



Technology Labs

Reality Online and Sensor Telemetry

John M. Schullian

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Reality Online: Where We are Going



Envision a world where...

- ...objects can **sense, reason, communicate** and act
- ...for every physical entity or event, there is a **virtual cooperating double**
- ...time between stimulus and response approaches **zero**
- ...**business insight** will be bought and sold
- ...the market will reward those who effectively **harness the real-time economy** and garner and preserve **the trust of their stakeholders**





Why Sensor Telemetry?

Accenture believes that Sensor Telemetry will help organizations:

- **Drive Operational Effectiveness**
 - Reducing costs through greater efficiency
- **Improve Customer Relationships**
 - Understanding product usage = understanding customers
- **Create New Services**
 - Moving from product to services
- **Generate Business Insights**
 - Using Sensor Telemetry data to generate business value

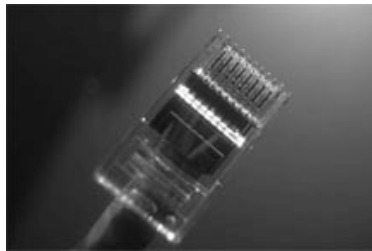
“Sensor Telemetry offers organizations a means to increase focus on service and quality, to turn products into services and to respond immediately to market demand”

**Joel Osman
Accenture Technology Labs**

Sensor Telemetry: Infrastructure Behind It



Just as yesterday's complex and expensive technologies have become the fabric of today's infrastructure



Internet



GPS

...today's complex and expensive technologies will become the fabric of tomorrow's infrastructure.



Wireless



RFID & Sensors

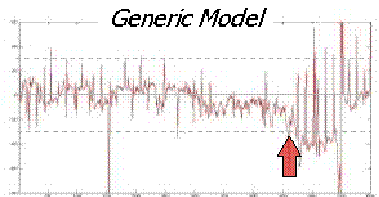


Web Services

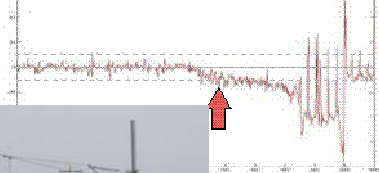
Example Applications



Illustration: Engine Vibration



Personalized Model



Predictive Monitoring – St. Louis Metro



Interactive 'Video Wall'

Product ID	Origin	Destination
ACX120	Texas Plant - Southwest	XYZ Inc. A Barber, N

Idle Alert - Empty Railcar

Car Information
Level: 10,100 lbs
Ambient Temp: 45° F
Idle Time: 5 days

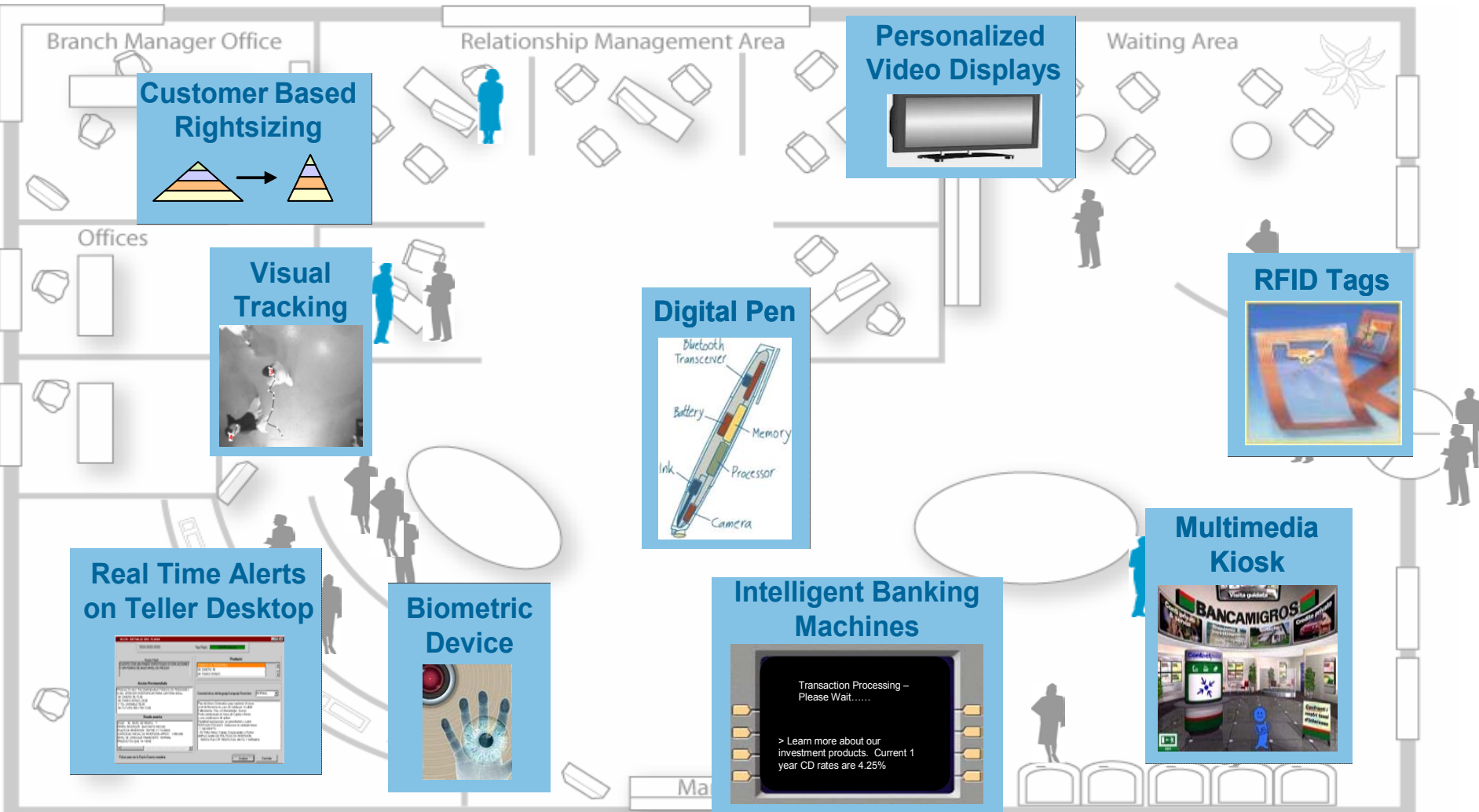
Contact Information
XYZ Inc.
Roe Jackson
(864) 565-3631

Round Trip Statistics

Average Round Trip:
Q1 2003: 50 days
Q2 2003: 39 days @
This Trip:
Estimated Duration: 42 (22)

Chemical Railcar Logistics

Next Generation Bank Branches Will Focus on Customer Relationship and Value...



Hurdles to Overcome



- **Information Flood**
 - What will organizations do with all of that data that Sensor Telemetry provides?
 - How will organizations manage “dirty”, incomplete and contradictory data?
- **Data Ownership and Privacy Concerns**
 - Who will own and manage data and make it available to the numerous stakeholders?
 - What ethical limits should be imposed on the use of data?
 - What is a reasonable expectation of privacy?
- **Cost**
 - Does the cost of sensors, communications and implementation outweigh the benefits?
 - How will companies attain the benefits?



Sensor Telemetry: Contacts and More Information



**Accenture Technology Labs
Sensor Telemetry Contacts:**

Joel Osman
(joel.a.osman@accenture.com)

John Schullian
(john.m.schullian@accenture.com)

**For more information on
Sensor Telemetry, visit:**

www.accenture.com/sensortelemetry