Portal … *from the trenches*!

- Deployment Patterns
- Scaling and High Availability
- Reference Implementations
- Common Challenges
- Extending Portal
- Engagement patterns
Deployment Patterns

All on one machine

Web Server

Portal

Server

Server web adaptor is optional
Deployment Patterns

Portal and Server on separate machines

- Portal
- Web Server
- Web Adaptor
- Server

Server web adaptor is optional
Deployment Patterns
Web server(s) on separate machines

Server web adaptor is optional
Reverse Proxies, DNS, Load Balancers …
What to do about these

- Reverse Proxy
  - portal.acme.com
  - This is the one gets configured in portal's web adaptor config

- Web Server
  - web12.acme.com

- Portal
  - vm-857-6309.acme.com
Scaling Portal

Not usually necessary, but easiest solution is to add resources to machine

4 cores, 4GB of RAM can support over 100 concurrent users
Adding Redundancy
Easiest solution – cold backups with standby server
Full High Availability
Now supported at 10.3 w/o Professional Services support

Try it in EAP2!
Deployment Patterns
Online – On-Premises – Hybrid

- Active Directory
  - or -
  - LDAP

- Client Applications & Browsers

- Portal w/ Web Adaptor
  - Private Network

- ArcGIS Online
  - Basemaps
  - Geocoding
  - Routing

- Server
  - GDB
  - GIS Services w/ your data
    - Printing
    - Geometry
    - Geocoding & Geosearch
    - Routing
    - Basemaps
Deployment Pattern
No Portal for ArcGIS!

- Cloud-based portal
- On-premises services
- Enterprise logins

Client Applications & Browsers
Web Authentication

ArcGIS Online
Basemaps
Geosearch
Routing
Portal

Active Directory
- or -
LDAP

Server
GIS Services w/ your data
Printing

Private Network

GDB
Reference Implementation
Large US Insurance Company

Portal for ArcGIS Technology Transfer

Load Balancer

Server Visualization

Server Geoprocessing

Server Config Stores, Dirs, Rasters, Cache

Enterprise GDBs

IBM Cognos

Teradata

Esri Maps for Cognos

uses portal & server

And many other maps and apps!

Active Directory

Web Server

Web Adaptor

Portal Software

Portal Repository

NAS

Server Visualization

Server Geoprocessing

Server Config Stores, Dirs, Rasters, Cache

Enterprise GDBs
Common Implementation Challenges
Where do things get tricky?

- SSL certificates, forward and reverse proxies, IE7-9, the usual
- Security requirements & design options – increasingly complex and nuanced
  - To federate or not to federate
  - All IWA environments and printing
  - Fine-grained authorization requirements
  - Multiple modes of authentication, or multiple IDPs > SAML
- Positioning hosted services within an organization
- Modeling web maps & layers, and designing (redesigning) supporting services
- Managing large organizational portals – maps, services, references…
- Managing customer expectations
Patterns for Extending Portal
Think beyond the website ... apps, embedded maps/groups, and APIs

- Configuring the website
- Embedding maps and galleries into other websites
- Configurable gallery applications
- Custom front end website (*a simpler, less GIS-y destination*)
- Custom web apps and web app templates (*bring on the builder!*)
Web GIS Engagement Patterns
Supporting customers

• Web GIS Launch Kits
• Turn-Key
  - Full organizational rollout
  - Deliver a specific use case, workflow, or custom app
  - Sometimes driven by an Esri Maps for use case
• Iterative Sprints
  - Requirements, deploy platform, build maps/apps, repeat
  - Often delivered via EEAP