Deploying ArcGIS for Server using Managed Services

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Agenda

• Cloud types
• Technical overview
• Program offerings
• Success stories
Cloud Overview
What is Cloud: IaaS?
Infrastructure-as-a-Service (IaaS)

- Provides virtual server instances
  - Configure virtual servers
  - Configure storage
  - Manage instances
- Examples:
  - Amazon Web Services
What is Cloud: PaaS?

Platform-as-a-service (PaaS)

- Set of APIs, services, and product development tools hosted on the provider's infrastructure.
- Developers create applications on the provider's platform over the Internet
- Examples:
  - Microsoft Azure, Google Apps, Force.com, CloudFoundry
What is Cloud: SaaS?
Software-as-a-service (SaaS)

- Vendor supplies the hardware and software infrastructure ... whole applications
- Broad market
- Examples:
  - ArcGIS Online, bao.esri.com, Crimemapping.com, Salesforce.com
Cloud options

- **Internal site**
  - **VPN**
  - **Esri Managed Services on Private Virtual Cloud**
  - **Esri Managed Services on Public Cloud**

- **ArcGIS Online services**
- **External users**
- **Public users**
Esri Cloud Hosting Options

Provided by ArcGIS Online and Esri Managed Services

ArcGIS Online
- Web Mapping Platform
- Ready-to-Use Content
- Feature Services
- Tiled Map Services
- Developer API

ArcGIS Online + Advanced GIS Services thru Managed Services
- ArcGIS Online, plus...
- Imagery Services
- Dynamic Map Services
- Analysis Services
- Custom App Hosting

Turnkey GIS Hosting with Managed Services
- Full Service Hosting
- System Design
- Backup and Archive
- Data Management
- 24/7 System Monitoring

Self Service

Full Service
Technical overview
Esri Managed Services
Cloud based GIS infrastructure and support

Many Successful Customers

Why Esri Managed Services?
- Cloud GIS experience
- Mission critical operations
- Reliable and secure
- Flexible offerings

Extending the ArcGIS platform...
Technical Overview

Why Esri Managed Services?

• **Expertise**
  - Enterprise GIS experts ready to support your data and apps

• **Scalability**
  - Ability to scale resources quickly due to fluctuations in demand

• **Reliability**
  - System designed to meet customer operational needs

• **Flexibility**
  - High quality offerings designed to extend GIS capabilities
Managed Services Lifecycle

- Requirements
- Design
- Staging Setup
- Production Deployment
- Monitor
- Reporting
- Maintenance
  - ongoing support
- Data Update
- System Backup
Requirements
Deployment Patterns

Flexible offerings to support a variety of needs

- Sandbox
- Production
- Surge Support
- AGOL Hybrid
- Disaster Recovery
- Private Cloud

Deploying ArcGIS for Server using Managed Services
Requirements
Hosting Environment

- Cloud type, e.g. Azure, Amazon
- Hardware type, e.g. IBM, Dell
Requirements
Application specification

• Software
• GIS services, e.g. dynamic map, cached, feature, gp, custom
• DNS specifics
Requirements

User load

- number of users
- think time
- peak loads
- auto scaling
Requirements

Security

• IT security standards, e.g. C&A, HIPAA, PCI, etc.
• HTTPS
• Token
Technical Support

- 24/7
- Infrastructure
- Application
- ArcGIS Server
- Database
Reporting

- Monthly usage reporting
- Hits, visitors, bandwidth

Problem and Incident Management
- 24/7 monitoring and support
- System monitors detect outages and alert
- Support contact details supplied for incident reporting
Tools and best practices

- Holistic approach
System Design

Requirements

System Designer

System Configuration
Demo: System Designer
Demo: System Test
System Monitor

Diagram showing System Monitor with specifications:
- 2 CPU cores
- 2 G RAM
- 50 G Disk

Encrypted communication and passwords are depicted.

Target environment includes:
- Local Agent (optional)
- Host with local Agent (no passwords required)
- Host with remote access
- ArcGIS Server
- Geodatabase
Demo: System Monitor
Program offerings
## ArcGIS Cloud Deployment Options

<table>
<thead>
<tr>
<th>Service</th>
<th>Self-Service</th>
<th>Basic</th>
<th>Standard</th>
<th>Advanced</th>
<th>Advanced Plus</th>
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</thead>
<tbody>
<tr>
<td>Provisioning</td>
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<td>Image Backups</td>
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<td>System Design Support</td>
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<td>Application/DB Management</td>
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<td>Application/Data Updates</td>
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<td>Auto Scale-up/down</td>
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<tr>
<td>Redundancy</td>
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<tr>
<td>Geographic Redundancy</td>
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<td></td>
<td>X</td>
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<tr>
<td>System Availability</td>
<td>N/A</td>
<td>N/A</td>
<td>95%</td>
<td>99%</td>
<td>99.9%</td>
</tr>
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</table>
## Basic Packages

<table>
<thead>
<tr>
<th>Package Type</th>
<th>No. of Cloud Servers</th>
<th>Operating System</th>
<th>CPUs</th>
<th>Memory</th>
<th>Data Storage</th>
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<tbody>
<tr>
<td>Small</td>
<td>1</td>
<td>Windows</td>
<td>2</td>
<td>7.5 GB</td>
<td>500 GB</td>
</tr>
<tr>
<td>Medium</td>
<td>1</td>
<td>Windows</td>
<td>4</td>
<td>15 GB</td>
<td>500 GB</td>
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<tr>
<td>Large</td>
<td>1</td>
<td>Windows</td>
<td>4</td>
<td>34.2 GB</td>
<td>500 GB</td>
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</table>

### Optional Items

<table>
<thead>
<tr>
<th>Optional Items</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Data Storage</td>
<td>Per 1 TB</td>
</tr>
<tr>
<td>System Backups</td>
<td>Single system snapshot for up to 1 TB</td>
</tr>
</tbody>
</table>

*Ready to use ArcGIS Server in the cloud…*
## Standard and Advanced Packages

<table>
<thead>
<tr>
<th>Package Type</th>
<th>Map Requests Per Day</th>
<th>Data Storage</th>
<th>System Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard Packages</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Small</td>
<td>30,000</td>
<td>500 GB</td>
<td>95%</td>
</tr>
<tr>
<td>Medium</td>
<td>90,000</td>
<td>1 TB</td>
<td>95%</td>
</tr>
<tr>
<td>Large</td>
<td>120,000</td>
<td>2 TB</td>
<td>95%</td>
</tr>
<tr>
<td><strong>Advanced Packages</strong></td>
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<td></td>
</tr>
<tr>
<td>Small</td>
<td>30,000</td>
<td>500 GB</td>
<td>99%</td>
</tr>
<tr>
<td>Medium</td>
<td>90,000</td>
<td>1 TB</td>
<td>99%</td>
</tr>
<tr>
<td>Large</td>
<td>120,000</td>
<td>2 TB</td>
<td>99%</td>
</tr>
<tr>
<td><strong>Advanced Plus</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>30,000</td>
<td>500 GB</td>
<td>99.9%</td>
</tr>
<tr>
<td>Medium</td>
<td>90,000</td>
<td>1 TB</td>
<td>99.9%</td>
</tr>
<tr>
<td>Large</td>
<td>120,000</td>
<td>2 TB</td>
<td>99.9%</td>
</tr>
</tbody>
</table>

Fully managed production systems…
Success stories
Cook County Municipal Cloud

- G2G collaboration
- Easy access
- Disaster recovery

Municipal Portal
- Secure access for internal apps
- 10 web apps, 8 TB data

Supporting government to government collaboration
National Grid IMAP

- Quick, easy access to GIS
- Mobile capabilities
- Scalable environment

- Hybrid deployment
- Used throughout the organization

Improving operations by leveraging the ArcGIS platform
Oregon Imagery Explorer

- Search, download, use
- Manage large imagery datasets

- Simple, easy to use web viewer
- Cached and dynamic image services
- Serving 24 TB of imagery
FEMA GeoPlatform

- Disaster response support
- Publish, share, analyze, collaborate
- Robust, scalable infrastructure
- AGOL + Managed Services hybrid
- On-demand GIS data publishing
- 24/7 Surge Support
Iberdrola USA Outage Viewer

- Server Auto-Scaling
- Data Update Automation
- High Availability
- Geographic Redundancy
Many successful deployments...
Thank you…

Please fill out the session evaluation

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**Offering ID:** 1256

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