# DOI Enterprise Geographic Information Management (EGIM) Team Initiative

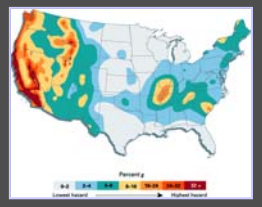
# Major changes in GIS

- **Who can use GIS**
  - **Point'n click GUI-based software**
  - **Web services**
- **Availability of GIS**
  - **Enterprise licensing – SmartBuy implementation**
  - **Access to data**
    - **NSDI clearinghouse nodes**
- **Delivery of GIS**
  - **Web services**
  - o **Geospatial One-Stop (GOS)**
  - o **The National Map (TNM)**

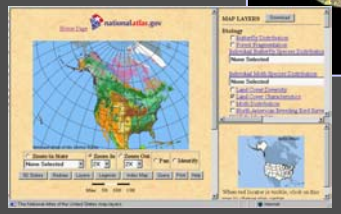
# What EGIM is Trying to Accomplish

- Develop an institutional framework for collaboration
- Improve efficient/effective use of spatial Information to get our mission/work done
- Combine the efforts of many offices into a coordinated enterprise solution
- Information viewed as a resource
- Improve services to the public

# Eliminate issues/problems:

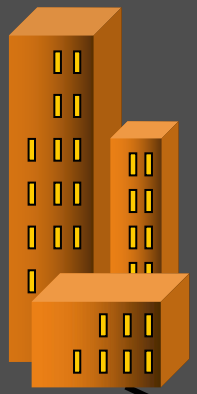


- Duplication of data, programs
- Inability to access information
  - Don't know it exists
  - Not in acceptable format
  - Not geocoded
  - Ease of transferring



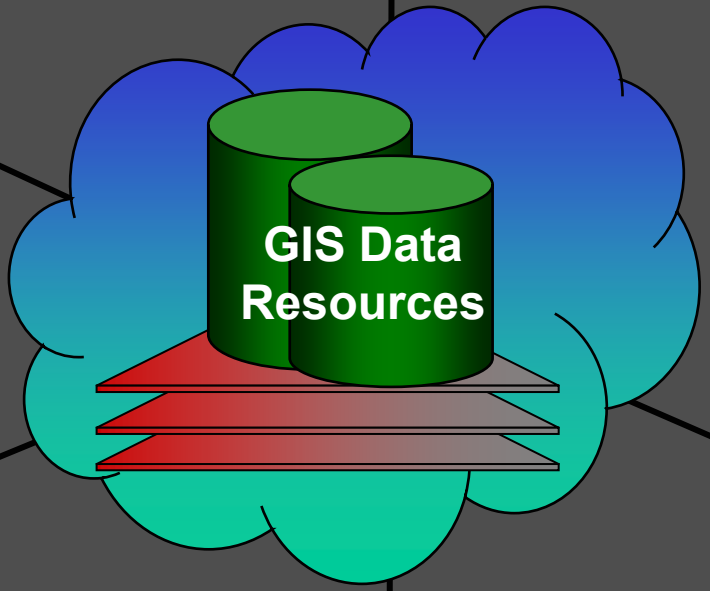

Just to mention a few . . .

# GIS Supports the Enterprise



Facilities & Land Management

Resource Use & Protection




Management for Excellence & Accountability

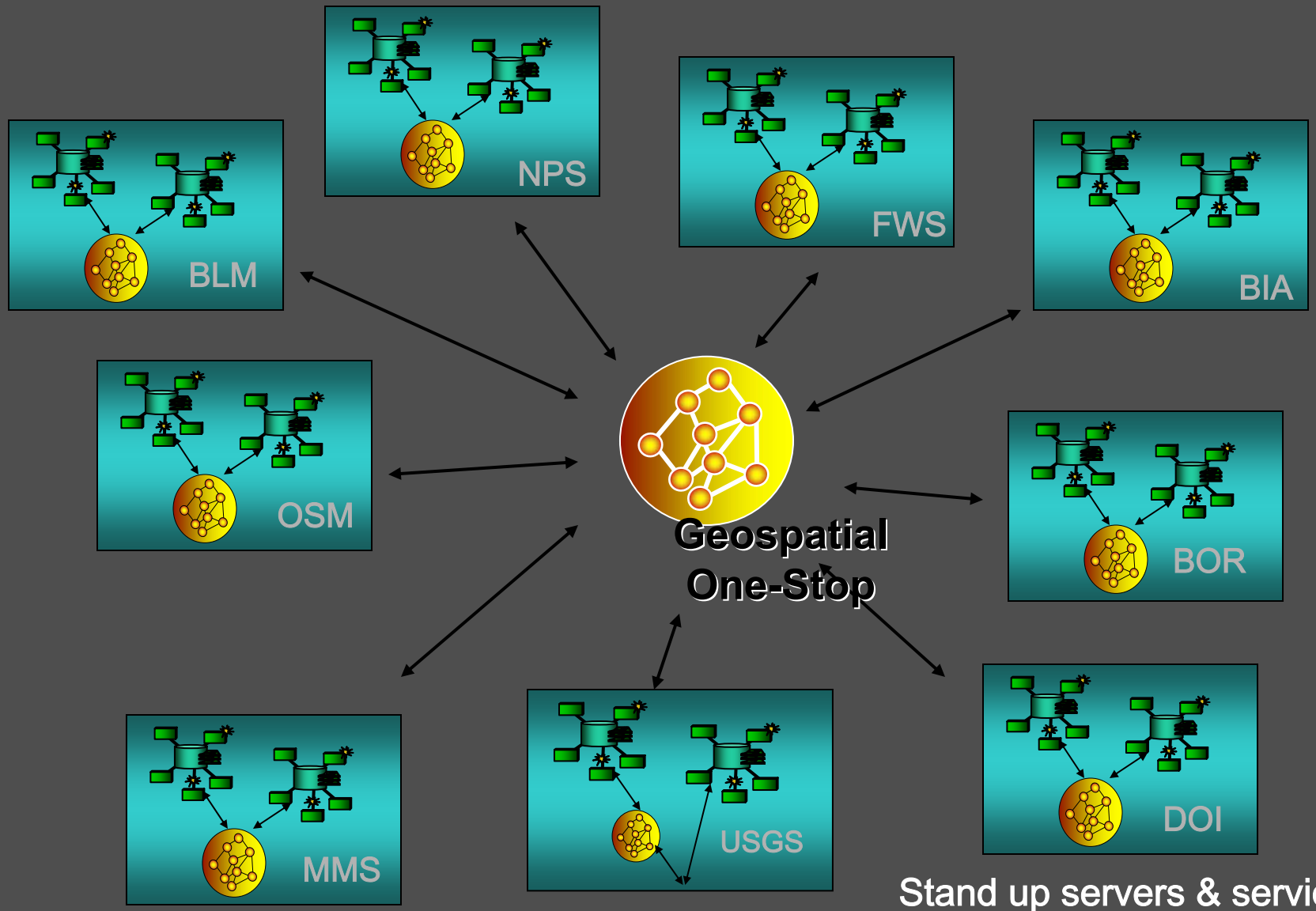
Serving Communities

Recreation

Making Government More:

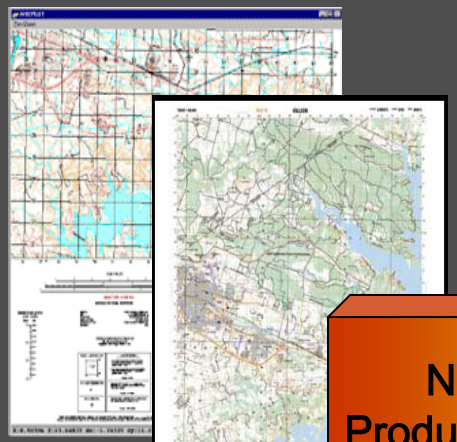
- Efficient
- Effective
- Responsive
- Integrated
- Sustainable
- Participatory

# Establish Infrastructure




Stand up servers & services
Leverage Geospatial One-Stop

# EGIM Infrastructure & Services Concept



National Map
Products and Services

Data
Dissemination

Internet
Map Services

Govt. Units

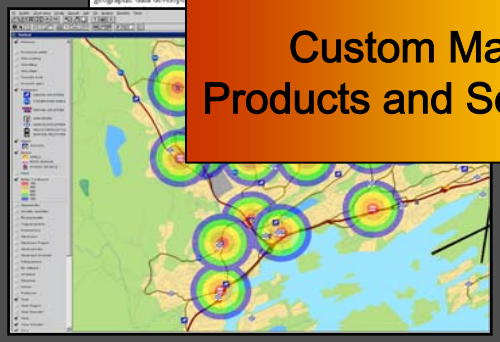
Cadastral

Hydrography

Geodetic
Control

Transportation

Orthoimagery

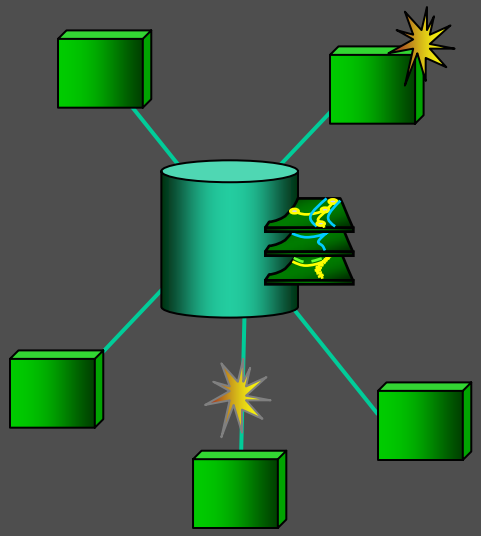



Custom Map
Products and Services

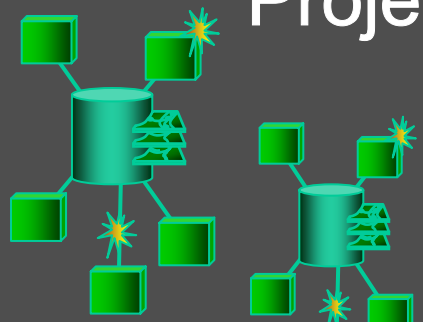
Data
Discovery

Geospatial
One-Stop

# Optimize use of geospatial technologies



Business Critical Systems



Projects, Applications

DOI's
"Lines of Business"

**Re-engineer . . .**

# Develop Common Project Applications


- Law Enforcement
- Facility Locator Service
- Facilities Management
- Mobile GIS

Applications cross-cutting Bureau lines

Map - APCO Facilities - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites History

Address http://165.83.119.44/mapserver/apco_facilities.html Go Links

## Appomattox Court House NHP - Facilities

Photo Points

APCO Topo Map

693,686.95
4,138,315.78

Click on this tool then click on photo point to see location

Done

Identify Results - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address http://165.83.119.44/scripts/esr Go Links

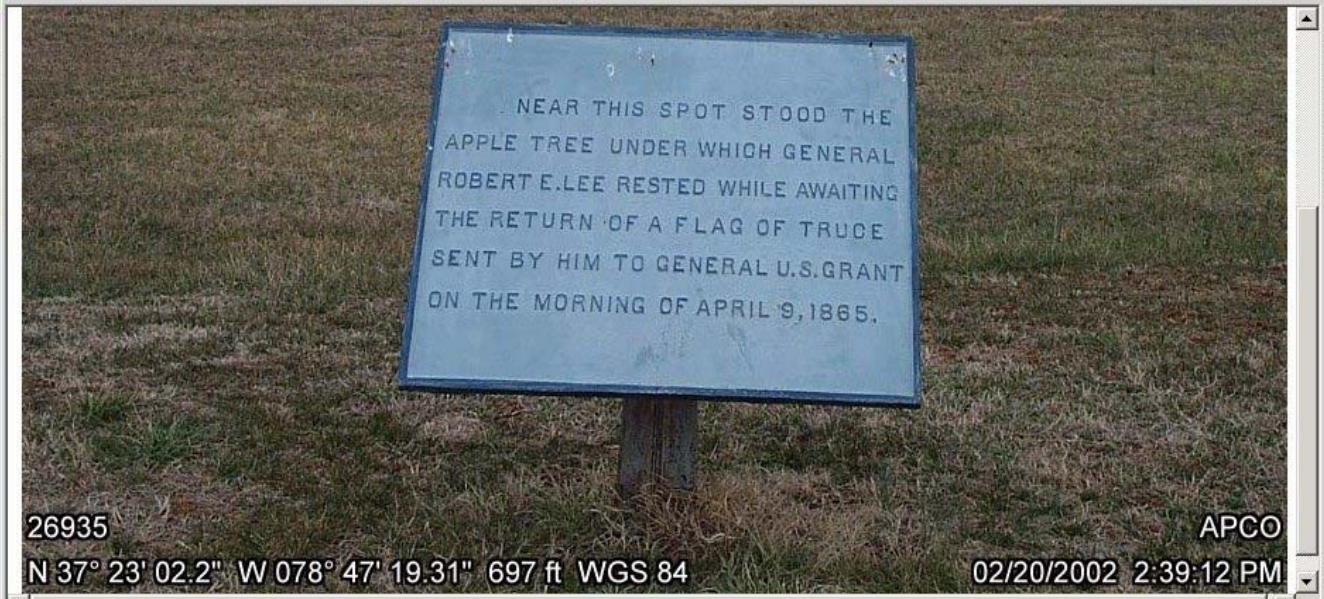
| | |
|---|---|
| **Lon** | -78.7886968 |
| **Lat** | 37.3839512 |
| **East** | 695772.24 |
| **North** | 4139761.10 |
| **Zone** | 17 N |
| **Altitude** | 696.8 |
| **Direction** | *No Data* |
| **Degree** | 0 |
| **Datum** | WGS 84 |
| **Title** | APCO |
| **MAXIMO Number** | 26935 |
| **Description** | Apple Tree Tablet |
| **Date and Time** | 20-Feb-2002 19:39:12 |
| **Photo Name** | DCP_0061_022002_143912_tag.jpg |

http://165.83.119.44/images/apco/DCP_0061_022002_143912_tag.jpg - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites History

Address http://165.83.119.44/images/apco/DCP_0061_022002_143912_tag.jpg Go Links



# Current Efforts

- **Establishing within DOI:**
  - **A coordination mechanism for GIS**
  - **A baseline of existing GIS use**
  - **Business Case Development**
- **Establish a communications plan**
  - **Web site, presentations, internal user meetings**
- **Prioritize and plan efforts associated with Circular A-16 data efforts**
- **Define best practices for:**
  - **Creating department implementations from Bureau-centric applications e.g. NILS**
  - **Data migration strategies**
- **Extension of the ESRI SmartBUY Agreement**

Enterprise Geographic Information Management


# DOI - Enterprise GeoSpatial Information Management (EGIM)

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- Executive Workshop on Enterprise Geospatial Systems
  July 14-15, 2004 Denver Federal Center
- Charter
- EGIM Factsheet
- Role and Function
  - Education and training:
    Identify common GIS training needs and resources, and plan or make recommendations for the development and presentation of training in cooperation with other groups or agencies.
  - GIS Software Deployment:
    Serves as a GIS software contract managing body, and a source of recommendations, best practices for all DOI users. Bureaus will share software testing results and deployment methodologies.
  - Knowledge Base:
    Review and promote the implementation of an information data systems for sharing solutions and avoid redundancy in research and development of GIS and related applications and use. Explore possible merging of tools, documents, frequently asked questions, list serves, and other helpful databases.
  - Help Desk:
    Share and further develop DOI help desk capabilities based on DOI projected advanced level technical support needs.
  - GIS Database Support:
    Develop standard database models and

# Tasks Identified in Business Case

- **Training**
  - Develop Collaborative Training
  - Inventory and training info clearinghouse
- **GIS Software**
  - Remote installs, common deployment scripts
  - Coordinated Beta and software testing
  - Security template testing/involvement
- **Knowledge Base**
  - Best practices database
  - Project document clearinghouse
- **Help Desk**
  - Consolidated/coordinated deployment
- **Communications Plan**

Microsoft Excel - NPS_EGIM Training Survey.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

Reply with Changes... End Review...

Arial 10

Print Preview

B32

| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 1 | **Bureau Name:** | National Park Service | | | | | | |
| 2 | **Compiled By:** | National Park Service Regional and Program Coordinators | | | | | | |
| 3 | **Course Title** | **Description** | **Schedule/ Frequency** | **Class Duration** | **Students Trained per year** | **Estimated Cost per student** | **Internal vs. External Instructor** | **Internal vs. External Students** |
| 10 | | | | | | | | |
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| 18 | | | | | | | | |
| 19 | ***Custom Courses*** | | | | | | | |
| 20 | Advanced GIS Workshop | taught at FTSC by FTSC staff & NPS staff | 1 | 2 days | 5 | 200 | Both | Internal |
| 21 | GPS - Advanced Applications | NCTC course w/ArcPad, Terrasync, Real-time, etc. | 1 | 1 week | 1 | $1,000 | Internal | Internal |
| 22 | GPS Swat Team | GPS refresher in an operational setting | 1-2/year | 1 week | 8 | 150 | Internal | Both |
| 23 | Intro to ArcGIS 8 | taught by ESRI certified trainers from FTSC (Univ. of Rhode Island) at Gateway NRA | 1 | 3 days | 16 | 250 | external | Internal |
| 24 | Intro to ArcGIS 8 for Land Managers | | Annually | 3.5 days | 15-20 | | Internal | Internal |
| 25 | Intro to GIS for Land Managers | NCTC course for novice GIS users | 1 | 1 week | 1 | 1,000 | Internal | Internal |
| 26 | Metadata | FGDC course taught by NPS staff | 1 | 2 days | 17 | 30 | Internal | Internal |
| 27 | Projections & Spatial Adjustment | taught by FTSC staff (Univ.Rhode Isl.) at URI | 1 | 2 days | 15 | 200 | Both | Internal |
| 28 | | | | | | | | |
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## *Help Desk Information*

Bureau/Agency Name: National Park Service

What is your current approach to GIS Help Desk Support?

MWR – GIS users in the region are encouraged to contact the GIS FTSC staff or fellow NPS GIS users in the region/servicewide to have their questions answered.
NEN – Provide phone and e-mail technical support. Attempt to resolve problems independently and utilize ESRI/BCS support resources when required.

List any web pages for GIS Support. Indicate which might be opened for access by other agencies.
http://www.edc.uri.edu/ftsc/nps_metadata/
http://science.nature.nps.gov/metadata/
http://www1.nrintra.nps.gov/im/datamgt/nrdismhb.htm
http://mac.usgs.gov/mac/isb/pubs/factsheets/fs17199.html
http://science.nature.nps.gov/im/gisprogram.htm
http://www.pwr.nps.gov/prog/gis/default.htm
http://www.edc.uri.edu/ftsc/
http://mercator.den.nps.gov/npsgps/
http://www.asprs.org/asprs/news/satellites/satellites.htm
http://biology.usgs.gov/npsveg/
http://science.nature.nps.gov/im/datamgmt.htm
http://www.nps.gov/gis/contracts/ela_help.html

List any lists or FAQ resources for GIS Support. Indicate which might be opened for access by other agencies.
http://support.esri.com

What are the current challenges with your GIS Help Desk ?

- Most of the users have either very basic questions that an NPS colleague or FTSC staff person can address. Advanced users occasionally have more difficult questions, they go to the FTSC staff, the regional NPS contact for ESRI help, or one of the ESRI/GIS lists. There are no significant problems with this "system".
- Limited staff, no access to agency-specific knowledge base. Sometimes, questions are far more advanced than our first-hand experience with software.

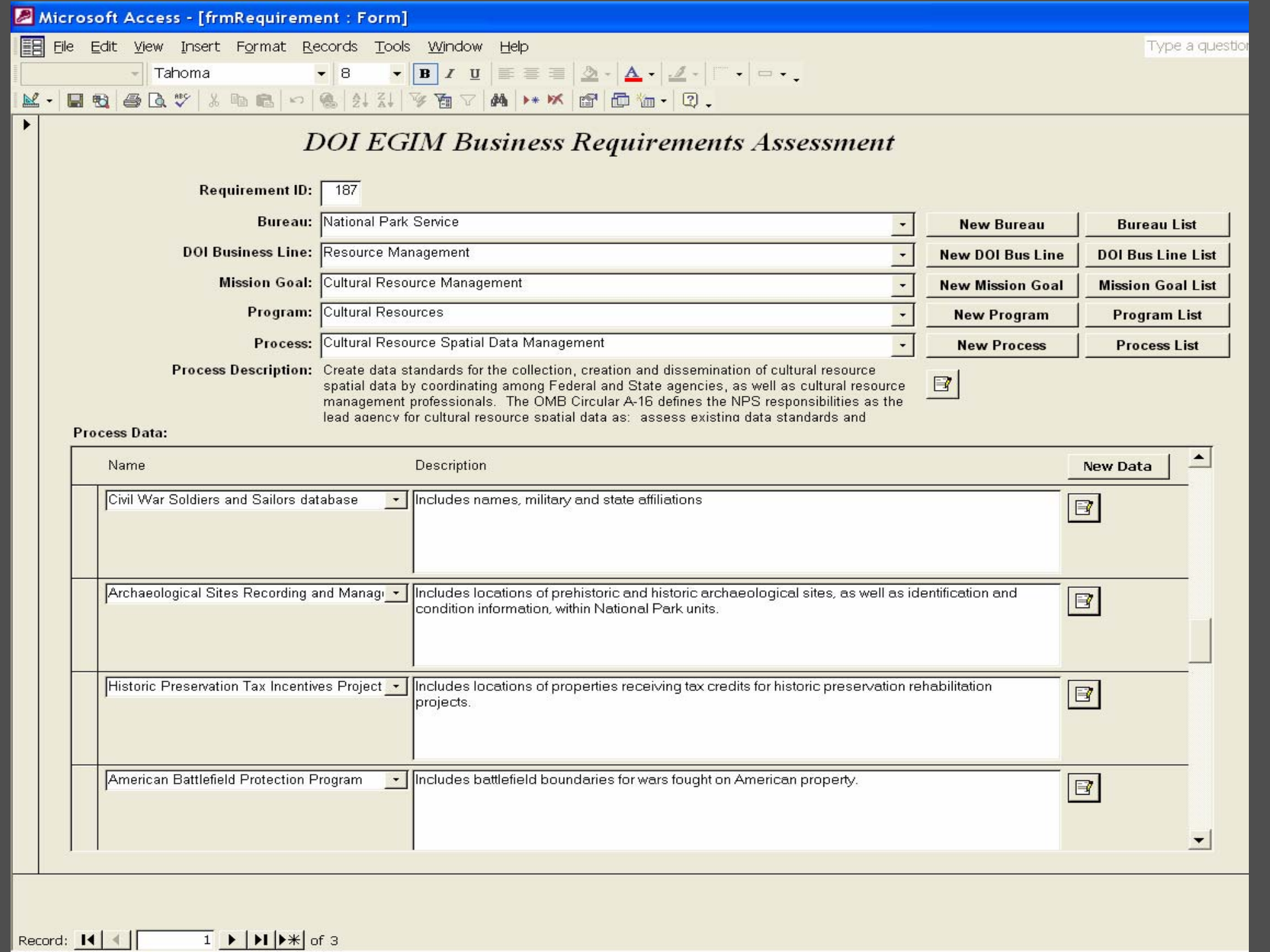
How would you improve your current Help Desk support?

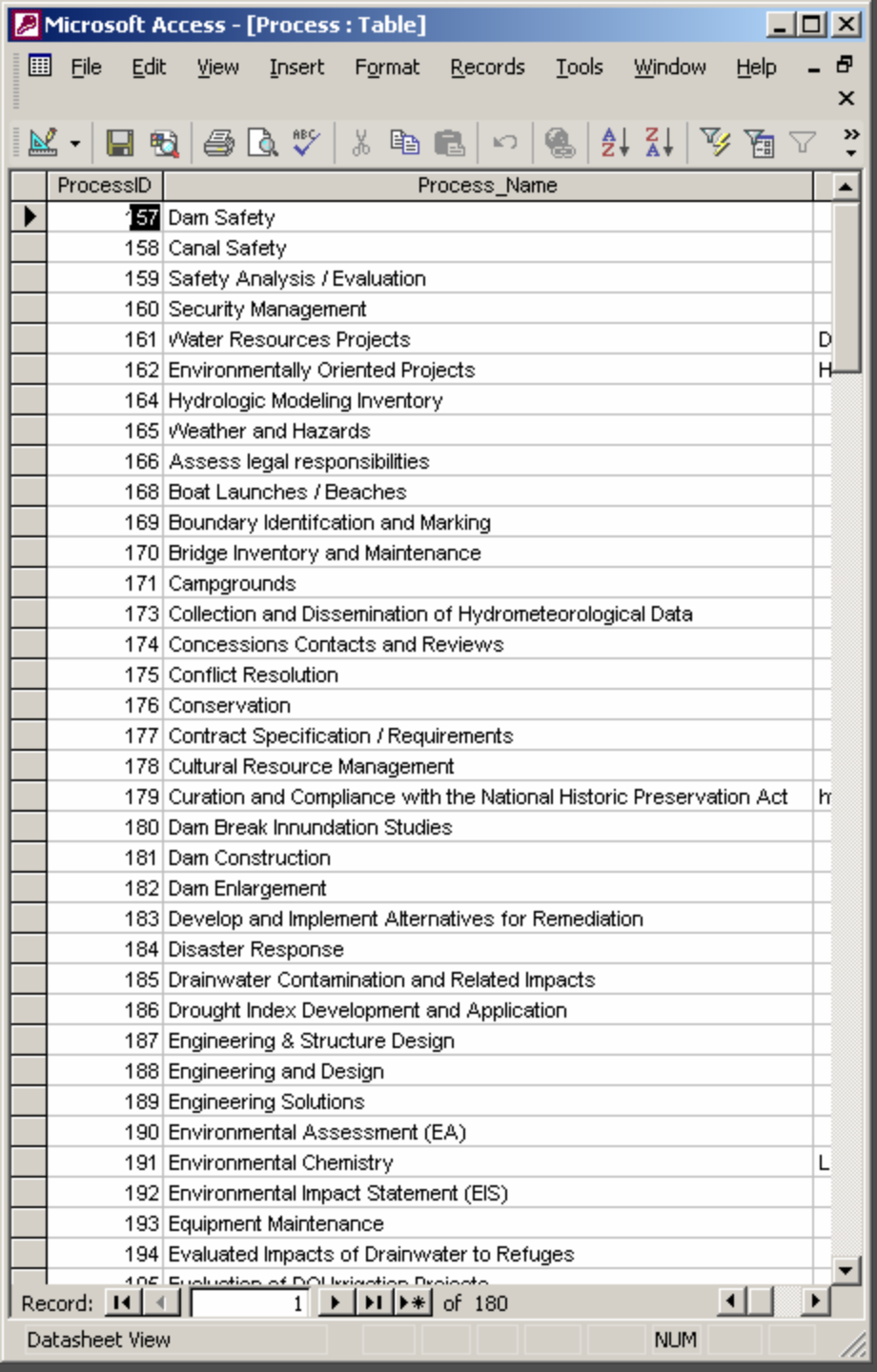
- Provide "unlimited" right-to-call access to software vendor. Create database of commonly asked questions and solutions.

# Tasks Identified in Business Case

- **GIS Database Support**
  - **Geospatial data inventory**
  - **Develop data "stewardship" publication/sharing policy**
  - **Develop data management best practices**
  - **Cross-bureau GIS application analysis & recommendations**
  - **Re-engineer existing programs/initiatives**
  - **Develop common Geodatabase Models**

- **System Architecture**
  - **Participate with ESN on DOI network architecture**
  - **Hold Executive Workshop**


Microsoft Access - [frmRequirement : Form]
File Edit View Insert Format Records Tools Window Help
Type a question
Tahoma
8
DOI EGIM Business Requirements Assessment
Requirement ID:
187
Bureau:
National Park Service
New Bureau
Bureau List
DOI Business Line:
Resource Management
New DOI Bus Line
DOI Bus Line List
Mission Goal:
Cultural Resource Management
New Mission Goal
Mission Goal List
Program:
Cultural Resources
New Program
Program List
Process:
Cultural Resource Spatial Data Management
New Process
Process List
Process Description:
Create data standards for the collection, creation and dissemination of cultural resource spatial data by coordinating among Federal and State agencies, as well as cultural resource management professionals. The OMB Circular A-16 defines the NPS responsibilities as the lead agency for cultural resource spatial data as: assess existing data standards and
Process Data:
Name
Description
New Data
Civil War Soldiers and Sailors database
Includes names, military and state affiliations
Archaeological Sites Recording and Manag
Includes locations of prehistoric and historic archaeological sites, as well as identification and condition information, within National Park units.
Historic Preservation Tax Incentives Project
Includes locations of properties receiving tax credits for historic preservation rehabilitation projects.
American Battlefield Protection Program
Includes battlefield boundaries for wars fought on American property.
Record: 1 of 3



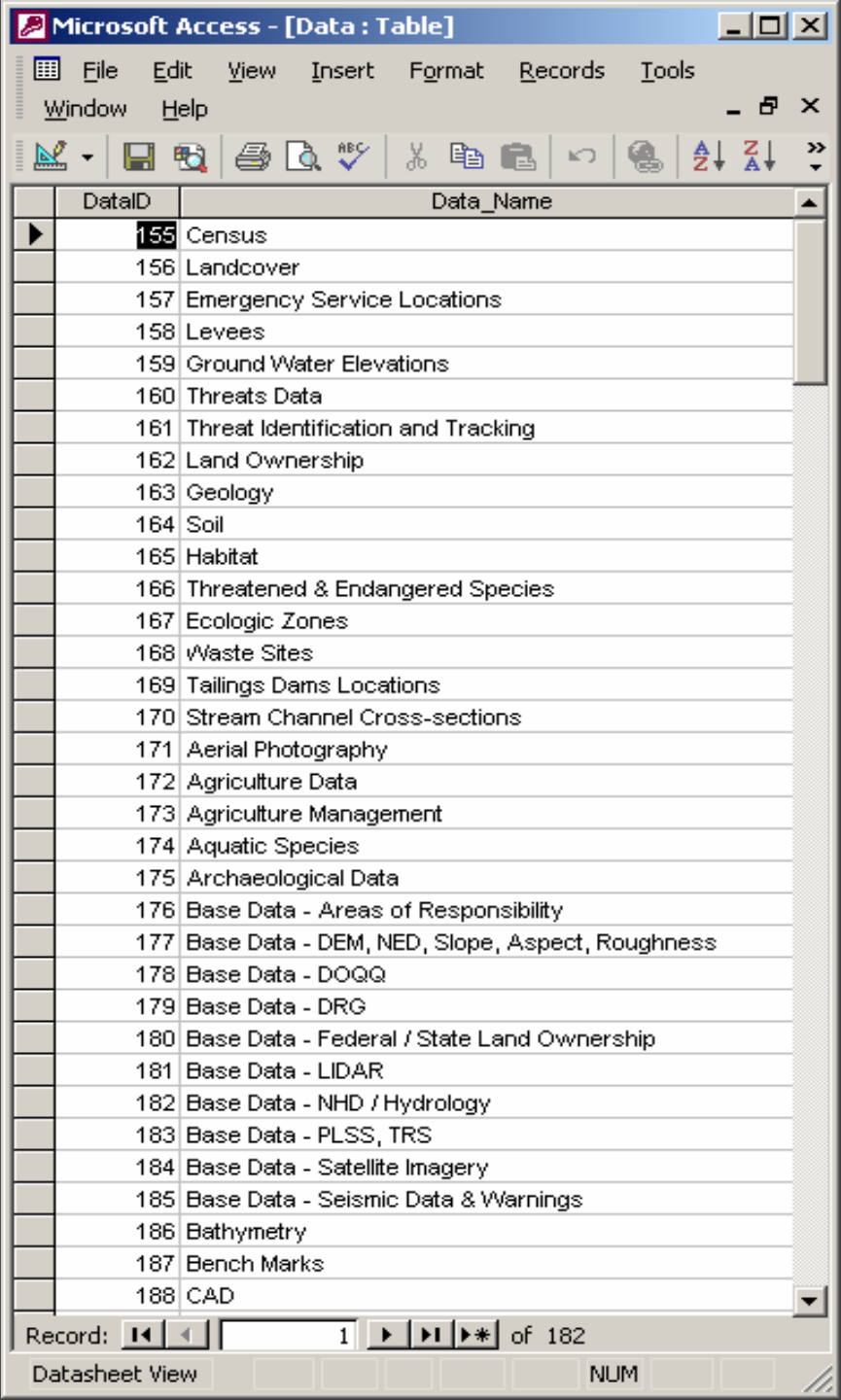
Microsoft Access - [Process : Table]

File Edit View Insert Format Records Tools Window Help

| ProcessID | Process_Name |
|---|---|
| 157 | Dam Safety |
| 158 | Canal Safety |
| 159 | Safety Analysis / Evaluation |
| 160 | Security Management |
| 161 | Water Resources Projects |
| 162 | Environmentally Oriented Projects |
| 164 | Hydrologic Modeling Inventory |
| 165 | Weather and Hazards |
| 166 | Assess legal responsibilities |
| 168 | Boat Launches / Beaches |
| 169 | Boundary Identifcation and Marking |
| 170 | Bridge Inventory and Maintenance |
| 171 | Campgrounds |
| 173 | Collection and Dissemination of Hydrometeorological Data |
| 174 | Concessions Contacts and Reviews |
| 175 | Conflict Resolution |
| 176 | Conservation |
| 177 | Contract Specification / Requirements |
| 178 | Cultural Resource Management |
| 179 | Curation and Compliance with the National Historic Preservation Act |
| 180 | Dam Break Innundation Studies |
| 181 | Dam Construction |
| 182 | Dam Enlargement |
| 183 | Develop and Implement Alternatives for Remediation |
| 184 | Disaster Response |
| 185 | Drainwater Contamination and Related Impacts |
| 186 | Drought Index Development and Application |
| 187 | Engineering & Structure Design |
| 188 | Engineering and Design |
| 189 | Engineering Solutions |
| 190 | Environmental Assessment (EA) |
| 191 | Environmental Chemistry |
| 192 | Environmental Impact Statement (EIS) |
| 193 | Equipment Maintenance |
| 194 | Evaluated Impacts of Drainwater to Refuges |

Record: 1 of 180

Datasheet View NUM



Microsoft Access - [Data : Table]

File Edit View Insert Format Records Tools Window Help

| DataID | Data_Name |
|---|---|
| 155 | Census |
| 156 | Landcover |
| 157 | Emergency Service Locations |
| 158 | Levees |
| 159 | Ground Water Elevations |
| 160 | Threats Data |
| 161 | Threat Identification and Tracking |
| 162 | Land Ownership |
| 163 | Geology |
| 164 | Soil |
| 165 | Habitat |
| 166 | Threatened & Endangered Species |
| 167 | Ecologic Zones |
| 168 | Waste Sites |
| 169 | Tailings Dams Locations |
| 170 | Stream Channel Cross-sections |
| 171 | Aerial Photography |
| 172 | Agriculture Data |
| 173 | Agriculture Management |
| 174 | Aquatic Species |
| 175 | Archaeological Data |
| 176 | Base Data - Areas of Responsibility |
| 177 | Base Data - DEM, NED, Slope, Aspect, Roughness |
| 178 | Base Data - DOQQ |
| 179 | Base Data - DRG |
| 180 | Base Data - Federal / State Land Ownership |
| 181 | Base Data - LIDAR |
| 182 | Base Data - NHD / Hydrology |
| 183 | Base Data - PLSS, TRS |
| 184 | Base Data - Satellite Imagery |
| 185 | Base Data - Seismic Data & Warnings |
| 186 | Bathymetry |
| 187 | Bench Marks |
| 188 | CAD |

Record: 1 of 182

Datasheet View NUM


**Thank you!**

**The EGIM Team**