



# MOBILE DEVICES

Not Just for Route deliveries Any More

**TRSA**

2010 Tech/Plant Conference  
Las Vegas, NV  
September 29-30

# "Mobile Devices - they're not just for route deliveries anymore."

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Why the TR firm of the future will use mass market Mobile Devices such as iPad, iPhone and Android, to combine Production Monitoring, Business Event Processing (BEP), Business Intelligence and Unified Messaging, to eliminate paper and deliver and capture usable information in real time.

Music by early adopter Eric Clapton

Presenter:  
Daniel Friedman  
CEO, Laundry Logic, LLC  
Makers of Fulcrum Software



# Outline

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The art and science of forecasting

What trends influence mobile device ROI, 1 -5 years?

- Business Event Processing (BEP)

- Business Intelligence / Data Integration / Production monitoring

- Unified Messaging

- Others (GPS, Warehouse Management, Inventory Management)

Trends in Smartphone Evolution, 1- 5 years

- Adoption

- Function Convergence and Growth

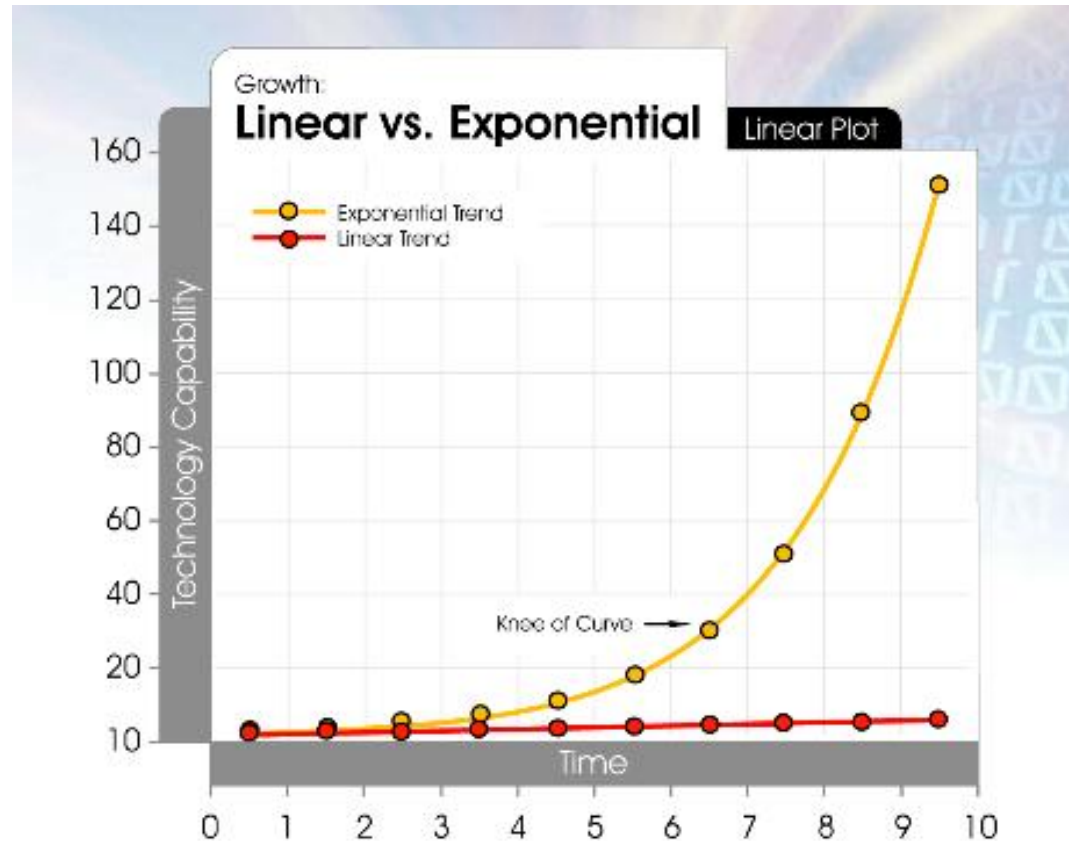
- Platform Divergence

- Software strategies

Some predictions

# Rules for Forecasting - A

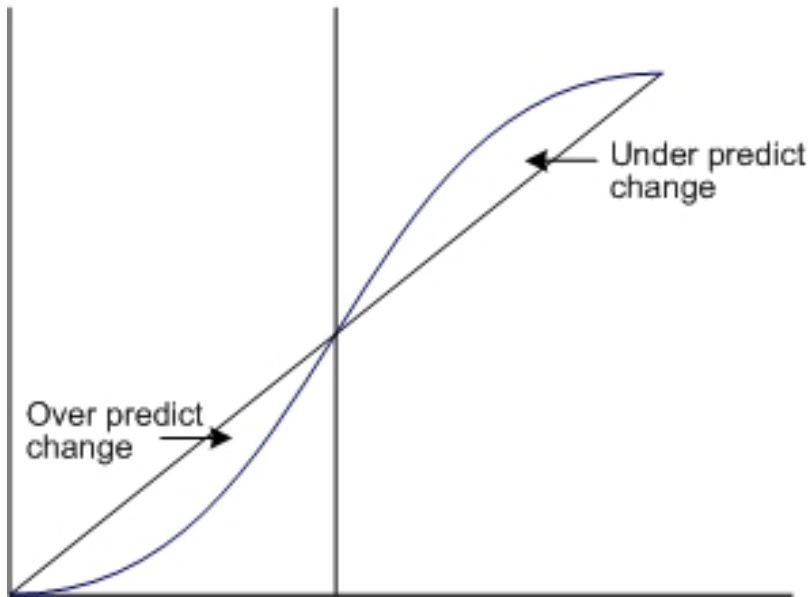
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- Ray Kurzweil
- Look for doubling or halving times
- Growth is rarely linear

# Rules for Forecasting - B

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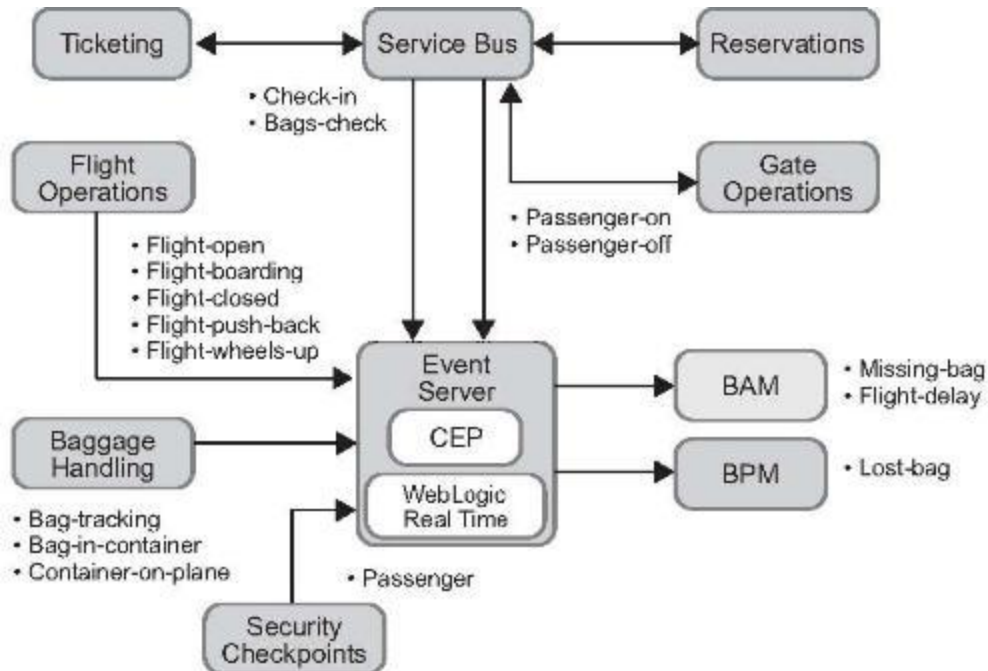


Paul Saffo:

- Look for S-Curves
- Hold strong opinions weakly
- Look for converging trends

# Business Event Processing (BEP) - A

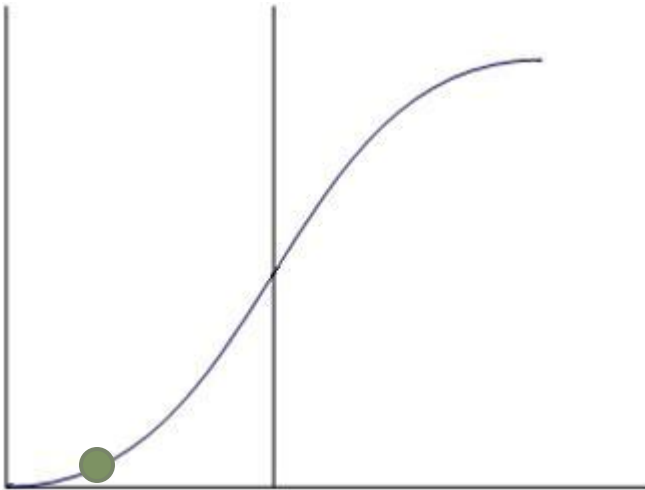
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- Real-Time Sense and Respond
- Real-Time Visibility with Business Activity Monitoring
- Real-Time Process Monitoring and Control
- “Find the needle before it gets into the haystack”
- Context rich alerts or notifications

# Business Event Processing (BEP) - B

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## What is the trend?

- Time Magazine: one of “eight “Innovations that will change your life,”
- World Economic Forum: one of the 26 top innovations in the world,
- Gartner: “the key to agile companies”
- CIO Magazine: a top trend of 2010.
  
- Still, we are at the earliest phase
- Early adoption in financial and security spaces

## Mobile Devices?

- It’s the notifications.
- Should I build it into my core software?

# BI, Production Monitoring, EAI

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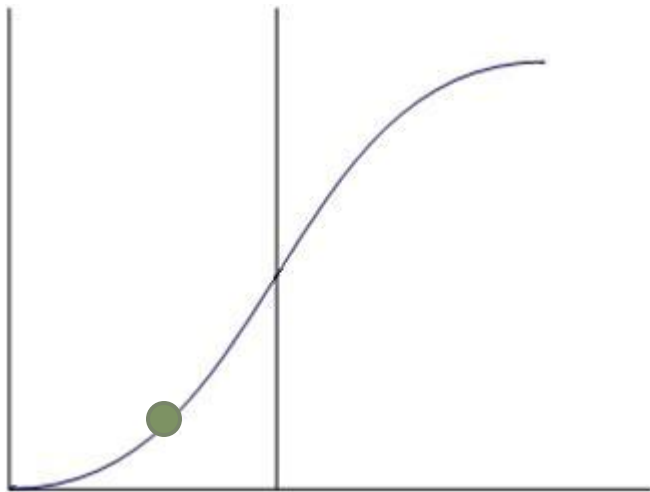


- The silos are slowly coming down
- BI depends on data integration
- Migration to the cloud presents non-trivial challenges to data integration.
- Disparate sources of data will become available
  - Production monitoring
  - Utility consumption
  - Time and Attendance
  - Inventory and Purchasing
  - Cash Flow
  - Order entry / requirements
  - Order fulfillment
  - Location awareness



# BI Mobile - Trends

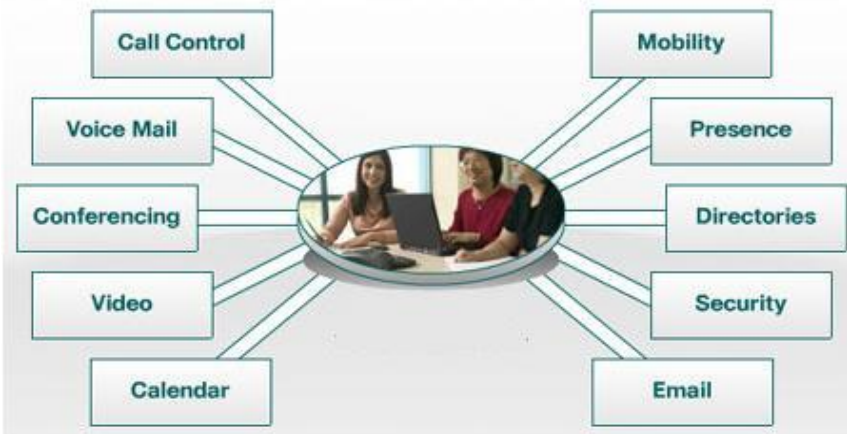
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- So now, the challenge is presentation.
- Mobile devices, you think?
- Forbes magazine Sept 2010 Dresner study: Companies plan to abandon current BI vendors in support of mobile BI at rate of 50% in next two years.
- Again, your software architecture has to support it.

# Unified Communications - A

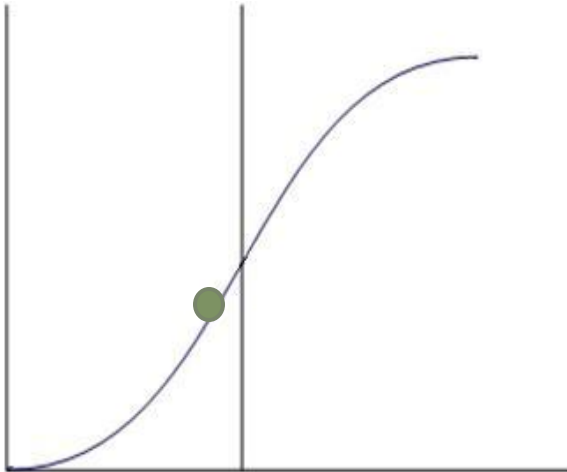
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- Single voicemail with notification
- Single voice number and email address
- Cross media reply
- Single mailbox
- Visual voicemail
- Device independent conferencing
- Conferences call out / call in
- Calendar updating
- Rich media

# Unified Communication - B

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## UC Adoption Status\*:



## Mobile Devices?

- It is now possible to alert managers at any level regardless of their location.
- What good is real time if you have to be at your desk?

# Smartphone capabilities

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Devices of the future will:

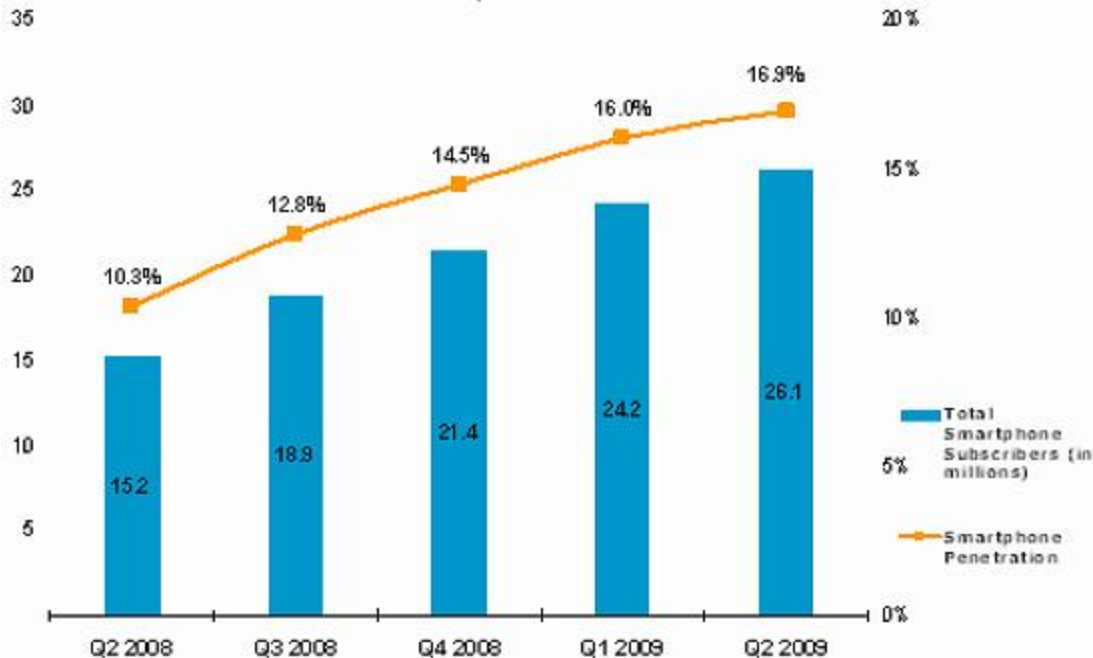
- be as powerful as PCs
- have more sensors
- have more location services
- have HD video display and capture
- be voice driven
- have better near field communications, and thus
- allow external I/O that works
- have better displays
- have better size diversity
- have more operating systems

# Smartphone Adoption - A

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## Smartphone Subscribers and Device Penetration

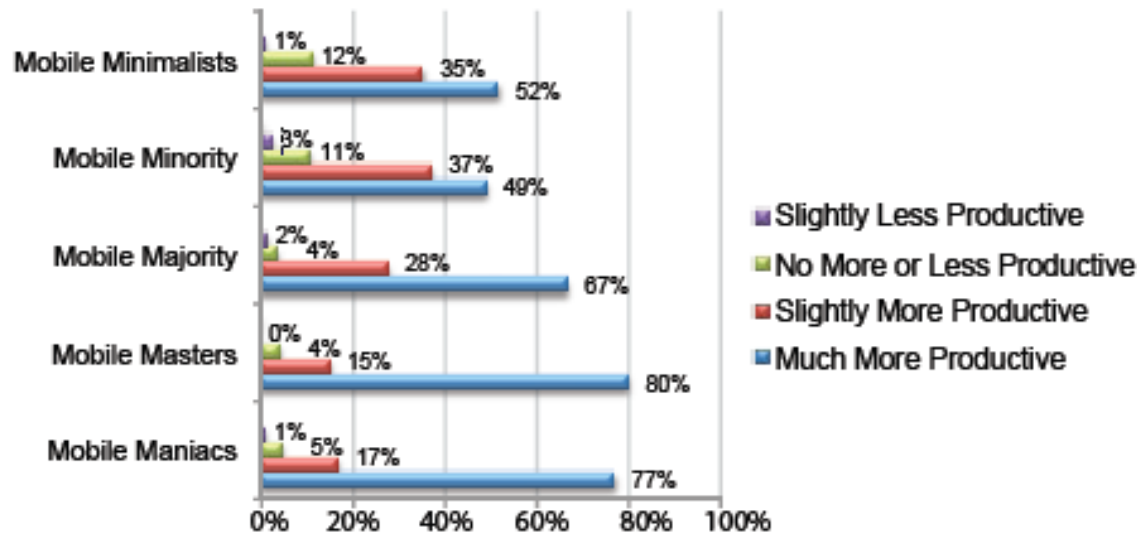
Q2 2008 – Q2 2009, All Mobile Subscribers



Source: The Nielsen Company

# Smartphone Adoption -B

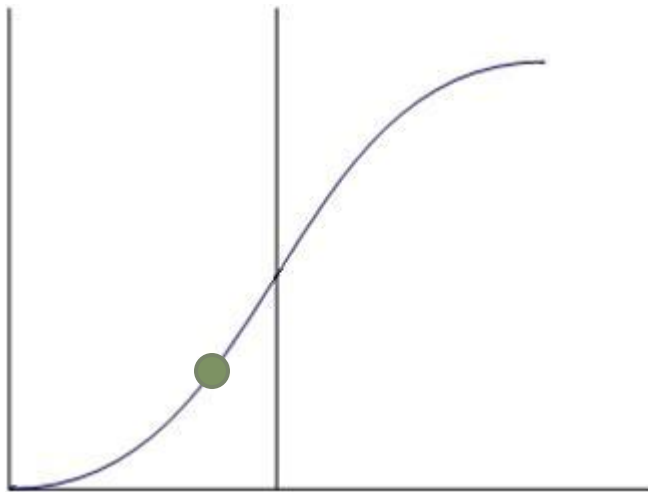
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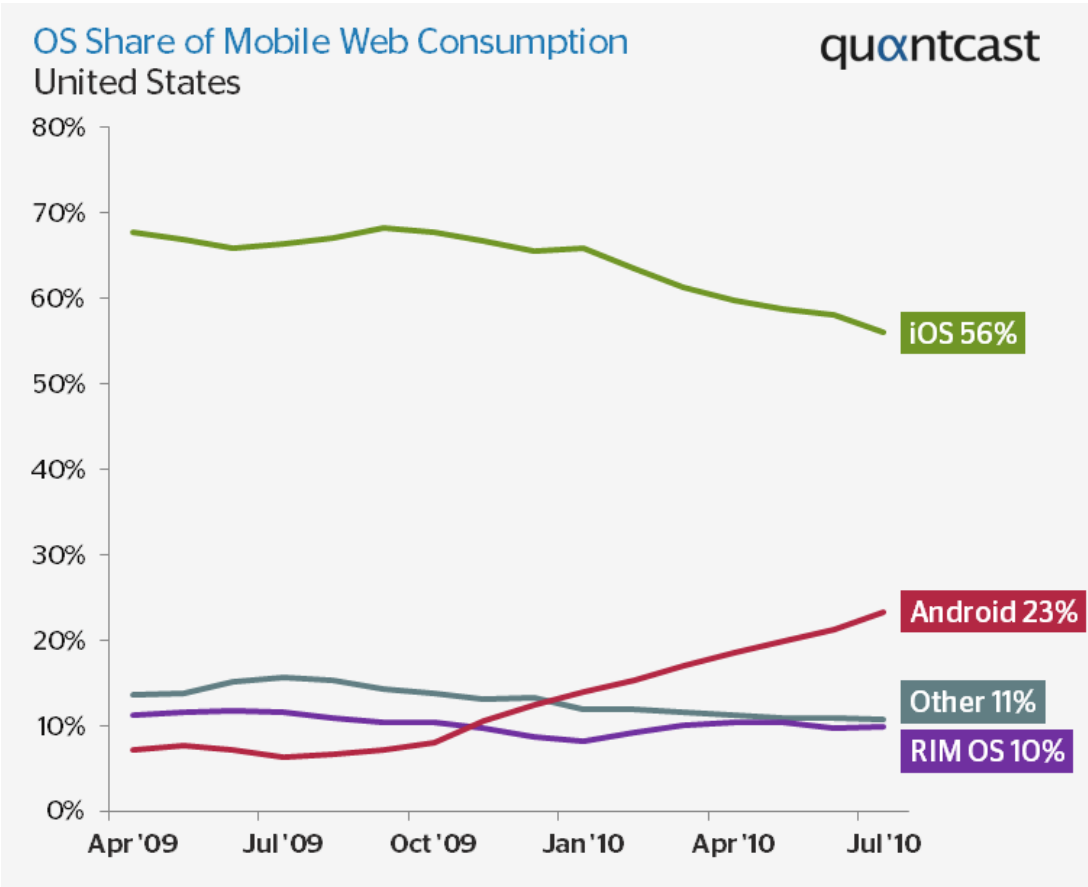
Smartphone users are now demanding applications.

# Smartphone Adoption - C

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# Platform Diversity - A





# Platform Diversity - B

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## Operating Systems

- Palm OS
- Blackberry
- Apple iOS
- Windows Mobile
- Nokia Symbian
- Android
- Meego
- Samsung Bada
- Pure Linux play?
- ..... And growing

## Development Platforms

- WebKit
- Objective C
- Android SDK
- Java (non standard versions)
- ... and growing

# Software strategies - A

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Smartphone development environments are still in the stone age

Data synchronization difficult and expensive

Basically three choices for a software firm

- Native
- Web
- Multi-platform

# Software Strategies – B

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Rhomobile development platform:

Rhodes is the ONLY smartphone app framework which has:

- support for ALL smartphones
- synchronized offline data
- a Model View Controller (MVC) framework
- an Object Relational Manager (ORM) to avoid direct SQL coding
- the first mobile Ruby
- a hosted development service

# Predictions - A

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- Smartphones will replace feature phones, and for the most part replace specialized mobile devices in the next five years. Smartphones / tablets will have peripherals just like PCs do now.
- Smartphone adoption will be in the 80 percent range within five years.
- Most mobile applications will be completely rewritten three times in the next five years.
- Next generation web-based mobile apps will fight for the business apps market against native apps, for the next five years, with no clear winner.
- Most providers of mobile applications will adopt one or more multi-platform toolsets such as Rhodes
- The number of mobile platforms will increase, not decrease, in the next five years.

# Predictions – TR applications

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- All managers from CEO to floor supervisor will carry a smart device.
- All engineers will use devices for Work Order, dispatching and documentation.
- TR firms will demand apps that run on their chosen mobile platform, that will change frequently.
- TR firms will demand pushing of context rich alerts and routine reporting to managers at all levels using mobile devices.
- On the plant floor, most paper order fulfillment control documents will be replaced by mobile devices with scanners
- Hospitals will demand support for inventory management on mass market mobile devices, with peripherals.

# Predictions – TR applications

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- CSRs will use mass market devices with the possible addition of peripherals to handle on-site scanning.
  - Mass market smartphones / tablets will handle all vehicle GPS functions, probably with near field communication with fixed mounted antennae.
- 
- A CEO will be able to run her entire TR operation from a smart mobile device (phone or tablet).
  - Is your software ready?

# References

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