



Going Mobile. Mobile Solutions

STAYING LEAN WITH INFORMATION 'ON THE GO'

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Wonderware Midwest

What's driving the pace of change today?



Technology megatrends



91%
of organizations spent
money on mobile
devices in 2012

**85
BILLION** mobile apps
were downloaded
in 2012

In 2012, mobile
devices out paced
PCs by more than
2:1
and generated
more revenue than
PCs for the first
time

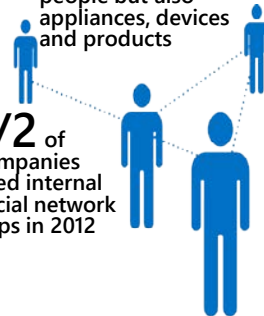
Mobility

=

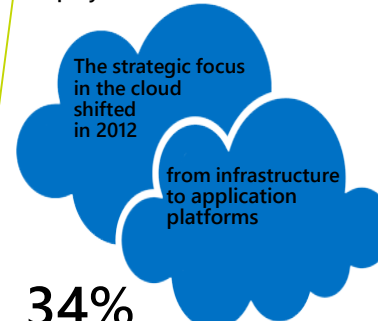
Data security concerns

Social networking
now follows not just
people but also
appliances, devices
and products

1/2 of
companies
used internal
social network
apps in 2012



> 80% of new apps in
2012 were distributed/
deployed on clouds



34%
of CIOs say technology as a service
(cloud) will have the most profound
effect on the CIO role in the future

49% of CIOs rank BI as the
top project priority for 2012

Total digital content grew
48% from 2011

2/3 of mobile apps
developed in 2012 integrated
with analytics offerings



2.7
zettabytes
in 2012

32%
of businesses
were likely to
invest in BI
and analytics
in 2012

Going Mobile - Agenda



- Getting the Right Information to Right Person
- Mobile Revolution
- Applications for Mobile...
 - #1 Reporting – SmartGlance
 - #2 Workforce Management – IntelaTrac
 - #3 Workflow – Mobile Workflow Client
 - #4 Process Visualization – HMI on an iPad
 - #5 Real-time Alarms – Mobile 911
 - #6 GIS on your iOS (or Droid) – Mobile GIS
 - . . . And wait, there's more! Fun Applications – for Work!

We All Need Information to Do our Jobs



How do you provide mobile workers with the right information at the right time?

Mobile Solutions



Facts...

75% of business users impacted by mobility

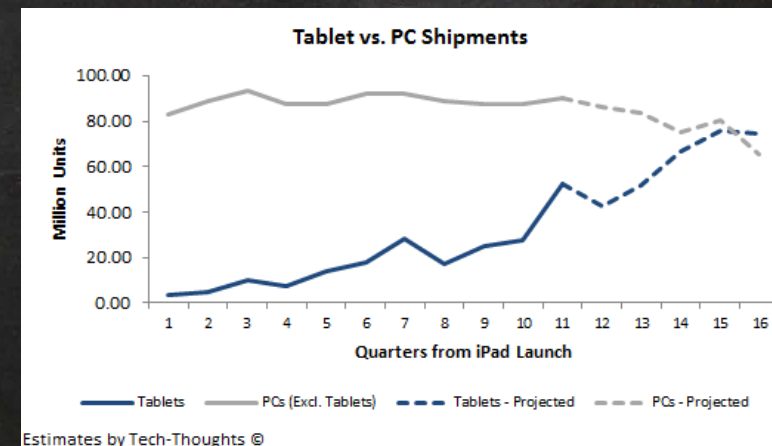
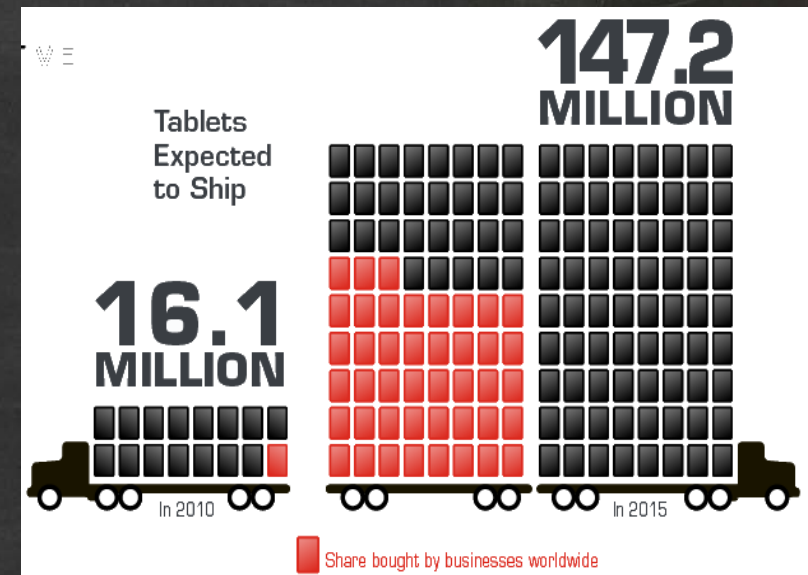
1/5 of tablets used in business in 2013

147.2 Million Tablets in business in 2015 – 50%

11,000 iPads used by United / Continental Airlines pilots on board

Tablet Sales grew 78% in 2012

Sources : Gartner, ABI Research, Forrester, Frost & Sullivan, Others



So Let's...



Mobile Applications

Mobile Applications Provide:
The **Right Information**
At the **Right Time**
To the **Right Person**



MOBILE APPLICATION #1

Mobile Reporting and Notification

SMARTGLANCE



Mobile Reporting

- ✓ Historians
- ✓ Alarm DB
- ✓ HMI
- ✓ MES
- ✓ CEM
- ✓ CMMS
- ✓ IntelaTrac
- ✓ Well Field
- ✓ 'Your Database'



Mobile Reporting Connector

Send real time data from various products to SmartGlance

SmartGlance Real Time Mobile Dashboards

Real-time access to critical KPIs and process data via smartphones and tablets.

Key Features



Reports – Critical Data at Your Fingertips - Real time and historical

Automatic Data Updates... Data always up-to-date

Powerful Analysis Tools: Line Charts, Bar Charts, Pie Charts

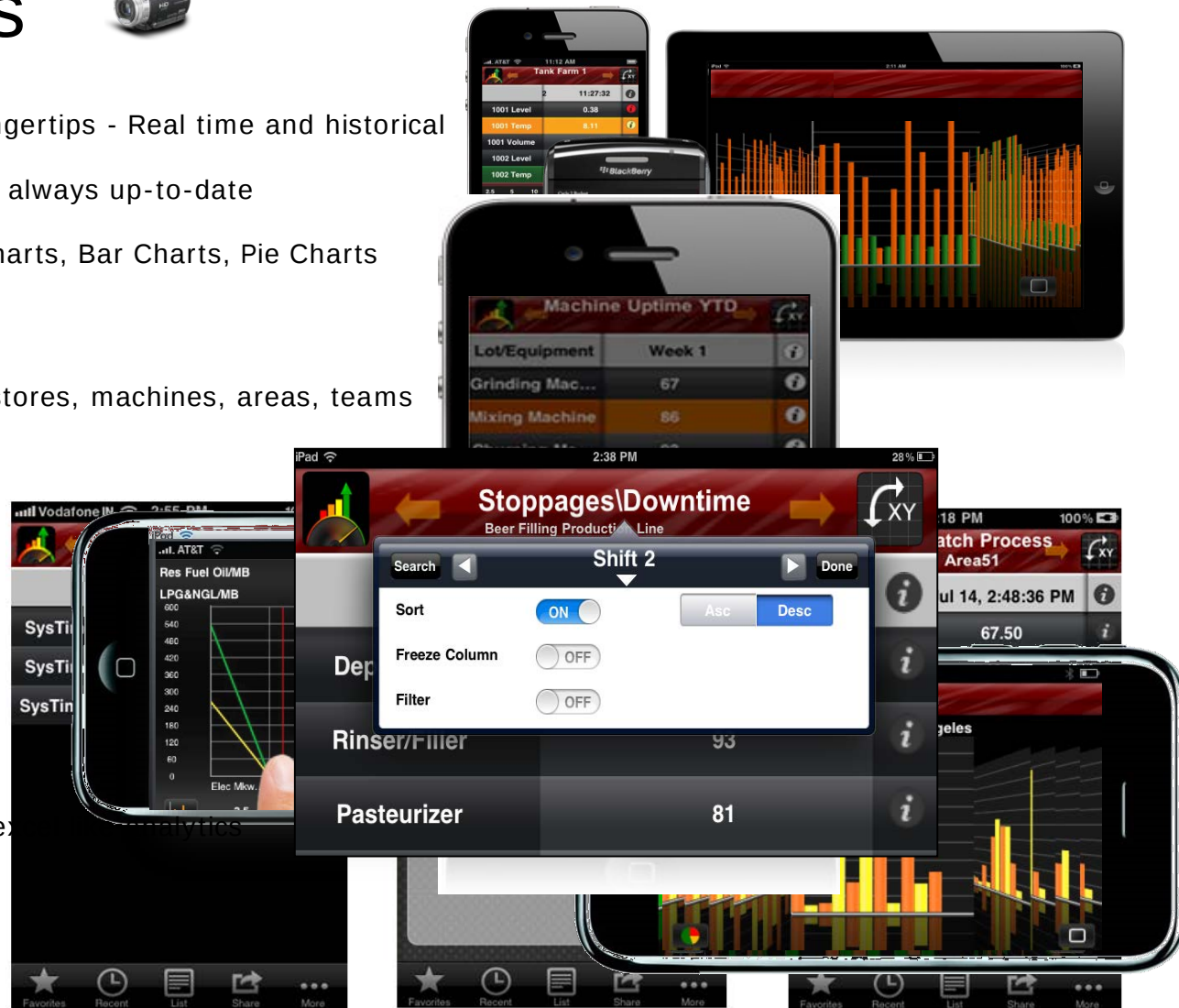
Compare time frames, factories, stores, machines, areas, teams

Zoom, Pinpoint, and Analyze:

Share findings with your team

Drill down to pinpoint a problem

Sort, Filter & Freeze options for ex



Supports All Smart Phones Platforms



Apple Devices

- iPhone
- iPod Touch - all versions
- iPad
- *Multiple language support – English, French, Spanish, German, Italian, Chinese & Japanese*



BlackBerry Devices

- Supports both Touch and
- Non Touch models
- Multiple language support –
- BlackBerry Playbook English, French, Spanish, German & Italian



Android Phones



Windows Phone Devices

Security:

Similar to online banks and HR/Payroll systems

- **Authentication:**

- Access only to registered and authenticated users
- Each communication message has built-in authentication

- **Authorization:**

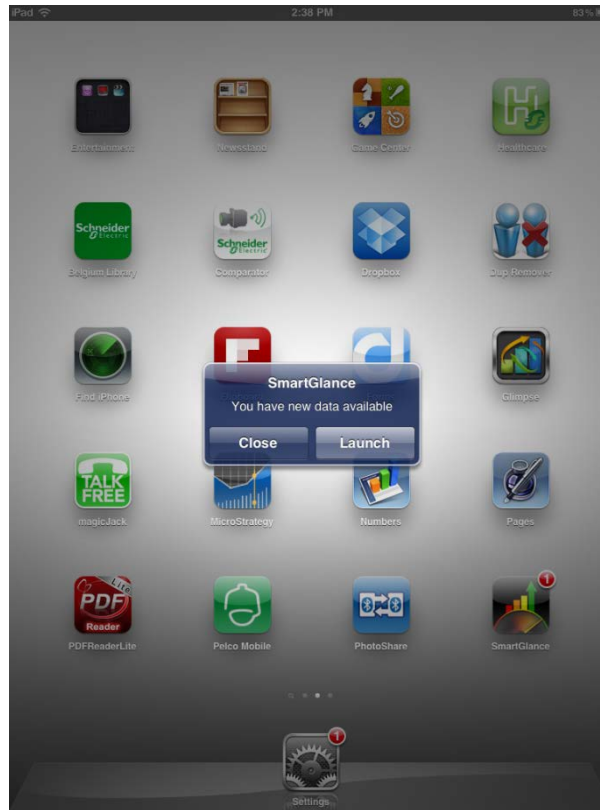
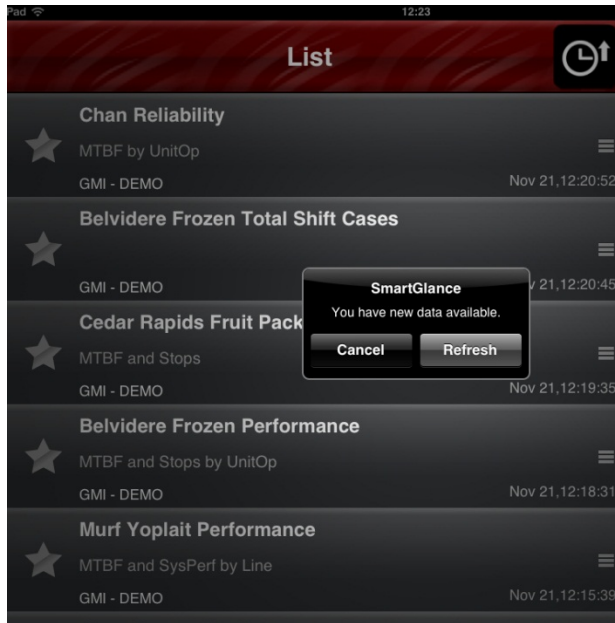
- Mobile level: login and password to start the app
- Report level: data available only to the users authorized within the report

- **Encryption:**

- Full encryption of data
- HTTPS communication in and out of hosted server
- Verisign Thawte Certified



New Data Notifications



Receive a banner or an alert notification when a new report or data is updated.

It is a great reminder to know when new data or report comes up.

Allows to open the SmartGlance app with just a touch on the alert.

Build your own alerts

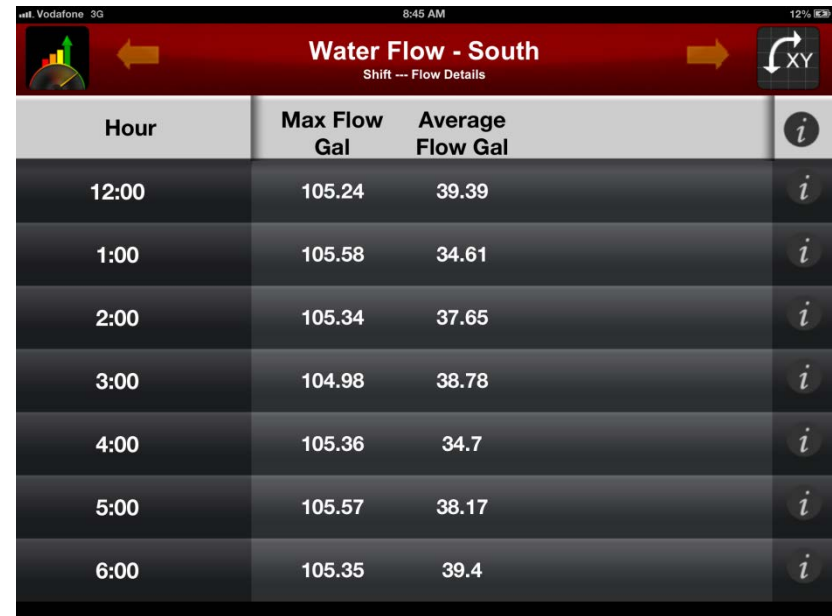
'My Alerts'



- You can generate your own Alerts
- You can share your Alerts with another user
- Subscribe to new Alerts

Try it for yourself. . .for free!

- ✓ Download and Install Free [SmartGlance Phone App](#)
- ✓ Connect to 'Demo Reports'
- ✓ Show it off 😊



The screenshot shows the SmartGlance Phone App interface. At the top, there's a status bar with 'Vodafone 3G', '8:45 AM', and '12% (100)'. Below that, a red header bar contains a bar chart icon, a left arrow, the title 'Water Flow - South', a right arrow, and a refresh icon. Under the title is the subtitle 'Shift -- Flow Details'. The main content is a table with four columns: 'Hour', 'Max Flow Gal', 'Average Flow Gal', and an information icon 'i'. The table has seven rows of data for hours 12:00 through 6:00. Each row has an information icon 'i' in the fourth column.

Hour	Max Flow Gal	Average Flow Gal	i
12:00	105.24	39.39	i
1:00	105.58	34.61	i
2:00	105.34	37.65	i
3:00	104.98	38.78	i
4:00	105.36	34.7	i
5:00	105.57	38.17	i
6:00	105.35	39.4	i

MOBILE APPLICATION # 2

Workforce Management

INTELATrac



Field Operators

Fewer and fewer

Wearing more hats

Turnover, experience levels

Need tools to drive higher effectiveness



IntelaTrac – A Tool for Improving Operator Effectiveness

- Operator Rounds – Data Collection
- Equipment Inspections
- Health, Safety and Environmental (HSE) Rounds
- Security Rounds
- Built-in Contingency Actions
- Projects & Turnarounds – status tracking & procedure enforcement
- Quality Assurance – Manual data sampling



IntelaTrac

System Administration



Super Users



Mobile Workers



User Administration, Device Management
System & Data Center Management

Procedures Versioning Scheduling

Operator Rounds Data Collection
Work Requests

Minutes
not hours,
equipment
saved

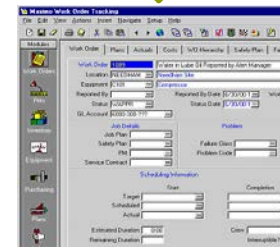
Management



Supervisors



Enterprise Integration



Exception Reports
Process/Performance KPI's
Email Notifications

Round/Route Approval Performance
Monitoring Exception Management
Shift Handover/Logs

CMMS / Reliability

Avantis, Maximo, Hansen

Process Historian
WW, OSI PI, AspenTech

IntelaTrac



Drives Operational Consistency

- Rounds & Dynamic Procedures
- Capture and spread operational knowledge

Gain Better Insights on All Assets

- Data Collection on “Stranded” Assets
- Immediate Feedback (data history)

Leverage Operators in Reliability Efforts

Helps Managers Manage Better (w/ data)

Helps us manage ourselves better!

Helps Ensure Regulatory Compliance

MOBILE APPLICATION #3

Decisions on the Go

MOBILE WORKFLOW



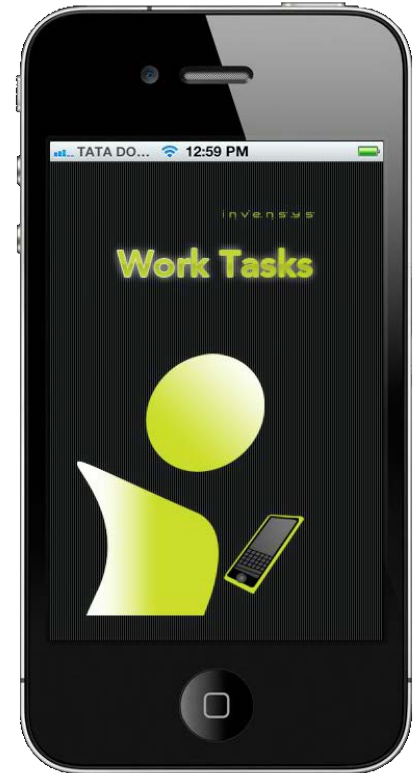
WORK TASKS App, *Workflow on the Go*

Most Plant Workers are Mobile

- Operators, Managers, Engineers, Technicians, Maintenance Workers, Lab Workers

Work Tasks mobile app (iPhone & iPad)

- Monitor & Execute assigned work tasks
- Great tool for managers (meetings, travel, home)
- Keeps workflows moving. Not waiting for anyone.
- Reduces delays, particularly management approvals.



Work Tasks - Key Capabilities

- View and Act on work items from your iPhone or iPad, anywhere
- Search for specific work items
- View work items based on categories
- Flag work items based on importance
- View work items even in offline mode
- Number of pending tasks pushed to mobile devices and displayed on Work Tasks icon



Work Tasks – Key Advantages



Helps Accelerate Workflows

- Less waiting for someone to approve a task

Keep Track of Critical Workflows

- List of workflows on your phone

Helps You Manage Better

- Helps you identify workflow bottlenecks



Archestra[®]
Workflow

MOBILE APPLICATION #4

Mobile Real-Time HMI



HMI on Mobile Hardware Platforms



- Keep mobile operators fully informed of ongoing processes
- Allows remote or mobile intervention
 - Full functionality
 - Secure access
- Runs on any mobile device that supports Microsoft Remote Desktop Services (aka Terminal Services)
- Access Anywhere with HTML5 RDP Client (Any device with a browser)
- Consumes a Terminal Services Session License



A man wearing a white hard hat, safety glasses, and a dark blue work shirt is shown in profile, looking at and touching a large, blue control panel. The panel is covered with numerous small, colorful buttons (red, yellow, green, and white) and a few larger switches. The background is dark and appears to be an industrial setting.

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How does it work

- Connectivity achieved through Remote Desktop Sessions
- Secure access using VPN
- Access through WiFi and or 3G/4G
- Reduces the need for multiple panels in warehouse, packaging, bottling or in geographically dispersed facilities in Water, Oil & Gas, Power

MOBILE APPLICATION # 5

Real Time Alarms



- Ties into your SCADA system
- Brings alarms right to your Phone or Tablet where they can be acknowledged.
- Can use in Conjunction with a PanelView also!
- www.specterinstruments.com

MOBILE APPLICATION # 6

Mobile GIS (Global Information Systems)

- Extend the reach of your GIS Systems
- Increase productivity and accuracy by updating your GIS in the field
- Most GIS Vendors support most devices



MOBILE (fun) APPLICATION

What is your Water Footprint?

‘WaterPrint’

- Calculate your daily Water Usage
- How much water does it take to ____? ____
- iPhone Only
- www.waterprint.net

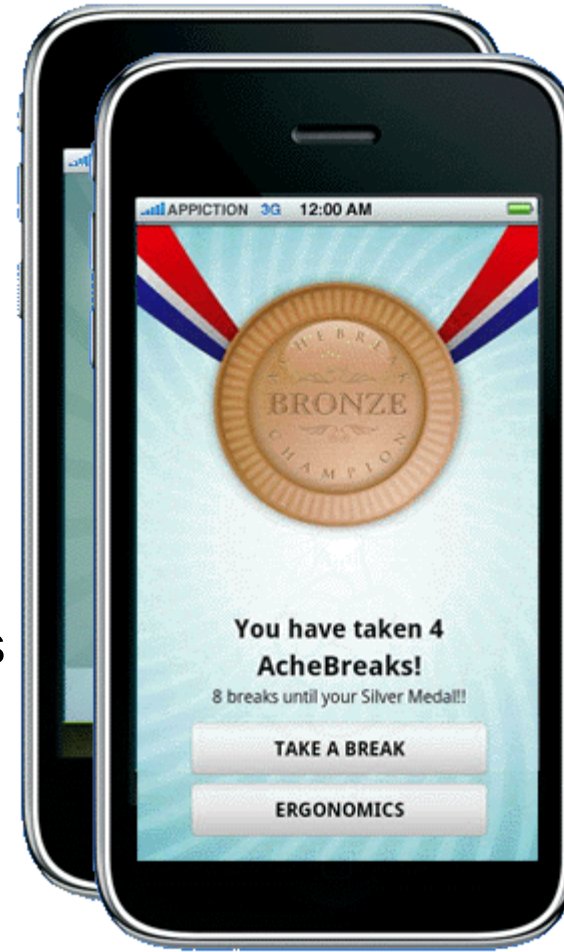


MOBILE (fun) APPLICATION

Fingers hurt because of all of those Apps?

‘AcheBreak’

- Repetitive Strain Injury (RSI) App
- Cartoon characters help relieve sore muscles
- Take a Break!
- www.achebreak.com



Water versus 'Apps'



According to a 2013 Mobile App Behavior study by Apigee, 85% of the respondents said they would rather go without Water than going without their Mobile Apps.

Wow, Really?

Summary

- Mobile Technology is Here to Stay
 - Smartphones, tablets, rugged handheld computers
- The market delivers a host of mature, mobile solutions
 - Mobile Reporting
 - Mobile Workforce
 - Mobile HMI & Alarms
 - Mobile GIS
 - Mobile 'everything!'
- The Right Information to the Right Person at the Right Time
- Questions? Joe.Finn@WonderwareMidwest.com





More on SCADA

Security



- \$\$Millions\$\$ being spent to keep SCADA Safe
 - But, must stay quiet on all being done
- 3rd Party Companies being paid to hack into 'our' software
- ICS-CERT – Emergency Response Teams

More on SCADA

PLC Training

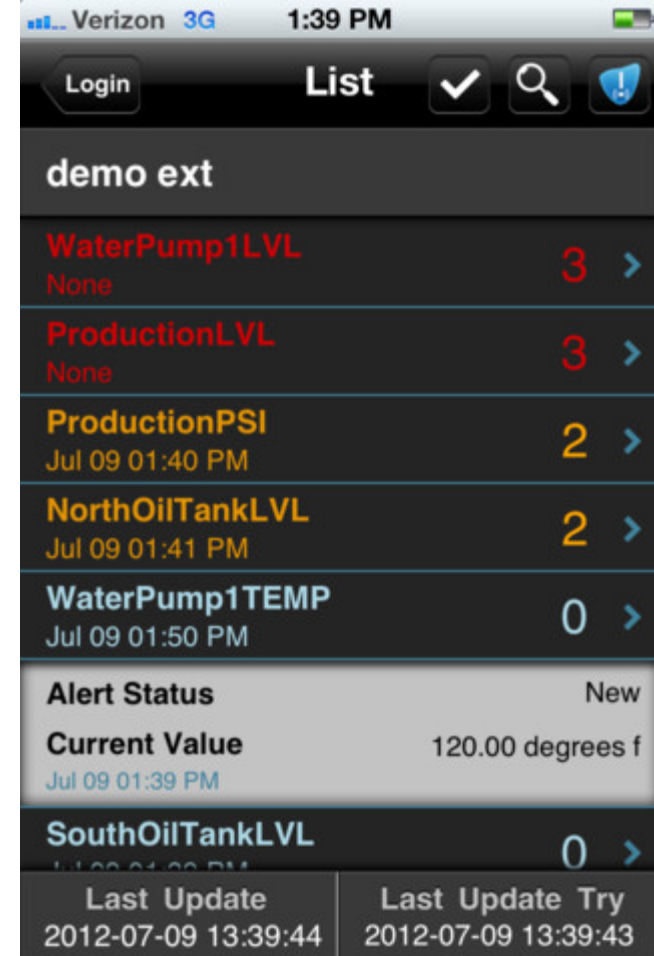
- 'PLC Guide' (Others available)
- Basic concepts of PLC Programming
- FREE



More on SCADA

SCADA-Aware

- Alarm Notification – Guaranteed Delivery
- Can deliver to person ‘closest to alarm’
- You’ll pay more, but. . . Guaranteed delivery!
- All Phones



Demonstration

SmartGlance

WaterPrint

