SMAC-enabled Technology Trends Reshaping Business Landscape

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Every Business Is a Digital Business

Social

Mobile

Analytics

Cloud

SMAC-enabled Digital Transformation of Business

Summary
Social in Business
Crowdsourcing
Social in Enterprise
Mobile Social
Social channels, such as, Facebook and Twitter have started to **transform interactions in the business world**

'Toyota Friend' Social Networking Service Is A **Twitter For Car Owners**: the car can send an alert for required service, just like a tweet.
Large businesses have started interacting with their customers via social channels.

Walmart Launches Shopycat, A Social Gift Finder Built On Top Of Facebook

Geico makes it possible for customers to pay their bills on Facebook, without pointing them to Geico's own site.
Social

Social in Business
Crowdsourcing
Social in Enterprise
Mobile Social
Crowdsourcing for generating new product ideas and efficient service using social media
Companies are increasingly using Crowdsourcing for Co-Innovation
Companies are increasingly using Crowdsourcing for Co-Innovation.
Enterprises are embedding social-driven, collaborative tools into business processes.
Social Networking on Mobile Devices is Skyrocketing

More than 72 million Americans accessed social networking sites or blogs via their mobile devices in August, a figure that represents a 37% jump from the same time last year, according to data compiled by comScore.

Nearly one-third of all U.S. mobile users are now accessing social media services, and that close to 40 million Americans are doing so on an almost daily basis. 60% of Smartphone owners accessing social media each month.

Facebook's U.S. monthly mobile audience grew 50% year-over-year to 57M, while Twitter's mobile user base skyrocketed 75% to 13.4M monthly users, LinkedIn also jumped by 69% to 5.5M monthly U.S. mobile users.
Mobile
Mobile

Mobile Payment

Mobile Advertising

Mobile Apps: Technology

Mobile Apps: Ecosystem
Mobile Payment is very much on the rise..

The future of money

60% Don't want to have to find an ATM to pay people back
56% Would be comfortable with never using cash again
43% Never seem to have cash on them
38% Think paying with a mobile device would be more convenient than cash
36% Would buy anything from a latte to an iPod using their phone
34% Would rather carry a phone than pocket change
Mobile Payment is very much on the rise..

Square announced via Twitter that there are now more than 1 million merchants using its mobile payment services to accept credit cards.

Amazon is generating $3 billion to $5 billion in annual sales from mobile devices. Mobile sales equate to 5% - 8% of total dollars spent on Amazon.
Mobile Advertising is big and poised to get even bigger

Mobile advertising is expected to hit $7.29 billion in 2013. This indicates a 77 percent increase over last year’s explosive 178 percent growth in mobile ad spending. U.S. advertisers will devote $27.13 billion to mobile by 2017.

Facebook’s 49% of advertising revenue in the 3rd Quarter came from mobile usage (up 8% from the 2nd Quarter). Facebook had 3rd Quarter advertising revenue of $1.8B: 49% of that is $882M which comes from mobile advertising.
Mobile Advertising is leveraging the nice form factor of smartphones for richer graphics and video.
Augmented Reality is slowly gaining traction in Mobile Advertising

Mobile Augmented Reality Advertising: blippar
Mobile Technology is fundamentally changing the way business is conducted

Tokyo-based LocationValue Stores announce the need for cashiers/drivers.

Job seekers declare availability via mobile phones. Matching is based on proximity.

Location-based services help match part-timers with available positions.
Mobile

Mobile Payment

Mobile Advertising

Mobile Apps: Technology

Mobile Apps: Ecosystem
# Technology: Mobile App Development Frameworks

![Mobile App Development Frameworks Comparison Chart](https://www.markus-falk.com/mobile-frameworks-comparison-chart/)

<table>
<thead>
<tr>
<th>Framework</th>
<th>Target</th>
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<tbody>
<tr>
<td>Apache Flex</td>
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<tr>
<td>Appcelerator</td>
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<td>Titanium Mobile</td>
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<td>CNFT iPhone UI</td>
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<td>GWT mobile webkit - qwt mobile UI</td>
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<td>EMUI</td>
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<td>iPhone Universal</td>
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<td>Jo HTML 5 Mobile App Framework</td>
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<td>jq Touch</td>
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<td>jQuery Mobile</td>
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<table>
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<tr>
<th>Platform (Rendering Engine)</th>
<th>Target</th>
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<tr>
<td>OS</td>
<td></td>
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<tr>
<td>Android</td>
<td></td>
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<tr>
<td>Windows Phone (Trident)</td>
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<tr>
<td>Windows OS (Webkit)</td>
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<tr>
<td>Blackberry OS (Webkit)</td>
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<td>Symbian (Webkit/Gecko)</td>
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<td>MeeGo (Gecko)</td>
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<td>Maemo (Gecko)</td>
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<td>WebOS (Webkit)</td>
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<td>Bada (Webkit)</td>
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<td>ME</td>
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<td>Mobile website</td>
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<td>WebApp</td>
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<td>Native app</td>
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<td>Hybrid app</td>
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<td>PHP</td>
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<td>Java</td>
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The chart compares various mobile app development frameworks across different platforms and rendering engines, indicating compatibility or incompatibility with specific targets.
Mobile

Mobile Payment

Mobile Advertising

Mobile Apps: Technology

Mobile Apps: Ecosystem
Mobile Consumer App Ecosystem

• Apple (May 2013) claims: 850,000 mobile apps in the Apple App Store.

• Canalys (May 2013): 800,000 apps available on Google Play; Windows Phone store contains 145,000 apps.

• ABI Research (March 2013): apps generate revenues of $25 billion in 2013; 2/3rd from smartphones, 1/3rd from tablets.

• Of this $25 billion, 65% from Apple’s iOS ecosystem, 27% from Google’s Android, and the remaining 8% from others.

• In 2018, app revenues will be worth $92 billion - tablet apps will be worth more than smartphone apps.
Mobile Enterprise/Business App Ecosystem

A New Customer Platform for the Future

Salesforce1 App

Salesforce1 Platform APIs

Salesforce1 Platform Services

AppExchange

Force.com
Heroku
ExactTarget FUEL

Cloud Social Mobile Connected
What exactly is *big* Data and why is it important? Too much Data, Too little Time..

The four V’s of big data

<table>
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<tr>
<th><strong>Volume</strong></th>
<th><strong>Data growth</strong> is the biggest data centre hardware infrastructure challenge for large enterprises (<a href="#">terabytes to petabytes</a>).</th>
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<tr>
<td><strong>Velocity</strong></td>
<td>How fast is the data coming in?</td>
</tr>
<tr>
<td><strong>Variety</strong></td>
<td>All types of data are now being collected (<a href="#">structured, semi-structured and unstructured</a>).</td>
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<tr>
<td><strong>Value</strong></td>
<td>The valuable pieces of data need to be separated from among data that does not matter.</td>
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What are the **Established** Vendors doing in this space?

Oracle Big Data Appliance

**New** Integrated “Big Data” Platform

- Oracle NoSQL Database
- Oracle Data Integrator
- Oracle Tools for Hadoop
- Oracle Loader for Hadoop
- Hadoop

Oracle Enterprise Linux & Java VM

Oracle Big Data Appliance

- Engineered System to Acquire, Organize, Analyze “Big Data”
- Super-Fast – Massively Parallel Processing & Loading into Oracle
- Complete – Software engineered with Hardware
Example of Big Data Technology: **MapReduce**

**MapReduce Paradigm** is used by **Hadoop** processing large volumes of data in parallel by dividing the work into a set of independent tasks. Being effectively used by businesses today!
No dearth of data but lack of the **RIGHT** data. Coleman Parks Research shows **only 25% of CIOs believe they have the data they need.**

**Start with the outcome you desire,** understand the data required, and then use newer technology to get the right data.
Automotive: Ford has embedded sensors in the steering wheel and seat-belt to gather information about the drivers.

Instrumentation:
- Temperature sensing: Infrared sensors in the steering wheel spokes monitor the driver’s facial temperature while sensors in the steering wheel rim track changes in the palms.
- Ambient temperature: An infrared sensor under the steering column provides a cabin temperature to compare against the driver.
- Heart rate monitoring: Conductive sensors like those found on exercise machines are used to measure changes in the driver’s heart rate.
- Respiration: A piezoelectric sensor in the seatbelt counts the driver’s breathing rate.

Goal: Design the best possible user experience for the driver.
Data Velocity

• Greater time between collecting data and creating **insights**: organizations will most likely lose out to fleet-footed competitors.

• **Higher data velocities needed for competitive edge**

• Data velocity: the ability to **scan tens of billions of records a second**, or the ability to **query 1-2 terabytes in less than a second**.
Huge business value can be extracted from Enterprise data via Real-time Analytics.

Integrate Analytics with Business Processes in Real Time

Harrah’s can now predict, in real time, individual guest’s pain points and intervene by interrupting them.
Real-time Analytics is changing the face of what we usually think of as mundane business!

Meat Pack is a designer shoe store in Guatemala that leverages a unique mobile marketing technique called HiJack to hijack customers from competitor’s stores using real-time analytics.
Analytics

Big Data

Design for Analytics

Data Velocity

Technology
**Technology:** SAP HANA In-Memory Platform for Real-Time Analytics

- **100x faster analytics**
- **In-memory hardware innovations**
- **Real-time access to data**

**Speed • Flexibility • Lower TCO**
Cloud
Cloud computing has drastically reduced barriers to entry in terms of infrastructure investment.

Cloud computing provides users access to remote computing power and software on a pay-per-use basis.

The online video creation service company Animoto leveraged cloud computing to grow, seamlessly, from 50 to 3,500 servers in 3 days.

Anyone, at the click of a button, can access high-end computing power without any up-front infrastructure investment.
Cloud

Transformation of IT

Cloud-Enabled Agility

Mobile Backend as a Service (MBaaS)

Software Defined Networking (SDN)
Agility in Business is enabled by Platform as a Service (PaaS)

PaaS is not just a tool for squeezing cost out of IT; it provides an environment to support rapid evolution of business.
Who’s doing what with PaaS: PaaS App stores

Lightweight software engineering practices needed for assembling PaaS apps to build complex business solutions
Cloud

Transformation of IT

Cloud-Enabled Agility

Mobile Backend as a Service (MBaaS)

Software Defined Networking (SDN)
Mobile Backend as a Service (MBaaS)
Kinvey
Mobile Backend as a Service (MBaaS)

App Cost Estimator: A fully configurable tool to estimate your app's price

We've taken the hassle out of building and operating mobile backends.
Appcelerator Mobile Backend as a Service (MBaaS)

The Cloud Starts Here™: Titanium Cloud Services

Titanium Cloud Services is a Mobile Backend as a Service (MBaaS), offering a fast and easy way to build connected mobile apps. Choose from a library of services such as push notification, status updates, photo storage, and social integration, or create your own custom cloud services.
FeedHenry
Mobile Backend as a Service (MBaaS)

Where mobile meets cloud
bringing scalability, security affordability to enterprise app development and management

YOUR DATA MOBILIZED
Our award winning mobile backend-as-a-service (MBaaS) helps you mobilize your critical business data, offering APIs and plugins that simplify and secure the connectivity of your apps with any enterprise system.

CREATE FABULOUS APPS
Our next generation Mobile Application Platform allows your development teams to focus on creating great user experiences on any device, without the worry of server maintenance or time-consuming backend code.

GET TO MARKET FAST
Deploy your apps to your devices and server side code to the cloud - private, public or hybrid, all in a single push. Giving you the flexibility to host your mobile initiatives wherever you want.
Cloud

Transformation of IT

Cloud-Enabled Agility

Mobile Backend as a Service (MBaaS)

Software Defined Networking (SDN)
Software Defined Networking (SDN)

- SDN is the **last leg of virtualization** (after compute and storage)

- SDN allows companies to **remove the complexity of network reconfiguration**, and thus reduces cost, and turns the network into a truly **dynamic and flexible** asset.
Nicira can **Dynamically** Configure the **Same** Physical Network into **Multiple** Virtual Networks using **Software Defined Networking**.
Nicira’s Technology helps create Software-Defined Data Centers

Physically on the same network infrastructure in a co-lo but virtually on different networks.
SMAC-enabled Digital Transformation of Business

Challenges

Opportunities
Security breaches are inevitable: it will only increase with employees using their own devices for enterprise apps.
Security breaches are inevitable: it will only increase with non-traditional systems getting connected to the Internet.
SMAC-enabled Digital Transformation of Business

Challenges

Opportunities
Context has always been there but the ability to capture that in a seamless manner did not exist. Once the context is captured, many things can be done that are not possible otherwise..
Reach.ly mines Twitter to help Hotels reach potential Guests in Real Time (Hospitality Industry)

We connect hotels with guests in real time.

Reach.ly is a real-time marketing tool for the hospitality industry. We help you use Twitter and other social media to get personal engagement and paying guests. Those guests book directly so you save on OTA fees:

- No OTA fees
- Direct Selling
- Personal Engagement

1. Someone tweets about their trip to your city
2. We gather these tweets and present them to you
3. So you can interact directly with potential guests

Log in with Twitter and find your first guests
Misys GeoGuard Uses Customer Location to Enhance Service and Reduce Fraud for Banks (Financial Industry)
### Summary of the Presentation

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<td>Adaptive Business</td>
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Questions & Answers

Thank you!
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