Powerful GIS capabilities
Delivered as Web services
To help solve real problems by real people
ArcGIS for Server 10.1 Key Themes

Faster
Simpler
More capable
Native 64-Bit

Code optimizations

Clip & Ship

Imagery

Map Caching

Editing & Ship

Analysis

Queries

Search

Identify

Drive-time Polygons

Geoprocessing

Mapping

Find Addresses

50x

10x

5x

2x

Faster
Demo:
Fast service area Routing
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Simpler

Pure Web Services GIS Server
New Architecture
New user experience

Easy to install, configure, and manage
Server Administration API
IT Friendly
**Simplified Setup, Configuration and Management**

- **Pure web services server**
  - Easier install and configuration
  - Self contained GIS server
  - No DCOM access, no external dependencies

- Built for resilience
- More robust
  - Easier management of clusters
- More Linux friendly
Server 10.1 Architecture

ArcGIS account (OS level)

GIS Server
- Service directories
- Manager
- Server Administrator API

Configuration store

Server directories

Data

Primary Site Administrator (PSA)

http://6080

GIS site
Server 10.1 Architecture – Web Adaptor

- Web Server
- Web Adaptor
- GIS Server
  - GIS site
  - Configuration store
  - Server directories
  - Data

http://80
http://6080

Firewall
Server 10.1 Multi-machine site

- Web Server
- Web Adaptor
- GIS Server 1
- GIS Server 2
- Configuration store
- Server directories
- Data
Server 10.1 Multi-machine site with clusters

- Web Server
- Web Adaptor
- GIS Server 1
- GIS Server 2
- GIS Server 3
- Configuration store
- Server directories
- Data

Clusters:
- Cluster A
- Cluster B
ArcGIS Server Manager

- New user experience, more administrative options
  - Services, site management, security, and logs
GIS site Security

- Connect as: Administrator, Publisher, or user
- Define users and roles
- Enterprise class identity store
  - E.g., LDAP, Active directory and custom
Server Administrator API

AKA: Server Administrator Directory

- Enables scripting of Server administration
  - http://<server name>:6080/arcgis/admin

- Execute Server admin tasks
  - E.g., Join machine to a site, start/stop services

- Uses a REST-ful architecture
  - Can be invoked from: Python, Java, JavaScript, C#, PowerShell, Ruby, Scala, Perl, etc.
Database management

- Easy client/server connections in ArcCatalog
- Improved user experience for managing geodatabases
  - New admin tools in ArcCatalog
  - SDE commands available as GP tools

Native SQL access

ArcGIS

- SQL Server
- Oracle
- Postgres
- DB2
- NETEZZA (New)

Query layer support for standard databases

More administration tools
ArcGIS 10.1 simplifies sharing your work

• New publishing user experience
• Tighter integration between Desktop and Server
• Share
  1. **Publish service**
  2. **Create service definition file**
     - Defines service schema, can publish service later
     - Supports staged publishing workflow
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- Enhanced Map service
- Editor tracking Ownership-based data access
- Improved Image service
- Cloud builder WMTS, WPS support etc...
- Web printing

Listening to your specific functional requests
• Dynamic layers
• Better map caching
• Improved querying: **OrderBy, SUM, Average**…
• Support for Schematic datasets
Dynamic layers

- Map services support client runtime definition of
  - Data to be displayed
  - Symbology applied
  - Display order
- Handles thousands of layers very fast
- Enables access and display of extensive datasets
Demo:
Dynamic layers
Map caches

- New user experience
  - Easier and more intuitive
- New *CachingTools* geoprocessing service
  - Performs all caching for entire GIS site
- Map cache created when you publish a map service
  - View progress of cache generation
New *PrintingTools* geoprocessing service
- Contains “ExportWebMap” task

Web applications can use service to get a high cartographic quality printable map

- Ideal for 8½” x 11” and 11” x 17” size hardcopies
- Includes predefined set of map layouts
- Custom layouts also supported
Demo:

PrintingTools service

using a custom layout
Enhanced geoprocessing framework for map output

*For creating high quality PDF map documents on demand*

- Available for Server through *ArcPy.mapping*
- Large hardcopy outputs (33” by 44”)
- Sophisticated map styles
  - Leverage FULL ArcMap layouts
- Completely customizable
Feature Services

• **Editor tracking**
  - Keep track of what people do
    - Identifies who creates and updates features
    - And when they do it

• **Ownership-based editing**
  - Control what people can do with the data
    - Grant permissions based on ownership
    - Query, Update, Delete

• **Support for geodatabase versions**

• **Edit non geodatabase-enabled databases**
Demo:

Web editing
editor tracking
ownership-based editing
Spatial Data Server (SDS) Technology

New Technology component included in ArcGIS for Server Enterprise

- Provides simple mapping capabilities on spatial databases
  - Oracle, SQL Server, DB2, PostgreSQL
- Create feature services from simple features
  - Edit non geodatabase-enabled databases (Std or Adv)
- Pure .Net and Java implementations
- Compatible with all clients

Direct DBMS access
• Now support tile caching
• Edit image service contents
  - Shared mosaic datasets support upload, update, & delete images
• Server-side raster functions
  - More on-the-fly processing can be exposed
• Image services based on categorical imagery
  - Attributes exposed to clients
    - E.g., Land cover types
• ArcGIS for Server on Amazon EC2
  - Cloud Builder application
  - Linux support
• OGC: WMTS and WPS specification support
• Metadata exposed through REST
• Geodesic measurements and buffers
• Simplified SOE deployment
ArcGIS Online is a New GIS Pattern

Cloud/Web

 Intelligent web maps

Desktop

Server
What is ArcGIS Online?

- Part of the ArcGIS system
- **Working with maps & geographic information**
  - Create
  - Share
  - Manage
  - Analyze
  - Visualize
- Organize authoritative content
- Simple, useful maps & info for organizations

ArcGIS Online
ArcGIS Server and ArcGIS Online

- ArcGIS Online makes services from ArcGIS Server more accessible to casual end user
- Extends reach and understanding of GIS resources
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