which layer you look at thus, the tendency is for best-of-breed to come to the fore, with some players taking an early lead by providing offerings at several layers in the stack. One example is Salesforce.com, with its mobile client and interaction applications (Sales and Customer Service), live-session communications (Chatter), and platform-as-a-service (Force.com plus AppExchange). The company has made no bones about its intention to continue to beef up its mobile client and collaboration/social networking offerings. Like all multi-tenant vendors, it also has the (theoretical) ability to harness the enormous quantities of data that it manages on behalf of its customers and exploit the resulting insight and information in real-time analytics. Of course, this will have to be executed in a way that protects rather than jeopardizes customers confidentiality and other sensitivities, which will surely be a multi-year undertaking.

Another example of a relatively new participant is Rackspace, as a managed/on-demand hosting provider of infrastructure-as-a-service; Rackspace recently launched an OpenStack initiative aimed at providing customers with an open-source alternative to the more proprietary platforms offered by Google, Amazon, and especially Microsoft. These are but two among a whole raft of SOE aspirants.

As cloud computing evolves toward adoption by mainstream customers, there appear to be two forks in the road, or rather two choices: private cloud computing (primarily a single-tenant architecture catalyzed by virtualization leaders VMware and IBM, and offering the economies of scale and security that virtualized "private" computing can provide) and public cloud computing (exploiting multi-tenant architectures, which enable customers to consume a computing service based on an entirely shared infrastructure, in return for usage or subscription fees). To regard these two offerings as choices might convey the idea of

mutual exclusivity, which would be nonsense for many enterprises and government organizations. Instead, they should be seen as both/and options, each with their respective merits and each to be consumed for different purposes and benefits.

Truth be told, private cloud is one of the latest examples of the defensive tactic adopted by established players seeking to co-opt a new category, in this case cloud computing. By moving from plain “virtualization” to “private cloud”, marketers, analysts, and enterprise CIOs alike are conspiring together to buy time while they figure out “what to do” about this new phenomenon, which has caught the attention of management teams and boards in virtually every industry. After ten years or so of internet-based computing and applications, cloud computing – the pure single-tenant variety originally evangelized by Amazon and Google, and described in books such as “The Big Switch” by Nicholas Carr – has attracted so much venture investment, analyst attention, and customer interest (especially by hobbyists, e-commerce and other online companies, small businesses of all types, departments of larger organizations, and even one-off events such as the Youth Olympic Games in Singapore this past August) that the vendors of conventional on-premise (SOR) computing are fighting to retain relevance and decide how to participate in markets for both public and private cloud computing.

In a recent Bloomberg news item, one analyst was quoted as stating that Cisco, Dell, HP, IBM, and Oracle, “with a collective \$100 Billion in cash, have said that they plan to keep making acquisitions ... in such areas as storage, software, and security, helping them to cater to corporate customers who are building data centers to handle a web traffic boom.”

CIOs are desperate to show their boards that they are “doing something about cloud computing”, and established software or systems vendors are only too happy to oblige. This gives them time to figure out their “cloud strategy” and develop their initial offerings. Just as important, some vendors are developing *hybrid* offerings that combine the benefits of single-tenant and multi-tenant computing in offers that provide unified support, services, and pricing. This is not a trivial challenge in light of the dramatically different economics of on-premise vs. on-demand computing, but the lack of such cohesive migration options will deter speedier adoption of cloud computing. Hence, the more aggressive cloud computing providers have every incentive to smooth the path by providing unified *hybrid* services.

(*) To read about this stack in the March 2010 issue of *Under the Buzz*, go to:
http://www.tcg-advisors.com/library/utb/ub_vol11_no3.pdf

This article was authored by Philip Lay, managing director at TCG Advisors, with invaluable contributions each of my colleagues at TCG Advisors – Geoffrey Moore, Todd Hewlin, Lo-Ping Yeh, Brett Bonthron, and Rick Chavez.

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