XaaS, Code Halos, SMAC and the Future of Work

The Last Word

Keep on SMACking: Taking Social, Mobile, Analytics and Cloud to the Bottom Line
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Winning organizations have programs in place to identify, understand, prioritize and overcome emerging SMAC challenges and have established ‘Big Rules’ for business and IT leaders to work through governance and technological roadblocks.

By Bruce J. Rogow

With all the hype and confusion about emerging information technologies, particularly social, mobile, analytics and cloud (what we call the SMAC Stack™), it is very easy to lose sight of the big picture and its implications.

SMAC and a growing array of IT alternative delivery vehicles – such as software as a service (SaaS) and business process as a service (BPaaS) – are the major tradewinds swirling into the enterprise at the same time that industry structures and business architectures are changing. SMAC must be considered not as a set of “cute things we can do” but as an enabler for a wider context of profound business and technology transformation.

As industries change and new IT products and services emerge, businesses must adapt their IT architectures and capabilities to take advantage of what can be sourced internally and through third parties. These adaptations typically take 15 or more years, but leaders at winning organizations recognize the stakes, scope and challenges early on. They blend new, changing and existing parts to ensure material business contribution and increased competitiveness over the short-, mid- and long-term. In today’s SMAC context, winners see and execute against the strategic shift amid business change.

Winners don’t wait for change to sort itself out or assume that they will succeed by continuing to do what they have been doing, only more diligently. They try to take advantage of the short-term opportunities afforded or demanded by the changing landscape and begin to work toward a scalable and iterative IT vision as they connect the dots and lay a proper foundation.
When navigating into new waters, such as we are, prudent executives will identify the key challenges and adopt “Big Rules” to guide their efforts.

Lessons Learned So Far: Key Challenges

In times of major change, when business and IT platforms are being transformed, leading organizations force themselves to pause from the day-to-day mayhem to identify primary strategic challenges and then determine whether they present threat or opportunity. They use these as their radar and compass to keep moving forward and avoid veering off course.

As originally described in more depth in my Cognizant Connections blog posts, the challenges I hear most often from senior business leaders include:

- **Keep your eye on the prize:** Businesses face an imperfect storm of challenges, attempted business model changes, new IT applications and evolving IT delivery mechanisms. It is easy to focus on the shiny new thing. How do business leaders tackle necessary changes that deliver traction at scale and impart positive business impact? Doing so requires dedicated and qualified resources, the building of management platforms (similar to what was done for PCs and minis), scalable support and deployment models, continuous inspection, financial scrutiny and processes for refresh and maintenance.

- **Manage the moving parts:** The ordinary business of annual planning, budgeting, capital allocations, application portfolio selections, governance structures and succession plans can create a same-old, same-old rhythm. The current environment forces business and IT leaders to reconsider all the moving parts of the evolving environment and the interchange between them rather than just going through routine management processes. The challenge centers on defining and organizing the moving parts (see Figure 1 for the most common moving parts).

While your organization may restrict alternatives to internal IT, this will likely change as competitors grow more agile as a result of their greater reliance on quick-turn business capability and IT specialization.

- **Understand how consumerization changes the IT game:** The IT organization is now in a competitive market. Users want it now, at low acquisition cost and in an easily adopted manner. Internal IT must provide and/or facilitate easily understood services rather than complex technology brews, system development extravaganzas or rules that ignore these new realities. Users have alternatives to internal IT. While your organization may restrict external alternatives, this will likely change as competitors grow more agile as a result of their greater reliance on quick-turn business capability and IT specialization.

- **When going to the future, bring money or find it:** The changes to the business model, SMAC and adoption of an IT as a service model will cost money. What percent of your IT budget last decade was dedicated to PCs and distributed systems introduced in the last great IT platform change? In tight economic times, there must be a balance between creative innovation and intense scrutiny to harvest material economic benefit. It’s not good enough to say that social media has enlarged our group of friends or that data analytics has given us insight or that cloud-enabled collaboration has made our people more aware. As
The Many Moving Parts of IT-Business Transformation

Aligning business model innovation with evolving market requirements requires a good deal of multidimensional planning and a recasting of fundamental IT assumptions. Here’s one way to organize your thinking.

<table>
<thead>
<tr>
<th>Master Industry Structure</th>
<th>Master IT Platform</th>
<th>Company’s Business Architecture or Model</th>
<th>Company’s IT Architecture</th>
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<tbody>
<tr>
<td>• Markets and segments</td>
<td>• IT industry structure</td>
<td>• Products and services offered</td>
<td>• Legacy systems and technologies</td>
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<td>• Market structures</td>
<td>• Available technologies</td>
<td>• Product and service development</td>
<td>• Evolving or needed systems and technologies</td>
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<td>• Competitors and players</td>
<td>• Available services</td>
<td>• Markets chosen</td>
<td>• Data and data quality</td>
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<td>• Sovereigns</td>
<td>• Available tools</td>
<td>• Customer segments</td>
<td>• Infrastructure and quality</td>
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<td>• Entrants</td>
<td>• Master providers</td>
<td>• Channels and distribution</td>
<td>• Technologies and services chosen (standards)</td>
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<td>• Stakeholders</td>
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<td>• Partners</td>
<td>• Technologies and services inherited</td>
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<td>• Investors</td>
<td>• Product maturity</td>
<td>• Marketing and communications</td>
<td>• Technologies and services targeted</td>
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<td>• Buyers and customers</td>
<td>• Product volatility</td>
<td>• Financials</td>
<td>• IT skills and organization</td>
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<td>• Channel structures</td>
<td>• Venture funding</td>
<td>• Business processes</td>
<td>• Sourcing</td>
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<td>• Economics</td>
<td>• Provider investments</td>
<td>• Supply chains</td>
<td>• IT processes</td>
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<tr>
<td>• Capital structures and sources</td>
<td>• Functions and price points available</td>
<td>• Capital sources and structure</td>
<td>• Security and service assurance</td>
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<tr>
<td>• Regulation and legal</td>
<td>• Skills and support available</td>
<td>• Formal and informal organization</td>
<td>• Provider relationships and management</td>
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<td>• Public policy</td>
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<td>• Intellectual capital</td>
<td>• IT governance</td>
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<td>• Experience base</td>
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<td>• Culture and behavior</td>
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we heard in the movie Jerry Maguire, “Show us the money!” Real money will be needed to fund the SMAC transformation.

● **Fog and clouds ... deal with it:** Businesses and IT organizations face major ambiguity and uncertainty at almost every level of operation. They get it that they must move ahead. The challenge is determining exactly what needs to change and how to enable change. It can be helpful to think in terms of plateaus of change. This requires a constant and dedicated effort to re-examine what the next plateau may be, how to get there, how to acquire that capability, who will make that happen and when it will be done. This process must be performed for each chunk of the business and for the business as a whole. It is foolhardy, for the foreseeable future, to wait for a universal solution.

● **Life is a paradox ... deal with it:** Business and IT organizations have been finely honed to exacting processes and structured strategic objectives. Decisions and execution pivot
around governance, financial evaluation processes, standards, approval processes, risk elimination, following tight rules and enforcing standards. What lies ahead is massive uncertainty. How do organizations that have cleared all risk and uncertainty off the table deal with massive ambiguity and paradox? As an example, how do you contend with the demand for greater operational agility but also ensure better IT performance and security on more diverse devices. What does that mean, what are the tradeoffs, and how do you do it? This requires major changes to IT principles, decision-making, policies and governance.

- **Lots of pieces are missing or relatively immature ... deal with it:** We are blessed today with platforms, tools, vendors, applications, major skills or experience bases and management approaches for managing the IT lifecycle from centralized through distributed implementations. Entering the SMAC world, you find, at best, primitive support vehicles. There is risk in moving ahead, but waiting for the rest of the support vehicle kit to arrive is not prudent. Competitors may move ahead, and you will lack the years of experiential learning required to take advantage of the new capabilities. This requires tiering your IT investment and deployment into practical chunks and different approaches for short-, mid- and long-term investments. Fully expect that many short-term IT and business capability investments that can have major economic return will require scaffolding to tie into existing systems and business processes. Many will need replacement or refreshment as the capabilities become more robust and the business requirements change. An essential expectation in the foreseeable timeframe is to invest short, get a significant short-term return and allow for mid- to longer-term solutions.

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- **Villager unrest will only get worse:** Senior executives, users, vendors, consultants and academics will only step up their demands to accelerate the move to a future state. In many cases, they may be clueless about the details or how to get there. IT must get in front of this tsunami and programatically help senior execs balance out their increasing frustration with IT’s perceived lack of agility, flexibility, responsiveness and acceleration abilities – as well as the Byzantine processes and pervasive shortage of proper skill sets – against the risk of creating an unmanageable, overly complex and unsecure IT and business capability mess.

The enterprises that are making the most sustained progress with SMAC and a services-enabled future all have programs in place to identify, better understand, prioritize and deal with a similar list of challenges as they see them.

**Steering Through the Challenges**

Most leading companies I visit tell me that many of their old policies, practices, resource allocations, standards, organizational structures, incentives, measurements and governance policies do not accommodate or actually hinder the direction in which they need/want to go. It is too early to lock in replacements. To get beyond the on-ramp for business model change and SMAC, many are adopting a set of interim guidelines, maxims or “Big Rules.”
You don’t need all or even a majority of the Big Rules detailed in the checklist below. However, every one missed makes your journey harder. The most common Big Rules include the following:

- **For boards of directors:**
  - **Obtain expertise and perspective:** Add an IT-savvy executive or, better yet, a proven CIO. If the board is full, create an IT advisory council for the board.
  - **Communicate, understand, review beyond the IT audit material:** Ask for an overall vision of how SMAC and the availability of outside services will impact operations, progress to date and mechanisms for change; request a semi-annual update.
  - **Ask the business leadership:** As senior business executives present their plans and progress in regular board sessions, don’t hesitate to ask questions, such as whether IT adequately supports the business; where the missed opportunities are to take advantage of the changes in outside services and SMAC; how your business function or unit is taking advantage of technology or services; how the IT you provide to your staff and customers compares with that of your competitors; whether IT enhances or detracts from the brand or customer experience.

Recognize that SMAC and emerging alternative IT delivery vehicles are like “free puppies.” They are cheap and cute on the front end, but they require funding, health checks, care and support over time.

- **For CEOs and senior leadership teams:**
  - **Set aside quality time:** Sponsor sessions to produce SMAC visions, impacts and plans from each business unit. Use these to provide the board an update as outlined above or be better prepared for the board’s questions. This process and output may be included within conventional business strategy efforts; however, special consideration should be given to ensure that proper effort and quality time is allocated. A board member of a distribution company recently told me that his board had awarded its CEO and her executive VPs with a, “We expect you to do much better” probation when it found that the senior leadership team had spent less than one hour of quality time over the past year considering how IT could benefit the business. Such a taunt from the board is one level below a no confidence or material liability on these critical issues.
  - **Turn ambiguity to advantage:** Examine the issues of managing in ambiguous times and provide a program for addressing the required organizational, incentive, style and motivational changes required. Promote prudent risk-taking, as well as risk assessment, abatement and tolerance.
  - **Expect, inspect and fund success:** Demonstrate that consideration is being given and steps taken to harvest the benefits afforded by SMAC and the provisions made (i.e., budgeted) to support the changed environment. Recognize that SMAC and emerging alternative IT delivery vehicles are like “free puppies.” They are cheap and cute on the front end, but they require funding, health checks, care and support over time.
  - **Build recognition that IT is becoming a part of or is already a major enabler of the enterprise brand:** Unless all these shiny new SMAC capabilities, services,
outside wonders and legacy systems can operate in a seamless and easily manageable fashion, the brand and business can be hurt rather than enhanced. Discipline is still required.

- **For better collaboration between business and IT leadership:**
  - **Progression vs. succession plans:** Move from perfunctory organization succession plans that replace like with like, to talent progression programs that identify, acquire, develop and retain the talent needed going forward, both in the business and IT.
  - **Learn to work backwards:** Start with the desired outcome rather than what the shiny new thing can do. Determine what it will take for the business and IT to achieve the outcome. Early on, imagine or test the future-state operating environment being designed or considered to see if it will deliver the outcome. Rather than adding on bells and whistles, try to focus on practicality from the operations, conversion and integration perspectives. As an example, I keep hearing of “spectacular” insights emerging from big data. When I ask what difference it has made in the business, the typical response is that the analysis didn’t change anything. The analyzers don’t have direct connection to the potential “happenators.” No one had responsibility for the change, and the incentives and processes precluded business changes.

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  - **Establish the progress corridors and platforms:** Break down the hardened silos that have developed in IT and the business. Deal with the issues of personal or departmental hoarding. Restructure attitudes and expectations, as well as organizational and horizontal awareness and process flows around the services and outcomes to be delivered.

- **For IT leadership working with their teams:**
  - **Refresh 20-year-old IT principles:** For many organizations I visit, it has been many years and IT galaxies since the IT principles and maxims were articulated. Adapt the IT and enterprise architecture principles and IT governance to properly support and communicate how IT is to operate (the IT Big Rules) for this new environment.
  - **Update the IT what, how, who and when:** Adapt the IT management model and organization to identify, articulate, source and deploy, assure and secure, refresh, steward and orchestrate the opportunities afforded by available services and SMAC, globally.
  - **Upgrade technical infrastructure architecture to a modern, full enterprise architecture:** Produce and implement a foundational enterprise architecture that is not just about solution brokerage and deployment but that starts and ends with what it takes to ensure, refresh, operate and orchestrate the exceedingly complex IT environment of the future. This includes mobility, BYOD (or don’t BYOD), apps (public
and private), public cloud, private cloud, hybrids, legacy, infrastructure as a service (IaaS), BPaaS, social media, unified and not-unified communications, software-defined networks, extreme virtualization, multimedia, video, big data, the Internet of things and security threats we can only begin to imagine.

> **Find the funding:** Establish the vehicles to test and pay for all that the evolving environment will require. Users want the free puppies, but IT organizations are finding they come with a 15% to 30% annual carrying or support cost. A mechanism to fund this needed support must be developed.

> **Focus IT on core contribution:** Begin the transformation from a deliverer and operator of IT systems into a facilitator of IT merchandising, service brand management and service assurance.

This checklist is just a start. Please add your advice to my blog on Cognizant Connections. I’ll be adding to these and exploring them in more depth as we all learn more about taking SMAC to the bottom line.

**Footnote**

¹ A “happenator” is the person absolutely responsible and accountable for ensuring that the change happens and does so with passion. For more detail, see Cognizanti Journal, Volume 5, Issue 1.

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