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Continued commitment to SOA

Run with big dogs or stay on the porch!

Steve Able

GT Software, Inc.

steve@gtsoftware.com

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Abstract

With Cloud, mobile, and big data being the mainstay of market banter today, let's not forget that without SOA all these new markets would just simply not exist. The key founding principles of SOA are the very core of these new and exciting initiatives.

IBM and Independent software vendors have continued to invest in SOA allowing for improvements in most aspects of application development .

No longer a mystical term, SOA has proven to be a solid choice for new technology initiatives, because of the development acceleration capabilities and innovation driven by adopting SOA principals within your CICS/TS, IMS and z/OS environment.

The goal of this presentation is to inspire continuous improvement ideals based on using SOA as the driving force behind innovation in your environment.

But how can we spark the entrepreneurial spirit which promotes continuous improvement and drives innovation?

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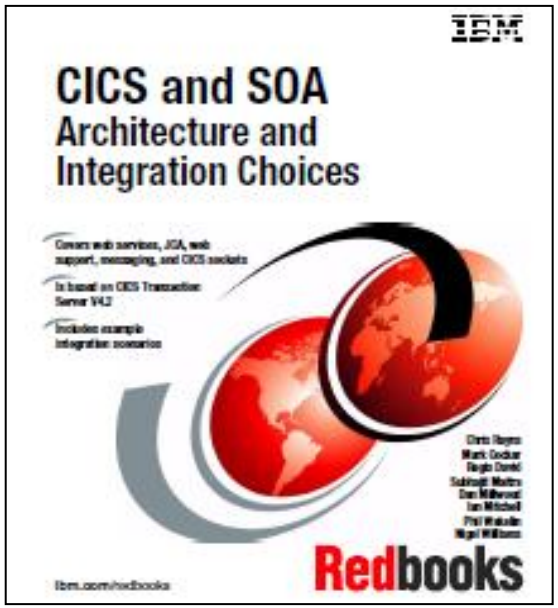
Agenda

- Technology trends for 2013
- Innovation road blocks
- Innovation skills
- Challenges ahead
- Technology continuum
- Simply good design
- Ugly side of SOA
- Risk mitigation
- Summary…



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Technology trends
Reworded Gartner projections for 2013

- Battle for mobile device domination
- Increased demand for mobile applications
- Cloud addresses personal needs
- Everything connected
- Hybrid computing expands role of IT
- Strategic data blending of traditional and non-traditional
- Business analytics drive decisions
- In-memory computing applications
- Computing appliances to integrate hardware and software
- Enterprise based private application stores

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Innovation roadblocks

- Fear of failure is the number 1 killer of innovation
  "… Innovation is saying no to 1000 things" Paraphrased quote from Steve Jobs
- Organizational resistance
  - Manage existing problems
  - Encourage change
- Goals or stakes to high
  - Manage demands and risks
  - Align expectations with delivery
- Lack of trust or authority
  - Promote team work
  - Build a culture of listening and feedback

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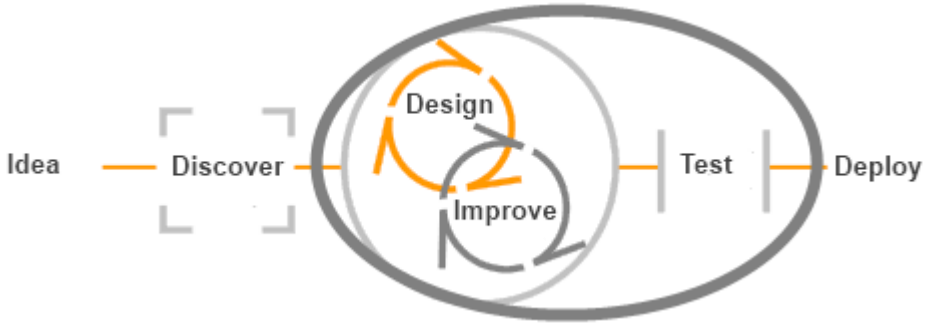
Innovation skills

- Question
  - Challenge the status quo
  - Go beyond just asking “Why”…
- Observe
  - Look for new ways of doing things
- Network
  - Seek out different opinions
- Experiment
  - Prototype
  - Test
  - Improve



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Challenges ahead

Technology continuum

V1
Web

V2
Java
OTE

V3
SOA

V4.1
Events
Web 2.0

V4.2
Events
Java
Connectivity
Management
Scalability

V5.1
Cloud (PaaS)
Policy-based management
Java Web container
Scalability

1999 2002 2005 2009 2011 2012

Focused Versions

Broad Range of New & Enhanced Capabilities

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OSGi Alliance Strategic Member

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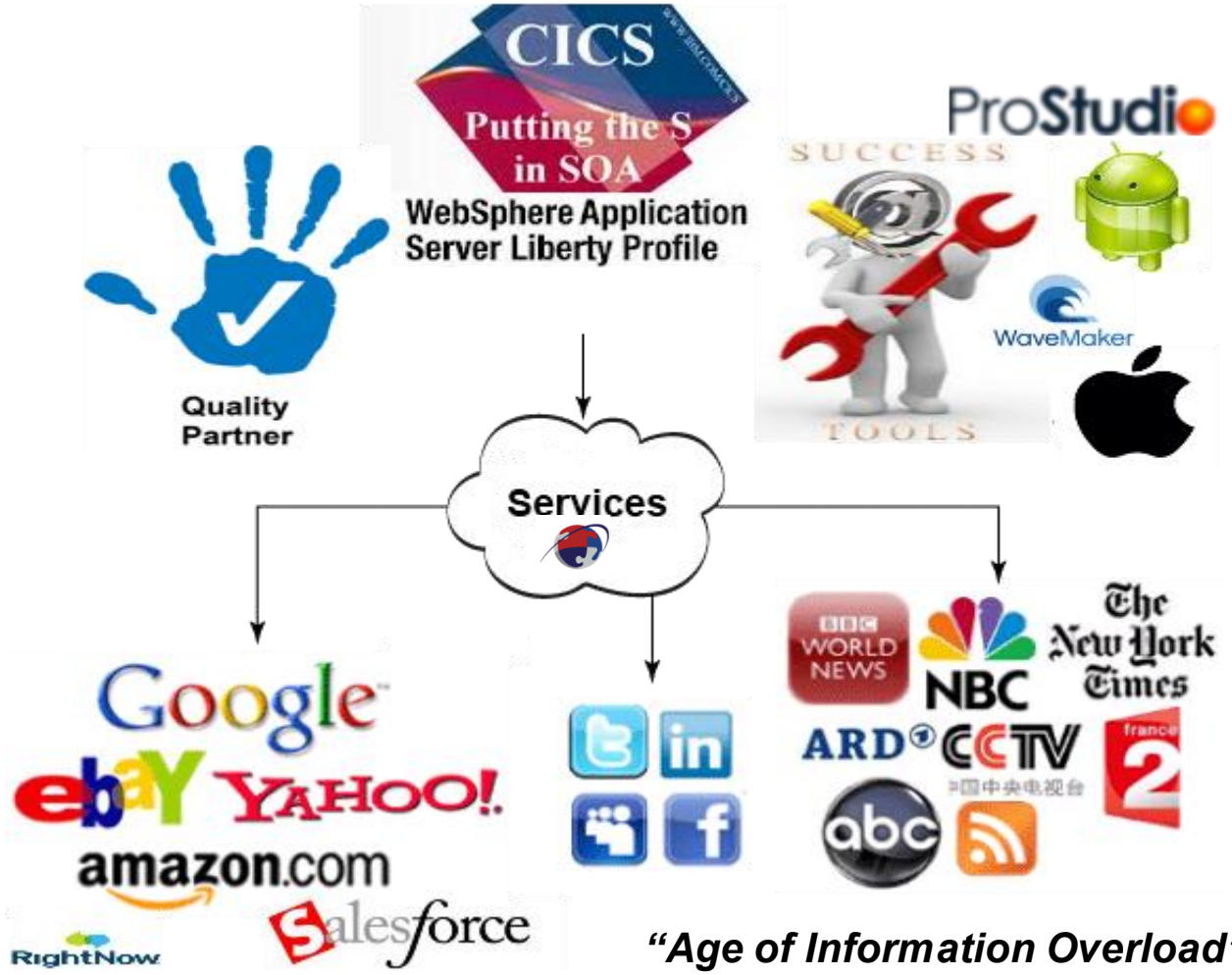
Services enable modernization



"Age of Information Overload"

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Mobile computing and services

- WebSphere Liberty Profile
  - Search IBM
- WaveMaker
  - http://www.wavemaker.com/
- JavaScript Frameworks
  - http://dojotoolkit.org/
  - http://jquerymobile.com/

http://en.wikipedia.org/wiki/Comparison_of_JavaScript_frameworks

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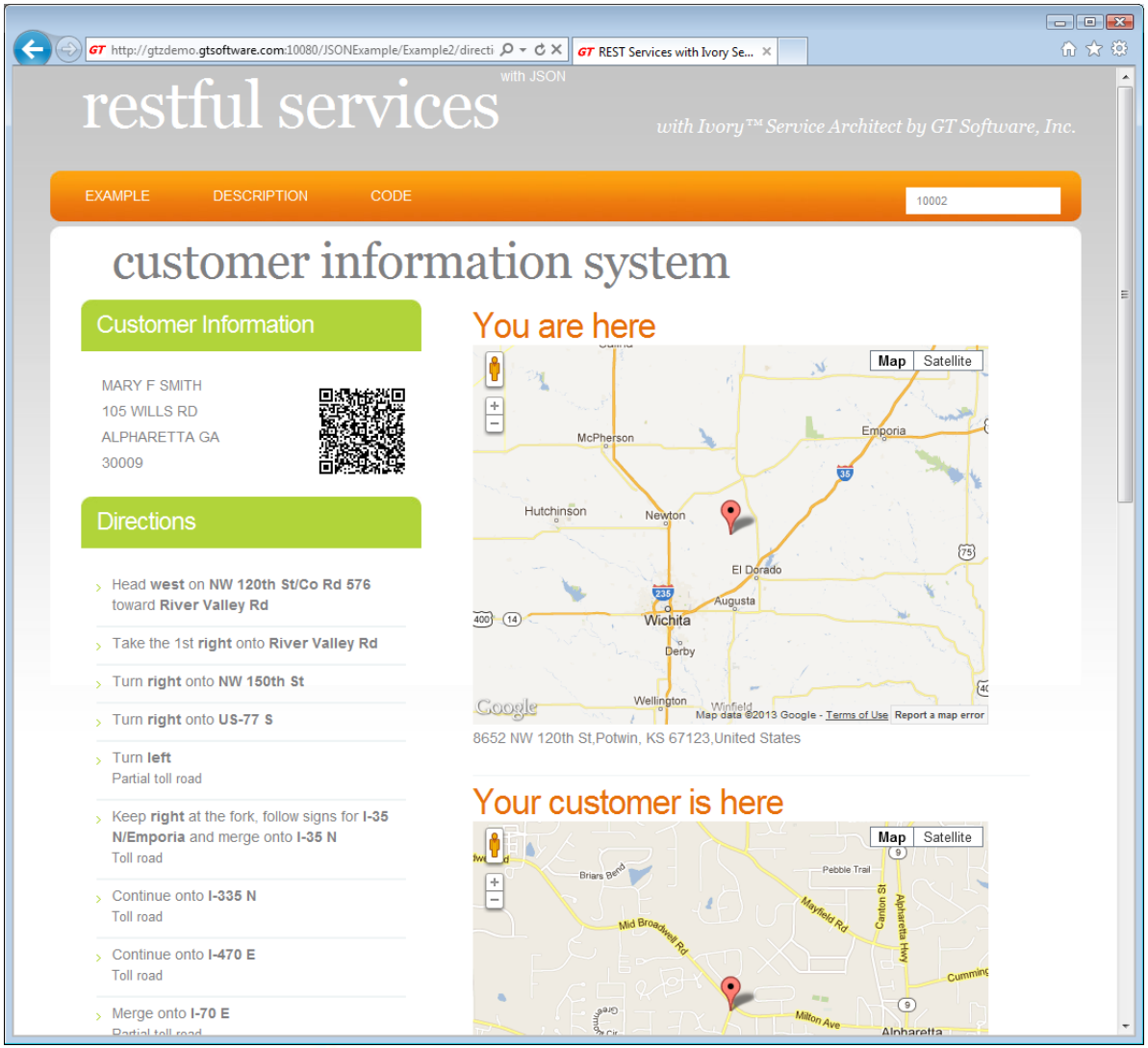
RESTful web interface example




```
<html>
<script …>
…
<div id="customer">
…
<ul id="directionlist">
…
</html>
```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http://tinyurl.com/CICS-RESTful-JSON

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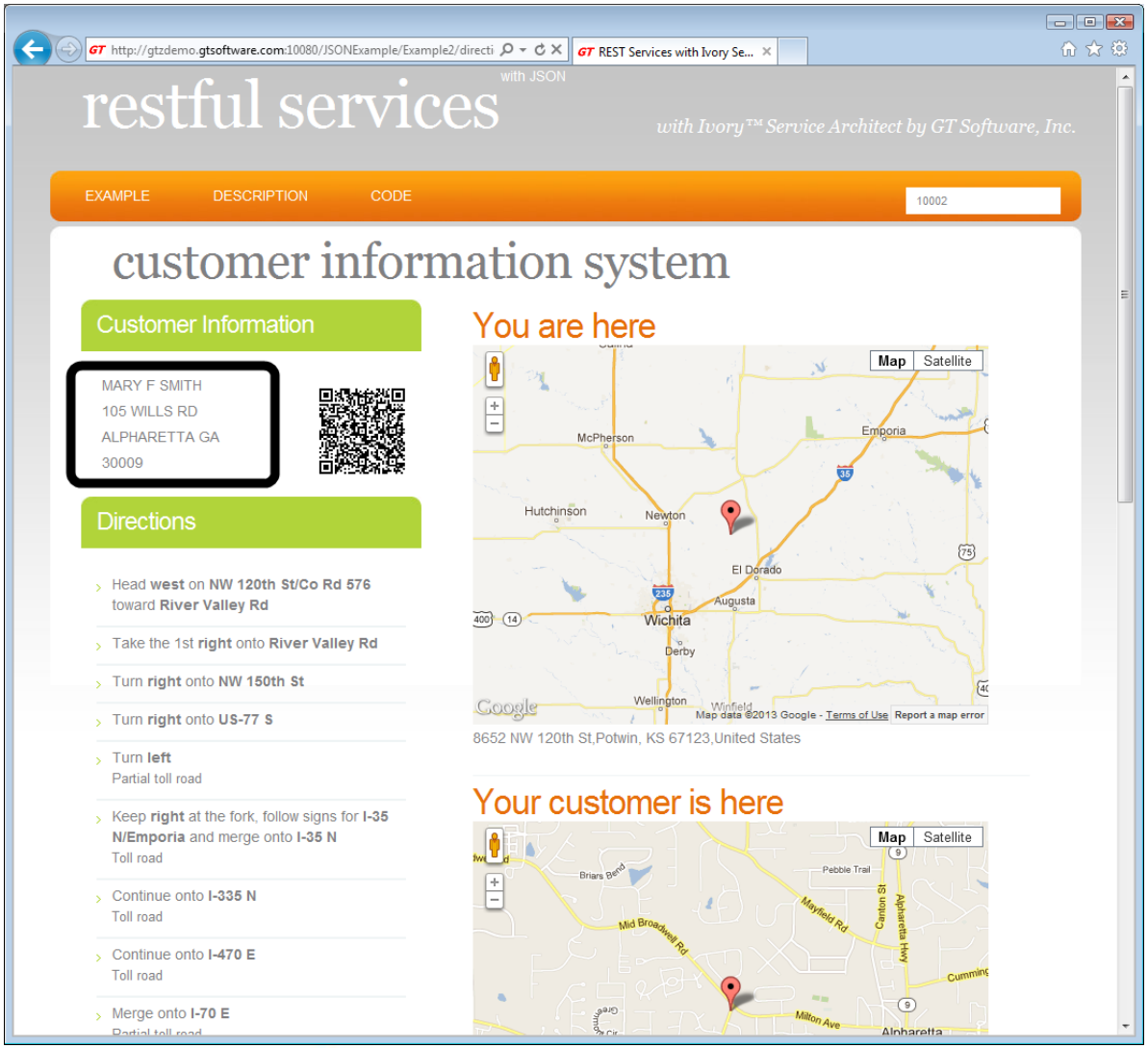
RESTful example 1




```
<html>
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<div id="customer">
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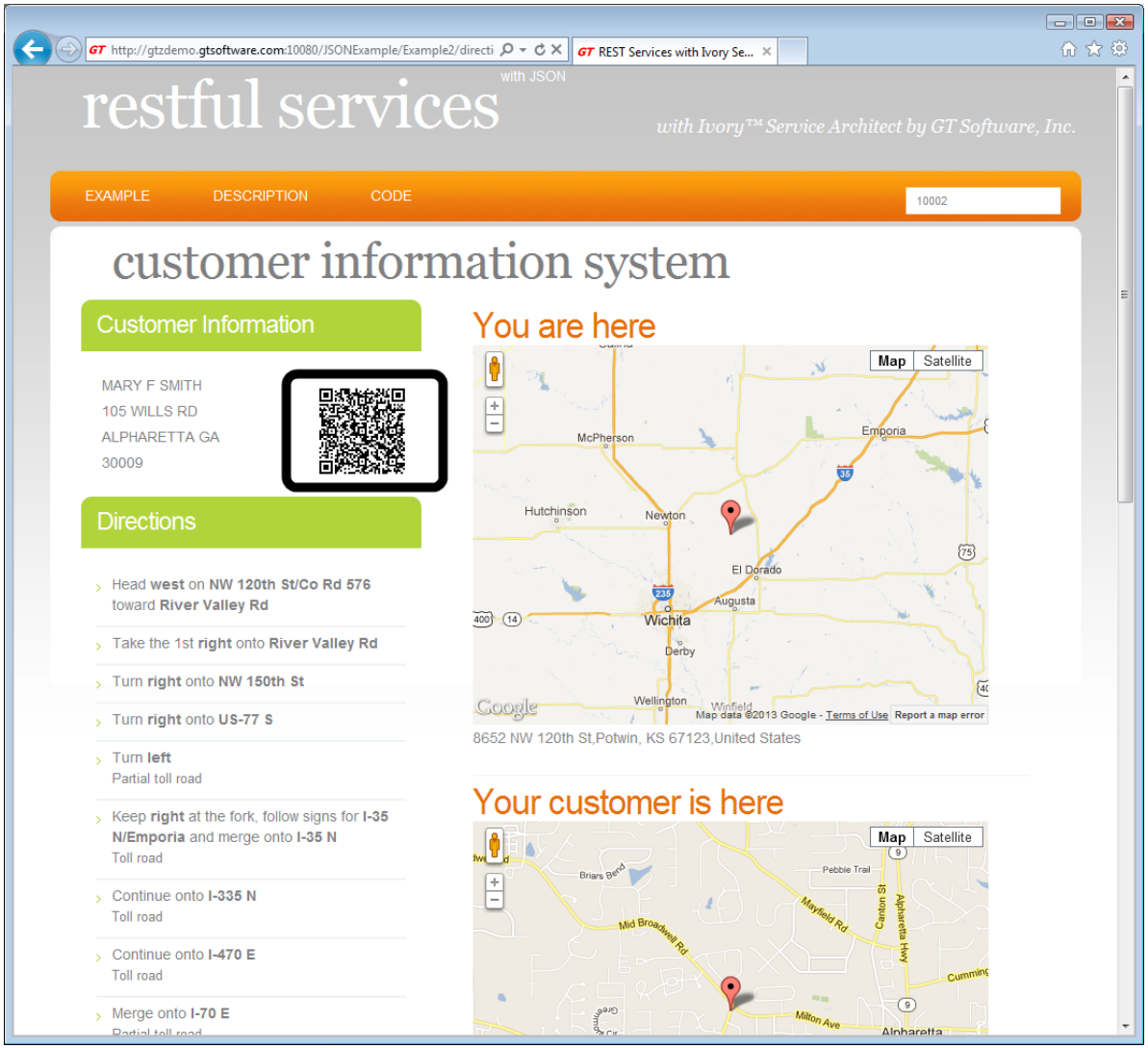
RESTful example 2

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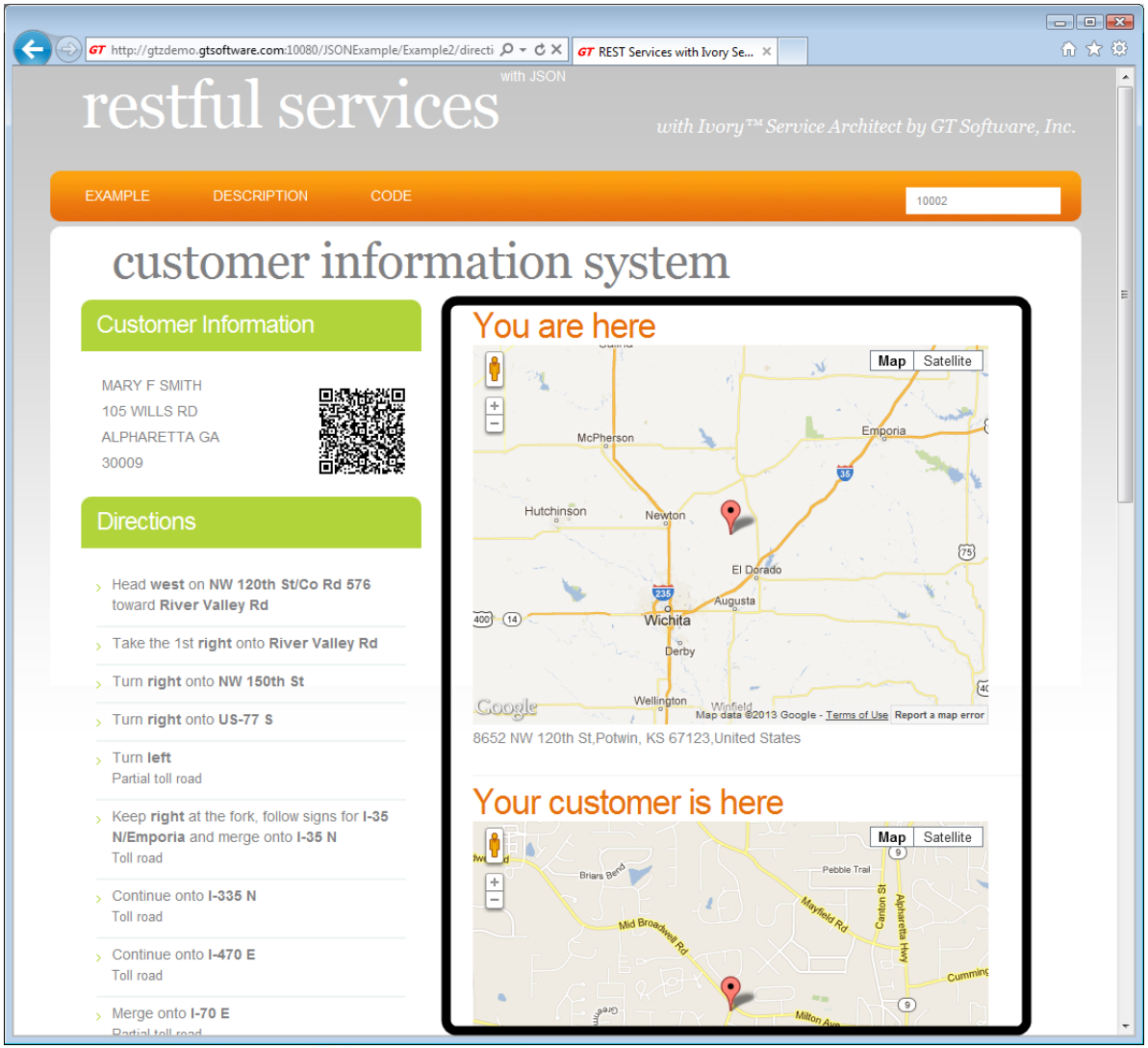
RESTful example 3



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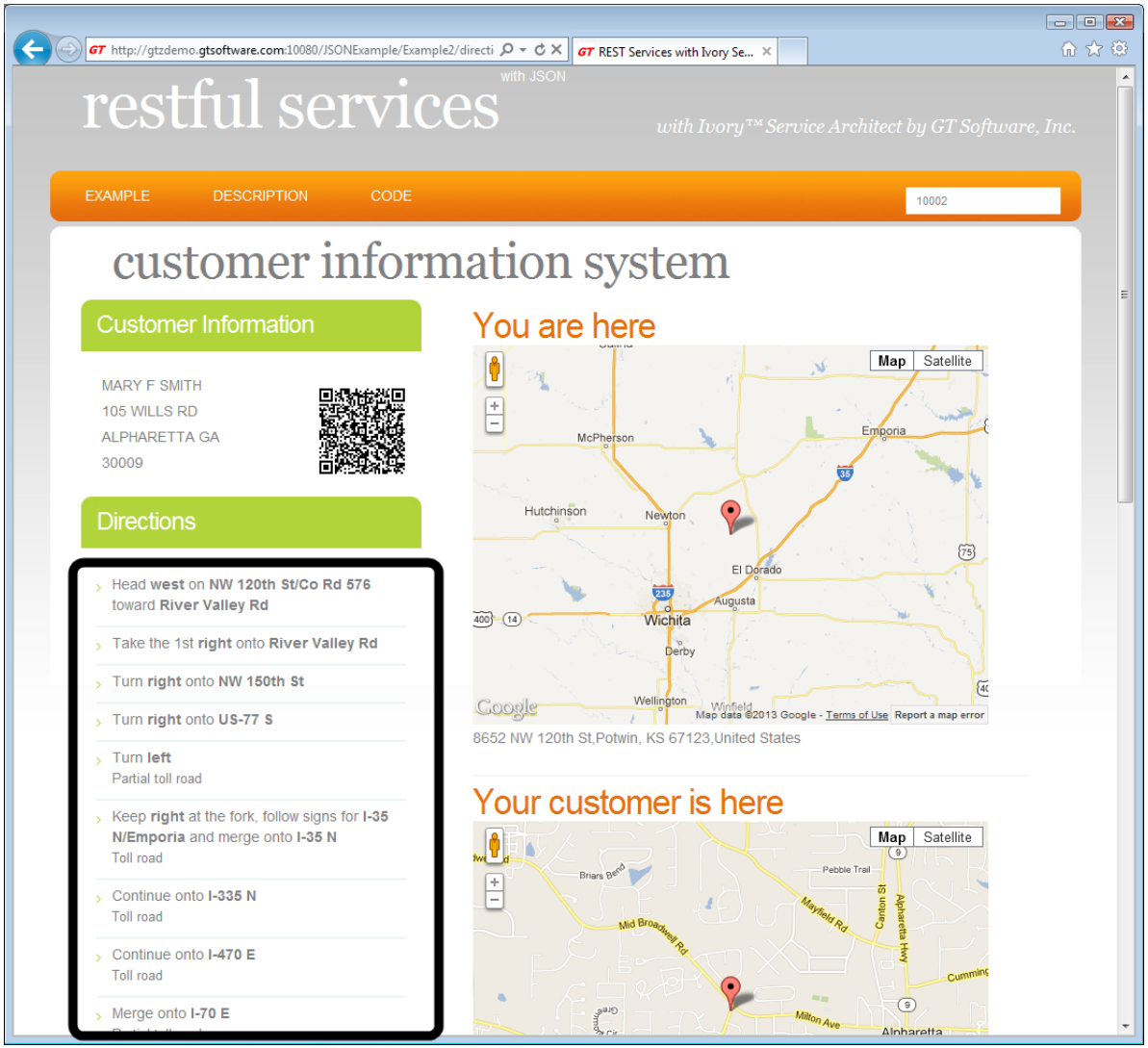
http://tinyurl.com/CICS-RESTful-JSON

RESTful example 4



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http://tinyurl.com/CICS-RESTful-JSON

Simply good design

- SOA based services core to design
- Enterprise wide integration capabilities
- Supports open and industry standards
- Leverage and extend open source solutions
- Modernize and extend legacy applications
- Platform for ever growing ecosystem

Ready for IBM SOA Specialty

Why every IT Architect should understand something about CICS

"Make SOA a prerequisite architecture. It's time to breathe new life into your SOA initiative, this time by focusing on architecture instead of technology."

-Gartner Application and Integration Platforms Key Initiative Overview July 22, 2011

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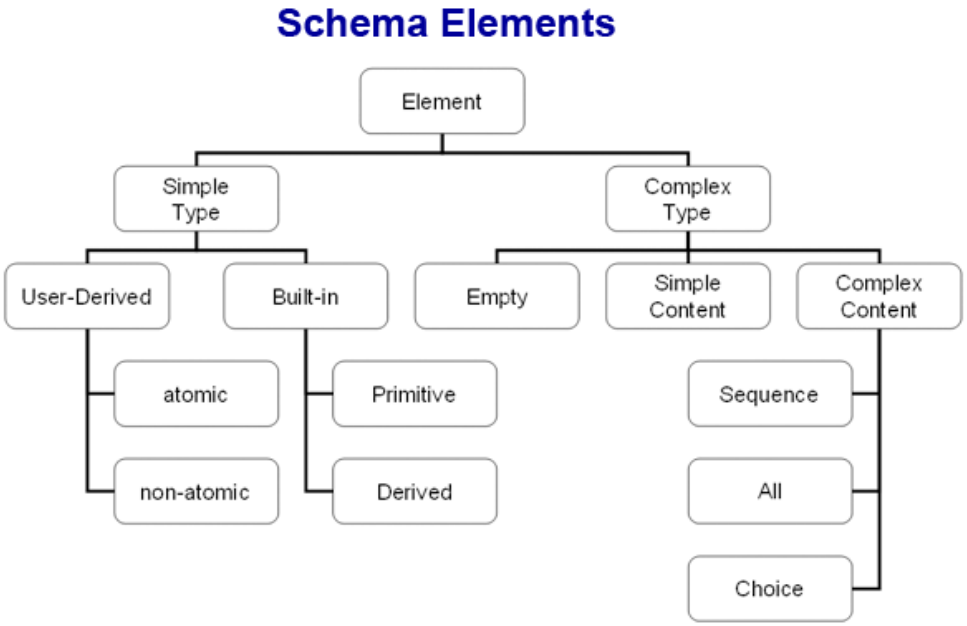
Ugly side of SOA

- Complexity of design
  - Elements
  - Service Scope
  - Payload size
- Knowledge push-pull
  - Technology creep
  - Logic creep
- XML Schema design
  - Good
  - Bad
  - Ugly



"Just because you can do something does not mean that you should"
Bob Rogers – IBM retired

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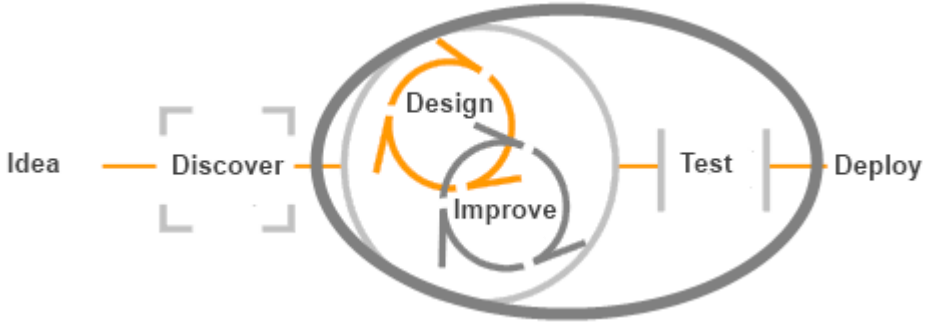
Risk mitigation

- Plan, discuss and plan
  - Reusable services
  - Platform inter-operability
- Prototype working models
  - Seek constructive feedback
  - Implement improvements
- Test and test more
  - Monitor performance
  - Retain results
- Review and revise



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Summary / recommendations…

- Explosion of new technology
  - Mobile devices and mobile work force
  - Massive amounts of information
  - Hybrid / appliance computing
- Doing more with less
  - Research innovative and entrepreneurial ideals
  - Encourage creative thinking – “Ask more than why!”
  - Network for more opinions – “IBM, Partners - Peers”
- Promote simply good design
  - Discuss, design, prototype, improve, test and repeat
  - Set continuous improvement goals

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Presentation resources…

- CICS History
  http://tinyurl.com/CICS-History
- IBM Systems Mainframe Magazine - Innovation
  http://tinyurl.com/Push-The-Needle-Innovate
- Forbes take on Gartner Technology trends 2013
  http://tinyurl.com/Forbes-Gartner-Trends-2013
- WaveMaker (Java) – Web 2.0 RAD tool
  http://www.wavemaker.com/
- Liberty Web Container (Java) – CICS/TS
  https://share.confex.com/share/120/webprogram/Session12445.html
- Visual WebGUI (Microsoft) – Gixmox Limited
  http://www.visualwebgui.com/
- Whitehouse on innovation
  http://www.whitehouse.gov/issues/economy/innovation
- Microsoft – Principals of service design
  http://msdn.microsoft.com/en-us/library/ms954638.aspx

CICS/TS SOA reading…

Redbook/Whitepaper Title	Publication N#	Last Update
Architecting Access to CICS within an SOA	SG24-5466-06	March 2012
Options for Integrating CICS applications in an SOA	WSW11339-USEN-00	Sept 2007
Implementing CICS Web Services	SG24-7657-00	Nov 2008
Application Development for CICS Web Services	SG24-7126-00	May 2006
Securing Access to CICS Within an SOA	SG24-5756-01	Dec 2006
Securing CICS Web Services	SG24-7658-00	Dec 2008
WebSphere for z/OS to CICS and IMS Connectivity Performance	REDP-3959-00	May 2006
CICS Web Services Performance	SG24-7687-00	2009
Deploying CICS Web services to preserve IT investments in Banking	WSW14002-USEN-00	Dec 2007
Integrating WebSphere Application Server and CICS using the CTG	WSW14013-USEN-00	March 2008
CICS Transaction Gateway for z/OS V6.1	SG24-7161-00	May 2006
Developing Connector Applications for CICS	SG24-7714-00	April 2009
Increase the value of CICS applications with WebSphere MQ	WSW14006-USEN-01	Feb 2008
WebSphere MQ for z/OS Highly Available System Design	Support Pac MD17	Jan 2006

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One more thing,
Thank you…

www.linkedin.com/in/steveable/

steve@gtsoftware.com
steve.able@gmail.com

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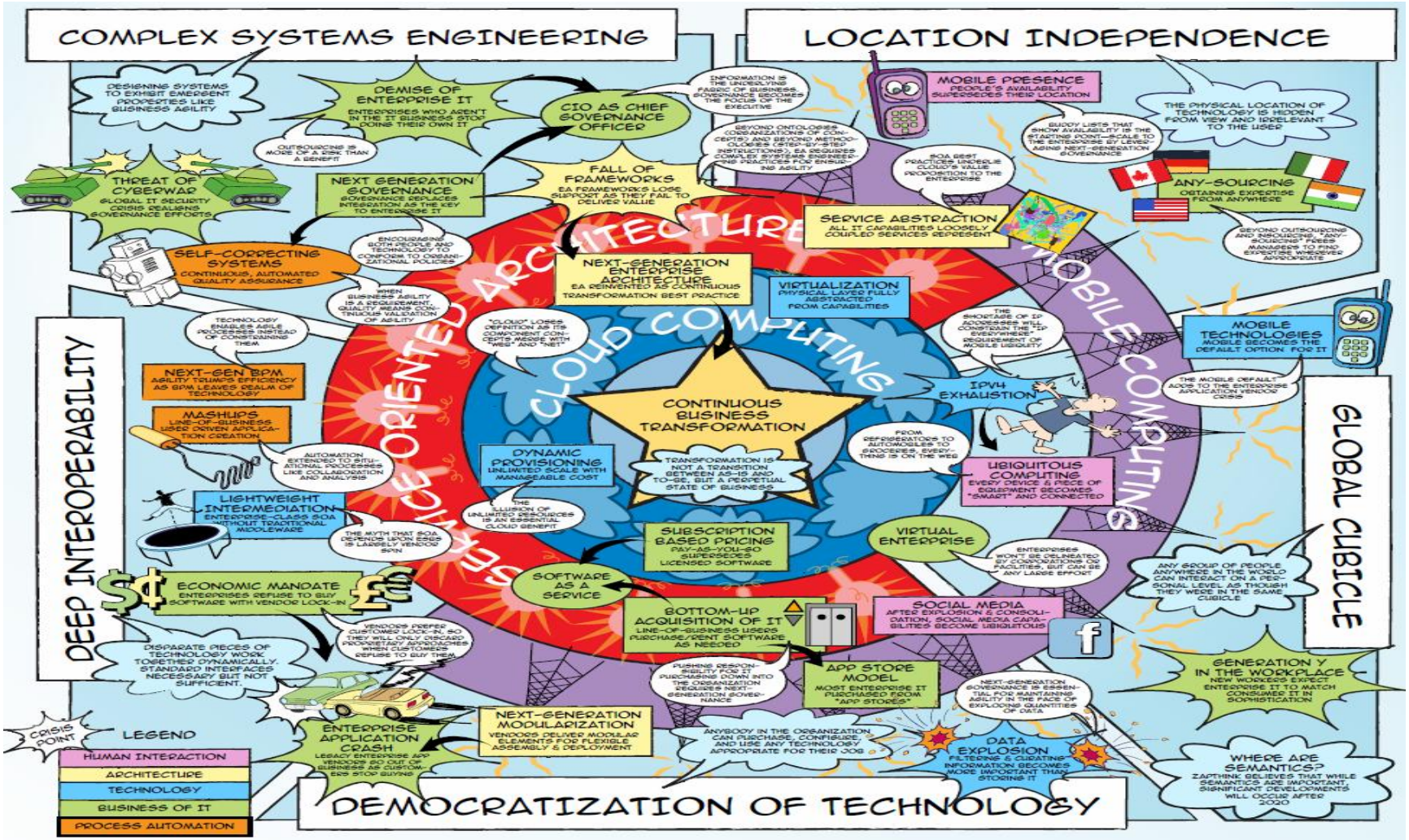
ZapThink's view of 2020 computing…



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That's all…

Hursley House – Home of CICS

CICS/TS Top 5 Survey