How the Mighty Feature Service Enables Real-time GIS

Presented by David Jacob, Esri
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Feature Services
Web Services – powering the Web GIS platform
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- Map services
- Feature services
- Geo-location services
- 3D services
- Routing services
- Geo-analysis services
- Image services
Feature Services

- Deliver spatial features to client applications
- RESTful (http://...?give-me-some-map-data)
- Follows a well-known Esri specification
- Contains one or more layers (or tables)
- Capabilities
  - Spatial and attribute queries
  - Web editing of features
  - Offline, disconnected data capture and synchronization
Feature Services: Sources

- ArcGIS Online (Esri’s SaaS platform)
- Portal for ArcGIS
- Enterprise databases such as Microsoft SQL Server, SAP HANA
- Partner implementations
Feature Services: Demo

![Excel Spreadsheet](image-url)
Feature Services: Clients

- Web mapping applications
  - ArcGIS Pro
  - ArcMap
- Professional GIS applications
  - ArcGIS Pro
  - ArcMap
- Focused applications
  - Collector for ArcGIS
  - Explorer for ArcGIS
  - Operations dashboard for ArcGIS
  - Survey 123
Integrator Utilization
Use ArcGIS Feature Services to Build AF Models

- 21% of survey respondents report full AF adoption
- 75% report asset data in ArcGIS
PI Asset Extractor for Esri ArcGIS
Desktop edition also available for download

Load features
Read assets automatically from a Feature Layer URL
This should be an address to an ArcGIS Feature Layer within a MapServer or FeatureServer.
The address can include an Esri-defined query to restrict elements. For example, if you are extracting oil well data, you might want to restrict the query to show only those wells that are located in a particular state or region.

Address
https://services.arcgis.com/SDRiK3lojFEsZQ2z/arcgis/rest/services/Haynesville_Production/FeatureServer/0

Authenticate
necessary for non-public map layers

No features loaded yet

Apply  Next
Publish and Update a New Feature Service

Integrator creates Feature Service and all orchestration objects in ArcGIS GeoEvent Extension- updates values from PI System data.
1. **Feature Service Environment**  
2. Create Feature Service  
3. Configure GeoEvent Extension  
4. Advanced Settings  
5. Summary

Choose where you would like to host your features 🌍:

- **ArcGIS Online**
- **ArcGIS Portal Extension**
Decorate an Existing Feature Service

I want to add PI Server Data to an existing Feature Layer

*YouTube video demonstrating how with PI Integrator for Esri ArcGIS 2015 and earlier*
Future - 1Q2017
Replay PI Server Data History through Time Enabled Feature Layer*
Replay PI Server Data History through Time Enabled Feature Layer*

*Forecast release 1Q2017
Update PI System when ArcGIS Data is Updated*

Field worker calls in location and status of asset
Updates PI System with data from ArcGIS on a schedule

*Forecast release 1Q2017
For More Information About Next Release

- Product Expo
  - Esri booth
  - PI Integrator for Esri ArcGIS booth
- Presentation Day 3
  - OSIsoft Track 1 – New User
  - 15:05 – 15:35
  - With Vadim Fedorov
Thank You

감사합니다
Merci
Danke
谢谢
Gracias
ありがとうございました
Спасибо
Obrigado
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Questions

Please wait for the microphone before asking your questions.

State your name & company.

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