



**At the Heart of  
Digital  
Transformation**

**A SMAC in the Face for Industrial-Age Business Models**

The Recipe for Creating Next-Generation Applications

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**Abstract**

The four SMAC components—social, mobile, analytics and cloud—are like four legs of a chair: remove one, and your equilibrium is destroyed. Be it business applications or customer-facing ones, more value can be realized by integrating the new normal of technology stacks to shape the enterprise digital operating model (DOM). Building next-generation applications requires technology leaders to assume a more comprehensive mastery of all four SMAC moving parts, integrating them in much the same way that a film director integrates screenwriting, cinematography, background score, and acting to achieve the “big picture” goal.

## Taming the Digital Data Frontier

It is no secret that our mobile devices and social networks are rapidly transforming our relationships with people and data. Analytics has driven customer intimacy to levels not previously fathomable; the cloud has irrevocably changed the way we store and share information.

A report from Forrester Research declares that by 2016, we will have 10 billion mobile device users on the planet. In May 2015, Twitter had more than 302 million users. In March 2015, there were 1.4 billion monthly active users on Facebook. According to Gartner, big data will drive \$232 billion in spending in 2016. Additionally, according to Forrester, the cloud market will

shoot from \$41.7 billion in 2011 to nearly \$241 billion in 2020—or almost 500 percent growth in just 9 years—all of which beg these questions:

- How can we manage to meet ever-expanding data storage requirements?
- How can we employ analytics to filter what we need from such a vast storehouse of data?
- How can we stay ahead of the business transformation curve?
- How can we build next-generation business applications that leverage SMAC to its fullest and are at the heart of the enterprise's digital operating model (DOM)?





## An NIIT Technologies Perspective: SMAC's Impact on Enterprise 2.0

In our evolving world, not only is the SMAC convergence transforming the way we do business, it is also profoundly changing the way we interact with each other. As we have all experienced, social networks keep us intricately connected in ways that were never possible before; they enable us to maintain and enhance our business and personal relationships in real time, across great distances. Mobile devices have enabled us to become more proactive and portable in both our professional and personal lives. Analytics gives us unforeseen visibility into data and enables its integration with big data initiatives, which significantly improve our ability to make informed business decisions.

Furthermore, the cloud has made it possible for us to access applications and content, as well as store data, no matter where we are.

On a daily basis, huge amounts of data are hurled at all of us—on personal as well as professional levels—at warp speed. The surge of social media messages, combined with the ubiquity of data- and voice-driven smartphones, proliferation of relevant data, and ability to store zeta bytes for universal access has left us drowning in a sea of data. Technology has now evolved to the point where each of the SMAC components is required to conduct business and live our lives. If we operate in isolation, or try to rely on only one or two components, we will quickly be left behind.

Whether you are in the business to enable your own workforce, enable the masses or a combination of both, what you need is to build an integrated SMAC model for applications, provide scalability and flexibility, and is easy for end users to get what they want from the offering.

## A 'SMAC-down' Illustration: Enterprise Alba, Inc.

The consumer-driven technology model that integrates the entire SMAC technology stack is transforming enterprises rapidly. That is because tying the SMAC technology stack to core business processes takes transformation to a whole new level. Industrial-age value chains are tightly integrated, and the introduction of SMAC technologies must unravel them to accomplish the transformation of business processes. The result is often nothing less than an entirely new business model.

Here is an example of the SMAC recipe for a next-generation, digital-age application.

### Business Objective

Suppose that a fictitious company, which we will call Enterprise Alba, Inc., and whose employees are plugged into many different types of mobile devices, wants to make it easy for staffers to file

expense reports and claims via the mobile device of their choice. Enterprise Alba is willing to respond to its employees' needs because it has identified numerous benefits that will accrue to the company if it can accomplish this goal successfully. The anticipated benefits include the following:

- Increased workforce productivity
- Enhanced ability to drive information effectively to employees
- Reduced paper usage
- Reduced postal expense

To increase productivity, many large organizations have embraced the mobility trend—it is not uncommon for corporate intranets to use popular App Stores to remodel their application databases.





### System Wish List

Enterprise Alba decides to build a customer relationship management (CRM) system that will not only be iPhone-, Android-, Windows Mobile- and Blackberry-friendly but will also enable its users to file claims 50 percent faster than with a traditional system. The company wants an application that can enable quick access to the system's data, a high level of system stability, and fast movement from screen to screen.

Enterprise Alba would prefer the new system to make it easy for its employees to accomplish the following:

- Click on the phone widget—available in Web stores or via the company's intranet to file a claim or check its status
- Take pictures of receipts, either one receipt at a time or groups of receipts
- Write comments on receipts and submit them via a user-friendly template that is accessible by mobile devices
- Click on a Yammer tab, which is integrated with Enterprise Alba's internal social media or intranet, to inform colleagues about the smartest way to purchase inexpensive parking in a specific city
- Obtain a year-to-date view of personal expense reports, e.g., travel, hotels or food, to proactively monitor spending

The company would also like for its manager-level employees to have the following capabilities:

- Click on the phone widget—available in Web stores or via the company's intranet—to view pending approvals via an individual group member's claims tab
- Approve or disapprove claimants' submissions, adding comments
- Route disapprovals to claimants
- Route approvals to finance department

Additionally, the company wants a help menu that will include a step-by-step pictorial with video capability.

### Bringing it All Together with SMAC

Enterprise Alba's dream application—one that incorporates its entire "wish list" above requires the integration of SMAC technologies to achieve its stated goals:

- Social: Integration with social intranet
- Mobile: Light application that can be leveraged across major mobile platforms
- Analytics: Analysis of spend
- Cloud: Inexpensive, easily accessed, secured storage of all claim pictures and documentation

## The NIIT Technologies Thought Board: The SMAC Recipe for Next-Generation Applications

### Is SMAC Here to Stay?

Of course it is—SMAC is a business reality that must be embraced. Take a look at these numbers.

Social	Mobile	Analytics	Cloud
302 million Twitter users in May 2015 and 1.4 billion Facebook users in March 2015	10 billion mobile device users by 2016	\$232 billion in spending driven by Big Data in 2016	\$241 billion Cloud market by 2020

### What Role would Each SMAC Component Play in a Business Application?

Social	Mobile	Analytics	Cloud
Enterprise collaboration	On-the-go productivity and information	Insight generation and reporting	Storage and processing

### How can SMAC be Applied to a Business Application Like Procurement?

Social	Mobile	Analytics	Cloud
Social features for suppliers and collaboration for procurement specialists	Mobile ordering for suppliers and approvals as well as other essential features for procurement teams	Demand pattern insights for channel partners and spend analytics for procurement	Hosting the application on cloud and using cloud compute power to process data and generate insights

### What Mindset should One Follow While SMAC-enabling Applications?

Unique Functionality	Total Integration	The Big Picture
Define a purpose for each of the SMAC components—what would you like these technologies to achieve?	A truly digital application will be one where all four SMAC components work seamlessly with each other	See how the SMAC-enabled application will fit into your larger digital operating model and address your business goals

## SMAC: The Writing is on the Wall

It would be folly for organizations that have their heads in the Cloud to assume that it is the only SMAC component necessary to compete in this brave new business landscape. Any company operating with less than the entire SMAC stack—which must be fully integrated to truly transform business processes—is operating with a hopelessly old-school business model.

An organization may choose to accomplish its transformation with its own in-house IT team or

work with an IT services provider, but the change must be made. It is a matter of survival, where new ideas and more value will be the key to delivering the change. In the digital landscape, the amount of data is only going to increase, and as it does, it will require still more sophisticated fine-tuning, filtering, and analyzing. Additionally, consumers will only turn up the volume on their demands for more customized information across a multitude of convenient smart devices. SMAC is here to stay.





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