High-Availability ArcGIS for Server and Application Architecture in Amazon

David McGuire
Cloud Formation Demo
<table>
<thead>
<tr>
<th>Day</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday</td>
<td>Aerial view of flooding</td>
</tr>
<tr>
<td>Friday</td>
<td>Map of Japan with earthquake markers</td>
</tr>
<tr>
<td>Saturday</td>
<td>Image of servers with text &quot;Server Down&quot;</td>
</tr>
</tbody>
</table>
Traditional Trouble Shooting

- Reboot Servers?
- Spread Services Across Local Machines?
- Order New Equipment?

Panic!
Transition to the Cloud
Deployment

- To Stage: 1 hr 15 mins
- To Generate An AMI: 30 mins
- To Deploy Live Servers: 15 mins
High-Availability ArcGIS for Server and Application Architecture in Amazon
Handle Traffic
What We Learned

Start in the Cloud

Avoid internal, static machines

Design for the Cloud

Architecture should be cloud focused

Plan Ahead

Avoid emergencies
Aggregated Live Feeds...

Authoritative Content

Frequently Changing Data

How Can I Deploy and Scale?
High-Availability ArcGIS for Server and Application Architecture in Amazon

Amazon

Cloud Servers

S3 Bucket

Sync

Internal Processing Server

Sync
High-Availability ArcGIS for Server and Application Architecture in Amazon
Hurricane PIM
Hurricane PIM

• Over 1 Million hits in 1 day on our web map
• Over 7 Million dynamic map requests in 1 day
Next Phase

- **Linux**: Linux instances are cheaper and boot faster
- **Auto Scaling**: Avoid manual load management
- **Cloud Front**: Take advantage of global content distribution
Resources

- **Esri Sample Templates**
  - [http://esriurl.com/EsriAWSTemplate](http://esriurl.com/EsriAWSTemplate)

- **Amazon Sample Templates**
  - [http://esriurl.com/AWSTemplate](http://esriurl.com/AWSTemplate)

- **Aggregated Live Feeds**
  - [http://esriurl.com/LiveFeeds](http://esriurl.com/LiveFeeds)
    - Make sure the “Show ArcGIS Desktop Content” box is checked
Thank you...

• Please fill out the session survey:

  Offering ID: 1408

Online – www.esri.com/ucsessionsurveys