What we will cover today

• ArcGIS
• What is ArcGIS for Windows Mobile
• How does it work
• Demos
• Road ahead
ArcGIS is a Complete System
Managing and working with geographic information

- Online (public or private cloud)
- Server (on premises or private cloud)
- Desktop
- Mobile/devices
- Content

Many deployment options
Esri Mobile Technologies

Mobile capabilities of the ArcGIS system

Apps and APIs

Platforms
- iOS
- Windows Phone
- Linux
- Windows Mobile
- Android
- Windows 7

Form Factors

Functionality
What is mobile GIS?
Extends the reach of ArcGIS from the office to the field

- Carry your maps to the field
- Collect and update geographic information
- Track and geo-collaborate
- Replaces paper based workflows
- Easier access to dynamic information
- Multiple users seamlessly using the same map
What are the key benefits of mobile GIS?

Leverage your investment in ArcGIS

- Improve efficiency and accuracy of field operations
- Rapid data collection and seamless data integration
- Enable free flow of information between devices/desktops
- Help to make informed and timely decisions
## Apps and SDKs

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<th>Windows Mobile</th>
<th>Windows</th>
<th>Windows Phone 7</th>
<th>iOS</th>
<th>Android</th>
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**Images:**
- [Windows Mobile](image1.jpg)
- [Windows](image2.jpg)
- [Windows Phone 7](image3.jpg)
- [iOS](image4.jpg)
- [Android](image5.jpg)
- [Linux](image6.jpg)
Mobile Applications

ArcGIS running on ...

Windows Mobile

Windows

Rugged and Embedded Devices

iOS

Microsoft Windows Phone

Android

Smartphones and Tablets
ArcGIS for Mobile on Rugged Devices

Windows and Windows Mobile Devices

- Designed for harsh field conditions
- One handed/vehicle-mounted use
- Occasionally connected workflows
- High accuracy data collection
  - GPS/GNSS integration
  - Laser integration
- Replace Paper Surveys
  - Intelligent forms
  - Barcodes
- Sensor integration
The Windows Mobile platform

A strategic platform

- Customers are purchasing new devices with Windows Mobile OS today

- Vendors still releasing new devices

- Rugged devices offer advantages
  - Truly rugged (IP rated)
  - Battery life
  - Positional accuracy
  - Sensor integration
What is ArcGIS for Windows Mobile?
ArcGIS for Windows Mobile

Windows and Windows Mobile Devices

- ArcGIS for Windows Mobile
- Rapid Deployment of Maps, Apps & Projects
- Task-based, Workflow Driven User Experience
- Disconnected
- Synchronization of Data between Field & Office
- Focused Mobile Applications
- High Accuracy Data Collection
- Users have little GIS training
- Scalable to large field workforce
ArcGIS for Windows Mobile
Windows and Windows Mobile Devices

- ArcGIS Runtime SDK for Windows Mobile
  - Coarse-grained .NET API
  - Extend COTS application
  - Create focused Mobile GIS applications
  - Embed ArcGIS into existing line of business applications
  - Included in Setup
  - Help and Samples location at the Mobile Resource Center
Mobile Project Center

- Create projects for Field Applications
- Configure workflows and data
- Project packaging
- Project verification
- Publish and share projects
  - Local
  - On-Premise Server
  - Cloud (ArcGIS.com)
Field Applications

- View and identify features
- Measure distance, areas, features
- Adhoc and pre-defined queries
- GPS/GNSS data collection
- High accuracy collection
- Forms centric editing
- Intelligent field types driven by data model
- Field validation
- GPS logging
New in 3.0

- Simplified data collection experience
- Support for geodatabase attachments
- Geometry editing (WM)
- Improved GPS/GNSS display
- Waypoint navigation
- Auto-populate of attributes
- Portal support
So how does it work?
Author Maps

Leverage the ArcGIS System

- Design your data model for field use
  - Coordinate system for spatial data
  - Field definition for information to be captured**
  - Define transaction model (single/multi-user)

- Author Maps and map layers
  - Define and build base map content (orthophotos, landbase, etc)
  - Author map layers to define “data dictionary” for collection

- Publish Maps
  - Use ArcGIS Server to publish services
  - Use Desktop Tools to create mobile caches
Deployment & Field Workflow - Desktop

- ArcGIS Desktop
  - Author maps
  - Build data models

- Create Mobile Map
- Mobile Map
  - Client Map Cache
  - Mobile Project

- Download Maps
- Mobile Cache
  - Field edits

- Copy To Device
- Copy To Desktop

- Collection/Inspection
  - View Maps
  - Create/Edit Data

- Upload Changes
Deployment & Field Workflow - Server

**ArcGIS Desktop**
- Author maps
- Build data models

**Identify Base Maps**
- Build Raster/Vector caches

**Publish Operational Map**
- Enable Mobile Access

**ArcGIS Server**

**ArcGIS Online**
- Create Mobile Projects
  - Author Map
  - Configure Tasks

**Collection/Inspection**
- View Maps
- Create/Edit Data
- Track/Collaborate

**Download Maps**

**Upload Changes**

Create Mobile Projects

Using Mobile Project Center

- Create projects for Field Applications
- Publish and share maps & content
  - Local
  - On-Premise Server
  - Cloud (ArcGIS.com)
- Provision Applications and data to field devices.
Mobile Project Center Demo
Windows Field Application Demo
Licensing
Licensing

- **ArcGIS Server Advanced Enterprise**
  - Unlimited deployments
- **ArcGIS Desktop**
  - Includes one deployment
- **Deployment packs of 5 or 50 are available**
  - ArcGIS Server Advanced Workgroup and Standard Enterprise
  - Desktop
Trimble Positions

- Just announced
- GeoCollector for ArcGIS
- Enhances data collection capabilities
  - Extension of the field applications
  - Integrates into the data collection workflow
- Positional accuracy
  - Post-processing capability
  - Real-time
Roadmap

• 3.1 Release
  - Native camera support for the Windows Field App
  - Performance improvements
  - Bug fixes

• Looking ahead
  - Improvements to the Windows Field App data collection experience
  - StreetMap routing and geocoding support in Windows Field App
  - Extend auto-populate capabilities
  - Leverage hosted feature services
User Conference

What to do and see…
Sessions To Attend

- **Building Applications with ArcGIS Runtime SDK for Windows Mobile**
  - Wednesday July 25, 3:15pm – Room 31 B

- **Road Ahead – ArcGIS for Mobile Devices**
  - Wednesday July 25, 10:15am - Ballroom 06 B
  - Thursday July 26, 10:15am - Ballroom 06 B

- **Mobile GIS Special Interest Group Meeting**
  - Tuesday July 24, 12:00pm – Room 04
Sessions To Attend

- **Demo Theaters**
  - Tuesday July 24, 2:30pm – 6:00pm
  - Wednesday July 25, 9:00am – 12:30pm

- **Developing GeoCollector Solutions for ArcGIS**
  - Thursday July 26, 1:55pm - Room 01 A

- **GeoCollector for ArcGIS**
  - Thursday July 26, 2:20pm - Room 01 A
Steps to evaluate UC sessions

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Open for Questions

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