



Feel the difference



11th
International
Conference on ITS
Telecommunications

ITST2011

11th

International Conference on ITS Telecommunications

International forum on recent advances in information
and communication technologies for safe, efficient and green transport

August 23-25, 2011

Saint-Petersburg, Russia

Jim Buczkowski

Ford Henry Ford Technical Fellow & Director Electrical and Electronics Systems

Research and Innovation

Russia and Ford – A Rich History

- 1907 – First Ford dealer in Russia opens in St. Petersburg
- 1932 – First Ford Model-A produced at new GAZ plant
- 1996 – Ford opens sales office in Moscow
- **2002 – Start of production for the Ford Focus**
- 2003 – Focus begins 7-year run as best-selling foreign vehicle
- 2006 – Ford Vsevolozhsk produces its 100,000th Russian-built Focus
- **2007 – Ford is Russia's best selling foreign brand in**
- 2009 – Ford starts production of Ford Mondeo near St. Petersburg
- 2010 – There are 120 points of sales & service in 77 cities of Russia
- **2011 – All-new Ford Focus goes into production on July 18**
- **2011 – Ford announces Sollers JV to manufacture vehicles, produce engines and operate a stamping facility in Russia**



Russia and Ford – A Rich History

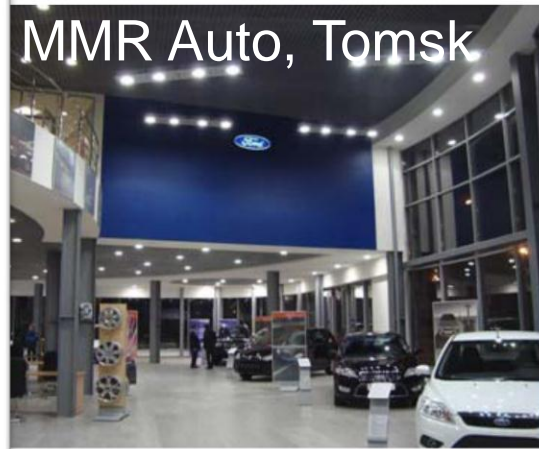
St.Petersburg



Agat, Volgograd



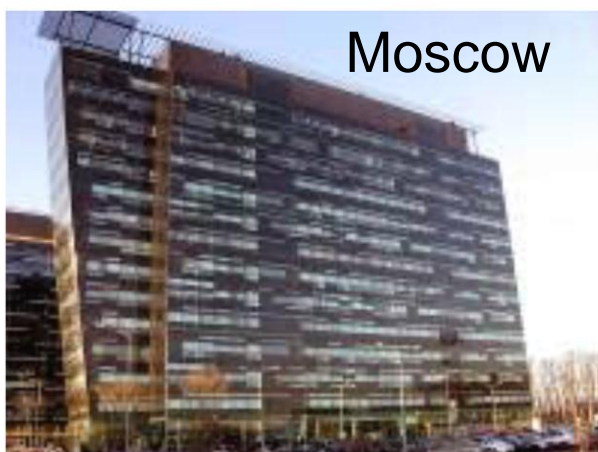
MMR Auto, Tomsk



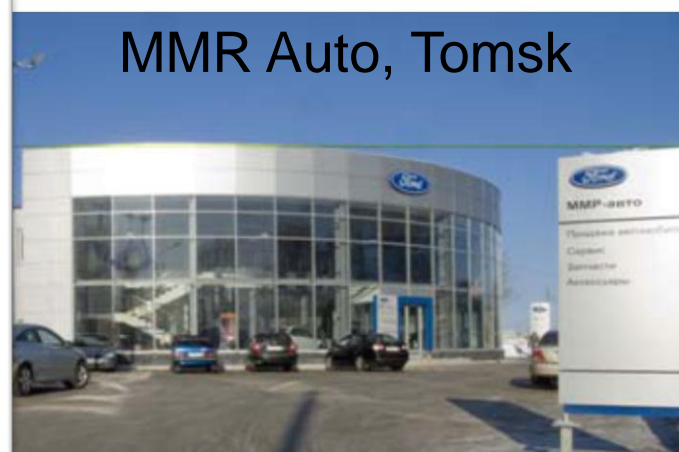
Modus, Voronezh



Moscow



MMR Auto, Tomsk





Automotive Case Study



In 2005, with competitive pressures mounting and a declining economy Ford needed to find a differentiator; Quality was no longer the main reason to select a brand

Consumer Electronics Pace of Change



Apple iPod, iPhone , iPod Touch, iPad



Over **15 Billion** iTunes Song Downloads

Over **18 million** songs available

363,000 iOS devices sold **Per day**

Apps



January 2011 - the 10 billionth app was downloaded from Apple App Store

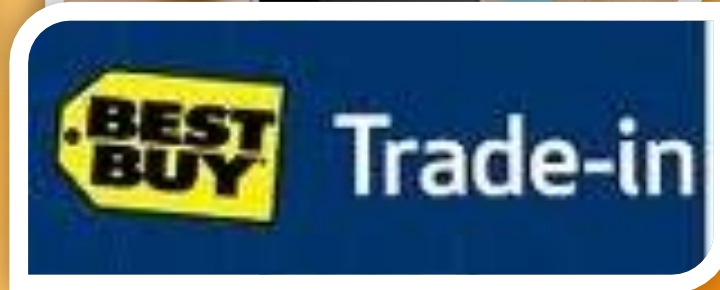
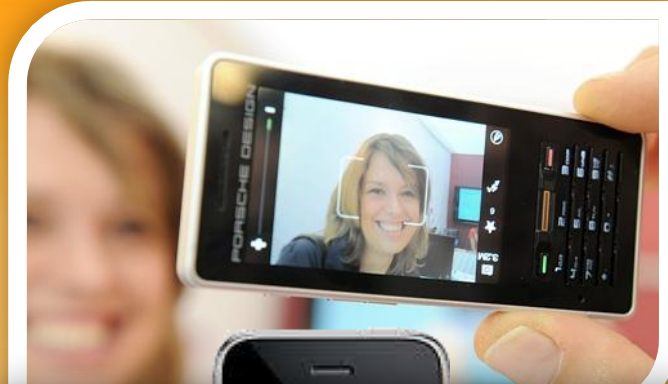
July 2011 - 200 million iOS users have downloaded over 15 billion apps from its App Store;

May 2011 - Apple approves its 500,000th app

Smartphone Growth Market Research

- In 2010 there were 5.3 Billion mobile subscribers (77% of the world population) – 2015 projected to be 7.7B.
- By the end of 2011 over 85% of handsets will be able to access the mobile internet.
- More than 200M active users (40 percent) accessed Facebook through mobile devices in 2010.
- More than 6 Trillion SMS messages sent in 2010, expected to exceed 10 Trillion by 2013.
- In 2010, there were 10.9B app downloads and it is estimated to increase to 76.9b by 2014.

The phone is the center of peoples connectivity, not the vehicle



Ever-changing Cellular Technology

5G?

Download Speeds



3G phase 1

Evolved 3G

1.29%

Consumer Electronics Cadence

Automotive Cycle Time



Consumer Electronics Cycle Time



Other Key Considerations

Safety

More and more drivers were using their phone in their vehicle

Cost

People do not want another bill

Other Key Considerations

Usage

Most telematics features are consumed while the customer is in the vehicle with their phone



Other Key Considerations

Usage

Select products require vehicle data when the customer is not in the vehicle

Electric Vehicles



Fleet



Design Requirements

Consumer Friendly

Aligns with Consumer Trends

Fast Cycle Time

Reduce Driver Distraction

Adapts to Technology Changes

Upgradable

Meets Niche Product Needs

Platform for Future Growth

SYNC[®]



BEAMED IN



BROUGHT IN



BUILT IN

Brought-In – Consumer's Phone

- Leveraging existing delivery methods
- “Riding along” with Technology Changes (3G/4G/LTE...)
- Customer Choices and Preferences
- Seamless Home, Personal, Vehicle, Office



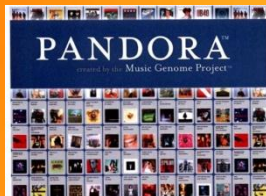
Built-In – Vehicle Interface

- Human Machine Interface
- Voice Recognition/Text to Speech
- Reconfigurable Displays
- Touch screen/Touch Sense
- Standards: Bluetooth, USB, WiFi
- Software Upgradeable
- Apple Interface
- Music Digital Rights Management
- Industry Standard Operating system
- Leverage Industry Innovation



Beamed-In – Connect to Cloud/Telematic Services

- Up to date POIs and Information
- Location Based Services
- Expanded Voice capability to navigate beamed in sources
- Real Time Traffic and Routing
- Business Search
- Smart Phone Application Integration
- Plug-and-play added services from the cloud
- Authentication and Provisioning
- Off Board storage of “preferences” and “personalization”
- Platform to support/leverage the Application Development Community





Ford's Solution



- Hands-free cellular calling
- Auto download of phonebook
- Text message reader
- MP3 player
- Bluetooth streaming
- Voice control
- Works with iPhone, BlackBerry, Android, Feature phones...

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10.000

FIRST-LEVEL VOICE COMMANDS

Multilingual (19 Languages)



Built In APP ECOSYSTEM

SYNC® Installed Apps



Built In



911 Assist



Vehicle Health Report

Free for Life of the Vehicle



Beamed In APP ECOSYSTEM



Beamed In

Apps through the cloud-based
SYNC Services Network



Accessed by Bluetooth-
paired phone

Free for first 3 years of ownership



Beamed In APP ECOSYSTEM

SYNC Services



Ford Build Backend Systems

US Traffic, Directions, and Information





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APPLINK



BlackBerry[®]

PANDORA[®]
internet radio

stitcher 

twitter

Sync Services – Rapid Growth

Version 1
Sept 2007

- Hands-free calling
- Phonebook download
- Text message reader
- MP3 player
- Bluetooth streaming
- Voice control

Version 2
Dec 2008

- Vehicle Health Report
- Emergency Assistance



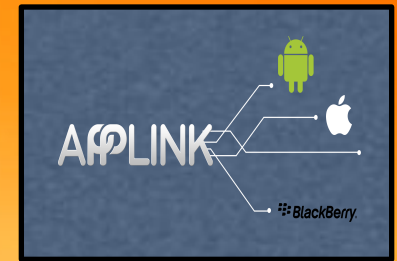
Version 3
May 2009

- Traffic
- Directions
- Business Search
- Information



Version 4
Dec 2010

- Phone app integration



Partner with Technology Leaders

GARMIN

Tellme[®]
A Microsoft[®] Subsidiary

SONY

Microsoft[®]

INRIX

DEWALT

Bluetooth[™]

NUANCE

Airbiquity

EB

gracenote.

O

freescale[™]
semiconductor

TOMTOM

SIERRA WIRELESS
HEART OF THE WIRELESS MACHINE[™]

Johnson
Controls

telenav

BROADCOM

mapquest

BSQUARE
The Mobile & Embedded Systems Experts

Google

stitcher

LUXOFT
Engineering Business Performance

Radio

vector

infogroup

Tele Atlas Find more

clarion

Sprint

microlise

IDEO

THX
CERTIFIED

SIRIUS
SATELLITE RADIO

FLEXTRONICS

NAVTEQ

PANDORA[®]
internet radio

MAGNETI
MARELLI

orangatame

Market Feedback

SYNC



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MORE
THAN **80%**
WOULD RECOMMEND

OVER 70%
USE VOICE CONTROL
FOR SAFETY



TRANSACTION
PRICES UP **14%**
DUE TO SYNC & OTHER
TECHNOLOGIES

OVER 3.5 MILLION
SYNC-EQUIPPED VEHICLES ON THE ROAD



MyFord Touch

Keeps you Connected



MyFord Touch

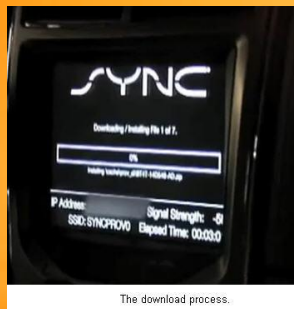
Keeps you Connected



- MyFord (and MyLincoln) Touch are the First Products to offer Built in WiFi
- WiFi is used to Download Software in the Manufacturing process
- With the simple addition of a 3G Modem, MyFord Touch becomes a “mobile hotspot”
- MyFord Touch is now available on the Ford Focus, Edge, Explorer and the Lincoln MKX
- The Ford Focus with MyFord Touch will soon become available in Europe
- Within the Next 5 years, MyFord Touch will become available on approximately 80% of Ford vehicle lines
- New features, using the WiFi will be launched over the next 12 to 18 months

MyFord Touch

Keeps you Connected



The download process.

Oakville Assembly Plant: WiFi software delivery process



The assembly line.



Oakville Assembly, Canada



Chicago Assembly, USA



Saarlouis, Germany (late 2011)

WiFi Software Provisioning



Coming in 2012

Sync – Going Global



Powered by **Microsoft**

2 MILLION

SYNC-EQUIPPED VEHICLES

IN RUSSIA & EUROPE BY 2015



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EMERGENCY
ASSISTANCE

COMING
IN 2012



Vehicle Message to German Customer traveling to France



FRANCE

GERMANY



Vehicle Message to French 112 Operator



FRANCE



GERMANY



Sync Delivers Customer Driven Requirements

Consumer Friendly



Aligns with Consumer Trends



Fast Cycle Time



Reduce Driver Distraction



Adapts to Technology Changes



Upgradable



Meets Niche Product Needs



Platform for Future Growth



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Thank you!