



Systems of Interaction

Taking your business to the mobile era,...
While making your information systems a source of innovation
– Part 1



Jerry Cuomo

IBM Fellow, VP, WebSphere CTO

Mobile re-inventing everyday Live



**Systems
of Interaction**



Systems of Interaction

Systems of Engagement

Continuous client experience

Systems of Record

CRM	HR
DB	ERP

Partner value chain

Cloud-based Services

Internet of Things

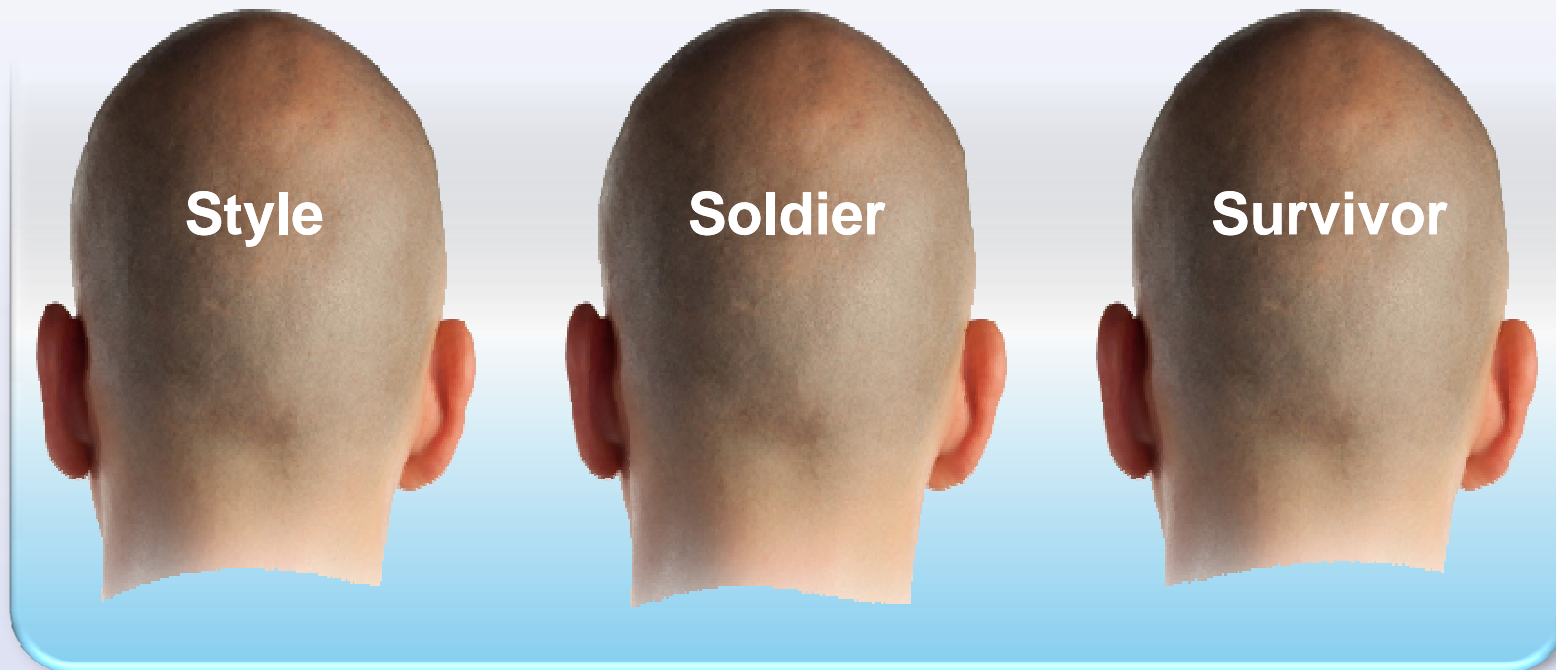


Types of Interactions

Time and Location

Social and Behavior

Multi-channel



The power of context

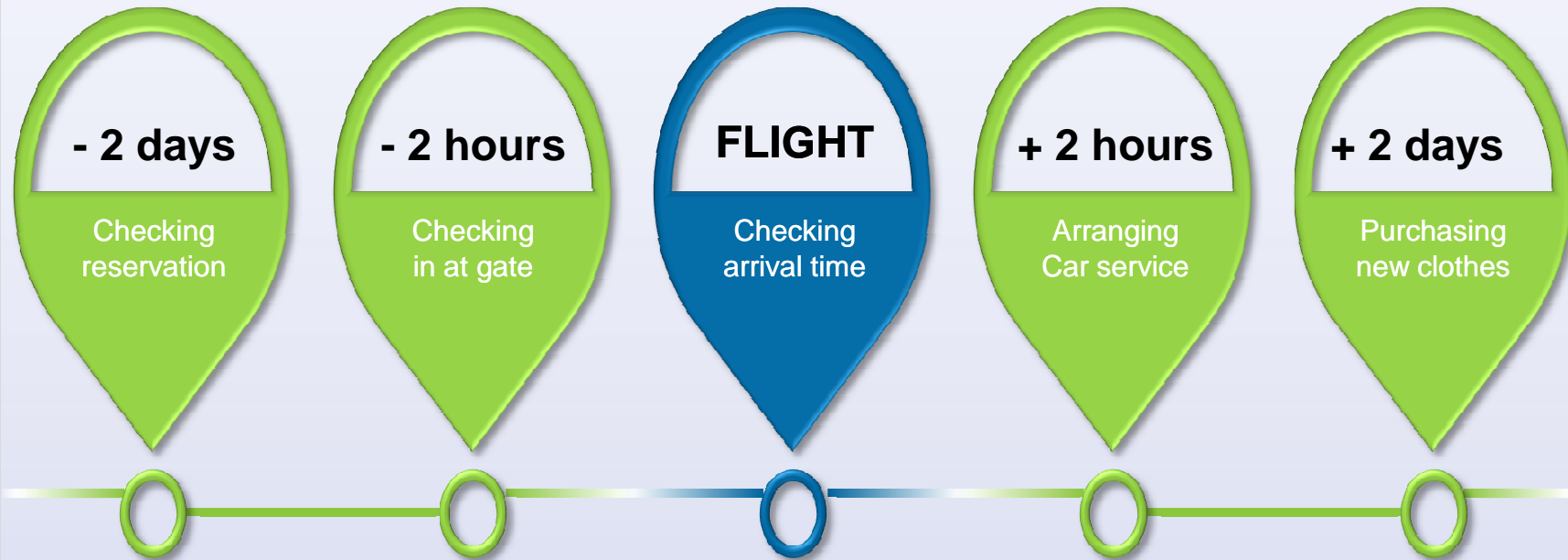


Extended Transaction Scope

Time and Location

Social and Behavior

Multi-channel



Airline example based on user time



Insights driving actions

Time and Location

Social and Behavior

Multi-channel



Credit card program example

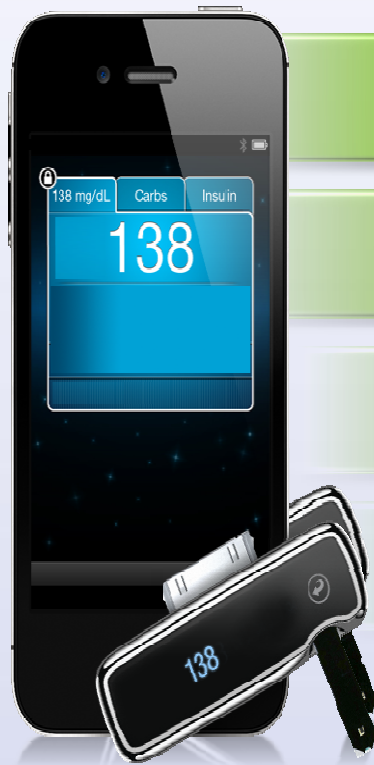


360° experience

Time and Location

Social and Behavior

Multi-channel



Diet

Exercise

Status

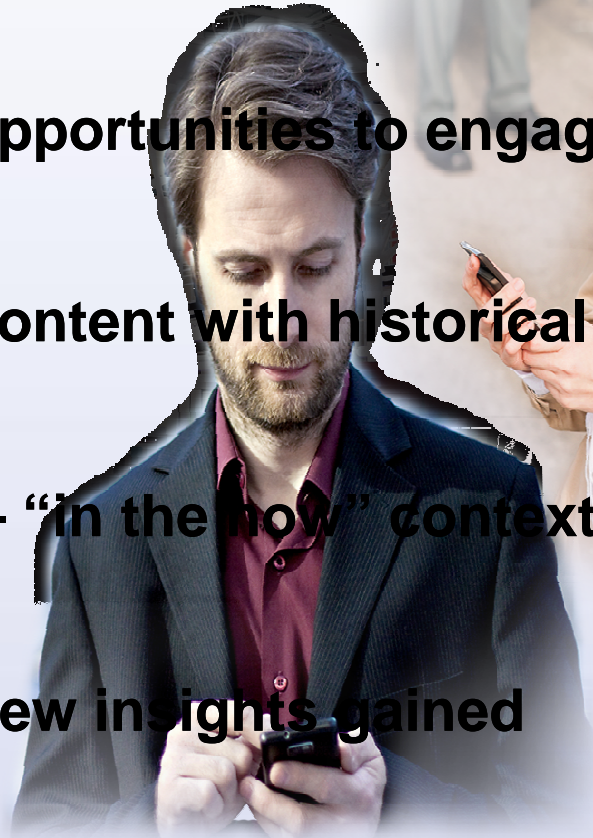
Insights

Blood glucose check



Systems of Interaction

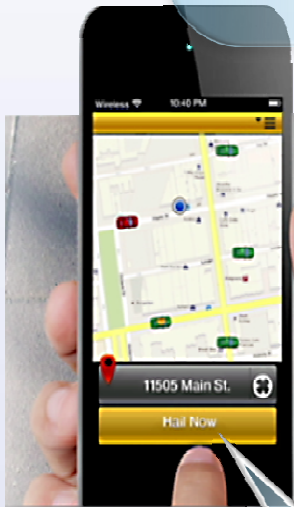
- **Detect – opportunities to engages users**
- **Enrich – content with historical data and trends**
- **Perceive – “in the now” context**
- **Act – on new insights gained**





Systems of Interaction

Detect



hail now!

Enrich

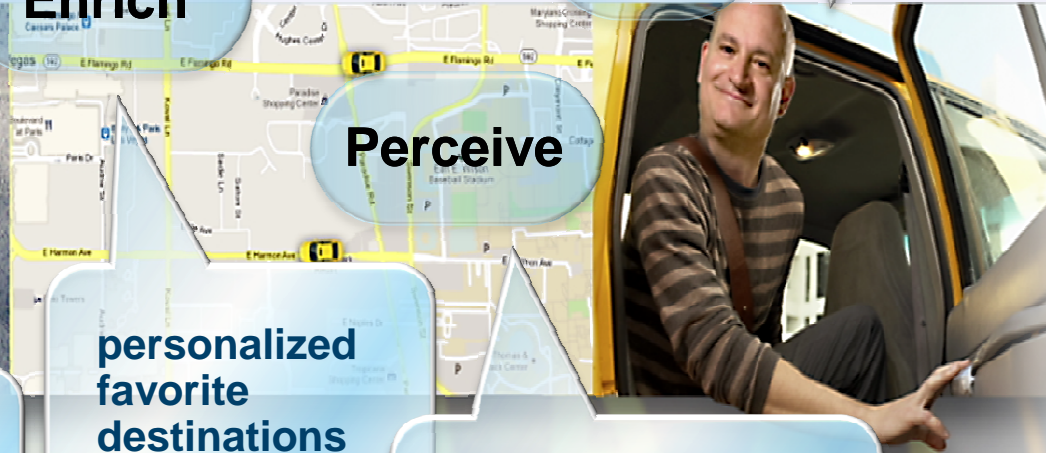
**personalized
favorite
destinations**

Perceive

**location, traffic,
proximity, direction**

Act

**arrival,
payment**



OPEN ARCHITECTURE



GC Cab Finder



GC Cabs Driver Assistant



REST & JSON

OPEN ARCHITECTURE



Services



GC Cab Finder



GC Cabs Driver Assistant



REST & JSON

OPEN PLATFORM

The screenshot displays the BlueMix website interface. At the top, the BlueMix logo is accompanied by the text "Technical Preview" and "deploy applications for mobile and the cloud". A "Help Center" link is visible in the top right corner. The main content area is divided into two primary sections: "IDE" and "Sandbox".

IDE
The Integrated Development Environment (IDE) provides a number of standard development tools that aim to simplify the development process.

Sandbox
The Sandbox is delivered as an compressed file. It provides the following tools:

Standard Development Tools:

- Java (Liberty)**
Provide the easiest way to develop web applications for WebSphere.
- JavaScript (Node.js)**
Easily build fast, scalable network applications.
- Mobile (Worklight)**
Quickly create a mobile application platform for smartphones and tablets.
- Cloud Explorer**
Easily and quickly use all kinds of cloud services in your project.

At the bottom of the page, there are several quick start links and a list of resources:

- Quick Start: What is ICAP?, IDE and Sandbox Overview, Cloud Explorer & Service Bindings
- Join developer community.
- Resources:
 - ICAP Forum
 - File a bug
 - Feature Request
 - Key concepts in ICAP
 - Quick start with ICAP
 - Reference

OPEN PLATFORM

Improve the entire process
from hail to payment



DETECT

ENRICH

PERCEIVE

ACT

BUILDING THE APP IN WORKLIGHT

DETECT

ENRICH

PERCEIVE

ACT



New **geo-location** capabilities, available in Worklight, are able to better **detect** opportunities for interactions

BUILDING THE APP IN WORKLIGHT

DETECT

ENRICH

PERCEIVE

ACT



Worklight's location-based triggers, eliminates network chatter, by pushing interaction data to the mobile client. Reduces network usage and saves battery life.

BUILDING THE APP IN WORKLIGHT

DETECT

ENRICH

PERCEIVE

ACT



```
var acqPolicy= {
    Geo: {enableHighAccuracy: true,
timeout: 10}};

var triggers;
for (var geofence in fences)
    triggers.Geo[geofence.id] = {
        type: "Entering",
        area: geofence.pts,
        callback: callbackFunction,
        transmit: {event:
geofence.event}});

WL.Device.startAcquisition(acqPolicy,
triggers, failureFn);
WL.Client.setEventTransmissionPolicy((maxIn
terval: 10));
```

Code Snip-it to form a geo-fence, between the driver and the passenger,
to secure the payment process

BUILDING THE APP IN WORKLIGHT

DETECT

ENRICH

PERCEIVE

ACT

With rapid revision, we must guarantee,
Continuous quality.

The screenshot shows a network analysis tool interface. The main window title is "reservations(2).recession (Terminated)". Below the title, it indicates "19 packets (301 KB), 14 attachments (286 KB)" and "Started on April 15, 2013 at 4:10:44 PM".

The "Packets" section contains a list of 19 packets. The 10th packet is highlighted and is labeled "Mobile Packet (Web UI)". The other 18 packets are labeled "Mobile Packet (Android)".

The "Packet Details" section for the selected "MoebPacket" shows the following information:

- Recorder: Mobile and Web Recorder
- Size: 210508
- Type: onclick - //div[@id='cabinClassOpts']/fieldset/div/div[3]
- Screen Capture: A screenshot of a mobile application interface showing a map with a yellow route and a red location marker. The text "11500 Miam St." is visible on the screen.

At the bottom of the interface, there are tabs for "Overview" and "Content".

This ensures a **consistent** experience, **regardless** of device type.

MANAGE AND CONSUME APIs

DETECT

ENRICH

PERCEIVE

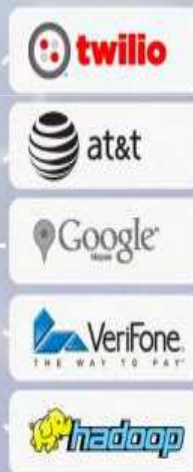
ACT

Our system **is enriched** by data from a variety of sources. This is all about integration.



WORKLIGHT

IBM API
MANAGEMENT



Manage and consume data feeds, from partners, with information such as payment and traffic data.

MANAGE AND CONSUME APIs

DETECT

ENRICH

PERCEIVE

ACT

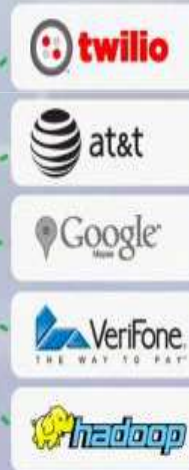
Virtual Editions



WORKLIGHT



OAuth Support



Using our **OAuth** support, we can consume these data feeds, and offer developers a **hassle-free way** to implement **secure access** to APIs.

"IN THE NOW" INFORMATION

DETECT

ENRICH

PERCEIVE

ACT

... paying



dynamic style of queries



moving, walking, running



"a location"



"in a specific area"

"a direction"

real-time data sources form the **glossary of terms**, used in our business rules

"IN THE NOW" INFORMATION

DETECT

ENRICH

PERCEIVE

ACT



Decision Center [HOME](#) [LIBRARY](#) [WORK](#) Robert ▾

GC Taxi Cab > Summer Release > Change Driver Rating and Proximity Rules >

Taxi positioning rule Undo Redo Preconditions Details End Edit

```
if
  'the hail request' is in 'the area' where
    count of unsatisfied 'hail requests' over last 30 min is greater than 3
then
  call all available 'taxicabs' within 5 miles radius into the 'uncovered area'
```

IBM

Creating business rules that combine taxi location, with real-time data sources; such as traffic and weather

"IN THE NOW" INFORMATION

DETECT

ENRICH

PERCEIVE

ACT

A map illustrating **customers** waiting for taxis.



The longer they wait, the larger their **dots**-grow on our map. We can **analyze** the region where customer are growing **impatient** ...

"IN THE NOW" INFORMATION

DETECT

ENRICH

PERCEIVE

ACT

... and generate a business rule, to **notify** drivers and positions them **closer-to** customers.

This **improves** response time and also drives additional fares, which means more transactions.



"IN THE NOW" INFORMATION

DETECT

ENRICH

PERCEIVE

ACT

Decision Manager enables **collaboration** between developer and business



Decision Center HOME LIBRARY WORK Jerry

Pricing > Summer Release

Take Snapshot Create New Timeline Search this release

Activities Rules Snapshots

All Due Date Name Type Filter

Change Driver Rating and Proximity Rules ★
1. Create driver rating table Due Date: Apr 24, 2013 Owner: Paul

Release Stream

Created by Paul Apr 8, 2013

Goals:

1. Specify Driver Rating Table
2. Define Proximity Rule

Decision Service ... Pricing

Due Date Apr 22, 2013

▼ Approvers

Jerry Approved Changes ✓



ANALYZE USAGE DURING INTERACTION

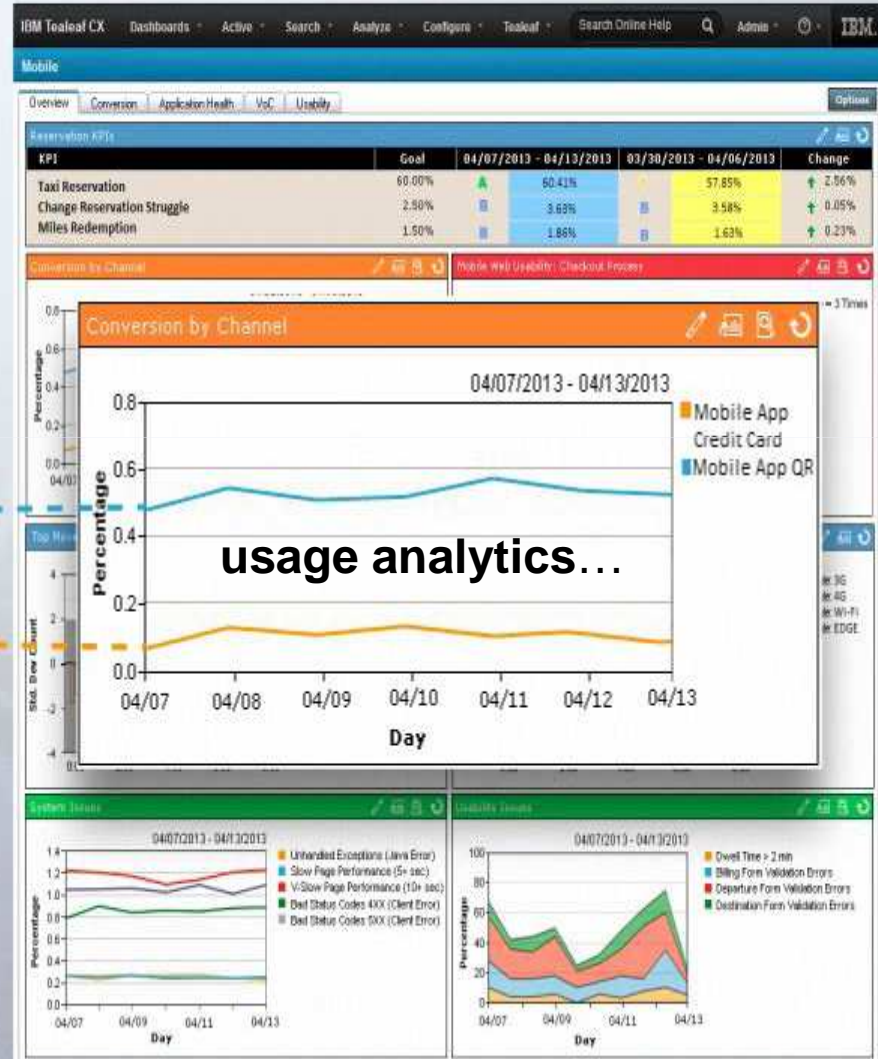
DETECT

ENRICH

PERCEIVE

ACT

Optimize
mobile
payment
process



IBM TeaLeaf...

ANALYZE USAGE DURING INTERACTION

DETECT

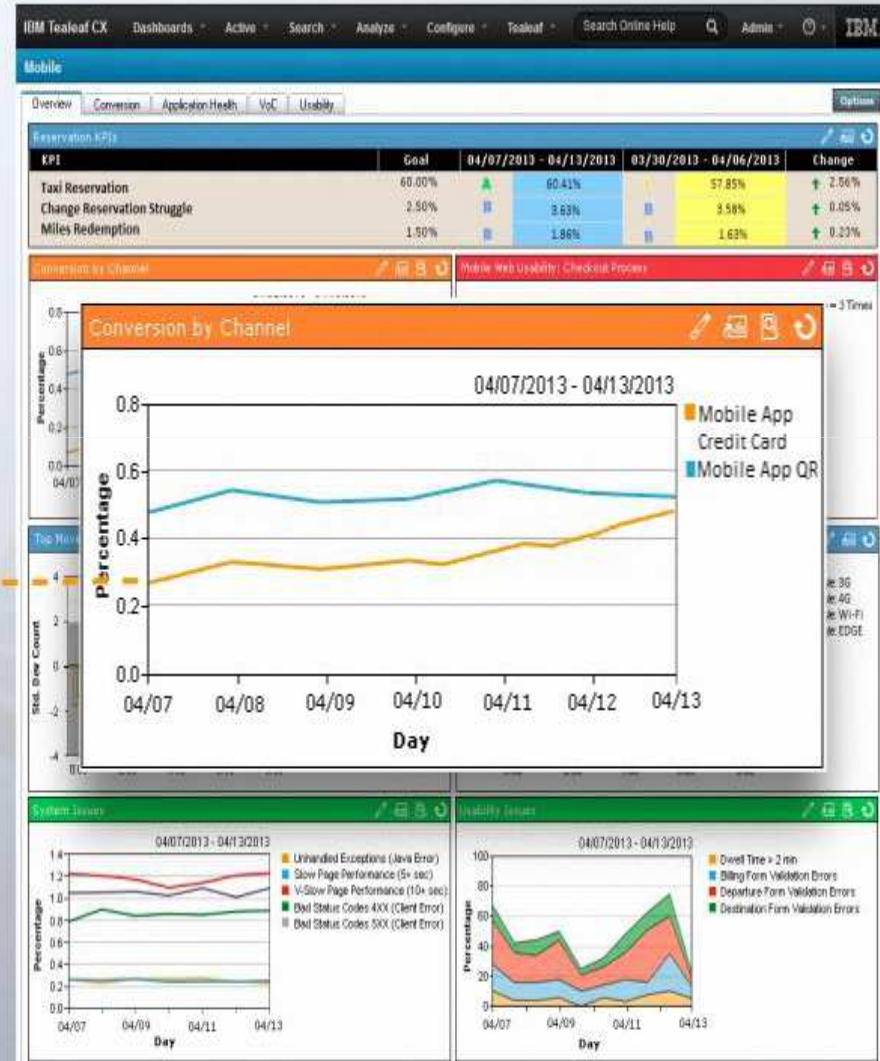
ENRICH

PERCEIVE

ACT



automatically process a payment, when the user reaches their destination...



DESIGNING A SYSTEM OF INTERACTION

DETECT

ENRICH

PERCEIVE

ACT



Mobile re-inventing... everyday life

New Announcements for Systems of Interaction

1

Put **Mobile** First

- IBM Worklight V6
- Mobile cloud Services
- IBM WebSphere Datapower v6
- IBM CICS TS Feature Pack for Mobile Extensions V1.0
- IBM mobile solutions for business process management

2

Reinvent Your Business Design and Processes

- IBM Blueworks Live
- IBM Business Process Manager v8.5
- IBM Operational Decision Manager v8.5
- IBM Intelligent Investigations Manager and IBM Patient Care and Insight
- Industry Solutions for BPM
- IBM Rational Developer Family of IDEs v9

3

Adopt a **Flexible and Secure** Integration Model

- IBM MessageSight
- IBM Integration Bus v9
- IBM Explorer for z/OS v2.1
- IBM CICS Transaction Server for z/OS v5.1
- Enterprise COBOL for z/OS V5.1

4

Be Insight and **Data** Driven

- IBM PureApplication System v1.1 and new Patterns
- DB2 with BLU Acceleration / PureData System for Hadoop
- IBM SmartCloud Monitoring-Application Insight v1.1

5

Build on Open Architecture

- IBM API Management v2.0
- IBM WebSphere Application Server v8.5.5
- MQ TT Standard – Oasis
- Project Beijing
- IBM SmartCloud Orchestrator v2.2



Systems of Interaction

Taking your business to the mobile era...

While making your information systems a source of innovation

– Part 2



Jerry Cuomo

IBM Fellow, VP, WebSphere CTO



*"Sprint has been assembling a team of impressive technology partners to help build its Velocity connected car platform, but starting Wednesday it's **bringing in a ringer...** IBM MessageSight..."*



Leader quadrant in Business Process Management Suites
*"**market share leader** in application infrastructure and middleware software for 12 consecutive years."
Worklight momentum moves IBM to **leader quadrant***



API management should be a key element of enterprises' social, mobile, and cloud strategy



IBM leads the pack in the Forrester Wave for Enterprise Mobility
*Five-Year Risk-Adjusted **ROI** of IBM Worklight is **363%**!
Leader in the Forrester Wave for BPM Suites
BPM suites Take Center stage in The age of digital disruption*



Best Mobile Development Solution 2013



*Ranks Capital One **top mobile banking app** – built on Worklight*



*IBM Pure Application System v1.1 up to **2.6x lower cost/core**, up to **6.6x better price performance**, up to **4x less labor***

- IBM Confidential -



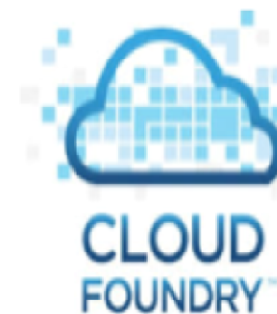
"IBM Announces Platinum Sponsorship of the New OpenStack Foundation"

"IBM and 10gen Collaborate to Bring Mobile to the Enterprise."



"IBM to Acquire SoftLayer to Accelerate Adoption of Cloud Computing in the Enterprise"

***"IBM and Pivotal to Accelerate Open Cloud Innovation with Cloud Foundry"
...Including WebSphere Liberty buildpack***



Systems of Interaction

Systems of Engagement



Continuous client experience

Systems of Record

CRM

HR

DB

ERP

Partner value chain

Cloud-based Services

Internet of Things



LOB



Angela – Business User

Responding immediately to changing business
Shift away from IT to self-reliant Business organization



Dave – Business Developer / Data Analyst

Responsiveness to Angela by rapidly composing business apps
Shift towards minimal coding with domain specific services



Jane – Domain Specialized Developer

Rapidly construct reusable domain vertical function
Shifts towards domain specialization, producing SOE apps leveraging Backend Services



Bob – Backend Service Developer

Needs a platform to create and operate standardized, scalable SOE and SOR services
Shifts from creating & configuring middleware services to composing frameworks with DevOps



Fred – Platform Operations

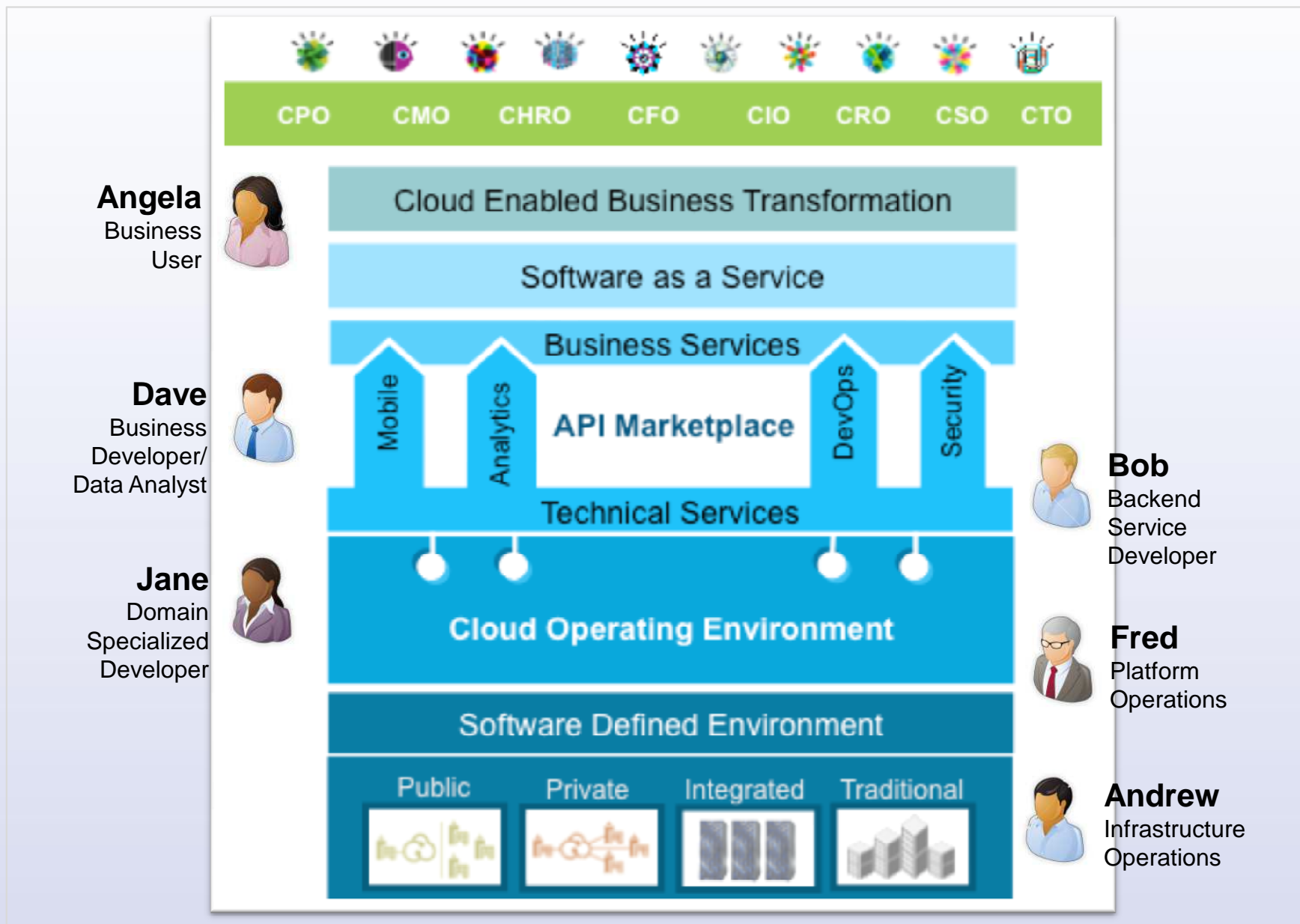
Needs software defined infrastructure to provide and manage the platform (on or off premise)
Shifts from traditional IT operation to creating orchestration and automation services



Andrew – Infrastructure Operations

Needs cross infrastructure management and administration tools. Ability to expose standardized IaaS
Shifts from server consolidation and virtualization to exposing standardized infrastructure services

IT



Key concepts

Cloud enabled Business Transformation

Enterprise business transformation by adoption of Social, Mobile, Analytics and Cloud

API Marketplace

API-accessible business services made available to third-party innovators composing solutions

Cloud Operating Environment

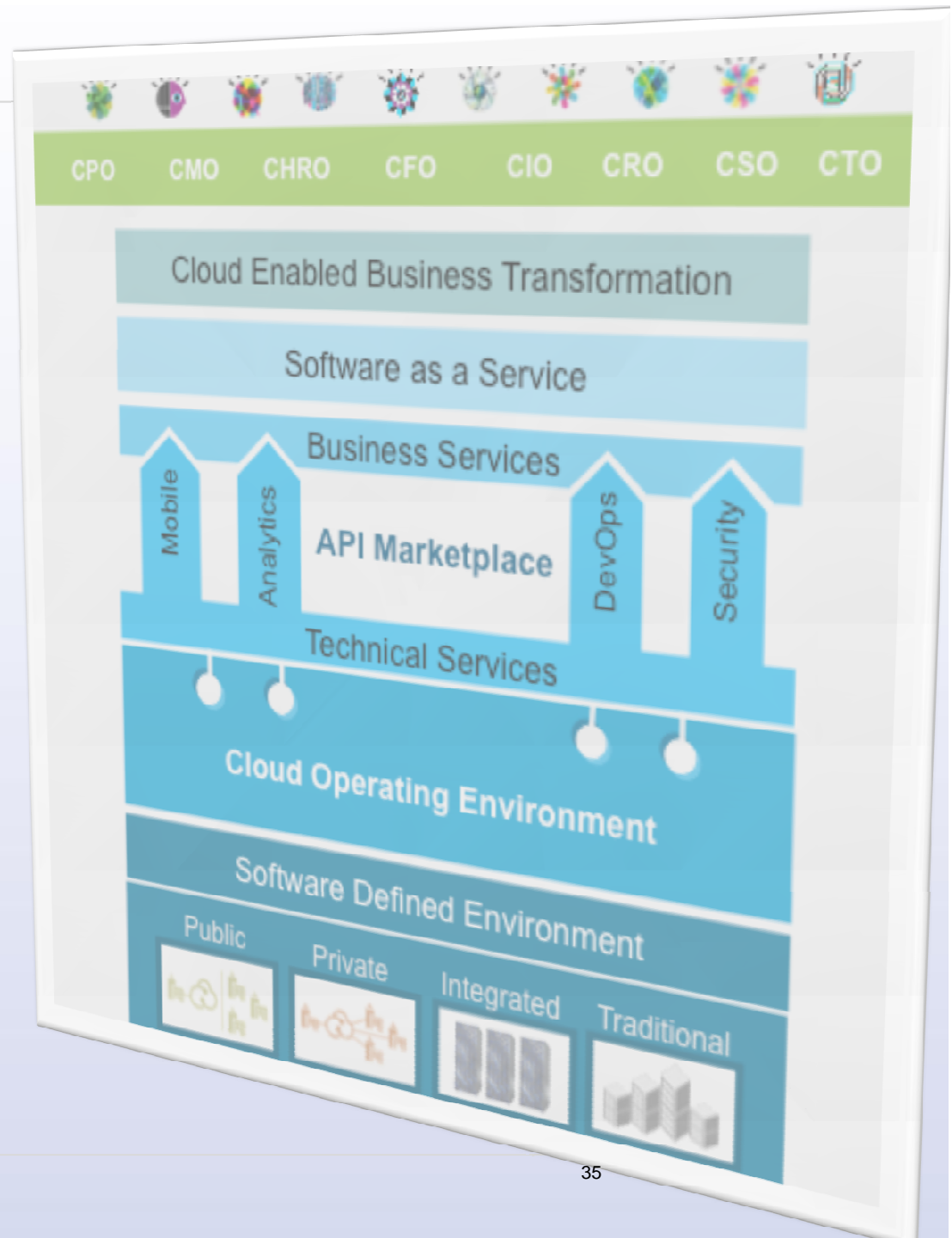
Fabric, composition, marketplace & services for born-on-the-cloud solutions and integration to traditional middleware

Software Defined Environment

Dynamic next generation infrastructure for deploying cloud service & enterprise data centers

IaaS+PaaS

- Enterprise-class set of Platform Services
- Flexible Infrastructure-as-a-Service based on SoftLayer
- Integrated Systems Based on Pure Application System



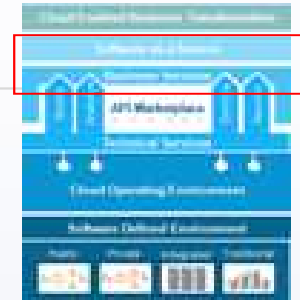


Business and BPM cloud services

Angela
Business User



Dave
Business Developer/ Data Analyst



IBM BPM on Cloud

Get up and running with BPM quickly for enhanced time to value with a managed, secure BPM environment in the cloud

Process made simple.

- > Collaborate across teams.
- > Capture process knowledge.
- > Analyze and improve your business.

See How It Works
Try the full version of Blueworks Live for 30 days absolutely FREE!

[Free Trial >](#)

- [Attend a Live Demo](#)
- [Watch a Video Walkthrough](#)
- [Download the Brochure](#)
- [Download the Mobile App](#)

Overview Features Resources Success Stories

BlueworksLive

Discover, document, automate critical business processes collaboratively and securely



API Marketplace

Company	APIs	Most Popular
Twitter	3 + 101	Twitter API
Google	96	Google Maps API
Yahoo	51	Flickr API
Xignite	43	Xignite Realtime Stock Quotes API
Microsoft	33	Microsoft Bing Maps
AOL	30	MapQuest API
Amazon	23	Amazon Product Advertising API
Orange	19	Orange Location
eBay	18	eBay API
Ericsson	16	Ericsson Web Maps
New York Times	14	New York Times Article Search
Yandex	10	Yandex Search API
AT&T	9	US Yellow Pages API
Salesforce.com	8	Salesforce.com CRM API
USA Today	8	USA Today News API
Facebook	8	Facebook API
Rackspace	6	RackSpace Cloud Servers API
Telenor	6	Telenor Payment
InfoChimps	5	InfoChimps Twitter
Deutsche Telekom	5	Deutsche Telekom Send SMS API
SingTel	5	SingTel Messaging API
T-Mobile	5	Developer Garden API
Telefonica	5	BlueVia Location API
Pearson	3	Longman Dictionary API
Vodafone	3	Vodafone Geolocation
Verizon	2	Verizon NavBuilder LocationKit

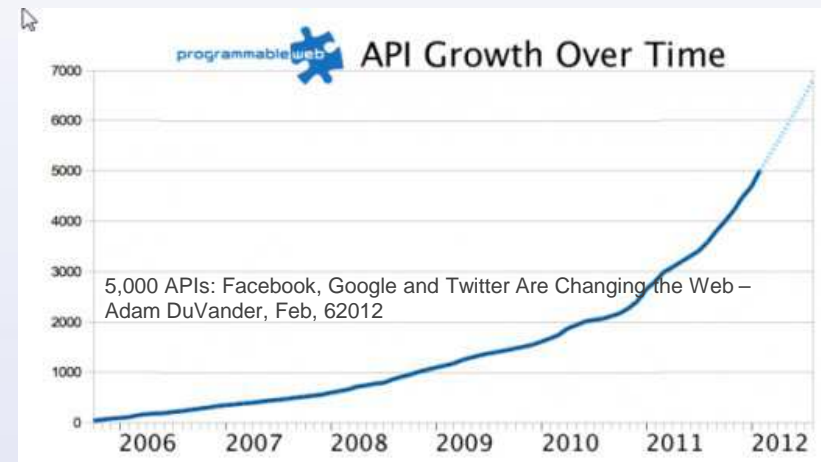
Angela
Business User



Dave
Business Developer/ Data Analyst



Bob
Backend Service Developer



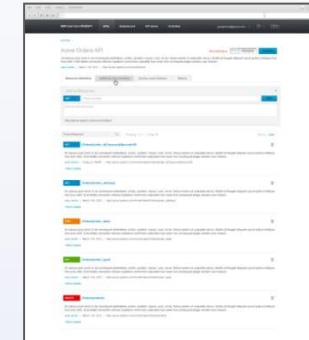
<http://www.programmableweb.com/>

IBM WebSphere Cast Iron Live – Web API Services

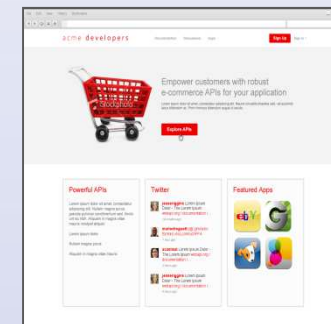
Business Ops Dashboard
with analytics and controls to publish APIs, document APIs, set quotas, manage communities and monitor service levels



DevOps Dashboard
for easy assembly of new APIs and to secure and manage APIs from an IT Ops perspective

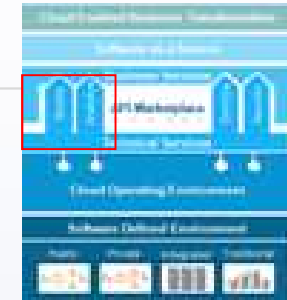


Application Developer Portal
with Self-Service registration and with hooks into social communities



Mobile cloud services

Jane
Domain
Specialized
Developer



Mobile



Mobile Application Management



App Distribution



Push, geo-triggers, passes, encrypted storage, offline synch accelerate mobile construction



Application Container



Feedback management



Crash analysis & performance



Quality assurance

Development



Client SDK
SDK for omni-channel



Cross platform application tools

Management



Integrated development dashboard



Analytics



Security

APIs & Data



Domain specific database schemas



API management



Connectivity



Location

Cloud Code



Scripted Logic
Elastic execution



Extension Mechanism



Marketplace

Expanding our mobile portfolio with new capabilities

125+ patents for wireless inventions in 2012, bringing the total to 270

1H 2012

1H 2013



IBM acquired:
IBM Worklight



Named leader in
interactive design



IBM acquired:
Urban Code DevOps Platform



Worklight named 'Best Mobile
Development Solution'



IBM announced:
IBM MessageSight



IBM acquired:
**Emptoris Rivermine Telecom
Expense Management**



IBM announced:
**IBM Endpoint Manager
for mobile devices**



IBM announced:
IBM MobileFirst



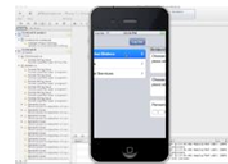
IBM announced:
IBM mobile cloud services



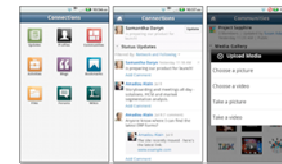
IBM acquired:
Tealeaf CX Mobile



IBM announced:
Managed Mobility and MAPM Services



IBM announced:
**IBM Security Access
Manager for Cloud
and Mobile**



IBM announced:
IBM Connections Mobile

2H 2012

IBM Worklight: A mobile application platform

Speeding the development, integration and management of mobile applications and infrastructure

Accelerate Development

- Web, hybrid, and native development: open, flexible, standard-based, multi-screen/omni-channel
- Functional testing
- Development lifecycle tools and integration

Facilitate App Security and Trust

- Server-enforced authentication
- App authenticity and user-app-device binding
- Secure and syncable on-device storage
- App version enforcement

Enable User Engagement

- Unified push and SMS notifications
- Geolocation and context collections and intelligence
- Mobile-friendly integration

Support Mobile Analytics

- Efficient acquisition of analytics data
- Development, operational, and business analytics
- Offline and online event management integration



"Best Mobile Development Solution"
voted by SIIA members, 2013 CODiE Awards



IBM MessageSight appliance for Mobile and M2M

Simplifies “Internet of things”, connected car, and mobile

Designed for millions things, millions of events, very dense, very green technology

m2m engineered for wireless, with low latency, reliable delivery and quality of service

93x faster, 10x less battery, 8x lower bandwidth versus HTTPS

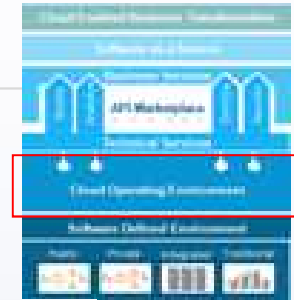
1 rack does 273M messages/sec, 21M concurrent connections (like 1,000 web servers)



Introducing IBM BlueMix



Bob
Backend
Service
Developer

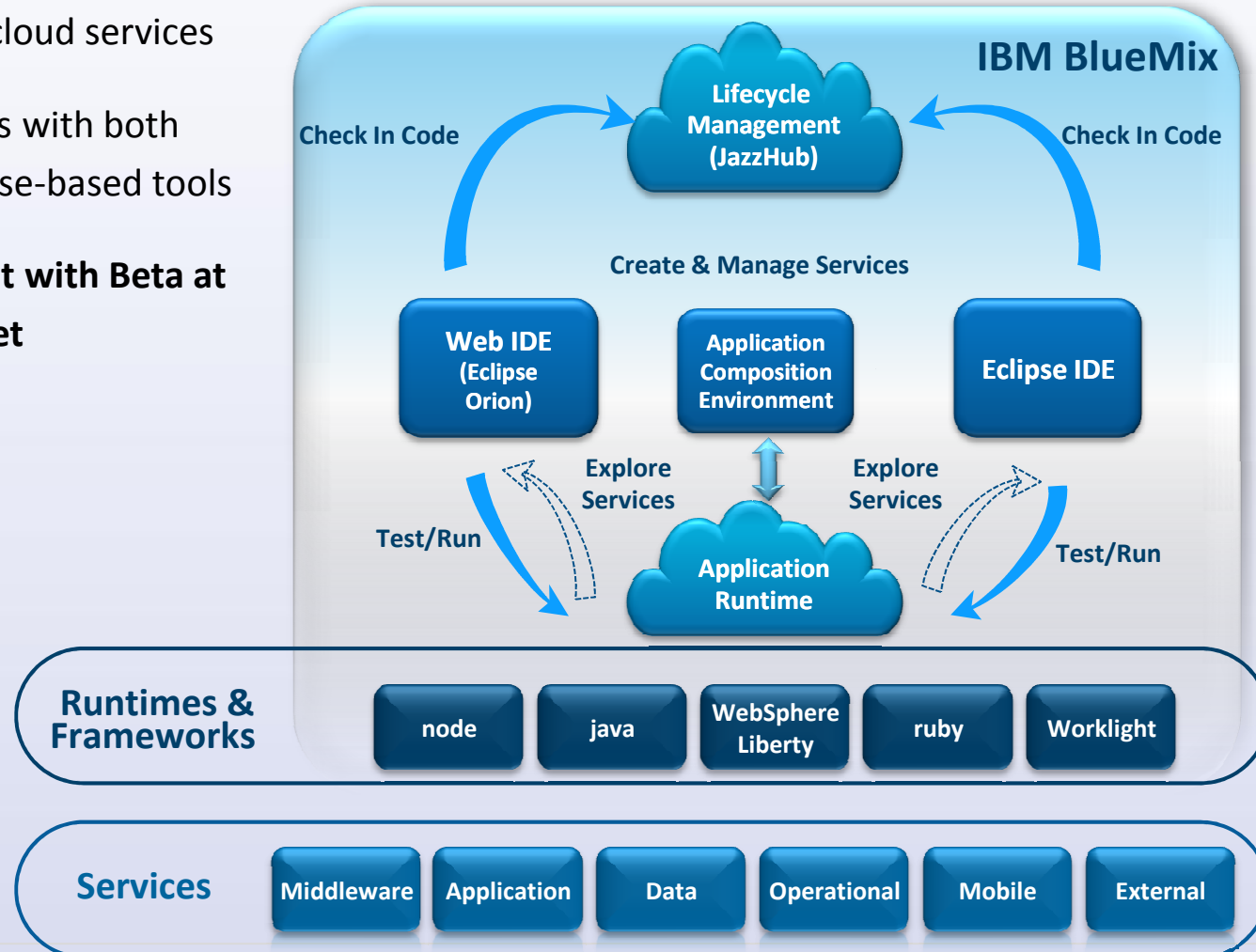


**IBM initiative to develop an open
Cloud Operating Environment**

IBM and partner cloud services

Integrated DevOps with both
Browser and Eclipse-based tools

**Come, experiment with Beta at
<http://bluemix.net>**



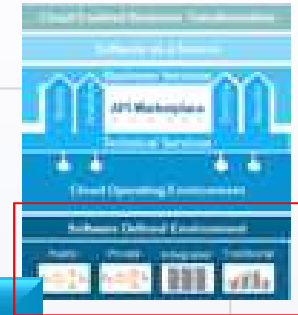
Patterns and the PureSystems



Andrew
Infrastructure
Operations



Fred
Platform
Operations



PureFlex



New Models

Flex System



Infrastructure

Delivering Cloud Infrastructure Services

PureApplication



New Models

Application Platform

Delivering Cloud Application Platform Services

PureData



New Analytics Model

Data Platform

Delivering Big Data Platform Services

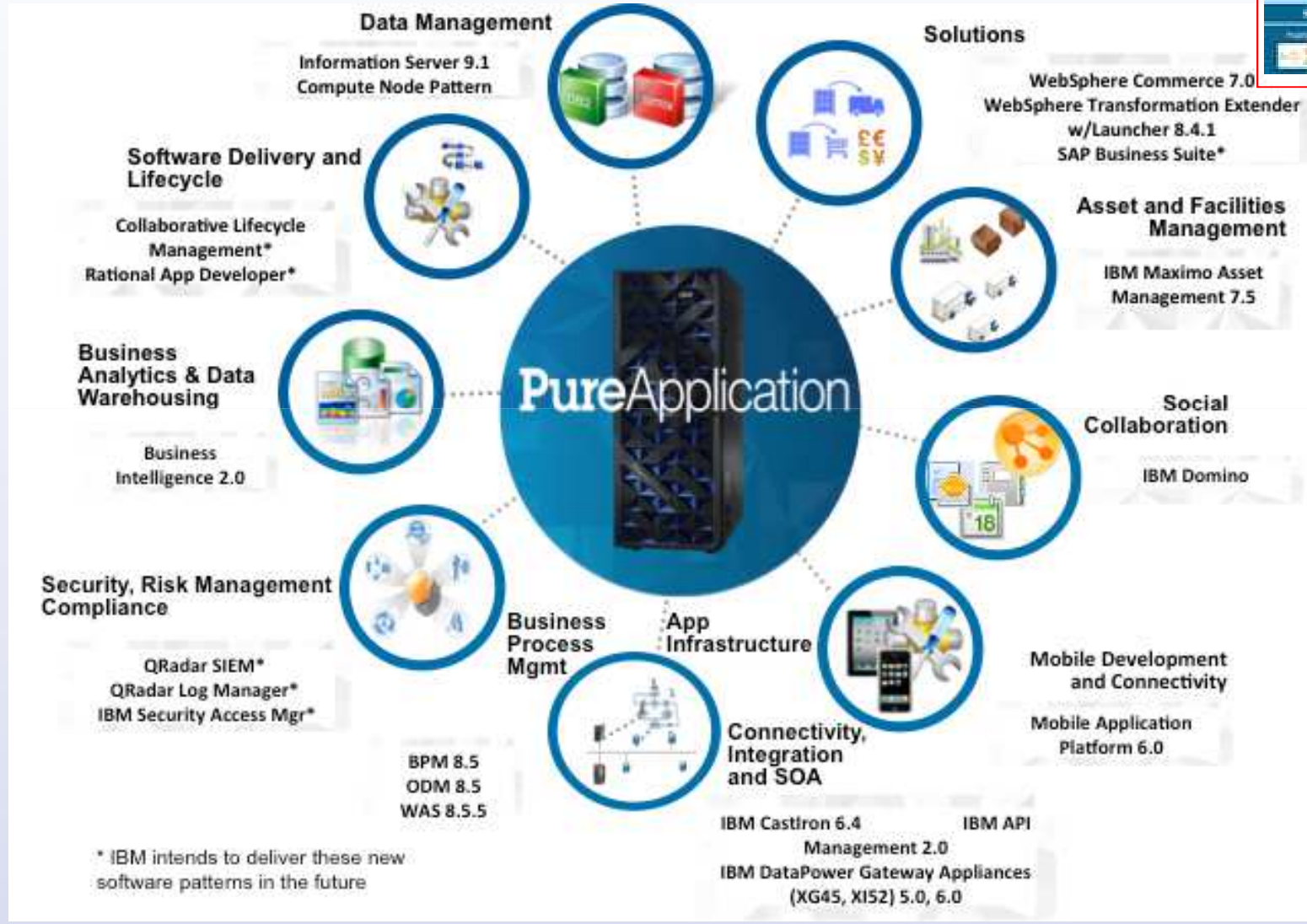
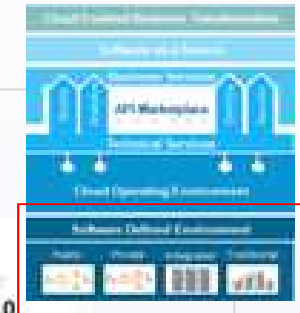
Patterns and the PureSystems



Andrew
Infrastructure
Operations

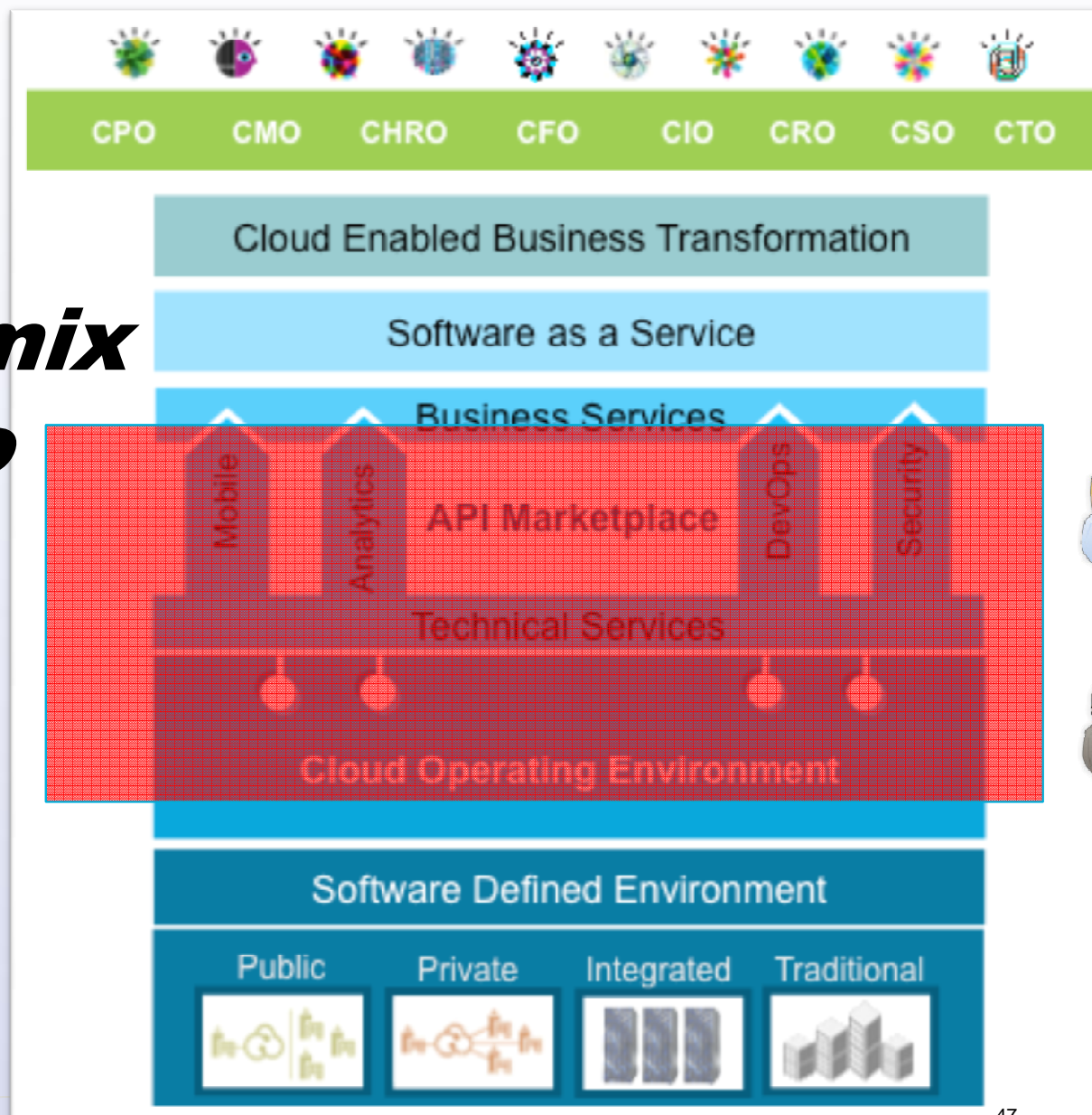


Fred
Platform
Operations



* IBM intends to deliver these new software patterns in the future

Bluemix Demo



Bob
Backend
Service
Developer



Fred
Platform
Operations

ace.etc12.cloud/index.html?demo=true - BlueMix

IBM CoE *hello.js - Coding IBM SocialCRM

Welcome, davidb@us.ibm.com [Logout] IBM

Home Applications Services My Apps Dashboard Account Documentation Help

Welcome, davidb@us.ibm.com! You've previously created at least one application. You can continue to use **BlueMix** to manage your existing applications, create new applications, and add services to applications.

Manage apps Create app Add service Learn more

BlueMix

Enable applications to be rapidly & incrementally composed from services

Deliver application changes continuously

Enable continuous availability

Support fit-for-purpose programming models & services

Embed manageability of services & application

Workload Optimized & Elastic

Services You Might Like

Hadoop ★★★☆☆

Social Analytics ★★★★★

ET Social Analytics ★★★★★

Twitter

#ibmcloud

IBMCloud @IBMCloud 4h
1/earlier: Where is enterprise cloud headed this year? - by IBM #SmartCloud VP Craig Sowell (@iconixtime): ibm.co/1Dm55t #IBMCloud
Expand

Lauren C. States @Lauren_States 4h
Hear Barclays discuss workload integration in a private cloud - register for Pulse 2013 today ibm.co/YkAW4H #ibmcloud
Expand

IBM Cloud Français @IBMCloudFR 12h
IBM reconnu comme l'une des

Angela the Marketing executive wants to be able to see sentiment analysis for her brand based on Twitter.

ace.etc12.cloud/index.html?demo=true - BlueMix

IBM CoE *hello.js - Coding IBM SocialCRM

Welcome, davidb@us.ibm.com [Logout] IBM.

Home Applications Services My Apps Dashboard Account Documentation Help

Search applications

Choose an Application Framework

- Analytics
 - BigData
 - Business Intelligence
- Node
- Ruby
- Python
- Java
 - Spring
 - JEE
- Choose an existing Application
 - Social Analytics
- DIY BigData Analytics
 - Streaming
 - At Rest

IBM

Ruby on Rails ★★★★★

Node.js ★★★★★

Grails ★★★★★

WorkLight ★★★★★

PHP ★★★★★

Java ★★★★★

Play! ★★★★★

Coremetrics An IBM Company ★★★★★

Create application

Application name:

Subdomain: .api.w3.opensmartcloud.com

ace.etc12.cloud/index.html?demo=true - BlueMix


IBM CoE | *hello.js - Coding | IBM SocialCRM

Welcome, davidb@us.ibm.com [Logout]

Home Applications Services My Apps Dashboard Account Documentation Help

My Apps > ethanm

ethanm


[Launch application](#)
[Stop application](#)
[Download application](#)
[Delete application](#)

State: Running ■

[Services](#)
[Collaborators](#)
[EnvVariables](#)
[Logs](#)
[Settings](#)


The services currently available for use by your application are listed below.

[Add new service](#)
[Add existing service](#)


Name	Description	Vendor	Version
No items to display			

Total: 0 | 1 | 10 | 25 | 50 | 100 | All +

Services You Might Like



Hadoop
★★★★☆



Social Analytics
★★★★★

Twitter

#ibmcloud

IBMCloud @IBMcloud 4h
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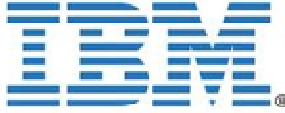









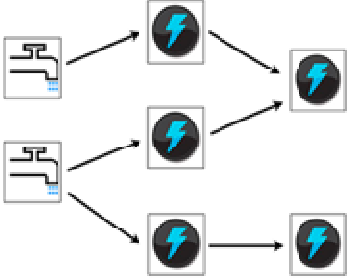
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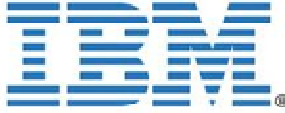

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WorkLight
★★★★★



Open Source Enterprise Messaging


RabbitMQ
★★★★★

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MongoDB
★★★★★

Scalable, high-performance, open source NoSQL database. JSON-style documents with dynamic schemas offer simplicity and power




redis

Redis
★★★★★




MySQL
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ET BigSheets

DIY Big Data Analytics
★★★★★




File System

FileSystem
★★★★★



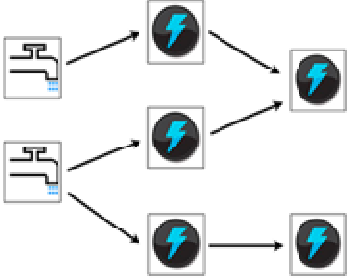
Social Analytics

ET Social Analytics
★★★★★



hadoop

Hadoop
★★★★★



Storm
Big Data Streaming Analytics

Apache Storm
★★★★★


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Services > MongoDB

 **MongoDB** is an open source document database, and the leading NoSQL database.

Ad hoc queries

MongoDB supports search by field, range queries, regular expression searches. Queries can return specific fields of documents and also include user-defined JavaScript functions.

Replication

MongoDB supports master-slave replication. A master can perform reads and writes. A slave copies data from the master and can only be used for reads or backup (not writes). The slaves have the ability to select a new master if the current one goes down.

File storage

MongoDB could be used as a file system, taking advantage of load balancing and data replication features over multiple machines for storing files. This function, called GridFS, is included with MongoDB drivers and available with no difficulty for development languages (see Language Support for a list of supported languages). MongoDB exposes functions for file manipulation and content to developers. GridFS is used, for example, in plugins for NGINX and lighttpd.

Indexing

Any field in a MongoDB document can be indexed (indices in MongoDB are conceptually similar to those in RDBMSes). Secondary indices are also available.

Load balancing

MongoDB scales horizontally using sharding.[9] The developer chooses a shard key, which determines how the data in a collection will be distributed. The data is split into ranges (based on the shard key) and distributed across multiple shards. (A shard is a master with one or more slaves.) MongoDB can run over multiple servers, balancing the load and/or duplicating data to keep the system up and running in case of hardware failure. Automatic configuration is easy to deploy and new machines can be added to a running database.

Aggregation

MapReduce can be used for batch processing of data and aggregation operations. The aggregation framework enables users to obtain the kind of results for which the SQL GROUP BY clause is used.

Entitlement Options

Developer	Free	Disk	1 GB
Production	\$25 per month	Memory	100 MB
Production Pro	\$100 per month	System Status Updates	
Enterprise Production	\$500 per month	Mobile System Notification	
		System Redundancy	
		SSD Storage	

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Name	Description	Vendor	Version	
 ethanm_mongodb_document_1.8	MongoDB NoSQL store	mongodb	1.8	✕

Total: 1 | 1 | 10 | 25 | 50 | 100 | All +

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Save Line 77 Col 1

```
1
2 var mongodb = require('mongodb');
3 var https = require('https');
4
5 var express = require('express');
6 var app = express();
7
8
9 var mongo = {"hostname":"localhost","port":27017,"username":"","password":"","name":"","db":"db"}
10
11 var generate_mongo_url = function(obj){
12   obj.hostname = (obj.hostname || 'localhost');
13   obj.port = (obj.port || 27017);
14   obj.db = (obj.db || 'test');
15
16   if(obj.username && obj.password){
17     return "mongodb://" + obj.username + ":" + obj.password + "@" + obj.hostname + ":" + obj.port + "/" + obj.db;
18   }
19   else{
20     return "mongodb://" + obj.hostname + ":" + obj.port + "/" + obj.db;
21   }
22 }
23 var mongourl = generate_mongo_url(mongo);
24 var connection = null;
25 var collection = null;
26 var mongodb = require('mongodb');
27
28 mongodb.connect(mongourl, function(err, conn) {
29   connection = conn;
30   if (err) {
31     console.log(err);
32   } else {
33     conn.createCollection("test", function(err, coll){
34       collection = coll;
35       if (err) {
36         console.log(err);
37       }
38     });
39   }
40 });
41
42 app.get('/', function(req, res) {
43   res.set('Content-Type', 'text/html');
44   var cnt = req.param("count") ? parseInt(req.param("count")) : 10;
45   if (collection) {
46     var options = { "hostname": "stream.twitter.com",
47                   "path" : "/1.1/statuses/sample.json",
48                   "method" : "GET",
49                   "Connection": "Keep-Alive",
50                   headers : {"Authorization": "Basic " + new Buffer("YOUR_ID_HERE:YOUR_PASSWORD_HERE").toString('base64')}}
51   }
52   res.write("<UL>");
53   var request = https.request(options, function(response) {
54     response.on('data', function(chunk) {
55       if (cnt > 0) {
56
```

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Create app


Name	State	Runtime	Framework	
 coedemo	Running	node08	node	   
 developertest	Running	ruby18	sinatra	   
 ethanm	Running	node08	node	   
 pulseplus	Stopped	node08	node	  
 socialmedia	Stopped	ruby18	sinatra	  

Total: 5 | 1 | 10 | 25 | 50 | 100 | All +

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Hadoop
★★★★☆



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Query: Search 400 Tweets

Influencers

Handle	Tweet Count
@bbfish	418
@MidmarketII	446
@SUSE	444
@ibmwatsonbot	214
@ArjumandYounus	244
@KhSouh	244
@kompats	324
@sbmoon	348

Topics

Topic	Frequency
health	10.0
sports	9.0
opinion	7.0
positive	1.0
events	1.0

Conversations

Key topics: www2012, Cancer, MidmarketIBM, leopard, essential improvement, keynote, More, Evidence, retrieval, supercomputer, Linux, stat, hood, SUSE.

Connections

Map Arc Stop Expansion

Key nodes: @MidmarketIBM, @ArjumandYounus, @bbfish, @SUSE, @kompats, @IBMWatsonBot, @CharlesPietr, @Heandyl, @TrishWhetzel, @Haj4, @busaco, @KristenMihl, @kidehen, @DameWendyDBE, @NUAN_Healthcare, @ABC, @healtheia, @kimberlyduffy, @Abrams981, @beeqing, @MzermaAmine, @PBWiggers, @akbartoronto, @lemoteur, @KhSouh, @le_yaouanc, @Turing100in2012, @jpberthet, @moustaki, @ibmwatsonbot, @SarmaTangirala, @rkumar, @mzurko, @cindywaffles, @mtracy, @mottla, @jbackertech, @clensos, @michaelmiller, @tmsbrahim, @UMD_CS, @darthen, @dmacvicar, @idaconcepts, @sshyukriev, @shyukriev.

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- Stewart Nickolas created a new lead [Elvis Washington](#)
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- Stewart Nickolas created a new lead [Lynnette Gabriele](#)
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- Stewart Nickolas created a new lead [Chessa Smith](#)

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Previous Week | **May 26 2013 - June 1 2013** | Next Week

	Sun 26	Mon 27	Tue 28	Wed 29	Thu 30	Fri 31	Sat 01
08:00am							
09:00am							
10:00am							
11:00am							
12:00pm							
01:00pm							
02:00pm							
03:00pm							
04:00pm							
05:00pm							
06:00pm							

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My Calendar

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	Sun 26	Mon 27	Tue 28	Wed 29
08:00am				
09:00am				
10:00am				
11:00am				
12:00pm				
01:00pm				
02:00pm				
03:00pm				
04:00pm				
05:00pm				
06:00pm				

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- My Documents
- My Leads
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- My Open Tasks
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- Top Campaigns
- My Assigned Bugs
- My Calls
- My Contacts
- My Emails
- My Meetings
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Calendar

My Calendar

Previous Week May 26 2013 - Jun

	Sun 26	Mon 27	Tue 28	Wed 29
08:00am				
09:00am				
10:00am				
11:00am				
12:00pm				
01:00pm				
02:00pm				
03:00pm				
04:00pm				
05:00pm				
06:00pm				

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My Sentiment by Industry

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 Bay Funding Co
 Nelson Inc
 Nelson Inc
 T-Squared Techs
 EEE Endowments LTD
 Rubble Group Inc
 Avary Software Co
 Riviera Hotels
 Southern Realty
 Powder Suppliers
 Grow-Fast Inc
 Cloud Cover Trust

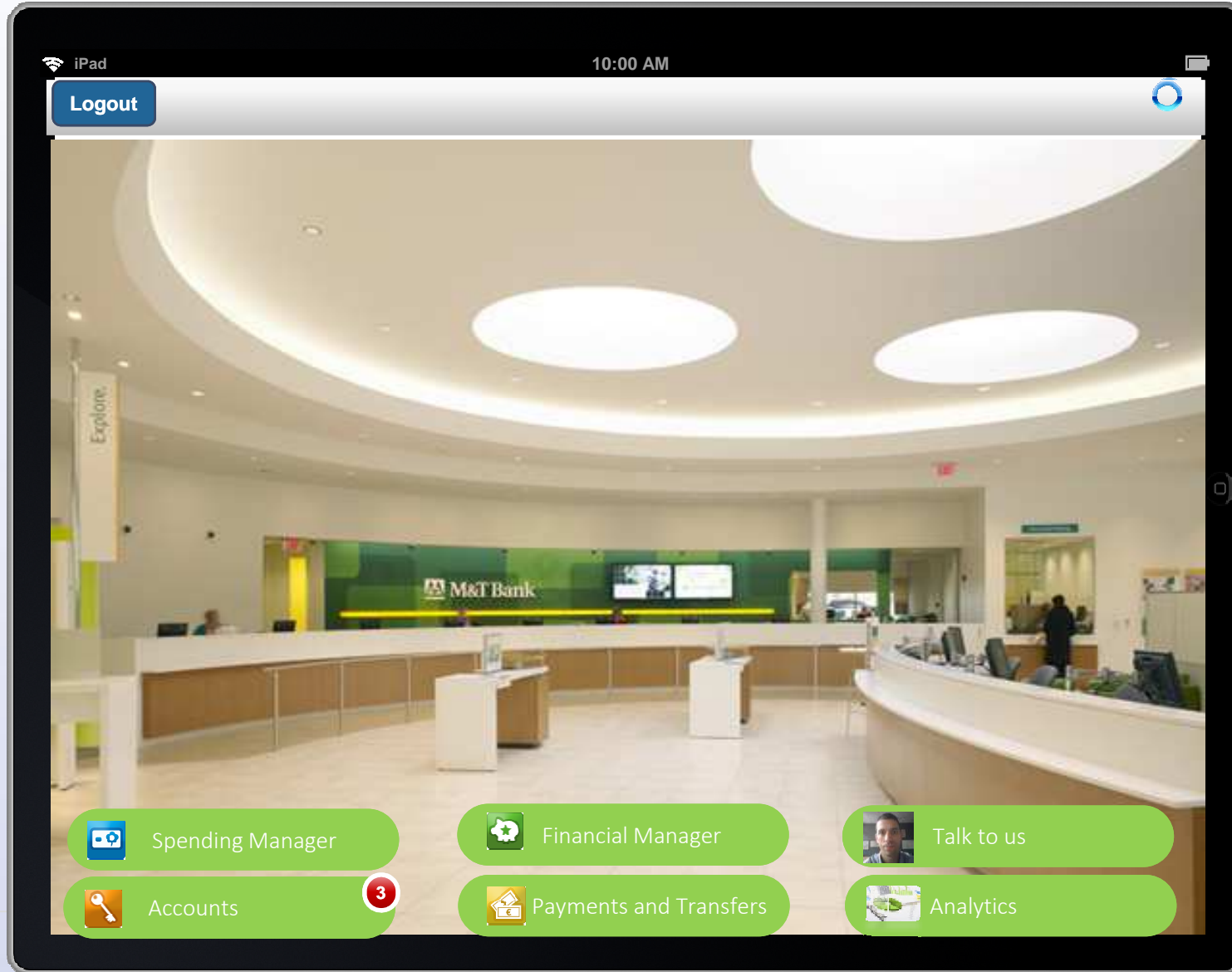
Query: **400** Tweets

Connections

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Logistics industry news

The Mobile Device is The Bank



Proactive Banking

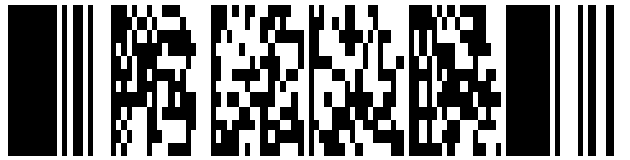

Pass

 **Checking**
01-234532-1

Current Balance
CA\$1,000.23

Last Transaction
Tim Horton's Coffee

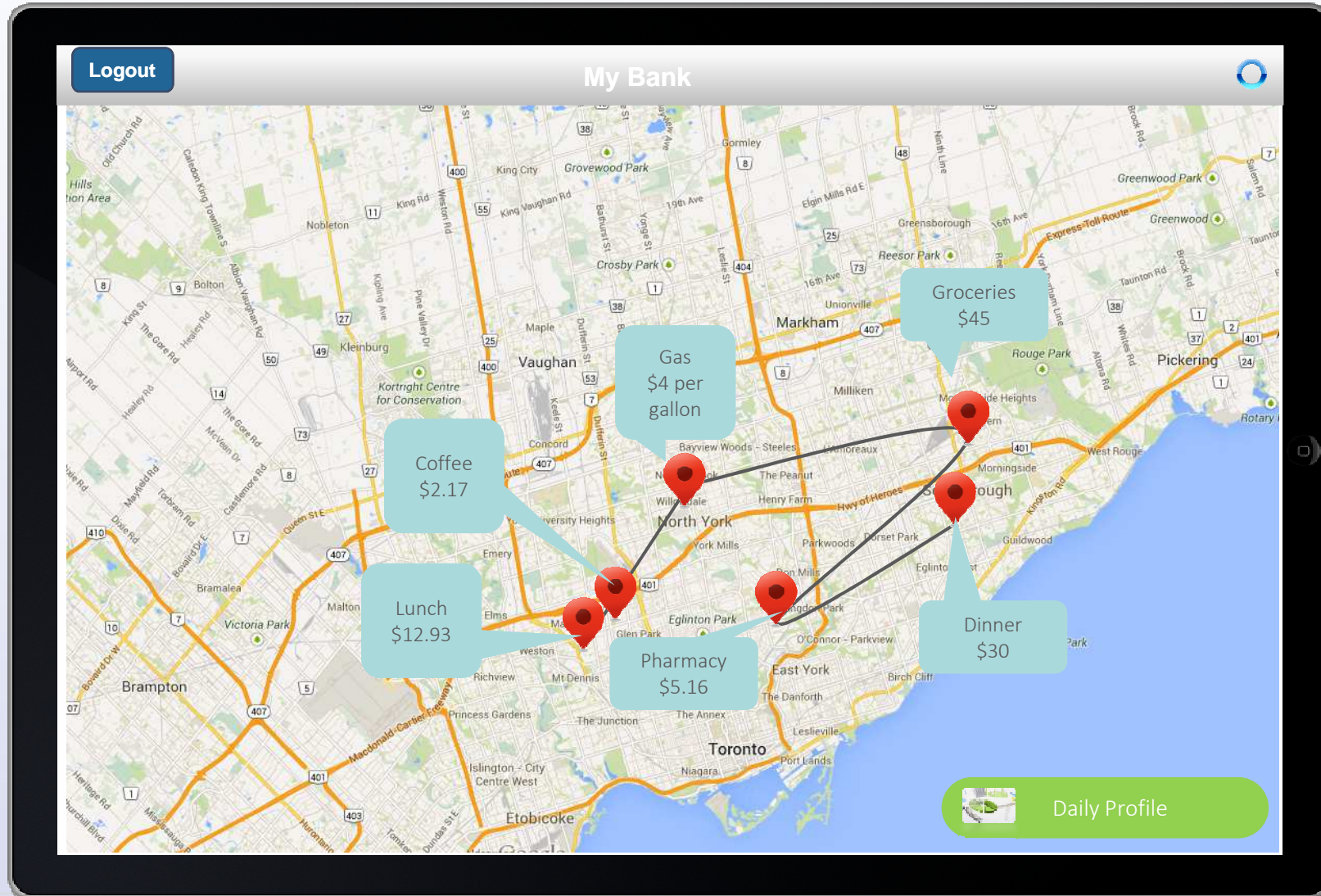
Date / Time	Amount
8/8/13	CA\$12.34


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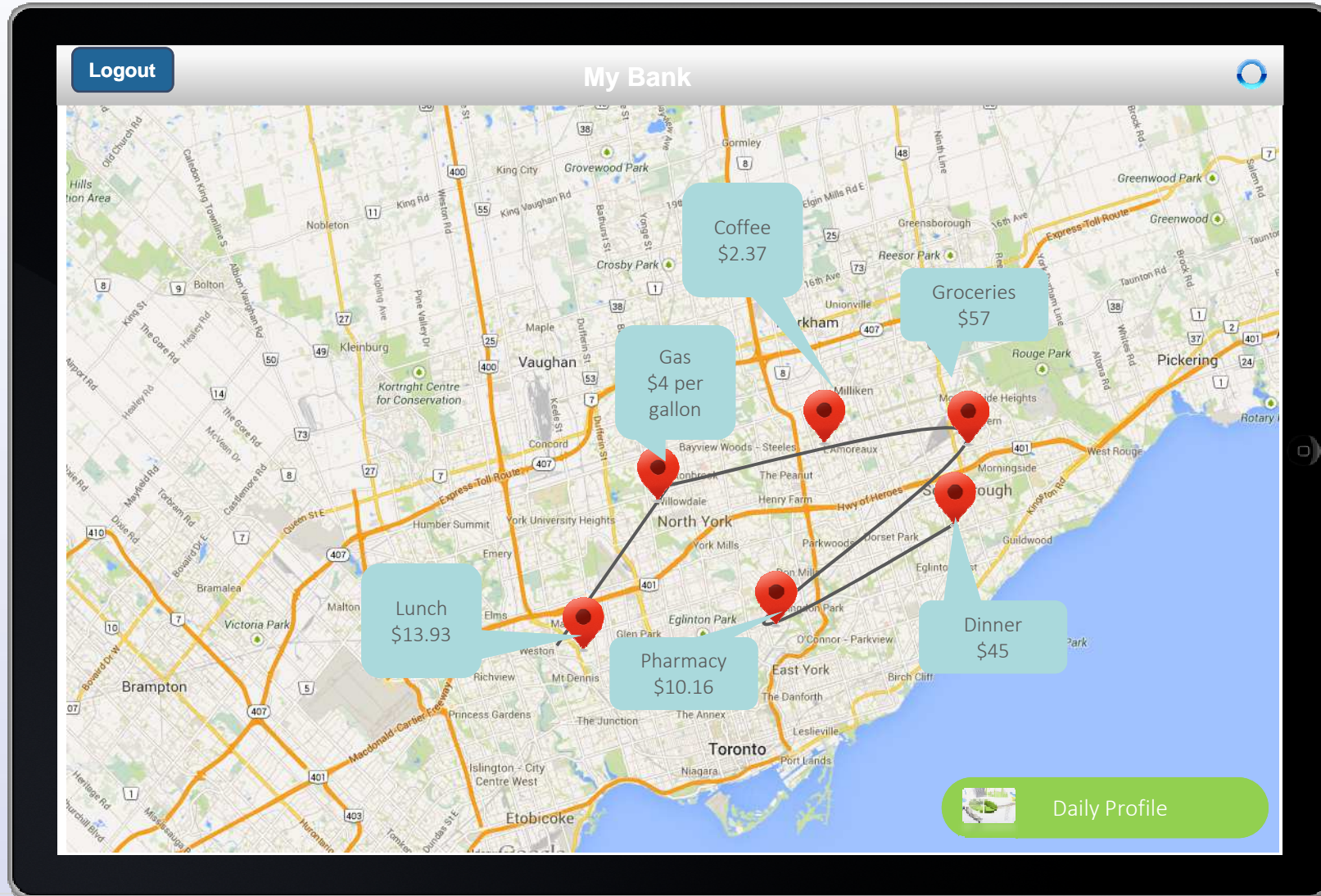
Passbook requires iCloud and an iPhone or iPod touch with iOS 6 or later.

[About Passbook](#)

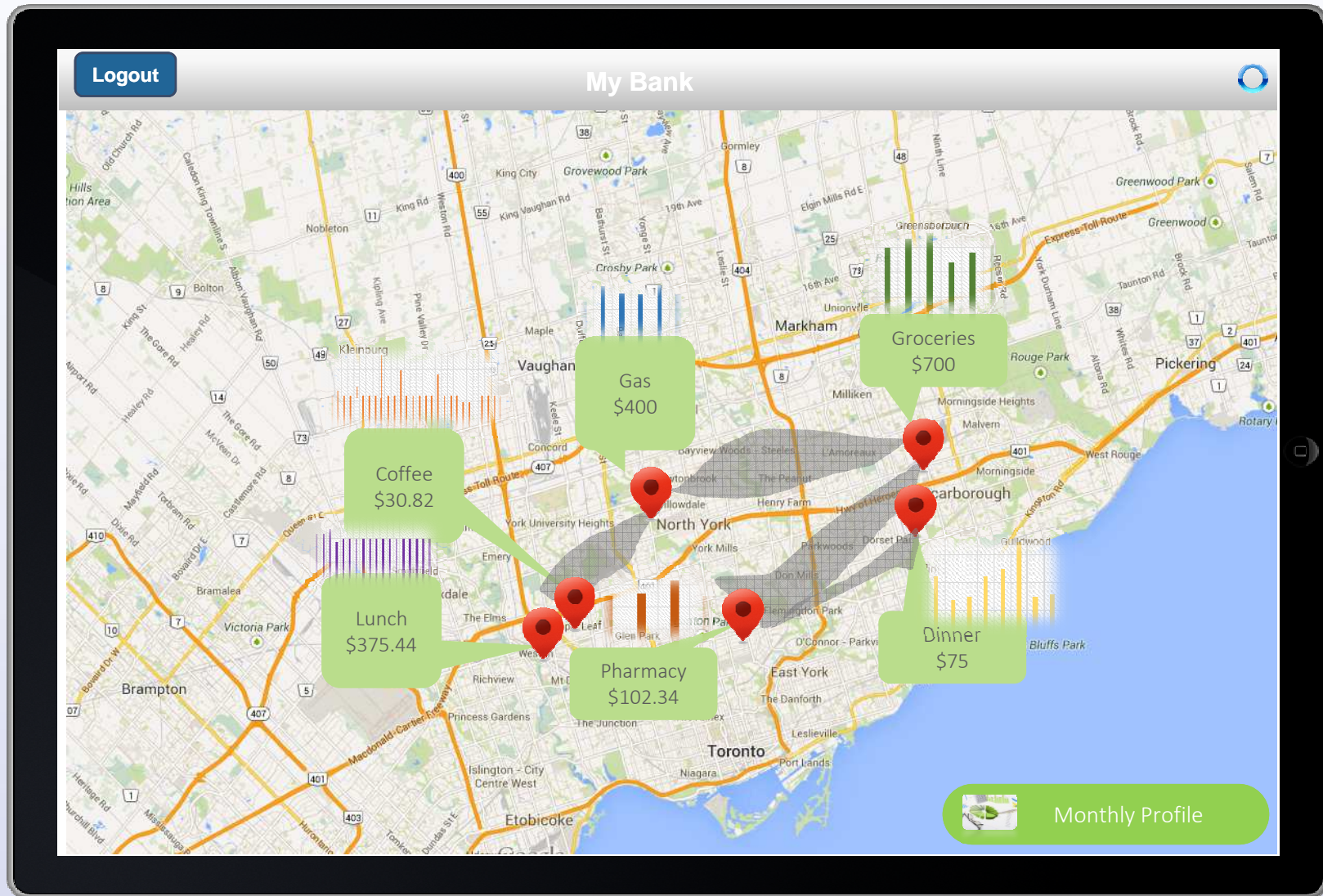
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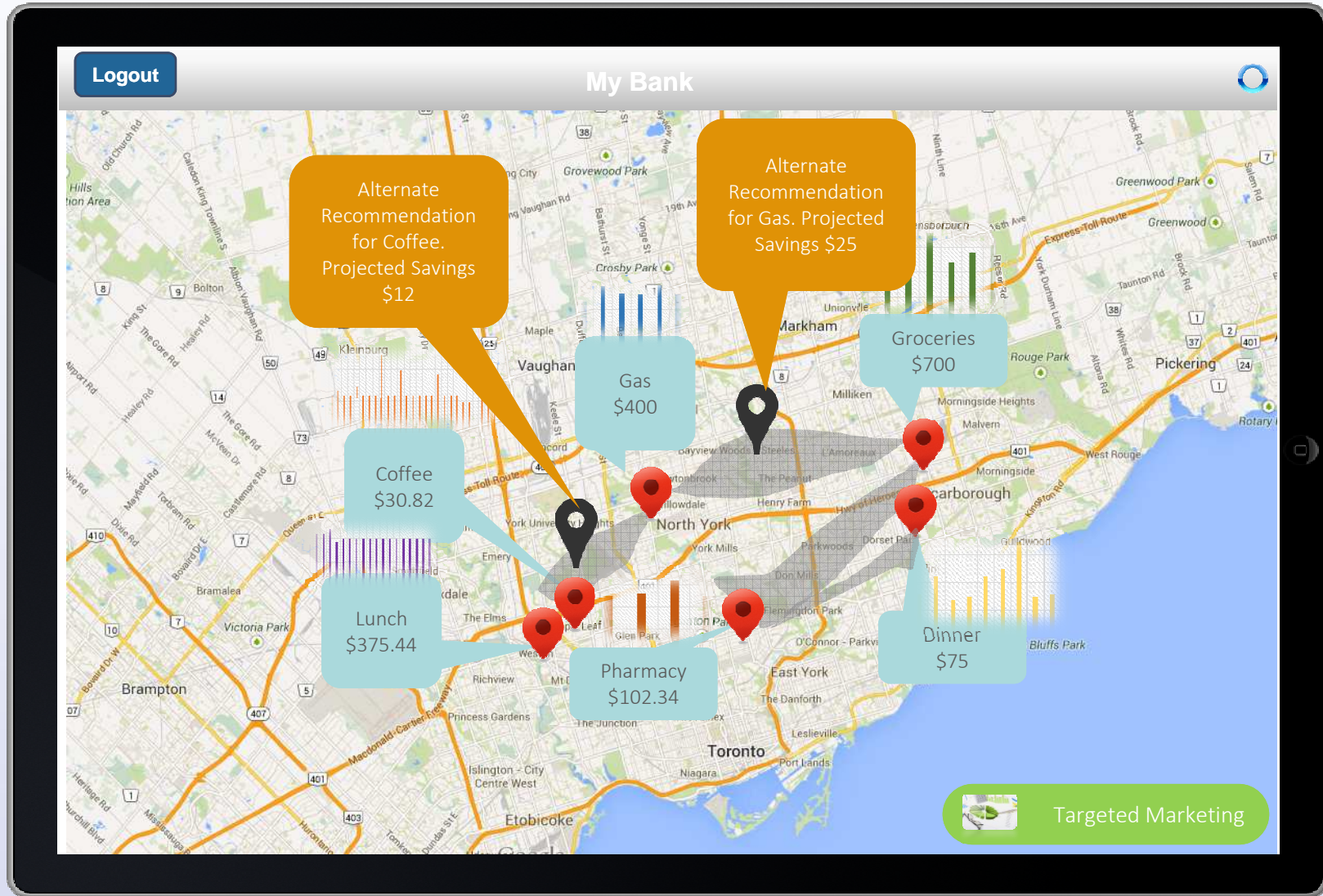
Customer Geographical Spending Profile Day 2



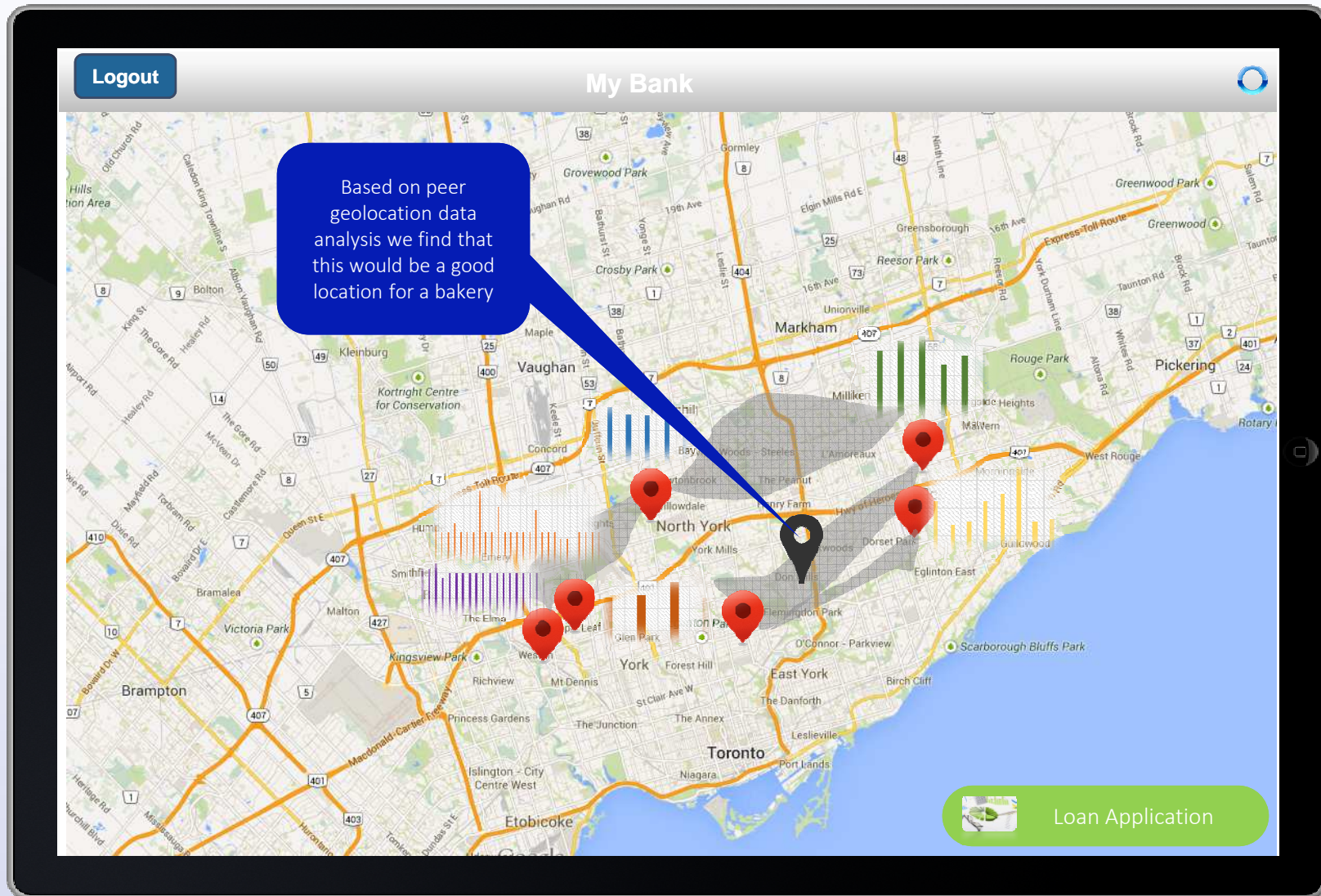
Customer Aggregated Geographical Spending Profile: Month



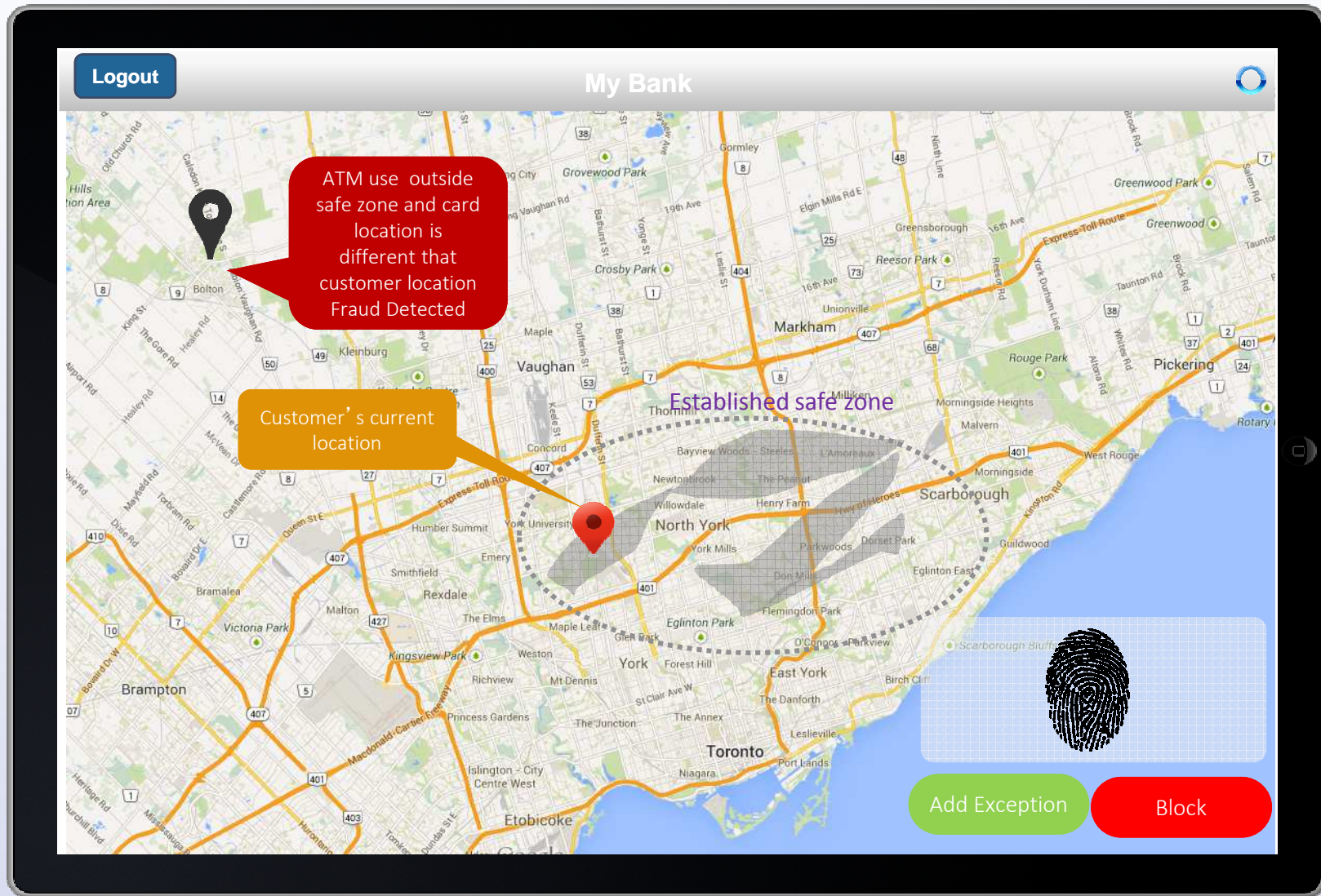
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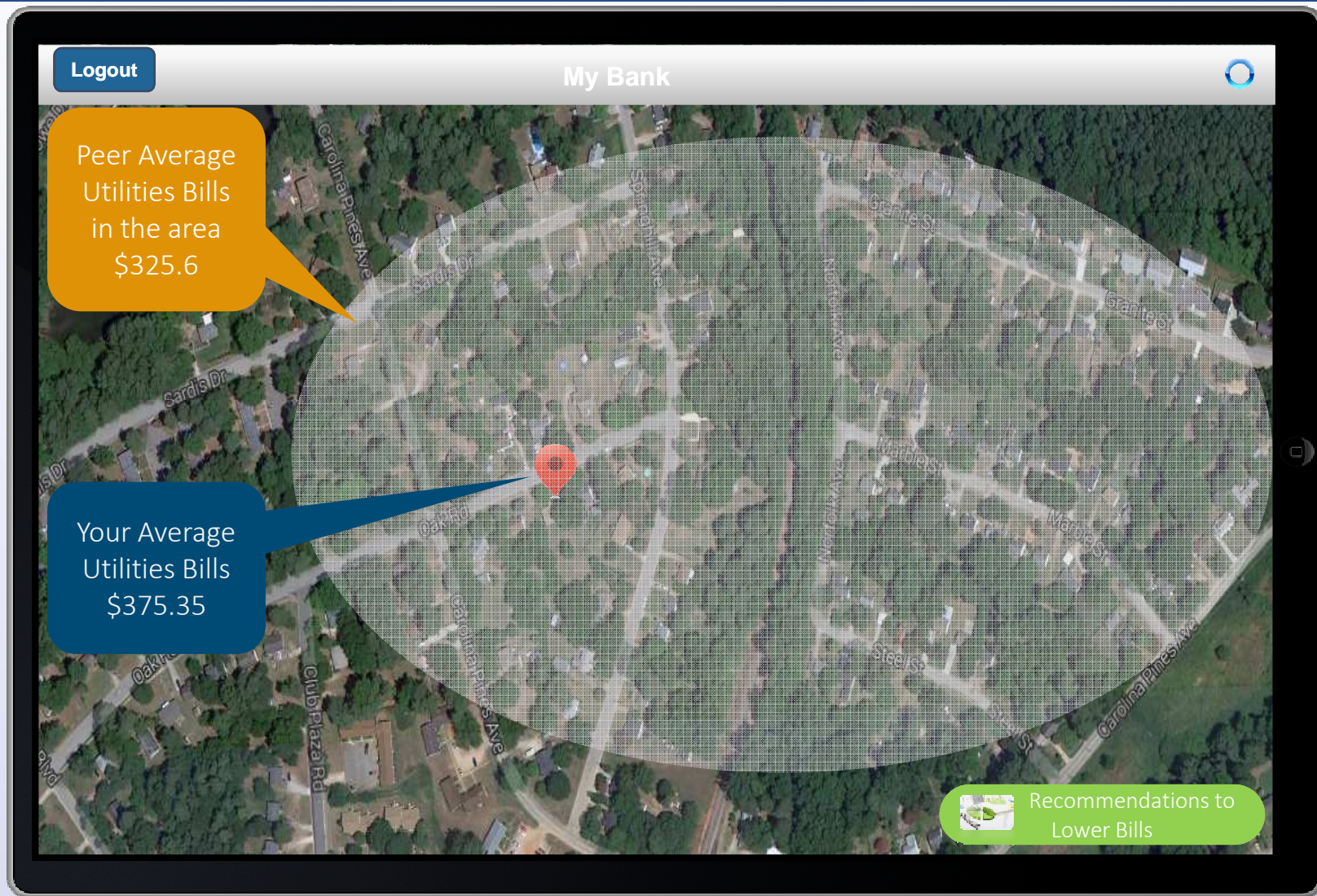
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Fraud Detection



Peer GeoAnalytics Recommendations



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