The ArcGIS System
Putting it all Together
Canserina Kurnia and Carl Byers
Agenda

• Why a system?
• ArcGIS System
• Putting it all together
  - Products that make up the ArcGIS System
Why a system?
GIS Implementation

GIS can make a difference

Coastal Protection & Marine
Facility Management
Agriculture
Defence
Port Security
Land Records
Education
Parks & Recreation
Government
Tourism
Telecommunication
Banking
Public Works
Electric/Gas
Rescue
Defence
Aeronautical
Hospital
Museum
Refuse Collection
Landscape Planning
Security
Lighting
Banking
Sign Inventory
Why a GIS system?

Provide access from anywhere, anytime, using any device

- Supporting many missions and workflows
- Integrating information
- Improving efficiency by sharing
- Mitigating redundancy
- Providing real time information
- Lead to better decisions, and effective communication
ArcGIS

A Complete System for Geographic Information

- Easier
- More Powerful
- Everywhere

Discover
Create
Manage
Visualize
Analyze
Collaborate

Cloud
Enterprise
Local

Making GIS Available to Everyone
ArcGIS Addresses Many Common Workflows

- Modeling and Analysis
- Design and Planning
- Asset Management
- Situational Awareness
- Cartographic Design
- Field Collection
- Collaboration and Transparency
Demo: ArcGIS - A complete system
GIS Addresses Many Groups

- **Data and Analysis**
  - GIS Analyst

- **Public**
  - (Community)

- **Emergency Operations Center**

- **Field crews**
  - Damage assessment

- **Public officials**
  - (Fire and Police dept)
Common GIS Implementation Patterns

- **Asset Management**: Store, manage & maintain accurate asset records
- **Planning & Analysis**: Transform data into actionable intelligence
- **Field Mobility**: Get information into and out of the field
- **Operational Awareness**: Disseminate knowledge where & when it’s needed
- **Citizen Engagement**: Share information with stakeholders

*ArcGIS*
ArcGIS System
Putting it all together

Understanding the details
ArcGIS System

- Desktop GIS
  - ArcGIS Desktop
  - ArcGIS Engine
  - ArcGIS Explorer

- Server GIS
  - ArcGIS Server
  - ArcGIS Server Extensions

- Data
  - ArcGIS Online Services
  - ArcGIS Data Appliance
  - StreetMap Premium
  - ESRI Demographics
  - ESRI Data & Maps

- Mobile GIS
  - ArcGIS Mobile
  - ArcPad
  - Multiple OS
Data-driven systems: the geodatabase

- Support the breadth of GIS system
- Leverage existing RDBMS technology
- Scalable
- Foundation
ArcGIS Desktop

- **ArcView**
  - Mapping
  - Using

- **ArcEditor**
  - Compilation
  - Data Management
  - Mapping

- **ArcInfo**
  - Compilation
  - Data Management
  - Mapping
  - Analysis
  - Advanced Geoprocessing

**Authoring & Applying Geographic Knowledge**

- Mapping & Visualization
- Compilation & Editing
- Spatial Analysis & Modeling
- Catalog & Metadata
ArcGIS Desktop functionality

www.esri.com/desktop
ArcGIS Desktop Applications

ArcMap and ArcCatalog in one application (10.0)
ArcGIS Desktop Extensions

Providing Specialized Capabilities

• Analyst series
• Productivity tools
• Specialized software
Demo: ArcGIS Desktop
ArcGIS Server Is a Platform for Web GIS

Comprehensive GIS Accessible from the Web, Desktop, and Mobile

- Server Oriented Architecture
- Enabling Web GIS
- Rich Application Clients
- High Performance and scalable
- Interoperable
- Dissemination and collaboration
What types of services can ArcGIS Server offer?

Map
- View or query a 2D map on the server

Globe
- View or query a 3D globe on the server

Geocode
- Perform address matching on the server

Geodata
- Perform data replication, extraction, or query

Geoprocessing
- Run a tool or model on the server and get results

Image
- Provide access to raster data through a Web service
ArcGIS Server

Basic
- Data Management
- Data Access

Standard
- Data Management
- Data Access
- Mapping
- Web Applications
- Web Editing
- Basic Geoprocessing

Advanced
- Data Management
- Data Access
- Mapping
- Web Applications
- Web Editing
- Complete Geoprocessing
- Mobile Access

Scalable System

Serve

Use

Author

ArcGIS Desktop

ArcGIS Server

ArcGIS Desktop
ArcGIS is interoperable using industry standards.
Demo: ArcGIS Server
Demo: Mobile Application
ArcGIS Online

A Cloud Based Portal

- High Quality Maps and apps
- Sharing
- Search
- Communities
- Free Viewers
- Mashups
- Open Web API’s
- Hosting (coming soon)

Rapid Growth
- 30% Growth / Month
- 10,000’s of Maps & Services
- Hundred’s of 1,000’s of Users
- Millions of Maps per Day

For Sharing, Discovery and Use….
…the Ready-to-Use Geospatial Platform
Demo: ArcGIS Online
What is the trend? Cloud computing

Pay for what you use...

Web service demand

Time
Summary

“ArcGIS is more than just mapping. It is a complete system that transforms the way you do business and makes organizations efficient and effective”

Think about how we can help you enable ArcGIS as a system in your organization....
Take The Next Step

Visit:
- ArcGIS.com – http://www.arcgis.com
- ArcGIS Resource Center – http://resources.arcgis.com

• Related Technical Workshops
  - The Power of GIS: Real Examples and Applications (Wednesday 3:15 PM, 6E)

Start building your GIS System
Questions

Please fill in the survey.....
Http://www.esri.com/sessionevals

Thank you
Thank you