

SMAC-enabled Technology Trends Reshaping Business Landscape

High performance. Delivered.

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Accenture Technology Labs
(sanjoy.paul@accenture.com)

 **accenture**

 **Mobile India**
2014

Every Business Is a Digital Business



Social



Mobile



Analytics



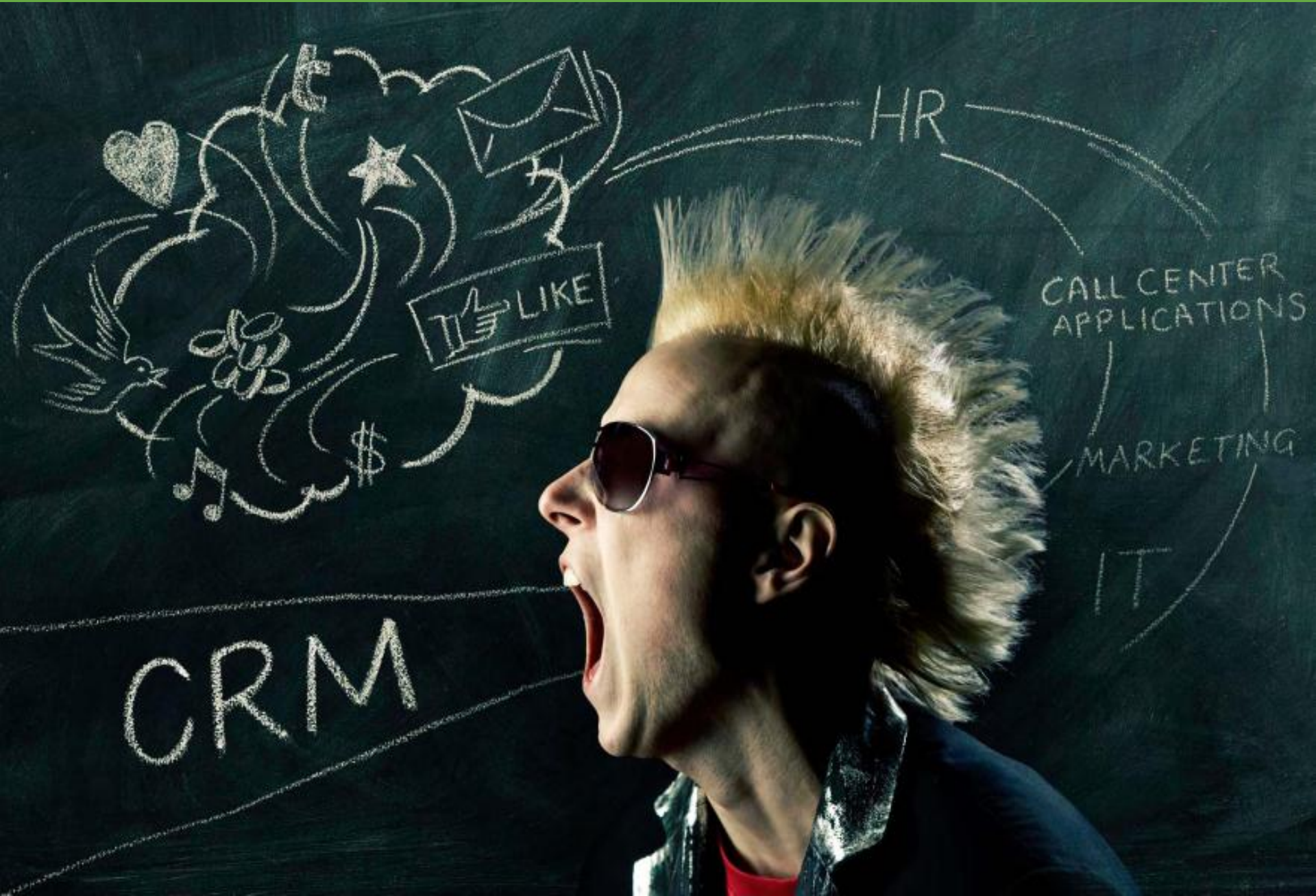
Cloud



SMAC-enabled Digital Transformation of Business

Summary

Social



Social

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



See where your friends have been.

Find your friends' reviews and make better vacation decisions.

Discover your friends' most popular destinations

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

my STARBUCKS IDEA SHARE. VOTE. DISCUSS. SEE.

Share Your Idea | View All Ideas | Ideas In Action | About This Site

Dark Chocolate
Posted by **HalfBloo** to **Coffee & Espresso Drinks**
In the UK they have Dark Chocolate drinks could also be served in Starbucks.
5820 points
Comments [54]

Real Food, Simply Delicious
June 10, 2009 by **_sbx_evan** 19 comments
Hi, it's Erin here on the food team. We are updating some of our food recipes to eliminate some unnecessary "stuff" and artificial trans fats. We are also providing options with more natural ingredients.

CATEGORIES

- PRODUCTS**
 - Coffee & Espresso Drinks 17,515
 - Tea & Other Drinks 5,379
 - Food 7,609
 - Merchandise & Music 3,242
 - Starbucks Card 4,084
 - Other Product Ideas 5,152
- EXPERIENCE**
 - Ordering, Payment & Pick-Up 4,345
 - Atmosphere & Locations 7,406
 - Our Partners (Employees) 1,646
 - Other Experience Ideas 4,725
- INVOLVEMENT**
 - Building Community 2,300
 - Social Responsibility 4,741
 - Other Involvement Ideas 3,619

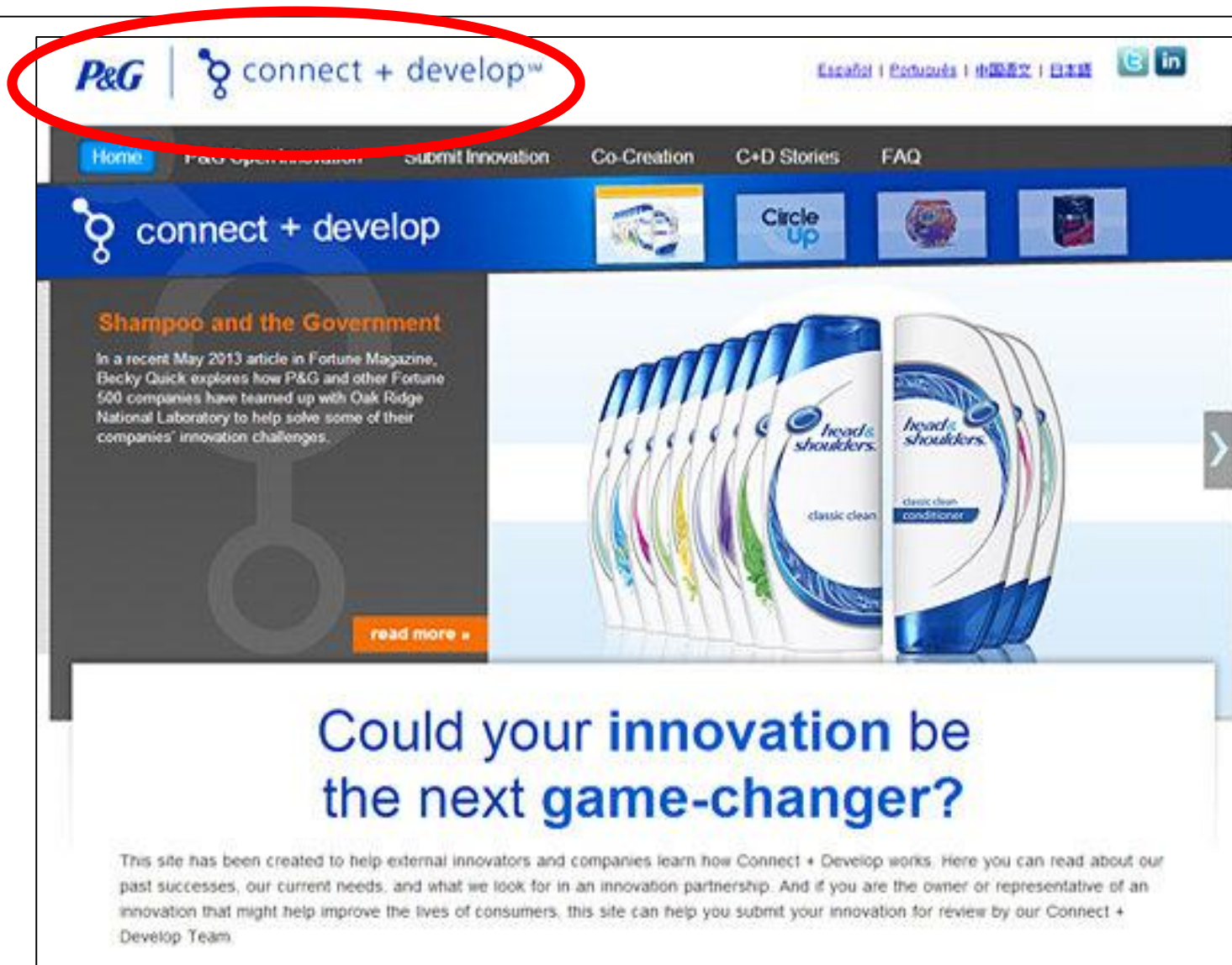
share
Post your Starbucks Idea - from ways we could improve to things we've never even thought of.

vote
Check out other people's ideas and vote on the ones you like best. The community votes. The community decides.

discuss
Talk about ideas with other customers and our Starbucks Idea Partners and help make them even better.

see
This is the proof. See which of your ideas were the most popular and watch as we take action.

Companies are increasingly using **Crowdsourcing** for **Co-Innovation**



The image is a screenshot of the P&G Connect + Develop website. A red circle highlights the P&G logo and the 'connect + develop' text in the top left header. The website has a dark blue navigation bar with links: Home, P&G Open Innovation, Submit Innovation, Co-Creation, C+D Stories, and FAQ. Below this is a blue banner with the 'connect + develop' logo and three icons: a globe, 'Circle up', and a product box. The main content area features a section titled 'Shampoo and the Government' with a paragraph about a May 2013 Fortune Magazine article and a 'read more' button. To the right is a large image of a row of Head & Shoulders shampoo bottles. At the bottom, a white box contains the text 'Could your innovation be the next game-changer?' and a paragraph explaining the site's purpose for external innovators.

P&G | **connect + develop™**

Home | P&G Open Innovation | Submit Innovation | Co-Creation | C+D Stories | FAQ

connect + develop

Shampoo and the Government

In a recent May 2013 article in Fortune Magazine, Becky Quick explores how P&G and other Fortune 500 companies have teamed up with Oak Ridge National Laboratory to help solve some of their companies' innovation challenges.

[read more »](#)

Could your innovation be the next game-changer?

This site has been created to help external innovators and companies learn how Connect + Develop works. Here you can read about our past successes, our current needs, and what we look for in an innovation partnership. And if you are the owner or representative of an innovation that might help improve the lives of consumers, this site can help you submit your innovation for review by our Connect + Develop Team.

Companies are increasingly using **Crowdsourcing** for **Co-Innovation**



COURTESY: PROCTER & GAMBLE

Social

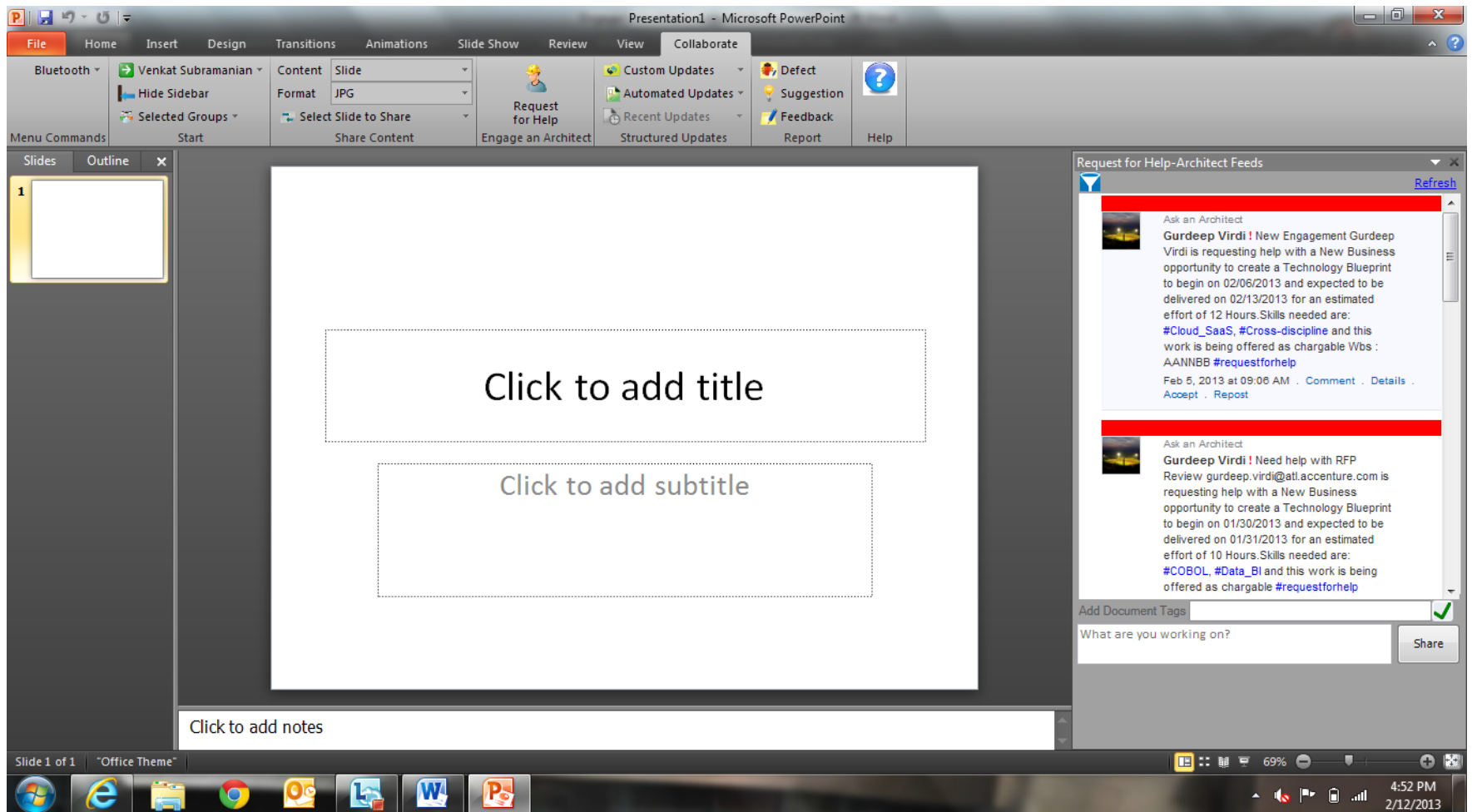
Social in Business

Crowdsourcing

Social in Enterprise

Mobile Social

Enterprises are embedding social-driven, collaborative tools into business processes



Social

Social in Business

Crowdsourcing

Social in Enterprise

Mobile Social

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.

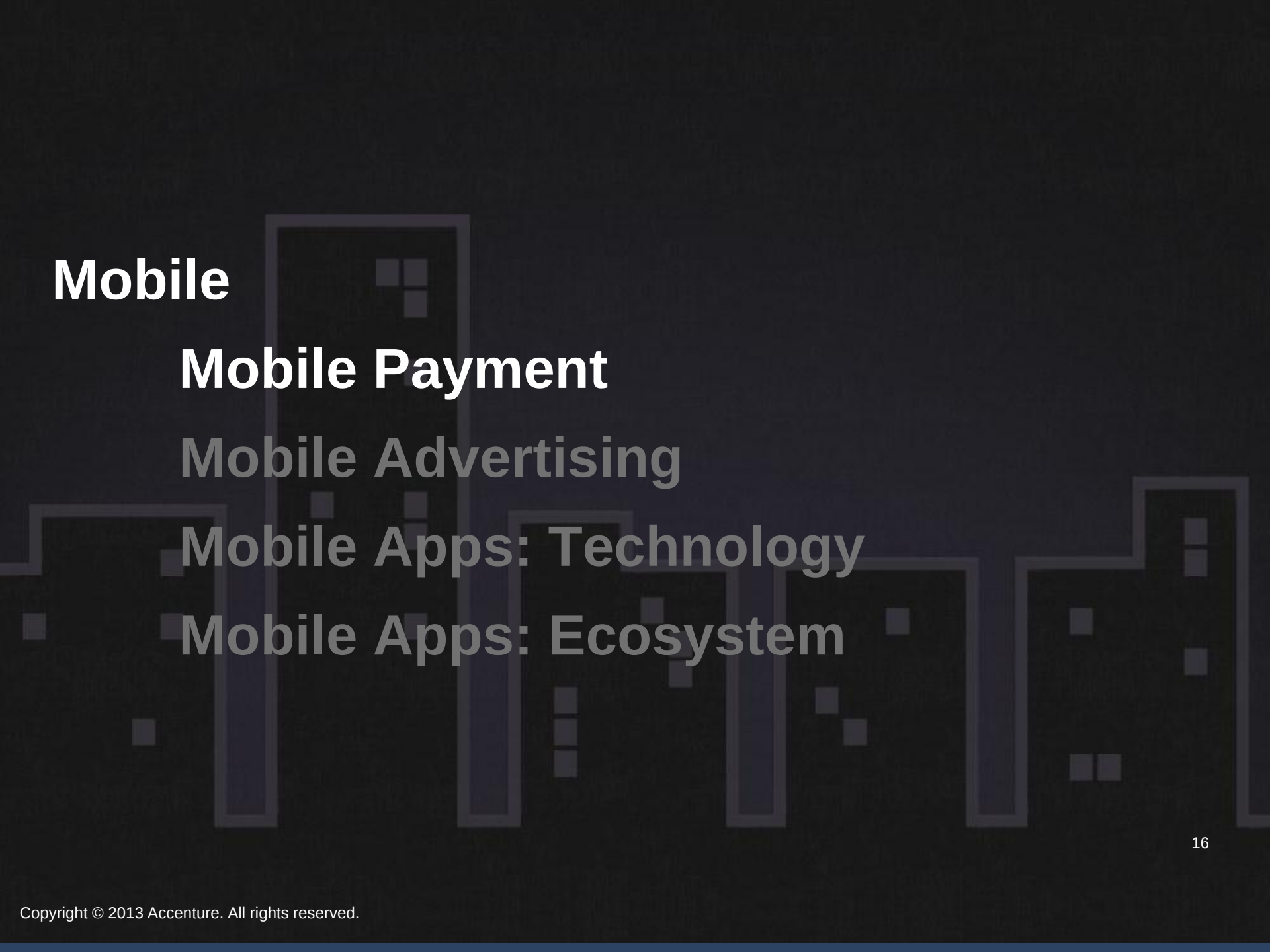
Facebook's U.S. monthly mobile audience grew **50% year-over-year to 57M**, while **Twitter's** mobile user base skyrocketed **75% to 13.4M** monthly users, **LinkedIn** also jumped by **69% to 5.5M** monthly U.S. mobile users.

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Mobile



A dark, stylized city skyline with various building outlines and small square windows, rendered in shades of gray and white against a black background.

Mobile

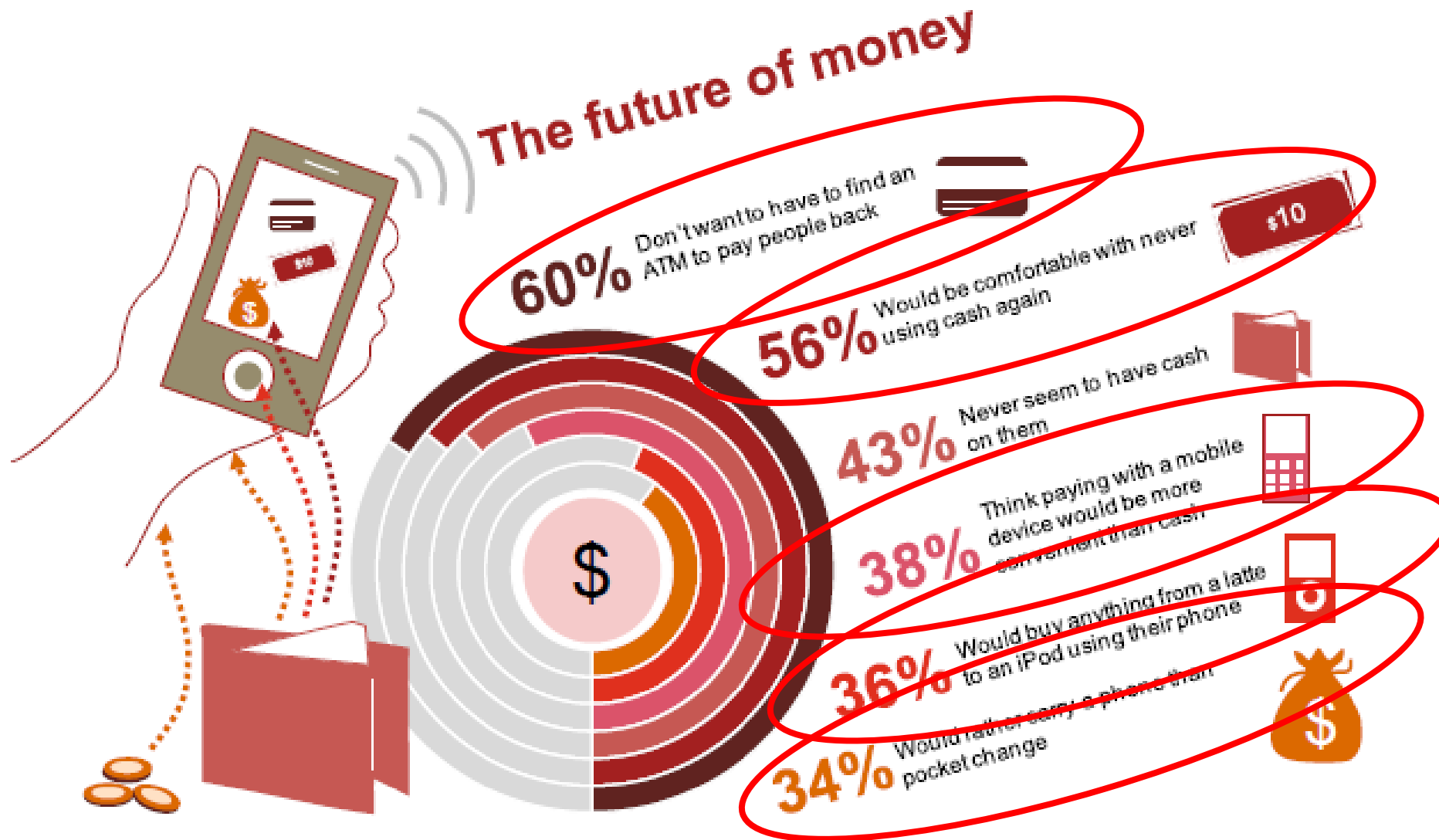
Mobile Payment

Mobile Advertising

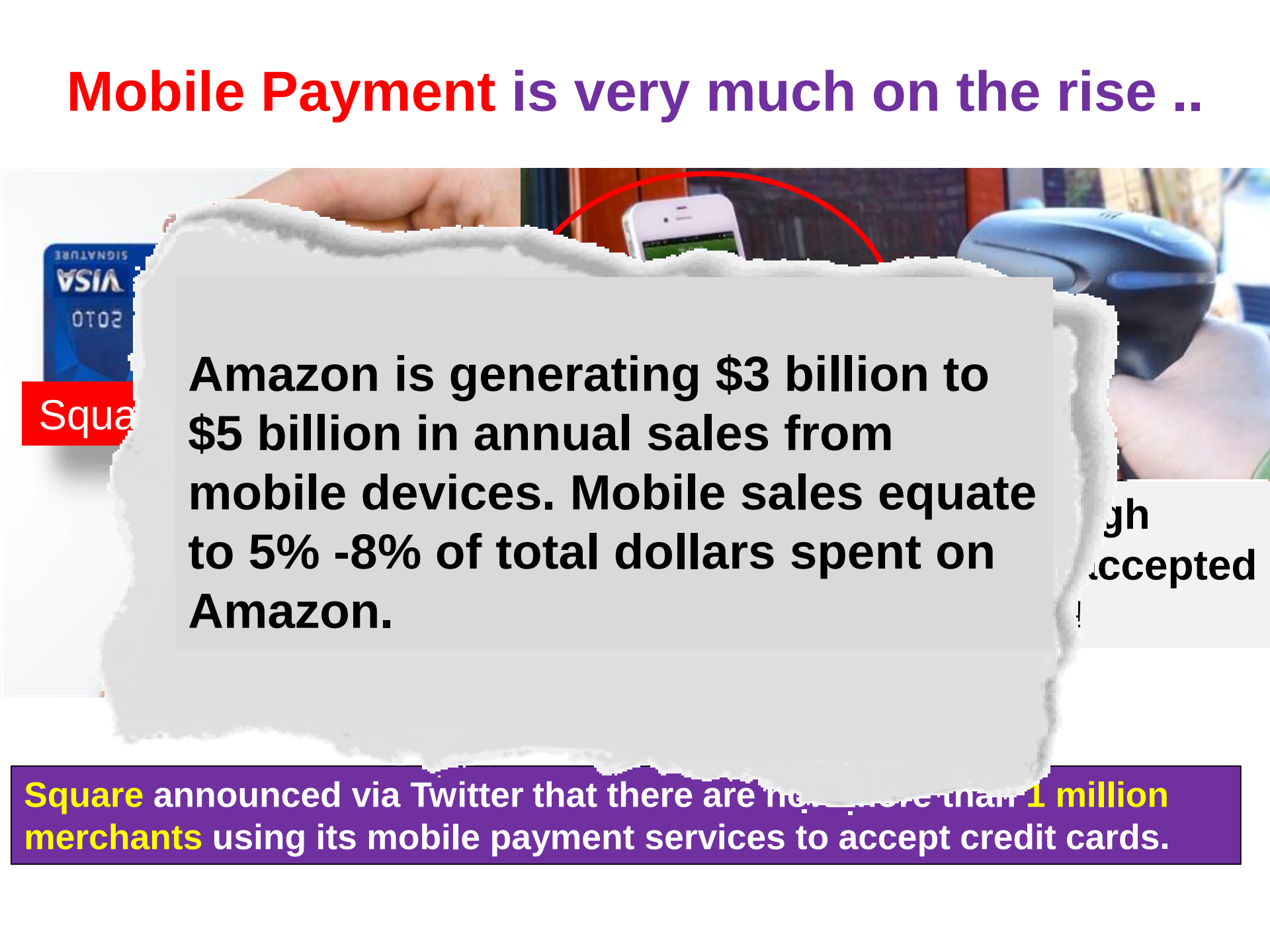
Mobile Apps: Technology

Mobile Apps: Ecosystem

Mobile Payment is very much on the rise ..

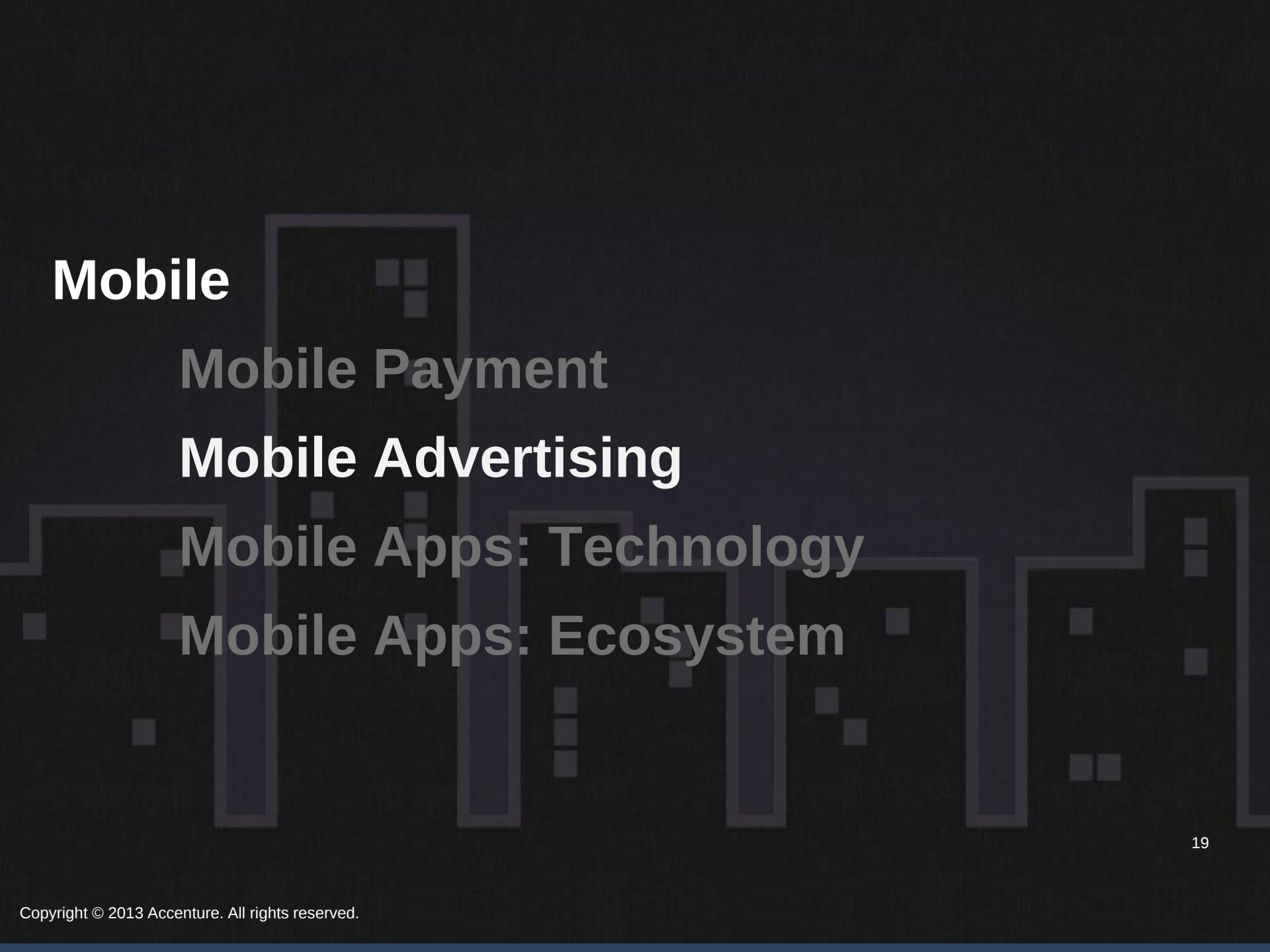


Mobile Payment is very much on the rise ..



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.

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

A dark blue background featuring a stylized, pixelated city skyline in a lighter blue-grey color. The skyline consists of several rectangular buildings of varying heights, some with small square windows. The overall aesthetic is modern and digital.

Mobile

Mobile Payment

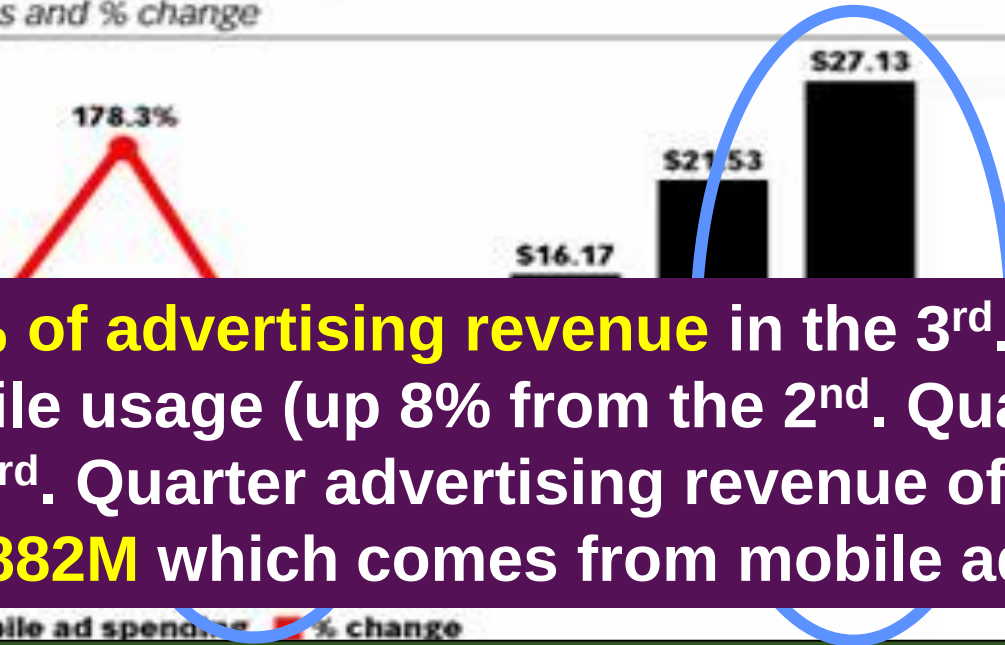
Mobile Advertising

Mobile Apps: Technology

Mobile Apps: Ecosystem

Mobile Advertising is big and poised to get even bigger

US Mobile Ad Spending, 2011-2017
billions and % change



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 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**.

Mobile Advertising is leveraging the nice form factor of smartphones for **richer graphics and video**



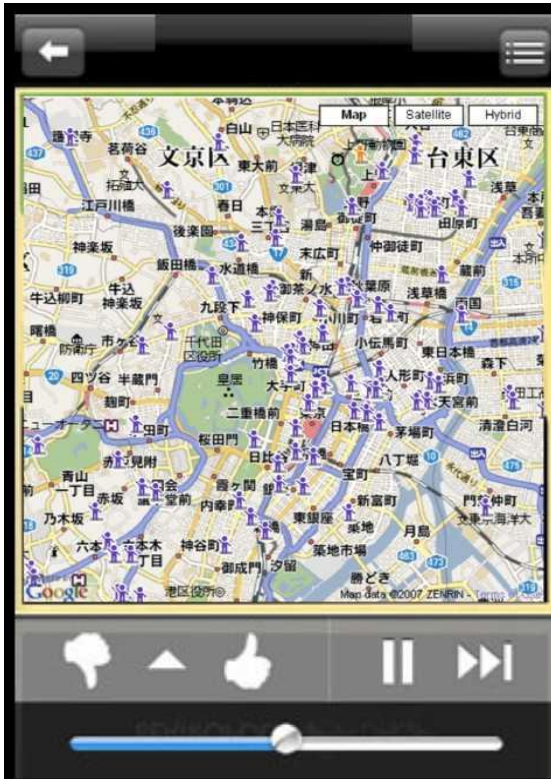
Augmented Reality is slowly gaining traction in Mobile Advertising

Mobile Augmented Reality Advertising: blippar



Location-Based Mobile Advertising for Recruiting

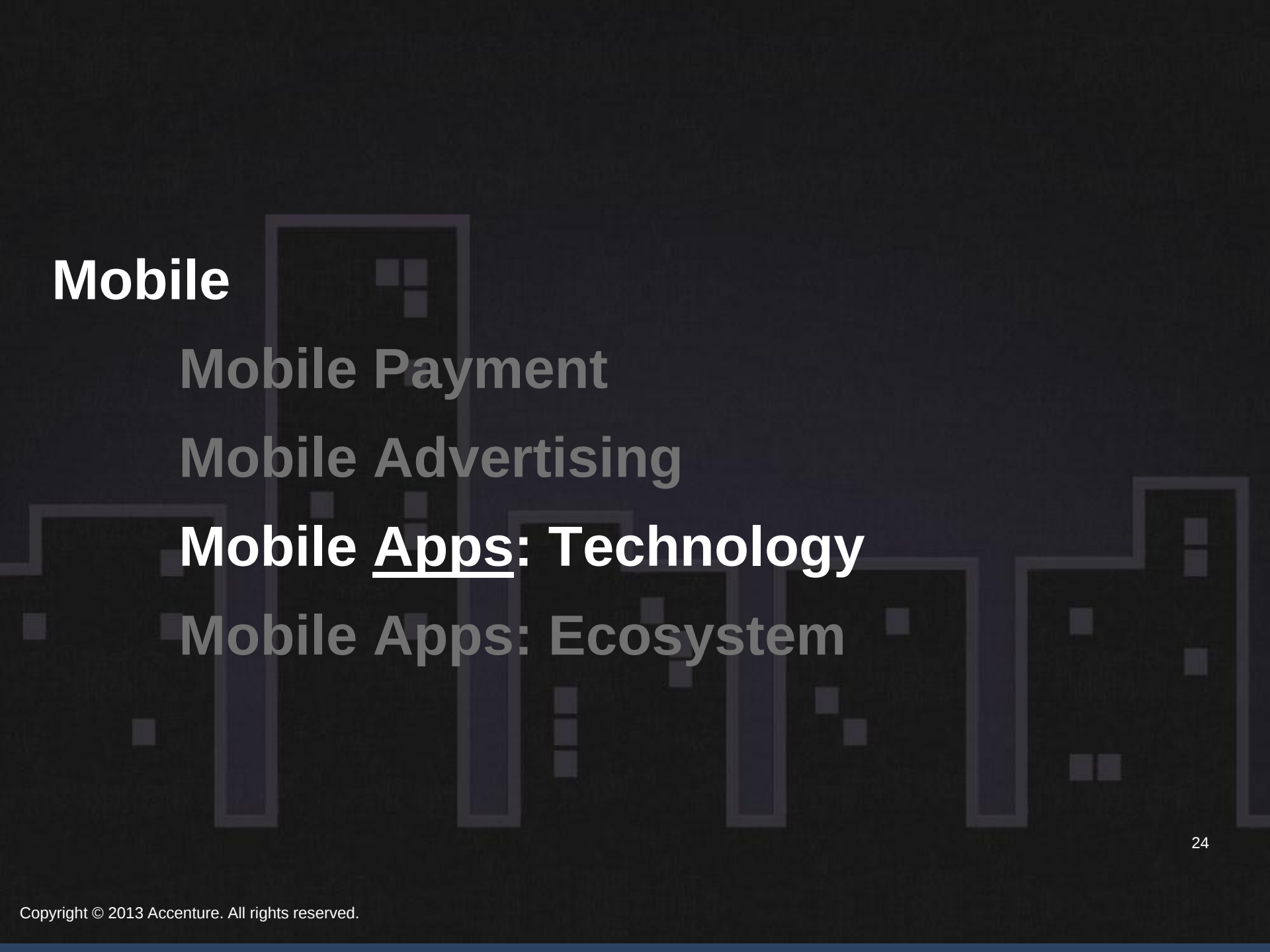
Location-based services help match part-timers with available positions



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

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

Mobile Technology is fundamentally changing the way
business is conducted



Mobile

Mobile Payment

Mobile Advertising

Mobile Apps: Technology

Mobile Apps: Ecosystem

Technology: Mobile App Development Frameworks

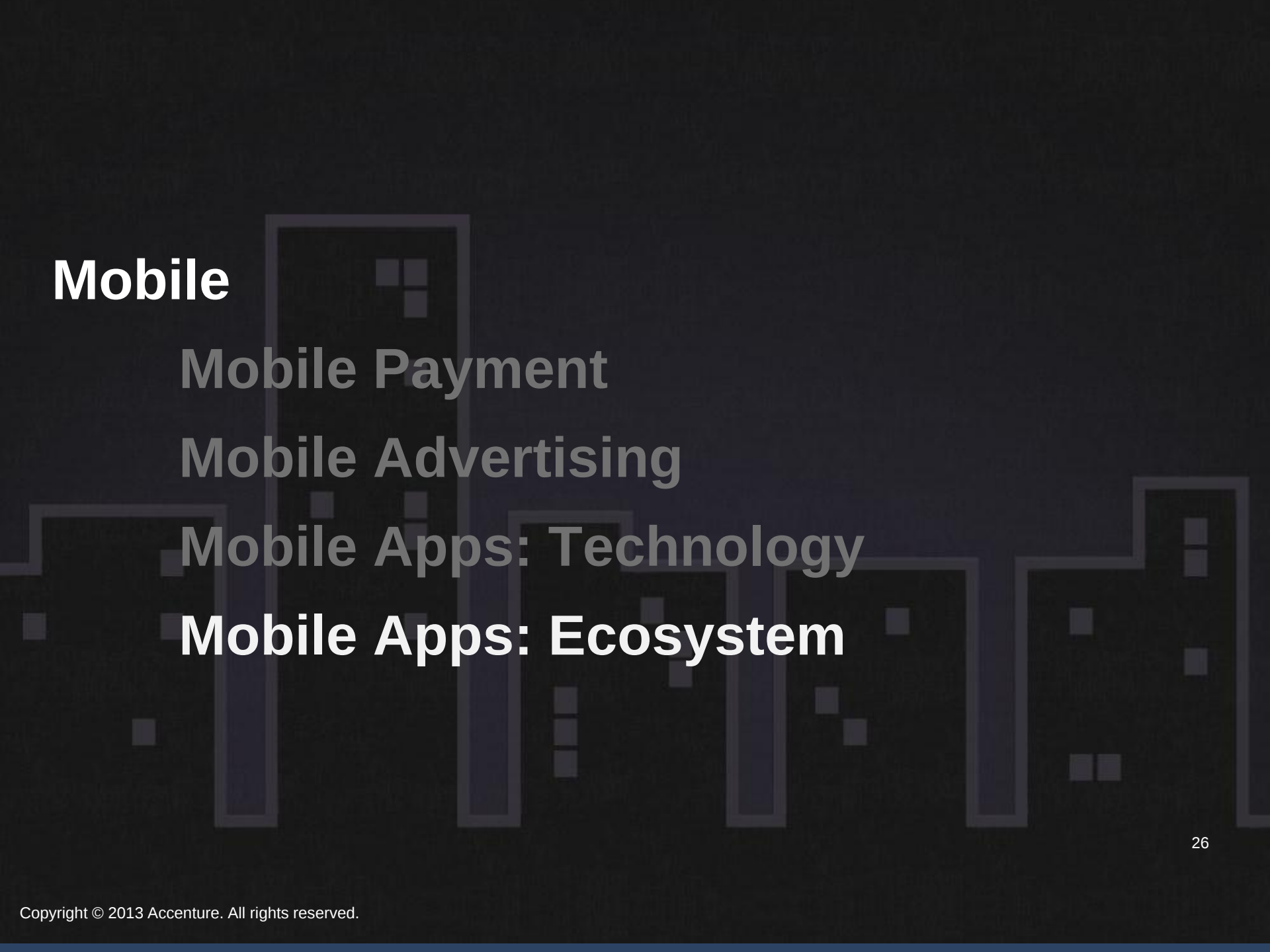
Mobile Frameworks Comparison Chart - Mozilla Firefox

File Edit View History Bookmarks Tools Help

airtel x myschoolonclou... x [MantriEspana F... x myLearning Ho... x HBP Archive x Global mobile st... x Usage Statistics | ... x Mantri Espana, 6... x Mobile Frameworko... x

www.markus-falk.com/mobile-frameworks-comparison-chart/ WebSearch

Framework	Platform (Rendering Engine)											Target					
	OS	Android	Windows Mobile (Trident)	Windows Phone (Trident)	Blackberry OS (Webkit)	Symbian (Webkit/Gecko)	MeeGo (Gecko)	Maemo (Gecko)	WebOS (Webkit)	Bada (Webkit)	ME	Mobile website	WebApp	Native app	Hybrid app	PHP	Java
Apache Flex	✓	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✗	✗
Appcelerator Titanium Mobile*	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✓	✗
CNET iPhone UI	✓	✓	✗	✗	✓	✗	✓	✗	✓	✓	✗	✓	✓	✗	✗	✗	✗
GWT mobile webkit + qwt mobile ui*	✓	✓	✗	✗	✗	✗	✗	✗	✓	✗	✗	✓	✓	✗	✗	✗	✓
iUI*	✓	✓	✗	✗	✓	✗	✓	✗	✓	✓	✗	✓	✓	✗	✗	✗	✗
iPhone Universal*	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗
Jo HTML5 Mobile App Framework*	✓	✓	✗	✗	✗	✓	✗	✗	✓	✗	✗	✓	✓	✗	✗	✗	✗
JO Touch*	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✗	✗
iQuery Mobile*	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓	✗	✗	✗	✗
PhoneGap*	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✗	✗



Mobile

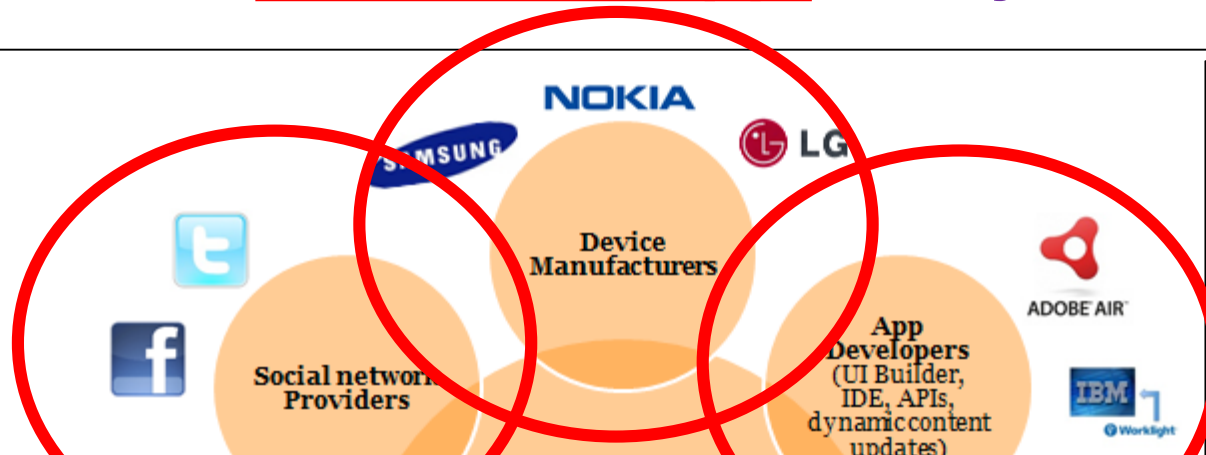
Mobile Payment

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**.

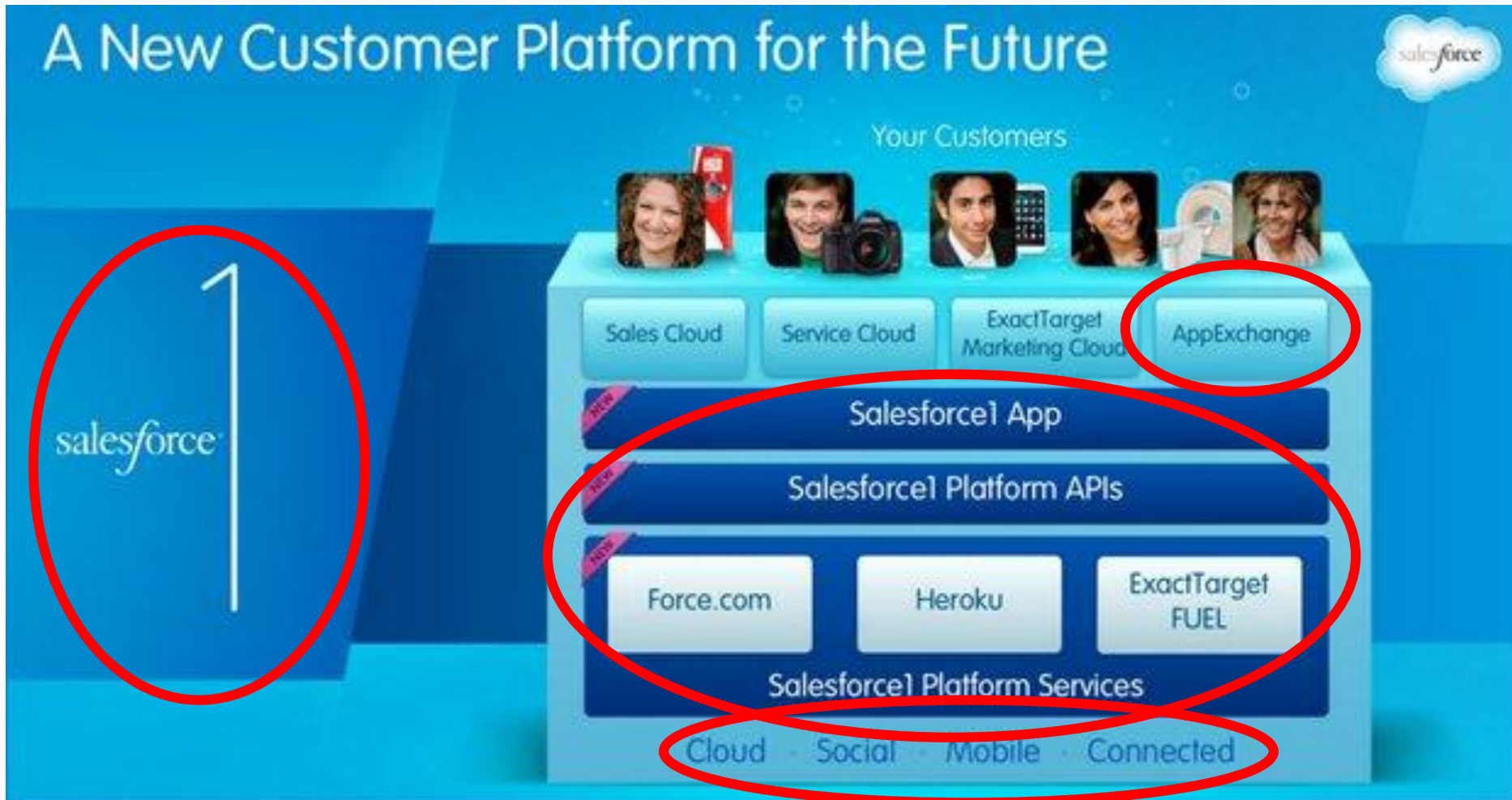
- ABI Research (March 2013): apps generate revenues of **\$25 billion in 2013**; 2/3rd from smartphones, 1/3rd from tablets
- Of this \$25 billion, **65% from Apple's iOS** ecosystem, **27% from Google's Android**, and the remaining 8% from others
- In **2018**, app revenues will be worth **\$92 billion** - tablet apps will be worth more than smartphone apps.

Mobile Business App Ecosystem

MOBILE BUSINESS APPLICATIONS LANDSCAPE

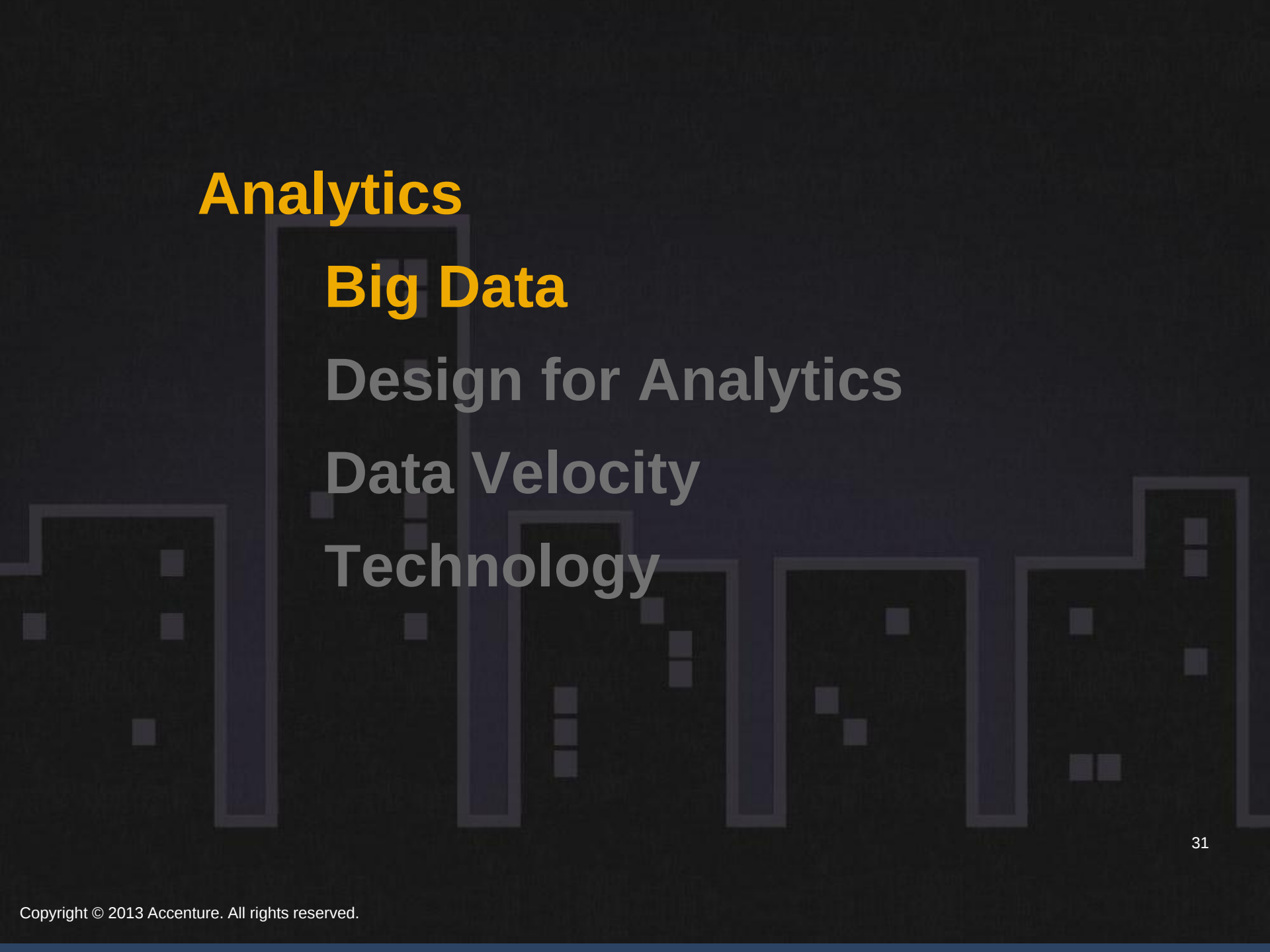


Mobile Enterprise/Business App Ecosystem



Analytics



A stylized, dark grey city skyline is visible in the background, featuring several rectangular buildings of varying heights. Some buildings have small, light grey squares on them, suggesting windows. The overall aesthetic is modern and tech-oriented.

Analytics

Big Data

Design for Analytics

Data Velocity

Technology

What exactly is **big** Data and why is it important?

Too much Data, Too little Time ..

The four V's of big data

Volume	<u>Data growth</u> is the biggest data centre hardware infrastructure challenge for large enterprises (terabytes to petabytes).
Velocity	How <u>fast</u> is the data coming in?
Variety	All types of data are now being collected (<u>structured, semi-structured and unstructured</u>).
Value	The valuable pieces of data need to be separated from among data that does not matter.

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

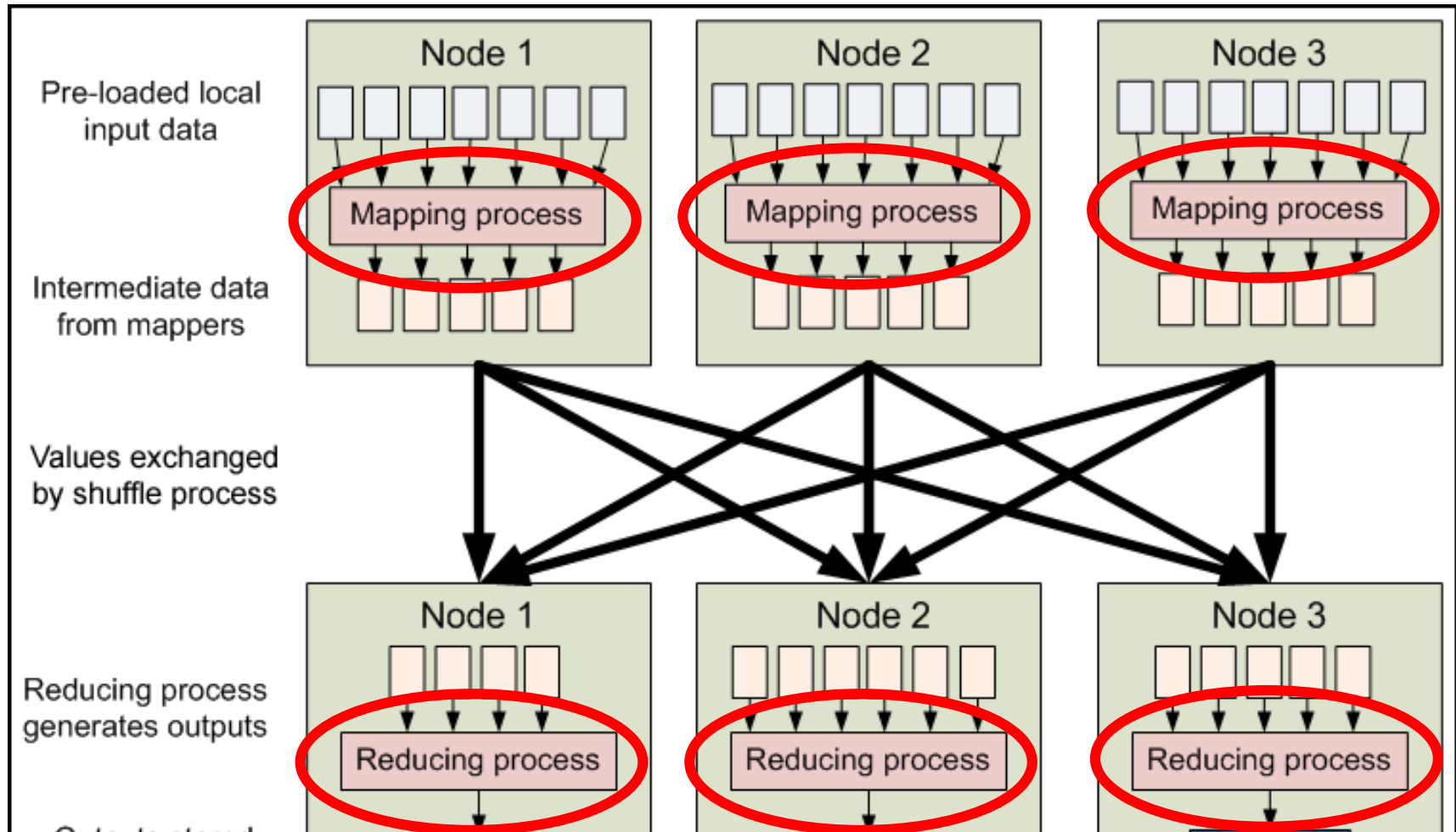
Oracle Big Data Appliance

ORACLE
EXADATA

- 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 Programming 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!

Analytics

Big Data

Design for Analytics

Data Velocity

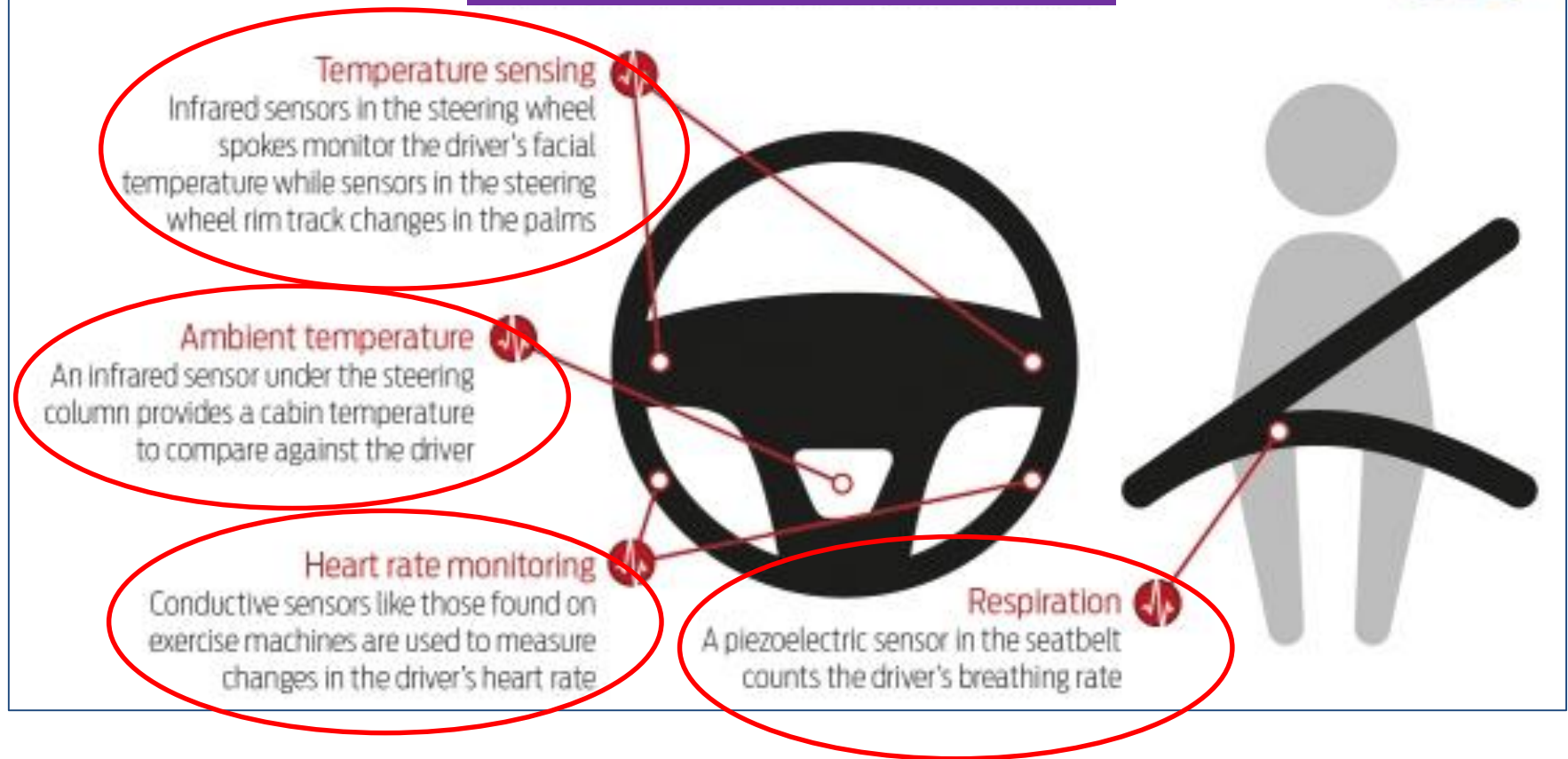
Technology

Design for Analytics

- 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



Goal: Design the best possible user experience for the driver

Analytics

Big Data

Design for Analytics

Data Velocity

Technology

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

Speed



In-memory hardware
innovations

Flexibility



Real-time
access to data

Lower TCO

Cloud



Cloud

Transformation of IT

Cloud-Enabled Agility

Mobile Backend as a Service (MBaaS)

Software Defined Networking (SDN)

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.

Business Process
as a Service



Software
as a Service

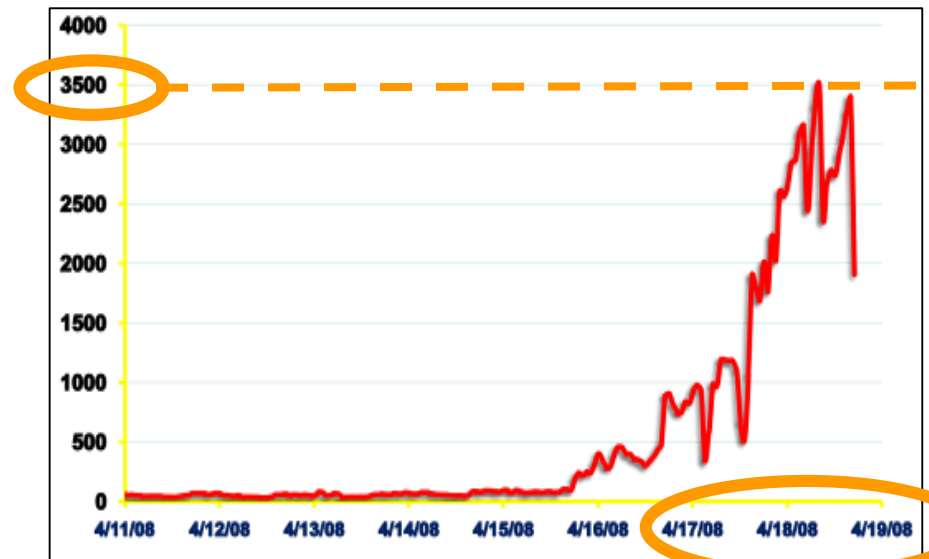
Infrastructure
as a Service



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

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

Animoto: 50 to 3,500 servers in 3 days



An impossibility in the traditional IT investment paradigm.

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)**

Software as a service (SaaS)



Applications: Business Processes

Salesforce, Netsuite, Workday

SAP, Oracle



Platform as a service (PaaS)



Platform: Software Development Environment

Force.com, Cloud Foundry,
OpenShift, OpenStack,
Windows Azure, Heroku,
Google App Engine



Infrastructure as a service (IaaS)



Vmware, Red Hat, Amazon

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

The image displays two side-by-side screenshots. The left screenshot is a web browser view of the 'Intuit Workplace App Center'. The page features a navigation bar with 'Home', 'Why Workplace?', and 'FAQ'. Below this, a banner reads 'Get more done in less time with Workplace Apps.' and lists various app categories: 'Run My Business', 'Manage My Work', 'Grow and Manage My Customers', and 'Reduce My Costs'. A red circle highlights the 'Most Viewed' section, which includes 'VerticalResponse for Intuit@ Workplace', 'DreamFactory Suite', and 'Intuit Small Business Scheduler'. The right screenshot is an iPhone app interface titled 'Apps'. It shows a list of applications: 'Action Items', 'Benefits Summary', 'Directory', 'Expenses', and 'Sales Training'. Red circles highlight the 'Directory' and 'Sales Training' apps. The iPhone status bar at the top shows 'AT&T', '11:53 AM', and '99%' battery.

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

Cloud

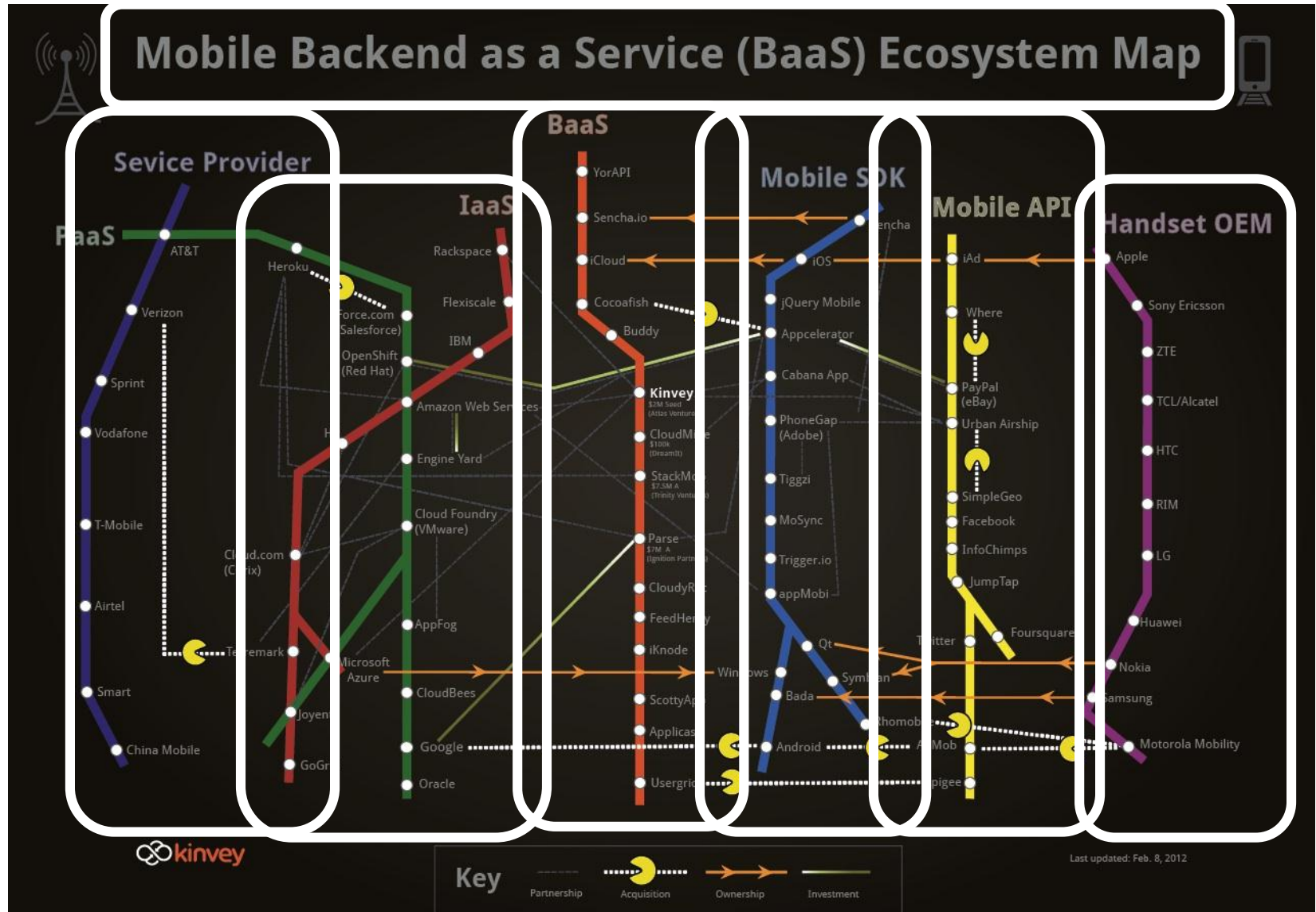
Transformation of IT

Cloud-Enabled Agility

Mobile Backend as a Service (MBaaS)

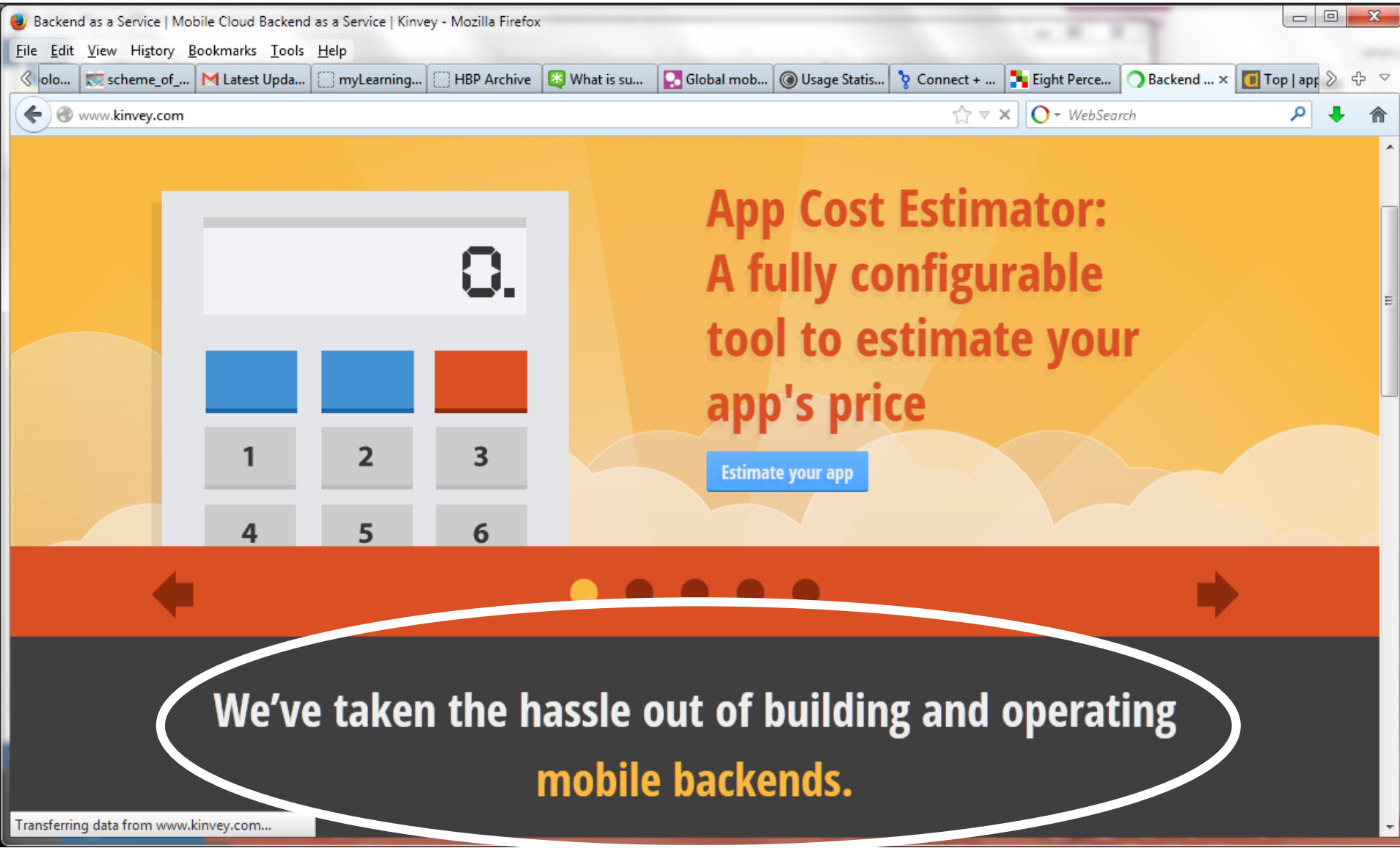
Software Defined Networking (SDN)

Mobile Backend as a Service (MBaaS)



Kinvey

Mobile Backend as a Service (MBaaS)



The screenshot shows a web browser window with the Kinvey website. The page features a large orange background with a stylized calculator graphic on the left. The calculator has a display showing '0.' and buttons for digits 1-6, as well as blue and red function buttons. To the right of the calculator, the text 'App Cost Estimator: A fully configurable tool to estimate your app's price' is displayed in a bold, orange font. Below this text is a blue button labeled 'Estimate your app'. At the bottom of the page, a dark grey banner contains the text 'We've taken the hassle out of building and operating mobile backends.' in white and orange. The browser's address bar shows 'www.kinvey.com' and the page title is 'Backend as a Service | Mobile Cloud Backend as a Service | Kinvey - Mozilla Firefox'.

Backend as a Service | Mobile Cloud Backend as a Service | Kinvey - Mozilla Firefox

File Edit View History Bookmarks Tools Help

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www.kinvey.com

WebSearch

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

Estimate your app

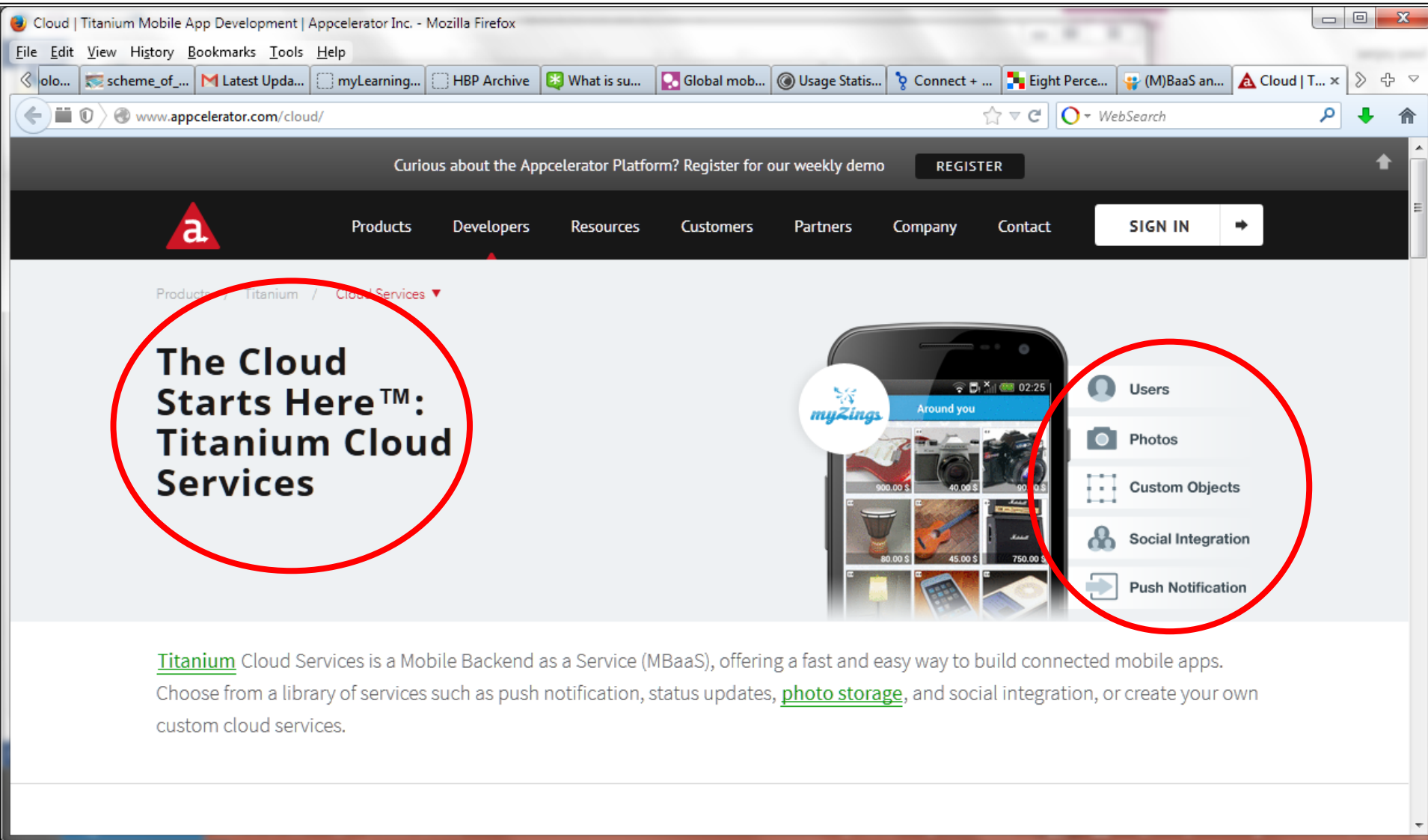
← →

**We've taken the hassle out of building and operating
mobile backends.**

Transferring data from www.kinvey.com...

Appcelerator

Mobile Backend as a Service (MBaaS)



The screenshot shows the Appcelerator website in a Mozilla Firefox browser. The address bar displays www.appcelerator.com/cloud/. The page features a navigation bar with links to Products, Developers, Resources, Customers, Partners, Company, and Contact, along with a SIGN IN button. The main content area is titled "The Cloud Starts Here™: Titanium Cloud Services". To the right of this title is a smartphone displaying a "myZings" app interface with a grid of items and their prices. A sidebar on the right lists available services: Users, Photos, Custom Objects, Social Integration, and Push Notification. Below the main content, a paragraph describes Titanium Cloud Services as a Mobile Backend as a Service (MBaaS) that offers a fast and easy way to build connected mobile apps, listing services like push notification, status updates, photo storage, and social integration.

Curious about the Appcelerator Platform? Register for our weekly demo [REGISTER](#)

[Products](#) [Developers](#) [Resources](#) [Customers](#) [Partners](#) [Company](#) [Contact](#) [SIGN IN](#)

The Cloud Starts Here™: Titanium Cloud Services



- Users
- Photos
- Custom Objects
- Social Integration
- Push Notification

[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)

Award-Winning Mobile Application Platform for the Enterprise | FeedHenry - Mozilla Firefox

File Edit View History Bookmarks Tools Help

olo... scheme_of... Latest Upda... myLearning... HBP Archive What is su... Global mob... Usage Statis... Connect + ... Eight Perce... (M)BaaS an... Award-...

www.feedhenry.com

FEEDHENRY™

ABOUT PLATFORM SOLUTIONS RESOURCE CENTRE CONTACT BLOG

Where mobile meets cloud

bringing scalability, security
affordability to enterprise app
development and management

Want to see the power of FeedHenry for yourself? [Request a trial](#)

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

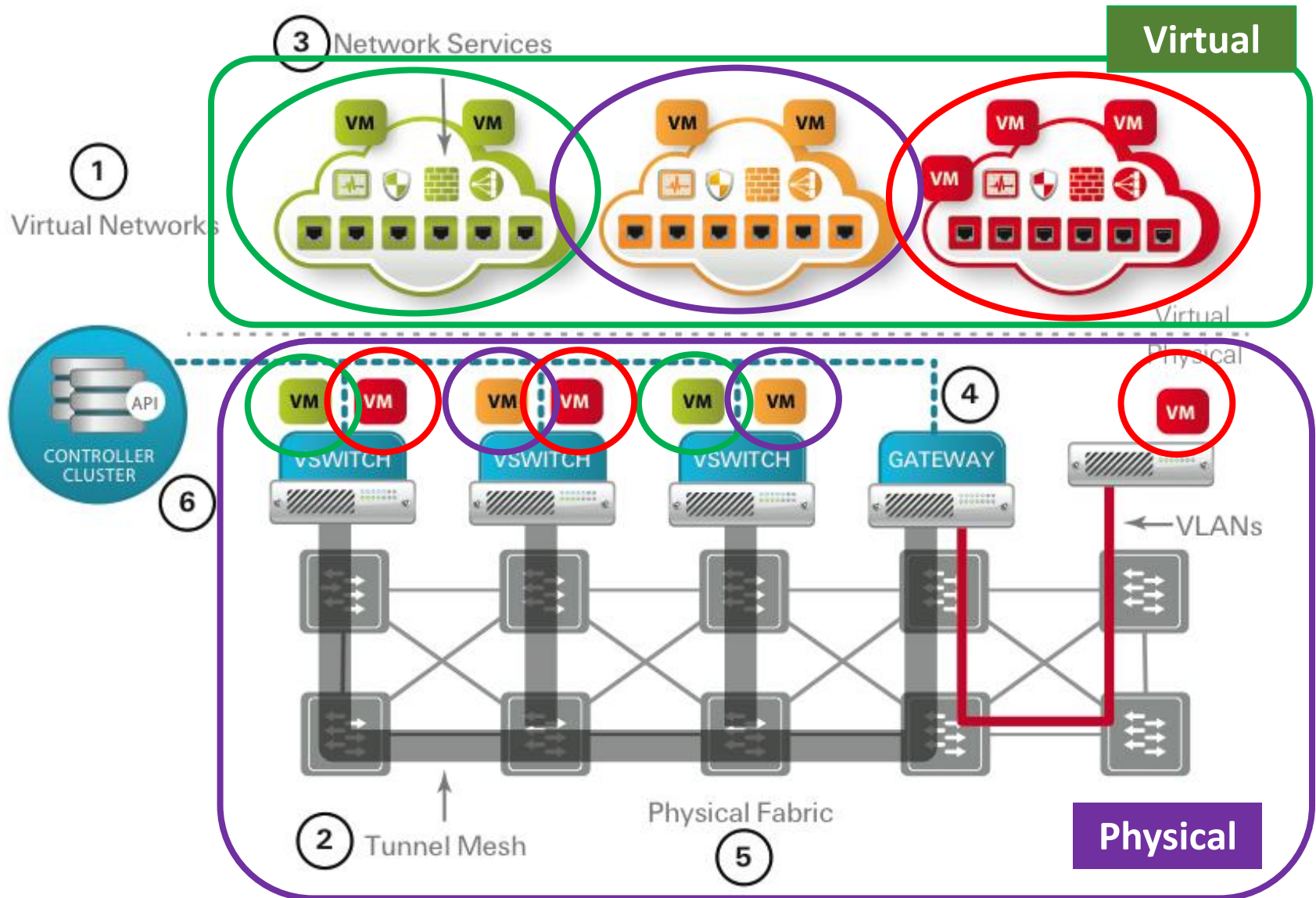
Mobile Backend as a Service (MBaaS)

Software Defined Networking (SDN)

Software Defined Networking (SDN)

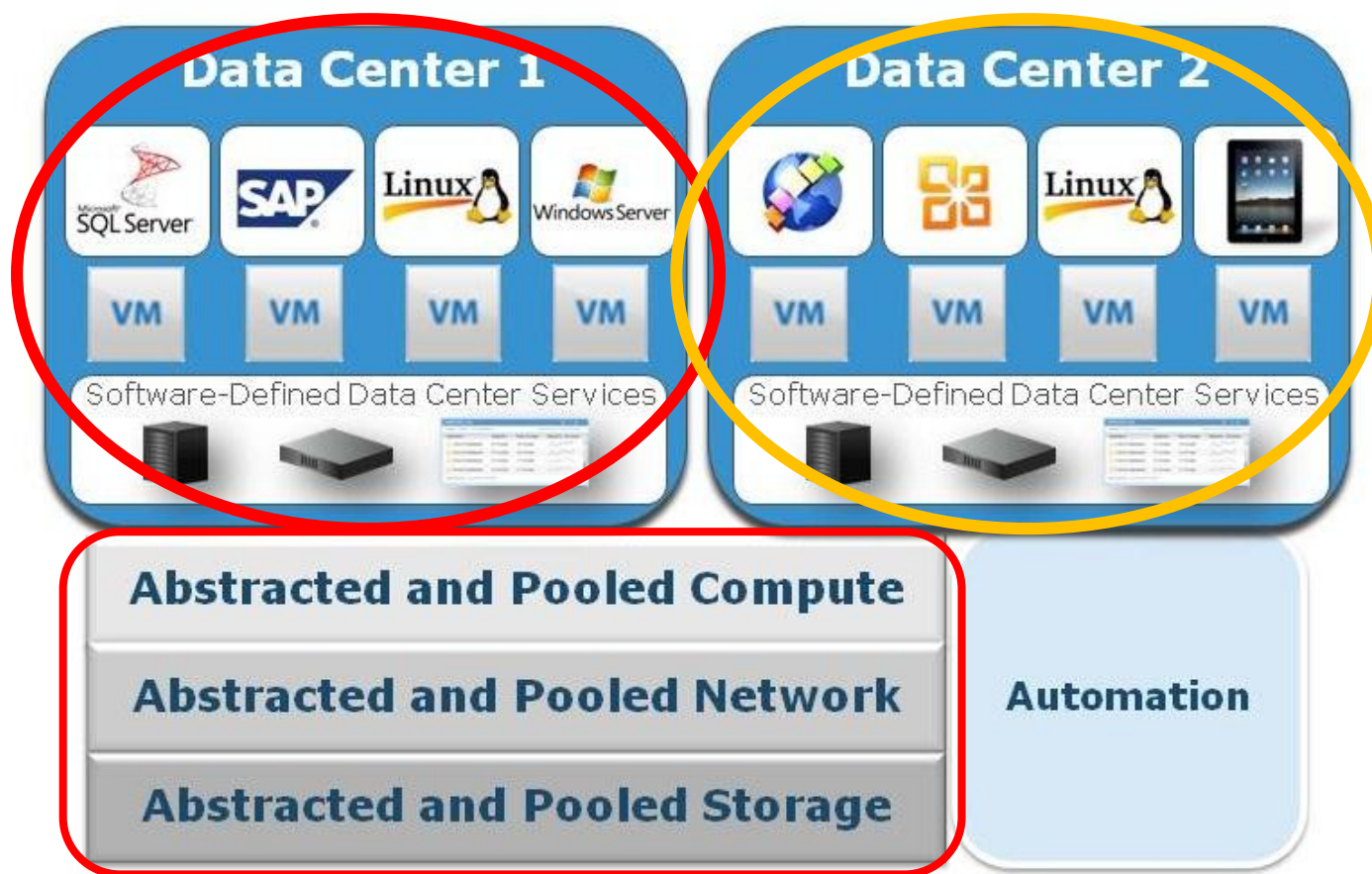
- SDN is the **last leg of virtualization** (after compute and storage)
- SDN allows companies to **remove the complexity of network reconfiguration**, and thus reduces cost, and turns the network into a truly dynamic and flexible asset.

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

The Software-Defined Data Center



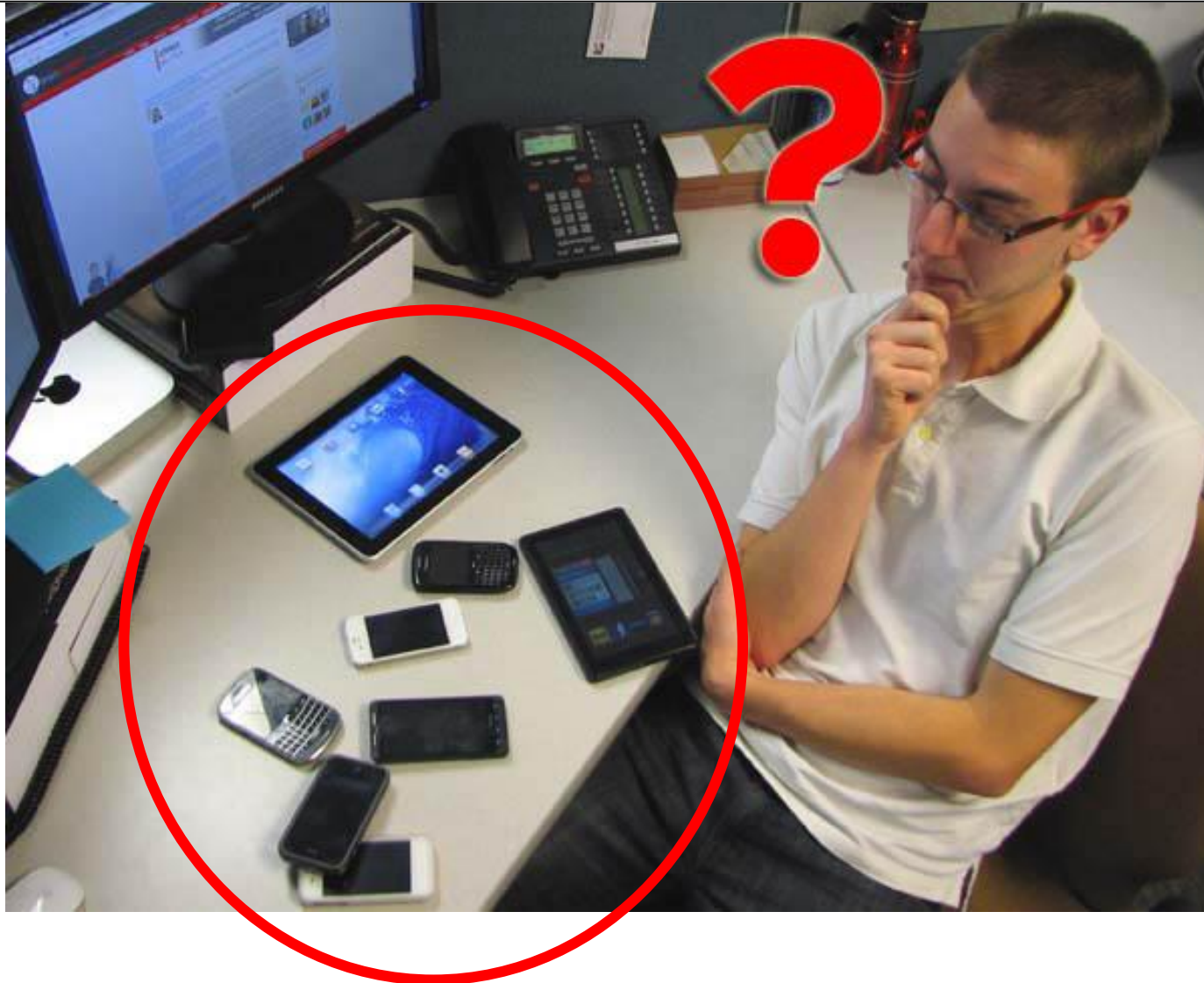
Physically on the same network infrastructure in a co-lo but virtually on different networks

SMAC-enabled Digital Transformation of Business

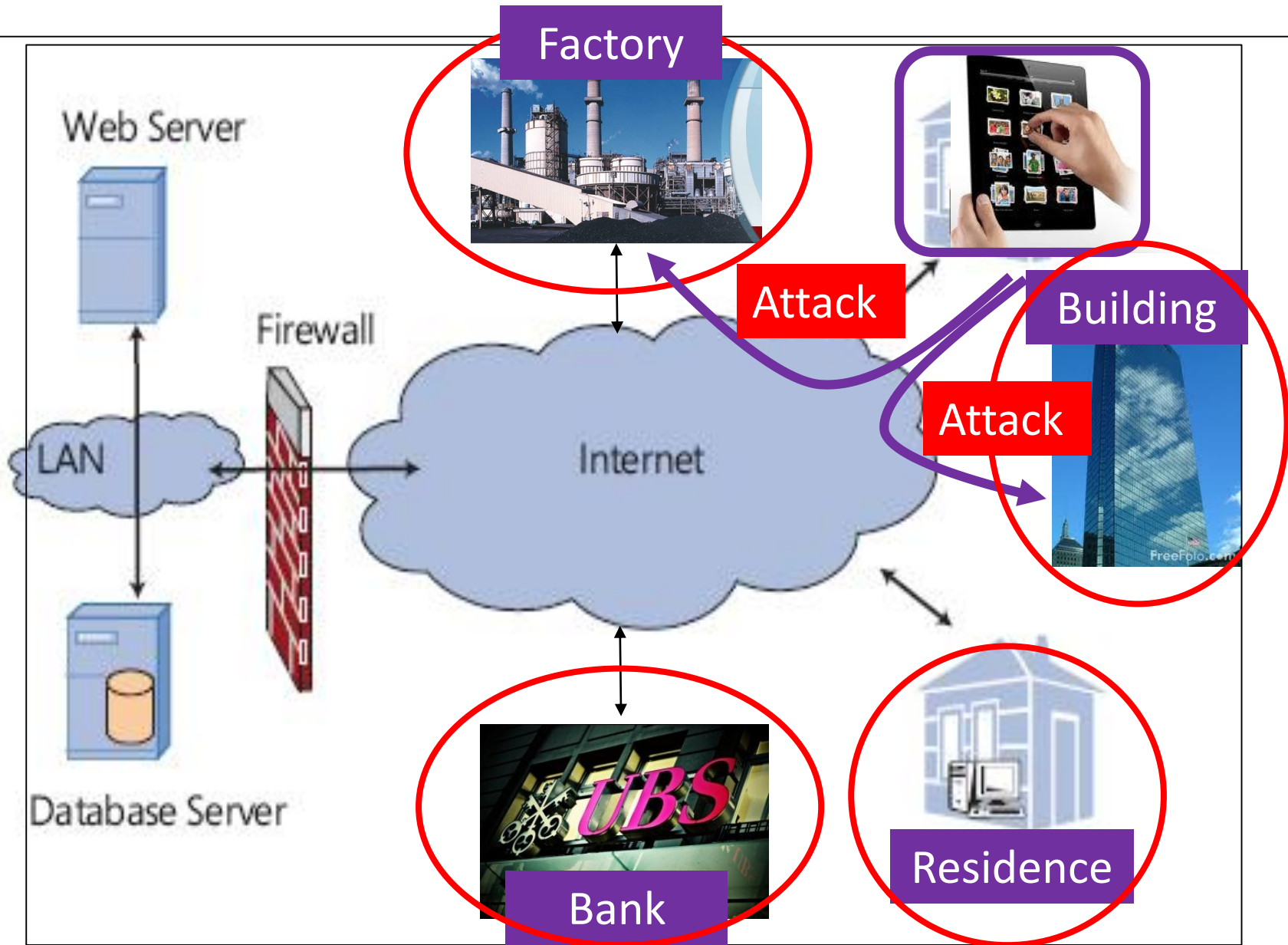
Challenges

Opportunities

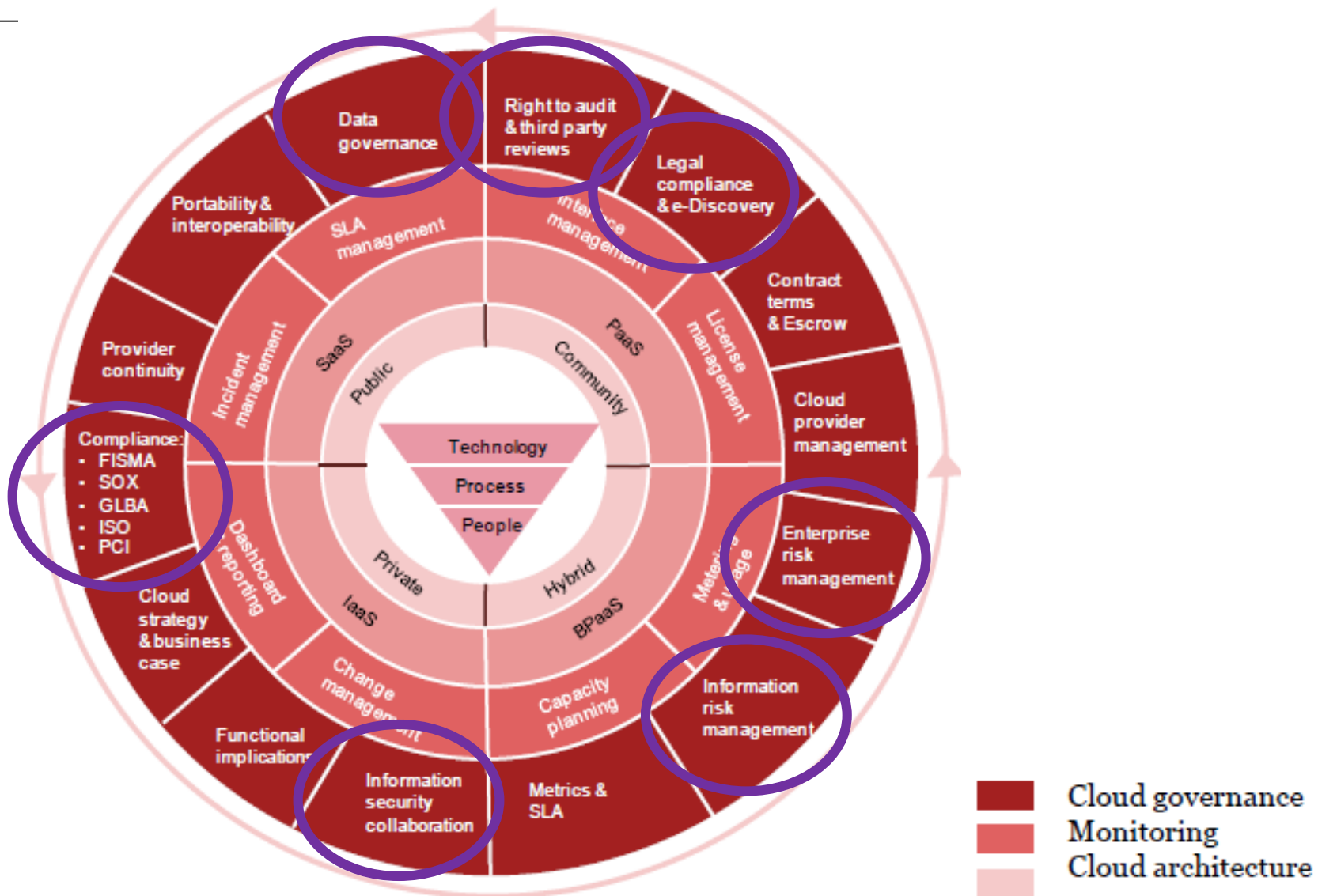
Security breaches are inevitable: it will **only increase** with employees using their **own devices** for enterprise apps



Security breaches are inevitable: it will **only increase** with non-traditional systems getting connected to the Internet



Cloud Security Risks

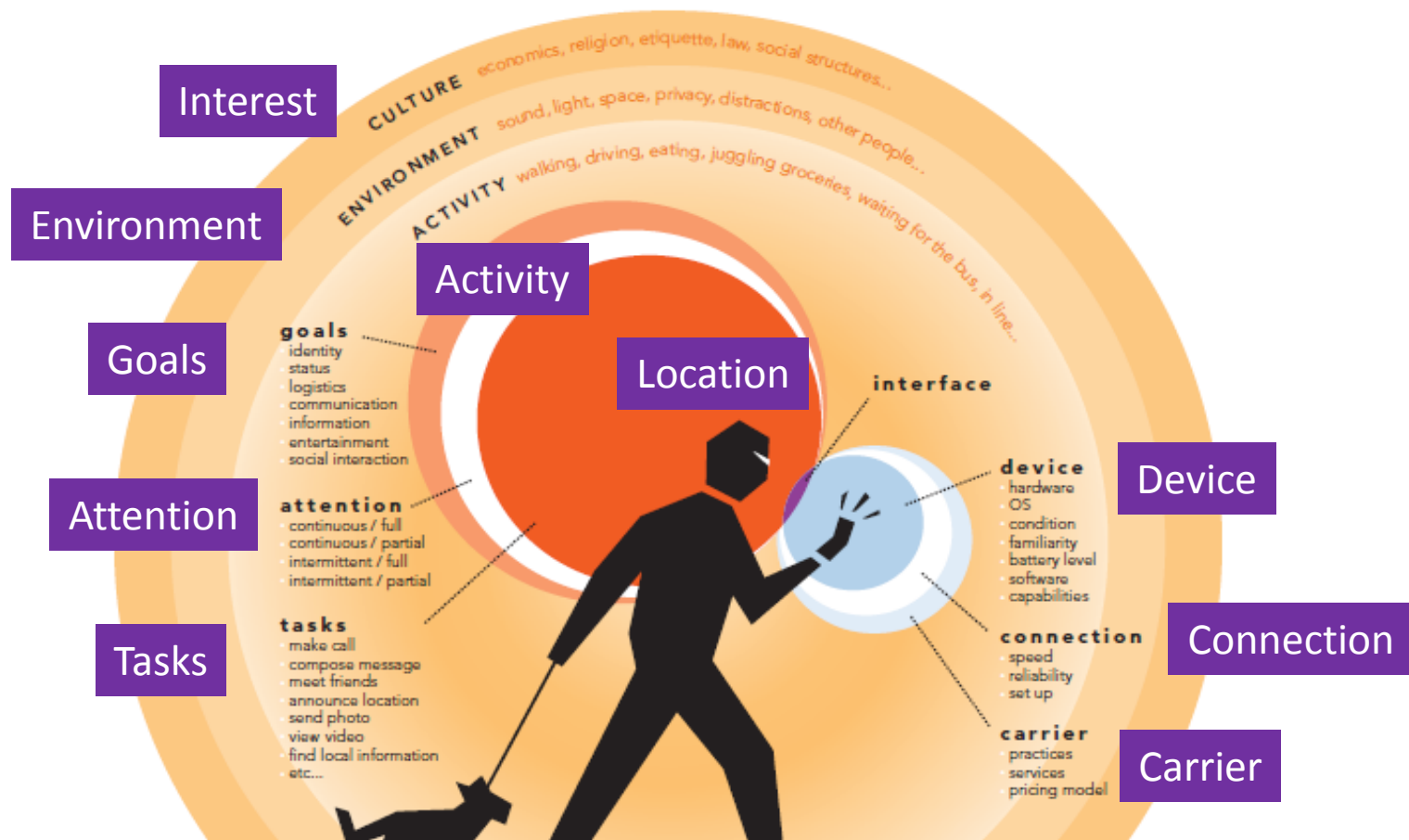


SMAC-enabled Digital Transformation of Business

Challenges

Opportunities

Context-based Services using SMAC



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**)



Reach.ly

[About us](#)

[How it works](#)

[Drop us a line](#)



Log in with Twitter



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

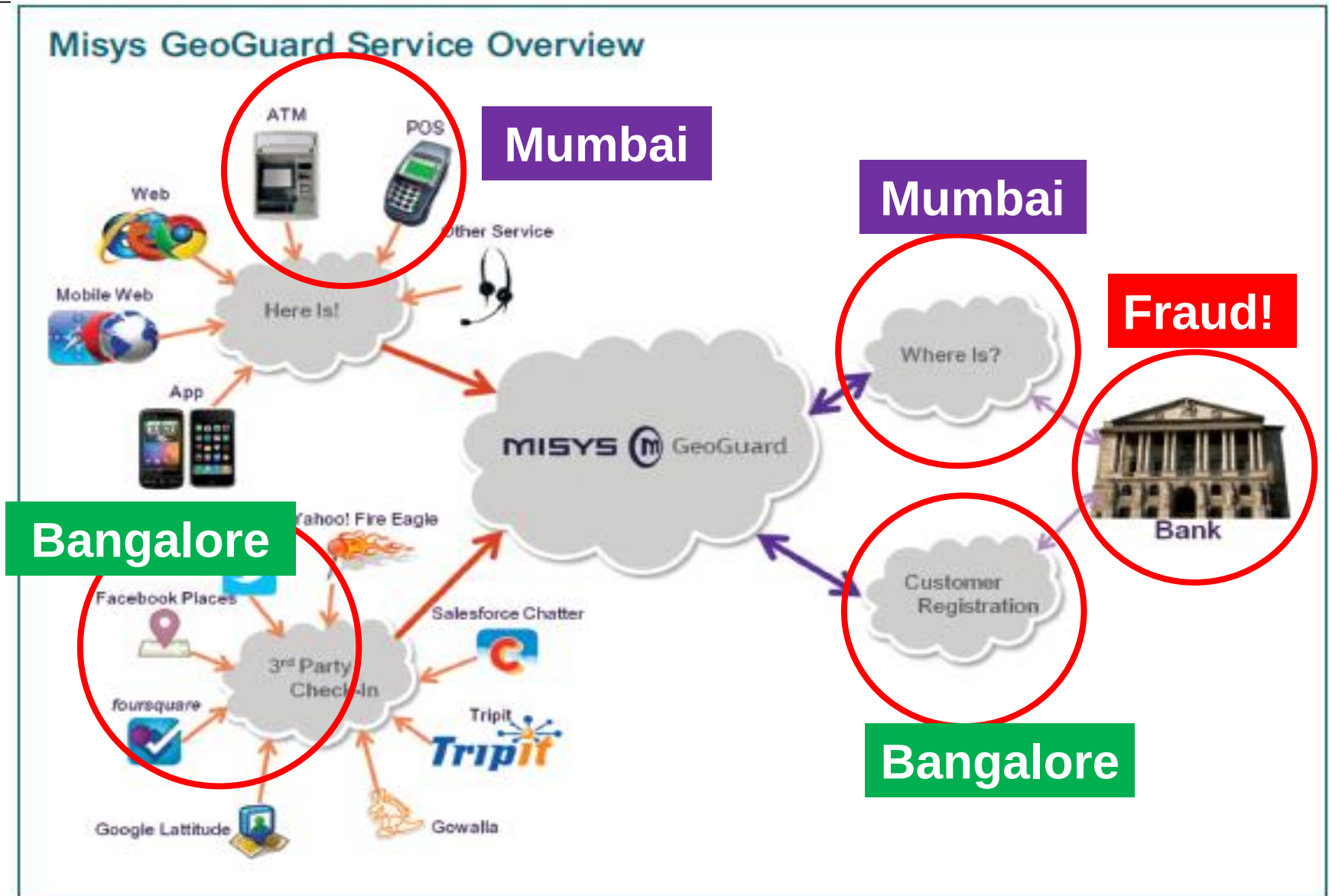


Log in with Twitter

and find your first guests

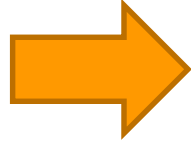


Misys GeoGuard Uses Customer Location to Enhance Service and Reduce Fraud for Banks (Financial Industry)



Summary of the Presentation

Social
Mobile
Analytics
Cloud



Faster Time to Market
Simplified Business
Faster Processes
Quicker and Informed Decision Making
Adaptive Business

Questions & Answers



Thank you!
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