Understanding ESRI's Federal ELAs

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An ESRI White Paper

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Understanding ESRI's Federal ELAs

Introduction

An enterprise license agreement (ELA) between ESRI and an organization is an agreement to provide software, training, services, or other contractually agreed-upon benefits, over a designated time period, for an agreed-upon price. An organization might want to enter into such an agreement to facilitate quicker software deployment, have more control over licensing and distribution, and save time and money. As a point of comparison, your organization probably has multiple ELA agreements in place for other software products that are used in bulk such as Microsoft® Office. When an individual needs Microsoft Word on a machine, the IT staff does not initiate an individual procurement for that software. Rather, they simply install it and rely on unlimited site licensing to substantiate that install. An ESRI® ELA can provide the same benefit of discounts on bulk pricing and coverage of annual maintenance costs. It also provides more control to the organization to decide how and when software versions are distributed, and how the software will be distributed.

Benefits of an ELA

The most common reason organizations like to incorporate their software purchases into an ELA is for the cost savings and centralized procurement. Most organizations are divided into several departments, divisions, or regional offices. Prior to the ELA program, it was common for many individual departments to engage ESRI with multiple procurements, each with its own set of software requirements and needs. When one division bought software, it didn't necessarily share it with another division. With an ELA, the company has one bill and can propagate the software throughout the organization without worrying over individual procurements for software. Smaller companies or groups in federal, state, and local government, who ordinarily wouldn't be able to afford the software, can benefit from easy access to prepurchased software. This helps groups expand their use of geographic information system (GIS) software, with a more efficient cost structure.

Having an ELA also saves a company time with shipment and distribution. When a company engages ESRI in an ELA, the software is shipped in bulk. Typically, 10 copies of each type of ESRI non-royalty-bearing GIS software are sent to the point(s) of contact (POC). For example, in very large government organizations that have distinct agencies in different locations, multiple POCs may be used to service the contract. The organization gets the software in one easy shipment, receives priority shipping on new software releases, and is the first to receive updated software.

Once the software is sent, the POC can distribute the software in a way that best suits the users in the organization. Bulky software packaging can be put aside and single disks burned or software placed on an external hard drive and distributed. Depending on network access, the POC can forgo the use of disks and place copies of the installation files on a shared network drive to facilitate installations. This minimizes waste through

shipping less packaging and lets the organization decide what method of distribution is best.

Federal agencies may engage in what is known as a blanket purchase agreement (BPA). This agreement allows agencies to buy items in bulk under the terms of the GSA Schedule without renegotiating price. According to the GSA Web site, "Contractual terms and conditions are contained in GSA Schedule contracts and are not to be re-negotiated for GSA Schedule BPAs. Therefore, as a purchasing option, BPAs eliminate such contracting and open market costs as the search for sources, the need to prepare solicitations, and the requirement to synopsize the acquisition" (**www.GSA.gov**). This mechanism eliminates any confusion on pricing and facilitates follow-up procurement.

Federal customers can also benefit from an additional GSA SmartBUY, which works in conjunction with the BPA and outlines additional discounts on top of the GSA pricing. A SmartBUY agreement is a federal government procurement vehicle designed to promote effective enterprise-level software management. For any organization, the ELA offers discounts on bulk purchasing. Some of the items that could be negotiated are services, training, software, or data.

Agency Central Support

The link between ESRI and the organization is the Agency Central Support (ACS) function. The title of this person or group can be different depending on the organization, such as Bureau Central Support (BCS) or simply the point of contact. This person, or team of people, will coordinate with ESRI customer support to ensure that ELA software, licensing, hardware keys, etc., are received from ESRI and properly distributed throughout the organization. The main reason for this single point of contact is to streamline the communication process between ESRI and the customer. This function is initiated at the onset of the ELA and will remain in effect for the life of the ELA.

There are three terms that will be used when referring to the ACS (see figure 1).

- ACS function
- ACS team
- People who fill ACS role(s)

Figure 1
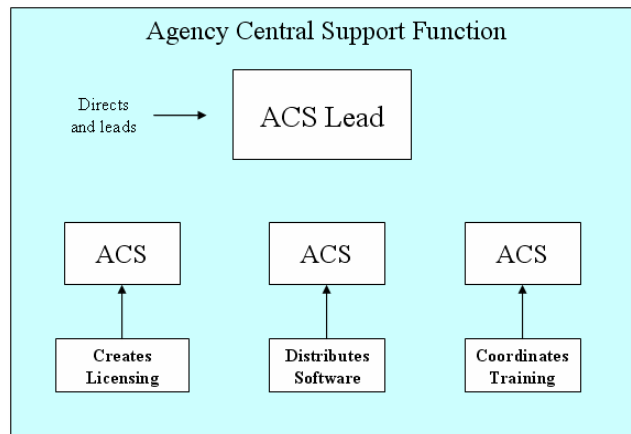
ACS Team Structure

The function of the ACS is to serve as a central location for information, software distribution, and keycode generation. This is independent of any individual person and, once it is created, will remain in effect for the duration of the ELA. The ACS function can be filled as one single unit, or in the case of large organizations that have multiple offices, as several, e.g., main headquarters and regional offices. When the ELA is instantiated, the ACS function is set up and the main POC and team support are created. The organization is given a new customer number that is used for all ACS-related activities. It is a good idea to set up a central e-mail in-box, e-mail address, and/or Web site to funnel ACS-related questions. Communication is supported with the e-mail system where user access and passwords can be changed as the ACS team members change.

Within the ACS function is typically an ACS team. Depending on the size of an organization, this can typically range from one to five people per ACS. In general, it is a best practice to keep the ACS team to a minimum number of people. This will help control access to software, keycodes, and other sensitive information. A minimum number of team members will ensure that as team members change, there is minimal disruption when changing passwords and access to software licensing sites.

The ACS lead is the central point of contact when the ELA is signed and usually serves as the overarching leader to provide GIS guidance and direction for the entire organization. The person who fills this role should be someone in a position of authority, who can lead the team and the organization in a direction most conducive to implementing the ELA. The ACS lead does not need to have extensive GIS experience, but it is preferred where possible. It is common for the person in the lead role to change over the course of the ELA. During follow-on contract years, the role matures into finding best business practices and fine-tuning the ACS process.

The additional ACS team members will function as the workhorses. They physically distribute software, generate keycodes, and give feedback to the ACS lead on what works and what doesn't work for the organization. The team member(s) may also provide the hands-on tier 1 support that is required as part of the ELA. Tier 1 support is described in detail later on in this document but can be defined as the initial help desk support given to all users to install, license, and utilize the software. The individual ACS team member filling this role will need to have a greater working knowledge of the entire ESRI product suite and how licensing works and should be able to provide general tier 1 support to any user who needs it.

The ACS POC can be described as having the following characteristics:

■ The ACS POC will administer the configuration, distribution, tracking, and maintenance support of ESRI software for its agency. The designated POC is responsible for internal distribution of ESRI software products as well as updates and upgrades.

■ The ACS POC will provide licensing and support to users who request it.

■ The ACS POC will have an internal software support system to minimize and screen calls to ESRI, by authorized ACS personnel, and disseminate solutions to problems to the ACS user community. This may be set up in the form of a support help desk.

■ The ACS POC shall be responsible for administering maintenance for all sites residing under the ACS. The ACS POC are encouraged to share knowledge with other ACS POC including organizationally established help desk personnel.

Software   The first major task for the ACS team is getting the first shipment of software. When the ELA is signed, the ACS teams are organized and the contact information of the ACS team is sent to ESRI customer service. Once the information is verified, a dedicated ESRI customer service rep will ship several copies of software to the ACS team(s). This sudden influx of boxes will need to be tracked, inventoried, and stored in a secure location on-site.

After the software arrives at the central location, it is up to the ACS POC to ship it or distribute it to the many users in the organization. This will require careful planning by the ACS team(s) to ensure that the software is properly distributed to the people who need it, in a timely manner. Once the software is received and accounted for, it can be distributed via CD/DVD replication, by uploading it to a central shared server, or by copying it onto portable hard drives to distribute it to the users. Once the intended recipient receives the software, the ACS can follow that up with the licensing that enables the technology. This will ensure careful control by never shipping both licensing and software together.

Gathering Requirements   In the beginning of the ELA, depending on what version resides on existing machines and what version was sent, the majority of requests will come from individuals who already have the software. When a new request comes in from a user, they typically ask for everything. The ACS is in the position of deciding who should and should not get software. A preferable system is one in which the client gets approval from his or her supervisor or department manager before requesting the software from the ACS. In addition, the job of the ACS can be greatly improved by requiring that a number of questions be answered before software is distributed. This list of questions can be in the form of an e-mail or, in the more mature ACS communities, from a Web page that generates an automated response.

Common questions asked before software is distributed

■ What product do you need a license for?
  ● ArcGIS® Desktop, ArcGIS Server, ArcGIS Engine (All products can be shown in a list.)

■ What extensions do you need?

■ What type of license do you need?
  ● Stand-alone (single use) licensing
  ● Floating (concurrent use) licensing

■ How many licenses do you need?

■ Name of the machine the License Manager is being installed on with additional information such as platform, operating system, etc.

■ Contact name and e-mail address of recipient

Shipments When ESRI makes an agreement with an agency to supply software, it is standard practice for numerous copies of all software products to be shipped to the ACS team for internal distribution. Software and services come in various categories: category A, category B, and category C. Currently, category A is ESRI-derived software and can be distributed without royalties being owed to any partnership organization. It is common in an ELA for category A software to be sent, in multiple copies, as soon as a release is announced. An example of category A software is ArcInfo® Desktop and the Spatial Analyst extension. To get more information about the latest categorization of ESRI software or services, refer to the latest GSA schedule.

Once the software has been shipped, the ACS is free to make copies of the software media for distribution within the organization. If you will be distributing hard copies of the software, it is a good idea to procure equipment that will allow you to make multiple CDs or DVDs at one time. Another option for software distribution is to place the contents of the CD onto a network drive to perform a distributed installation. This option will mean less time spent creating media but will potentially make for longer installation processes from the network. An additional option would be to place the contents of the software on an external hard drive.

Installations One of the bigger challenges for organizations is how to organize mass installations. In the beginning of the ELA, there is a surge in interest to upgrade existing licensing from ArcView® to ArcInfo and gain access to all available extensions. This surge can be overwhelming for an ACS group that has just been formed; however, once this initial surge is over, the deployments should slow down. Then as time goes by and new users learn of the ELA and the ACS resource, interest will increase.

The first question any ACS should ask the user when a request for software is made is, does your computer have the minimum hardware requirements necessary to run the software? If the user has an older machine and cannot complete the installation, new hardware must be procured before the software is installed. One of the first things an ACS team should do is create a questionnaire for new users to help ascertain their software needs. They will call and ask for ArcInfo, ArcGIS Server, and ArcIMS®, but the reality may be that they only need ArcView functionality. The ability for the ACS to understand how licensing works, and how to help their customers figure out what software best meets their needs, is crucial to having smoother installations.

Most ACS teams are initially not IT personnel, so one of three scenarios typically exists: the ACS already has ESRI domain knowledge and installation experience, the ACS(s) will quickly ramp up on the software and complete installations in a trial-by-fire approach, or the ACS will start coordinating with the IT department staff to hand off the physical software deployment to them. Overall GIS department strategy, software shipments, and licensing still reside with the ACS, but the act of physically installing the software, and troubleshooting issues with installations, resides with IT.

Licensing   When deploying ArcGIS Desktop software, there are two main types of installations: single use or concurrent use. Single use installations are meant to be placed on individual machines and are perfect for laptops that travel with the user. Concurrent use licensing serves up multiple licenses and is dependent on an internal connected network where machines can refer to a centralized license server to obtain licensing. See figure 2 for an example of the internal Web site used by the ACS community to generate concurrent licensing (Web address: ***https://myesri.com/CKey/index.htm***).

Figure 2

Screen Shot of the Web Site Used to Generate Keycodes

The software that is shipped is labeled as single use and/or concurrent use. The ACS should expect to receive multiple boxes of software that are labeled as both single and concurrent use. It is important for the ACS to have a clear working knowledge of how the basics of licensing work in order to provide the end user with the proper installation package.

In the ArcGIS Desktop suite, there are three levels of licensing: ArcView, ArcEditor™, and ArcInfo. These will come in either a concurrent use licensing or single use licensing installation package. The ArcView and ArcEditor levels of licensing come in single use licensing installation packages. The ArcView and ArcInfo levels of licensing come in concurrent use installation packages. The concurrent use installation package is slightly more complicated in that it requires both a Universal Serial Bus (USB) hardware key and license file to run the software. However, it is the only option for users who want ArcInfo.

The various installation packages give the central POC the most flexibility in determining how they want to deploy licensing to their respective components. Further on in this paper, we describe concurrent versus single use in greater detail. For more information on license levels, go to www.support.esri.com and search for the *ArcGIS Desktop 9.x Functionality Matrix* white paper to get a good overview of the license functionality of the desktop software.

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Concurrent Use Licensing

Concurrent use licensing, also known as floating licensing, is a way to serve up multiple licenses to many people that are connected through a company's network. For example, from one computer in a department or division, you could serve up 200 licenses. This scenario would provide many users with the means to access the software. Conversely, you could serve up just one license on a single machine if the end user requires an ArcInfo level of licensing. Floating licensing will involve the use of a sentinel key. This is a piece of hardware that needs to be attached to the server machine. The server machine is the one providing the licenses for the department or for that single user.

There are two main types of sentinel keys, parallel (serial) port and USB port. An example of what the keys may look like is shown in figure 3.

Figure 3

USB Key

Serial Port Key

USB and Serial Port Sentinel Keys

For more information about sentinel keys and installation, visit the ESRI Customer Service Web site at https://service.esri.com and click FAQs or navigate to this link: https://service.esri.com/index.cfm?fa=help.faqList#faq34.

Single Use Licensing

Single use licensing is an option to be used on machines that are not connected to a network or for individual installations. Stand-alone licensing is available for the ArcView and ArcEditor levels of licensing only. You will need to provide your end user with the software that is specifically labeled Unkeyed Installation Package. In addition, ESRI customer service sends unkeyed license numbers to the ACS teams. Single use licensing is optimal to use in areas that are secure and can be the easiest form of licensing to distribute.

Distributed Installations: There are several options for software distribution to other parts of the organization: physically shipping disks and hard drives or putting the software installation packages on a network drive for others to access.

If the organization decides to post the software installation files to a central drive, it may want to create a custom installation package to ease the process. Typical installation requires much interaction by the end user to complete the process as well as restarts. It is possible to develop a complete installation package that will have multiple options preset to make installations flow much more easily. This way, the people doing the installation can either pull the file from a central drive to install or push the file to a computer on the network.

A helpful document is *ArcGIS Licensing Concepts and Strategies,* which can be found by searching www.support.esri.com or via this link:

http://support.esri.com/index.cfm?fa=knowledgebase.whitepapers.viewPaper&PID=19&MetaID=838.

Here is a link to additional information on deploying secure solutions:

http://support.esri.com/index.cfm?fa=knowledgebase.whitepapers.viewPaper&PID=17&MetaID=1051.

You can also search www.support.esri.com using the keywords ArcGIS Enterprise Security.

Tracking and Reporting

One of the primary roles of the ACS lead is to provide users with ESRI software and its associated licensing. When the ELA is signed, the ACS lead and subleads will be responsible for providing licensing and software to all the users in the agency or company. Depending on the size of the company, it could be thousands of users or merely hundreds. Either way, the ACS lead is the go-to person for all things related to ESRI software. One of the common applications the users will be installing is ArcGIS Desktop.

Every disk of software that is distributed and every license deployed needs to be documented. When an ELA is enacted, the responsibility of keeping track of licenses used and software distributed passes to the recipient of the ELA. This allows the organization to have complete control over software distribution and helps keep costs down for both parties. In figure 4, a central ACS obtains reporting information from various regional offices. This may be a common scenario for very large organizations and for organizations that have a central headquarters and regional offices. In figure 5, the reporting comes directly from the end users. As they request licensing and software, the ACS keeps track of what went out. This works well for organizations that are smaller and have only one central ACS.

Any mechanism can be used to track software. Initially the ACS function may do so in a spreadsheet, but as demands increase for software, it is most beneficial to use some type of Web application. Ideally, this Web application would be set up so that it would automatically generate response e-mails to the requestor as well as store all relevant information in a database. Reports can be generated from the resulting database.

Figure 4
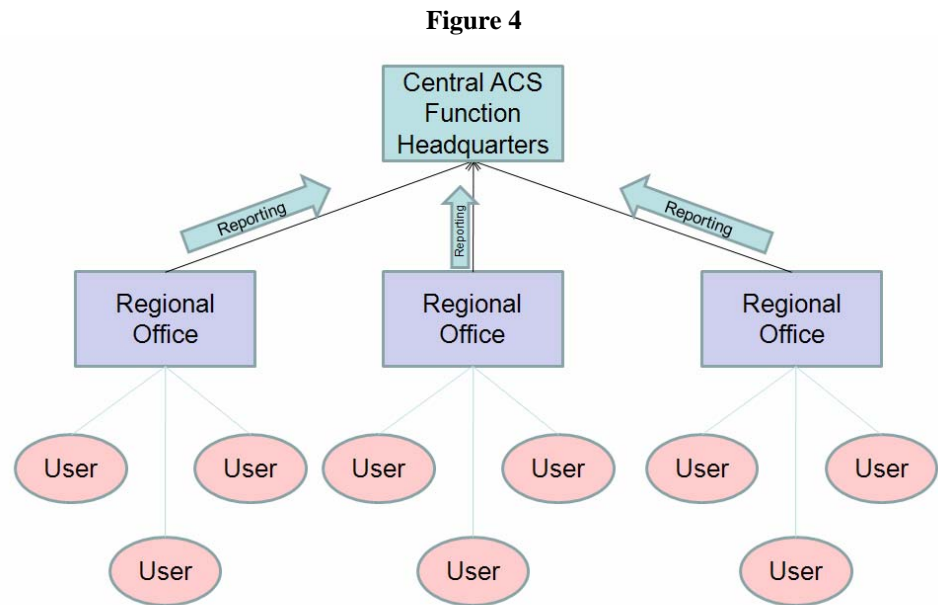
Central ACS Function Showing Reporting Coming from Various Satellite or Regional Offices

Figure 5
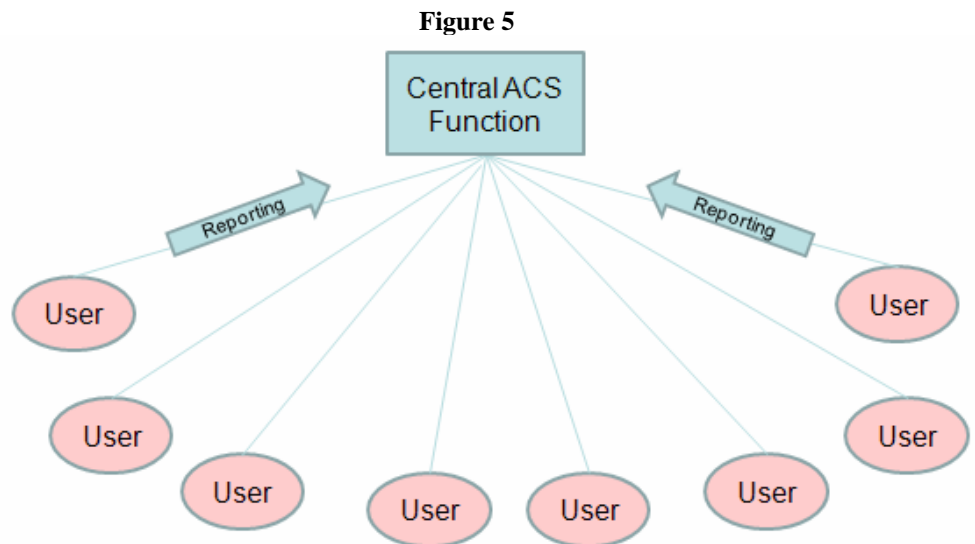
Smaller Central ACS Function with Reporting Coming from Organizational Users

ELA Consultant

Another consideration for the ELA is the inclusion of a dedicated support person from ESRI called the ELA consultant. This person will perform the following:

■ Assist the customer in setting up ACS sites.

■ Work with the customer and ESRI customer service to set up points of contact for each ACS and establish product ordering procedures, licensing, and keycoding.

- Work with the customer and ESRI technical support to organize technical support (tier 1) processes within the organization and help the client understand escalation procedures to ESRI tech support (tier 2).

- Work with various customer staff and internal ESRI resources to provide content and linkages for an internal Web page related to the ELA, products, indefinite delivery—indefinite quantity (IDIQ) procedures, links to ESRI knowledge base, bug tracking, etc.

- Coordinate with ESRI technical marketing staff to provide post sales support to the customer.

- Coordinate with ESRI account managers on a variety of issues.

The ELA consultant is an ESRI employee who is well established in the company and can act as a bridge between ESRI customer service, ESRI account management, and the ELA customer to provide superior assistance that facilitates the implementation of the ELA. This person will often be on-site with the customer and is responsible for providing as much support and assistance as possible. The use of an ELA consultant provides the customer with an experienced on-site resource whose sole purpose is to help them successfully implement the ELA. This can include setting up a viable help system, providing tier 1 support, functioning as a primary ACS lead, documenting procedures, and providing the customer with hands-on help.

Previous experiences between large customers and ESRI has proven that the use of an ELA consultant from the beginning of an ELA implementation has greatly improved the ease of implementation.

Technical Support

One of the stipulations of an ELA is that the agency provides technical support to its users. The types of support that will be described here are tier 1, tier 2, component support, and ESRI account management support.

Tier 1 Support

The question most ACS leads ask is what constitutes tier 1 versus tier 2 support? Tier 1 support most often consists of questions such as: How do I install ArcGIS Desktop? How do I make a thematic map? How do I install and configure ArcIMS? My license manager won't start; what's the problem? ESRI considers tier 1 support to be focused on the day-to-day operations a help desk support person would fulfill for basic software installation and mapmaking operations as well as other basic server, ArcIMS, and ArcObjects™ questions.

In the following excerpt from the ELA, you will find the common definition of the responsibility of the ELA customer to provide tier 1 support internally.

> The customer shall provide the first line Tier 1 Support for Authorized User(s) of the Software through the Agency Central Support (ACS) function, which will be maintained through a distributed group of Named Authorized Individuals (NAIs), also known as Authorized callers. Authorized Users, wherever they are located, shall obtain all Tier 1 Support through the ACS and their designated RCI(s). The NAIs shall be analysts reasonably proficient in the Software they are supporting. At a minimum,

the Tier 1 Support shall include those activities that assist the user in resolving "how to" and operational questions as well as general questions on installation and troubleshooting procedures. The Tier 1 Support ACS process shall identify to Authorized Users the initial point of contact and assigned RCI(s) for all questions and Incidents reported by Authorized Users. The Tier 1 Support RCIs shall obtain a reasonable description of each reported Incident and the system configuration from the Authorized User. This may include obtaining any customizations, code samples, or map Data involved, if applicable to the Incident. The RCIs shall also use any other information and databases they may develop as part of the Central Help Desk to attempt to resolve Incidents. If this effort does not resolve the Incident, the ACS Tier 1 Technical Support RCIs may contact Tier 2 Support through the ESRI tech support team.

The customer may assign a determined number of RCIs who will be assigned to support Authorized Users within the company. The RCIs from each of the ACS sites will receive Tier 2 Support from ESRI in Redlands. These RCIs will handle all Tier 1 Support for the company and fulfill the ACS functions through a network with a shared knowledge base and incident tracking system. For Tier 2 Support, the RCIs will forward support requests to ESRI in Redlands, including all reasonably necessary information concerning an Incident. All RCIs will:

(a) Have access to, and the ability to contribute to, an established Company knowledge base; and

(b) Share a common Company Incident system that provides the ability to track, search, and distribute all information provided by Authorized Users to the Tier 1 RCIs and share information exchanged between RCIs providing Tier 1 Support and assigned staff providing Tier 2 Support.

The majority of calls that come in to ESRI corporate headquarters can be broken down into these categories: ArcGIS Desktop and extensions, installation issues, data issues, ArcObjects issues, and ArcIMS/server issues. See the percentage breakdown in figure 6.

Figure 6

Queue Group	EHWPCC	% of Call Volume
ArcGIS Desktop and Extensions	1.38	41%
Installation/License Manager/Hardware	1.21	26%
Geodata	2.75	11%
Raster	1.60	8%
ArcObjects/Developer	3.25	7%
ArcIMS	3.50	7%

Breakdown of Daily Help Desk Calls Fielded by ESRI Tech Support. EHWPCC—Expected Hours Worked per Closed Call

In addition, ESRI has provided recommendations and job descriptions to help the customer choose appropriate persons for tier 1 technical support. Here are those descriptions:

ArcGIS Desktop and Extensions, Raster Help Desk Analyst

Required Skills

- Strong grasp of the English language including grammar, punctuation, and consistency

- The ability to communicate technical information clearly and concisely with a familiarity using GIS and technical terms

- Strong analytic/problem-solving skills

- Fundamental understanding of ArcGIS Desktop concepts and core GIS functionality (projections/coordinate system, vector versus raster datasets, joins and relates, etc.)

- Fundamental understanding of ArcGIS Desktop extensions concepts (spatial analysis with raster and vector data, geostatistics, business analysis, 3D analysis, Network Analyst, etc.)

- The ability to document, test, and resolve typical GIS and ArcGIS Desktop problems (diagnosing common error messages, resolving data access issues, etc.)

Desired/ Recommended Skills

- Familiarity with ArcObjects/Visual Basic® for Applications (VBA)/Python® scripting and programming

- Familiarity with advanced ArcGIS Desktop functionality (making ArcSDE® geodatabase connections, geocoding, dynamic segmentation, geometric networks, subtypes and domains, etc.)

- Knowledge of the ESRI geodatabase schema and behavior

- Customer service/Software support experience

Installation/License Manager/Hardware Help Desk Analyst

Required Skills

- Strong grasp of the English language including grammar, punctuation, and consistency

- The ability to communicate technical information clearly and concisely with a familiarity using GIS and technical terms

- Strong analytic/problem-solving skills

- Knowledge of Windows® operating systems

- The ability to document, test, and resolve typical system- and printing-related issues/problems

Desired/ Recommended Skills

- Familiarity with ArcGIS Desktop concepts and core GIS functionality (projections/coordinate system, vector versus raster datasets, joins and relates, etc.)

- UNIX® administration experience

- Experience troubleshooting and configuring software license managers

- Experience configuring complex software and hardware environments

Geodata/ArcSDE Help Desk Analyst

Required Skills

- Strong grasp of the English language including grammar, punctuation, and consistency

- The ability to communicate technical information clearly and concisely with a familiarity using GIS and technical terms

- Good skills with ArcSDE system installation and configuration: Win, UNIX, or Linux®

- Good skills and experience with administering RDBMS: Oracle® or Microsoft (MS) SQL Server®

- Good skills with the use of ArcSDE commands and command line functionality

- Good skills with the use of ArcCatalog™ for loading and managing data

- Good troubleshooting skills working through common ArcSDE problems, log/trace/intercept files, common error messages, running services, etc.

Desired/
Recommended Skills

- Experience designing or coding custom applications using the ArcSDE C or Java™ APIs

- RDBMS DBA certification

- Strong skills related to client-side connections to ArcSDE from either ArcGIS Desktop, ArcIMS, MapObjects®, or ArcView 3

- Strong skills related to geodatabase functionality: versioning/reconcile/post/compress disconnected editing, geometric networks, annotation, geocoding, topology

- Strong skills related to loading, storage, and use of raster data with ArcSDE

- Familiarity with projections and coordinate systems

ArcObjects/ Developer Help Desk Analyst

Required Skills

- Strong grasp of the English language including grammar, punctuation, and consistency

- The ability to communicate technical information clearly and concisely with a familiarity using GIS and technical terms

- Strong programming skills: Visual Basic .NET, C# .NET, VB6, or Java

- Good experience with designing, coding, and deploying applications using MapObjects—Windows or Java editions

- Good troubleshooting skills working through MapObjects application development problems

- Good ability to debug code and write small sample applications to demonstrate a piece of functionality

Desired/
Recommended Skills

- Familiarity with projections and coordinate systems

- Familiarity with address matching/geocoding

- Familiarity with client application connections to ArcSDE

- Familiarity with how to use MapObjects—Java Edition to make an ArcIMS client application

- Experience with the MS VC++6 development environment and language

ArcIMS Help Desk Analyst

Required Skills

- Strong grasp of the English language including grammar, punctuation, and consistency

- The ability to communicate technical information clearly and concisely with a familiarity using GIS and technical terms

- Good familiarity with ArcIMS system installation and configuration: Win, UNIX, or Linux

- Good understanding of the ArcIMS architecture, applications, and functionality

- Good familiarity with ArcXML™: common tags, request/response handling

- Good troubleshooting skills working through ArcIMS problems; ability to handle common problems, log files, common error messages, data access issues, etc.

- Familiarity with database connection to ArcSDE

Desired/ Recommended Skills

- Working knowledge of at least one ArcIMS extension: ArcMap™ Server, Metadata Services, Route Server.

- Experience designing or coding custom client-side or server-side applications. Examples: Active Server Page(s) (ASP), JavaServer™ Pages (JSP™), ColdFusion®, HTML Viewer (HTML/DHTML/JavaScript™), Java viewer.

- RDBMS administration with ArcSDE.

General Call Statistics

ESRI receives roughly 1,200 calls per week and has approximately 400,000 authorized callers in a call tracking database. This is not a total of all authorized callers, just the ones whose companies have contacted support. Of the 400,000 callers in the call tracking system, 27,419 have logged a call with ESRI support.

Online References

- Online Support Page Home: http://support.esri.com

- *System Design Strategies* White Paper: www.esri.com/systemdesign

- Microsoft Operations Framework—Support Quadrant: http://www.microsoft.com/technet/itsolutions/cits/mo/mof/mofsupport.mspx

Tier 2 Support

If the basic questions have been answered and the help desk person has tried repeatedly to fix the problem, then the issue may be escalated to ESRI technical support. This is done through designated authorized callers who are identified by the ACS POC.

An ESRI software product central support site, staffed and operated by an ESRI ELA customer, should be able to accomplish the following, which in most cases should completely resolve the end user's problem. If the problems are not solved, these are the objectives that should be met prior to the issue being referred to ESRI for additional work toward resolving the problem:

Collect	Collect a full description of the problem to include

- Application: Type and versions of ESRI products and third-party applications, components, or code being used

- System: Type and version of OS, and a description of hardware platform and system configuration

- Data: Description of the database being used

- Actions: Steps to reproduce the problem, description of action being performed, or functionality behavior desired

Begin Troubleshooting	Search fully the existing resources for helping to identify the cause/solution/workaround to the problem or answer to the question to include

- All ESRI and third-party product documentation

- Resources available online at the ESRI Support Center: knowledge base, white papers, ArcScripts[SM], discussion forums, downloads, etc.

- Public resources available on the Web related to the third-party applications and components being used

Start Identifying the Cause	Software usage problems can normally be identified as either caused by the *applications,* the *databases* being used, the *systems* they are running on, or the *actions* of the user. Basic tier 1 troubleshooting involves starting to eliminate or identify these elements as contributing factors.

First, ensure that any applications related to the platform and third-party components are properly configured and operationally sound with the ESRI software not involved, for example:

- Desktop applications
  - Ensure that the hardware and operating system are supported and contain the required components: peripherals, drivers, etc.

- Developer applications
  - Same as desktop applications plus
    - Ensure that the development environment is supported and contains the required components.
    - Ensure projects and code components other than those that involved ESRI products are configured and run properly.

- ArcIMS
  - Same as desktop applications (and if involved, developer applications) plus
    - Ensure that the Web server and servlet engine are properly installed, configured, and operational. Test this on the server and from standard client applications using diagnostic tools or other non-ESRI applications.

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- ArcSDE
  - Same as desktop applications (and if involved, developer applications) plus
    - ♦ Ensure that the RDBMS software is properly installed, configured, and operational.
    - ♦ Ensure that the data is properly loaded into the database and configured.
    - ♦ Ensure that other non-ESRI database client applications can use the database without error.

- ArcGIS Server
  - Same as desktop applications (and if involved, developer applications) plus
    - ♦ Ensure the Web server (and optional servlet engine) are properly installed, configured, and operational. Test this on the server and from standard client applications using diagnostic tools or other non-ESRI applications.
    - ♦ If using .NET, ensure that the supported framework is installed with all required updates and that the framework has been properly configured with Visual Studio®.
    - ♦ If using Java, ensure that the supported Java 2 software development kit (SDK) has been installed.

Second, ensure that the ESRI software and applications themselves are properly installed and configured, for example:

- Desktop applications
  - Test using the sample applications and datasets provided by the product.

- Developer applications
  - Test using the sample applications and sample datasets provided by the developer toolkit product. These tests could include running these samples on the development machine and perhaps also deploying these samples onto the target client desktop machines.

- ArcIMS
  - Test using diagnostic tools and sample applications provided by the ArcIMS product.

- ArcSDE
  - Test using the diagnostic tools and sample datasets provided by the ArcSDE product.

- ArcGIS Server
  - Test using the diagnostic tools and sample applications provided with ArcGIS Server.

Third, begin employing additional testing steps to identify or eliminate the following groups of causes. These suggestions are not exhaustive and will vary depending on the nature of any particular problem, but for example:

- Applications
  - Is the application customized, and if so, does the problem occur without the customization?

- Does the problem occur with different third-party software components?

■ Databases
- Does the problem occur with this database, some databases, or all databases?
- Does the problem occur when using ESRI-provided sample datasets?
- Does the problem occur when the database is converted into a different format?

■ Systems
- Does the problem occur on this machine, some machines, or all machines?
- Has the problem only recently occurred, or has it always occurred?
- Does the problem occur if the data or applications are relocated on the network or moved to a different local server or desktop machine?

■ Actions
- Are the software and applications being used as designed, tested, documented, and supported for use?

Describe a Reproducible Case

Create or identify, then fully describe the smallest practical reproducible case.

■ Desktop users: This is often no more than everything above plus a set of steps for someone else to see the issue.

■ Developers: This often involves creating a small, runnable, application project or set of code that specifically shows the issue.

■ Server/Database administrators: This is often no more than everything above plus a set of steps for someone else to configure the server/database and see the issue.

Submit the Issue to ESRI

If all the steps above are not successful in either identifying the cause or finding an acceptable solution, then forward to ESRI whatever information you have using the framework above, and we will work with you from there.

Training

One of the most important aspects of an ELA is training. Users who are exposed to a suite of ESRI software products for the first time will need training to be able to utilize these new, powerful tools. The terms of each ELA are different, but typically there are two types of training, ESRI Virtual Campus training and instructor-led training held at authorized ESRI facilities around the United States.

Requirements for VC Training

Virtual Campus (VC) courses can include blocks of courses, set dollar amounts for per year use, or unlimited usage of predetermined courses. It all depends on the client, the ELA, and the overall needs of the customer. The delivery of the classes is done by the client from a central POC. Here is an example of how the process might work.

To gain access to the VC training, the end user will need to do several things:

1. E-mail the POC lead to request the desired courses.
2. Receive a course code from the POC to gain access.
3. Once the access code is attained, go to http://training.esri.com.
4. Log in using a global account number, or register for one.
5. Have the software installed.

6. Use the access code generated by the POC to get classes.
7. Be able to run .exe files to download data.

If the end user does not have administrative privileges to download and run the .exe files that will install the data, it can be stored locally on a network to be copied and pasted to the appropriate drive. The ACS will likely need to create some instructions for accessing the data this way.

The other type of training available to a user is on-site or off-site instructor-led training. Typically this is negotiated in the ELA in terms of a set block of credits for the classes, a set number of classes, or a set amount of funds per year dedicated to training. As the lifetime of the ELA evolves, training options and availability are negotiated with the ESRI account manager, who will assist the client with training needs and requirements.

Enterprise GIS

Once the ELA is in place, some organizations start to look at the big picture concerning their internal GIS management. Once the software, licensing, and GIS activity originates in a central location, it is natural to start to think about data and services in a central location. An enterprise GIS is described in ESRI's GIS Dictionary as follows:

"A geographic information system that is integrated through an entire organization so that a large number of users can manage, share, and use spatial data and related information to address a variety of needs, including data creation, modification, visualization, analysis, and dissemination."

A great place to start in this journey from individual programs to an integrated, company-wide system is the Project Center. This site will help guide you through the phases of implementation: framework, strategy and planning, analysis and design, development, deployment, and production and operation. Visit the site through the home page at www.support.esri.com and click Project Center or click here: www.esri.com/projectcenter.

The Project Center provides an information portal to a wide range of GIS information, resources, and ESRI services for planning, designing, implementing, and maintaining a successful GIS project life cycle. The ESRI Project Center framework has been established so that you may quickly find available resources and services to support your specific GIS needs.

Within this site, one document in particular, Planning an Enterprise Implementation, is especially useful. Click the link on the Project Center home page or click this link: http://downloads.esri.com/support/ProjectCenter/Planning%20an%20Enterprise%20Implementation.pdf.

Another valuable document is the *System Design Strategies* white paper. Go to www.support.esri.com and search for sysdesig.pdf or click this link: www.esri.com/systemdesign.

Conclusion

Enterprise license agreements can provide both ESRI and the customer with a mechanism for improving the ease of distribution of the software, providing support, and increasing awareness of GIS within the organization. ELAs make it possible for an organization to have full control over how and when software is deployed and streamlines deployment of the software.

Appendix A: FEMA's GIS Solutions Branch: Agency Central Support Implementation and Management

FEMA Mission

On March 1, 2003, the Federal Emergency Management Agency (FEMA) became part of the U.S. Department of Homeland Security (DHS). The primary mission of the Federal Emergency Management Agency is to reduce the loss of life and property and protect the nation from all hazards, including natural disasters, acts of terrorism, and other man-made disasters, by leading and supporting the nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation.

GIS at FEMA

FEMA has been using GIS technology for more than 15 years. Under the direction of an agency-wide GIS representative, the GIS Solutions Branch (GSB) asserts a holistic approach toward the utilization of GIS technology to establish a unified vision for the organization and to further the investment in GIS technology in an effective, efficient, and coordinated manner.

The continuing goal is for FEMA to set the standard for GIS excellence in emergency management. (http://www.gismaps.fema.gov/gis02.shtm)

ELA Background

DHS completed an acquisition of an ELA with ESRI in July 2006. This agreement brings new technologies, tools, and services to the department and helps establish a cohesive approach for managing geospatial software acquisitions. This ELA provides for unlimited access to all ESRI GSA category A products over the next five years. The ELA term is one year, with four option years to follow. The ELA covers all DHS employees and contractors.

The DHS Office of the Chief Information Officer (OCIO) entered into this agreement to align geospatial programs more closely with the DHS Technical Reference Model (TRM) and to establish a common baseline of geospatial support for the department to ensure mission readiness and preparedness. The ELA effectively consolidates existing DHS contracts with ESRI and extends the reach of existing departmental geospatial programs. The ELA negates the need to sustain *all* existing maintenance agreements—bringing departmental geospatial users current and active.

Within DHS, the management responsibilities, including distribution and governance, have been delegated to groups identified by the DHS Geospatial Management Office (GMO) with geospatial expertise in each of the major components across the department. These groups, hereby referred to as ACS sites, established nine DHS representatives to manage licensing, installations, versioning, and primary technical support as well as

triage of support questions referred to ESRI. FEMA was subdivided into two ACS groups, Mitigation and Nonmitigation (GIS Solutions Branch), respectively.

ELA Management Plan

During the spring of 2007, FEMA consolidated ACS functions into a single ACS managed by the GIS Solutions Branch, merging the Mitigation ACS functions into the OCIO/GSB ACS while maintaining some elements of the Mitigation ACS structure for limited reporting and analysis.

This initiative aided in providing accurate accounting of licensing distribution and usage and ultimately streamlining and automating license requests and tracking processes. The goal of this strategy is to minimize the total work effort required to track licensing distributed across the agency using current information technology and project management best practices. As part of this process, license management and software distribution have evolved over the course of the first several months from an unsophisticated, arduous, and time-consuming effort to a marginally automated distribution and tracking strategy that establishes the foundation for a fully functional enterprise system requiring minimal time and maintenance through a Web-enabled service environment.

Management by Force

The initial effort for distributing software and licensing was to appoint a primary POC for each of the 10 FEMA regions. Software and unique license codes for single use software were provided to each of the 10 primary field POC with the responsibility of license distribution and implementing tier 1 and tier 2 support requests. Regional contacts were responsible for compiling quarterly reports on licensing distribution statistics within their region to the HQ ACS leads in GSB. ESRI Virtual Campus licensing and licensing for concurrent use (CU) software were proffered centrally by GSB ACS leads agency-wide. This partnered support model between FEMA headquarters and regional offices placed a heavy burden on both groups. The transient nature of GIS field personnel made it especially difficult to maintain continuity in communications as GIS field leads were deployed to respond to regional disasters. These deployment responsibilities made it challenging to transition ACS duties to incoming or secondary POC resulting in difficulty in maintaining accurate reporting requirements. Also, as a result of field transitions, GSB began distributing installation media via overnight couriers to personnel deployed to the field. Due to the limitations on the number of media kits allotted to FEMA GSB, ACS leads had to manually replicate the installation media prior to shipping. This proved to be time consuming and was not the most efficient way to get installation media to end users.

Centralized Services

To make licensing and media distribution processes more efficient, GSB ACS leads established a global e-mail address to centralize the collection of incoming requests. The use of a common e-mail account for monitoring incoming requests has improved response time while allowing the overall workload to be distributed to multiple GSB ACS leads. The next step in centralizing services was to catalog and store the installation media digitally so that it could be distributed over the network to the field on demand. This reduced the lag time associated with overnight shipment of media in the form of DVDs from days to hours. Additionally, GSB ACS leads established an ESRI global account for the purpose of tracking tier 2 resolutions and issuing single use licenses. This allowed GSB to more accurately track the licenses being issued to the field and relieved the burden of the regional ACS POC. As an added benefit, GSB ACS leads are now able to gain valuable insight into the needs and use trends of how GIS technology is being utilized in the field.

Automating Services

GSB is actively working to move licensing requests and software distribution to a fully automated environment. This includes establishing a Web portal to provide users with a mechanism through Web request forms for software licensing, Virtual Campus training, and tier 1 and tier 2 support. The data will be captured in an Oracle database that will be used to further improve data collection and establish measurable matrices for software utilization and distribution throughout the FEMA enterprise. Additionally, a support ticket and tracking software tool will be implemented to ensure that the requests submitted can be tracked from beginning to end and any issues or special requirements can be documented and reviewed to ensure that the needs of the FEMA GIS community are accommodated.

Appendix B: USGS Site Licenses

Effective Administration of a Department-wide Software Enterprise License Agreement

A USGS White Paper, June 2005, by Mark Negri

Executive Summary

The U.S. Geological Survey (USGS) has effectively led the administration of an ELA with ESRI since 2002. The Department of the Interior's (DOI) ELA with ESRI is currently the only such software procurement that all eight bureaus of DOI utilize and is also the most cost-effective when compared with General Services Administration (GSA) Schedule costs. The efficiency in the administration of the DOI ELA can be attributed to the operational experience in the deployment of ESRI GIS software to USGS field sites as well as expertise gained by the use of the software in support of the USGS mission. The operational experience coupled with a close working relationship with the software vendor extends the efficiency of running the ELA and reduces the time demands on nontechnical staff such as the contracting officer (CO) and Office of Finance personnel.

In This White Paper

This document provides a thorough description of the administration procedures by USGS staff of the ESRI ELA and how the operational experience with ESRI GIS software make execution very efficient and cost-effective. A cost analysis of DOI-wide administration and internal USGS software deployment, as a single-bureau example, is provided to use for comparative analysis on administration of similar software ELAs.

Background

DOI's procurement of ESRI software evolved into an ELA with USGS as the lead. The operational experience of USGS has been the key to its success.

USGS led the administration of the first DOI-wide contract with ESRI in the early 1990s. The contract was not an ELA but contained many procedural concepts that ELAs utilize such as tiered central site support. At that time, all bureaus participated in the contract except for the Bureau of Land Management (BLM), which awarded its own contract for ESRI software through an integrator. Without BLM's participation, DOI did not have enough GIS users to make an ELA cost-effective with ESRI, so in 2000 a BPA was awarded by DOI to ESRI that included deep discounts on ESRI software. Modeled after the first ELA awarded to ESRI by the U.S. Department of Agriculture, DOI modified its ESRI BPA in 2002 to an ELA and included BLM, making it a complete DOI-wide BPA/ELA. The inclusion of BLM increased the discount level received by DOI due to higher volume purchasing. The ESRI ELA was then modified in February 2004 per the GSA SmartBUY program, giving DOI an unlimited license to nonroyalty ESRI products and keeping costs static through FY08.

The DOI OCIO awarded an ELA to Oracle in May 2001 and has since awarded software ELAs to Microsoft and Symantec. Currently, OCIO does not charge an administrative fee to lead these ELAs but has begun developing a proposal to do so. BLM is the lead on

DOI hardware contracts and has charged an administrative fee of 1 percent to all bureaus using that procurement vehicle. USGS has begun developing a plan to charge an administrative fee to lead the ESRI ELA and would like to use the analysis in this white paper as supporting documentation in setting ELA fee policy.

Tasks and Costs Associated with the Implementation of the ESRI ELA

Roles and Responsibilities

DOI's ESRI contracting officer's technical representative (COTR) is an HQ-based USGS staff member directly involved with the internal technical support coordination and software distribution and deployment. The direct involvement of the COTR allows them to stay current with the evolving and increasing complexity of the use and licensing of the ESRI product line. The COTR and enterprise GIS (EGIS) maintain a close working relationship with ESRI, which over the years has led to ESRI making licensing decisions based on advice from survey personnel. The COTR also relies on frequent communication and feedback from the DOI Enterprise GeoSpatial Information Management (EGIM) team, represented by all DOI bureaus, to ensure the needs of all bureaus in DOI are met.

The EGIS office of the Geographic Information Office is responsible for the support and implementation of ESRI GIS software provided to USGS. EGIS staff is composed of personnel who have experience using ESRI software in the support of science and teaching GIS courses on ESRI software to USGS users. Key EGIS functions are deployment of ESRI software to all USGS field offices, coordination of internal technical support by partially funding field-based staff who are active in the use of ESRI software for scientific applications, and acting as the lead for DOI in executing the ESRI ELA. The majority of EGIS tasks involve direct support of USGS staff, but a significant portion involves support of DOI.

Each bureau in DOI must designate a POC to implement the ESRI ELA for its particular bureau. As with the USGS EGIS functions, implementation mostly involves coordination of internal technical support and the deployment of ESRI software releases. In most cases, the bureau POC is also the representative on the EGIM team. The USGS-based CO is used for ease of access and lower costs since the USGS Acquisitions office does not charge an administrative fee for contracts led by USGS-based COTRs. USGS Office of Finance is also utilized to assist in the centralized collection of funds, mostly for ease of access and coordination.

EGIS Support of USGS GIS Users

Each DOI bureau administers deployment and support of ESRI software to suit internal requirements. Key factors of internal requirements are specific use of the software to support a bureau's mission, common datasets used by that bureau, and size of the bureau's GIS/ESRI user base. The following is a description and cost analysis of USGS deployment and support. The factor best used to extrapolate these costs to another bureau would be size of the bureau's GIS/ESRI user base. USGS has approximately 2,000 GIS users with a high ratio of power to casual users, almost 1:1. The industry average ratio of power to casual users in an organization is approximately 1:5.

The concept of tiered Central Site Support (CSS) began with the first DOI ESRI contract in the early 1990s. Tier 1 technical support was to be provided by the participating bureaus in DOI, and tier 2 technical support was to be provided by ESRI. This term was

defined by limiting the amount of personnel in a bureau who could contact ESRI tier 2 support. It ensured the questions were posed in a clear and coherent fashion by giving access to ESRI support, known as Right-to-Call, to only very experienced and astute users of ESRI software. To ensure the designated personnel stay current with ESRI technology, EGIS partially funds field-based users who use ESRI GIS technology in applied scientific applications. At least one representative per discipline is funded so experience exists in all the major scientific areas covered by USGS: biology, geography, geology, and hydrology. In addition to funded support staff, numerous volunteers are also given Right-to-Call access to ESRI tier 2 support.

Deployment of the ESRI GIS software and licenses to USGS field offices is a key function of EGIS personnel, and it becomes the most important function after a major ESRI release. Similar to the concept of tiered technical support, ESRI lowers its software distribution costs by limiting the number of software media kits given to DOI bureaus, then granting DOI the right to replicate and internally distribute the media to its field offices. The benefits to DOI are greatly reduced software costs and more flexibility to customize the ESRI software releases. Additional time is required for software installation testing and media replication, but the cost savings more than make up for this delay.

Figure 1
Internal USGS Support Costs

	Staff/FTE Involved	Salary Costs	Materials and Shipping Costs	Totals
Tier 1 Technical Support	10	$90,000.00		$90,000.00
Software License Administration	5	$50,000.00		$50,000.00
Software Distribution	5	$45,000.00	$15,000.00	$60,000.00
Web Page Administration	5	$30,000.00		$30,000.00
User Conference Coordination	5	$20,000.00		$20,000.00
Totals	**25**	**$235,000.00**	**$15,000.00**	**$250,000.00**

EGIS Support of DOI

Similar to how internal technical support is distributed among the USGS disciplines, it is critical that each DOI bureau provide its own technical support so the application of the software is fully understood along with any internal hardware and security policies that each bureau establishes. It would be difficult to centrally provide support from a nonoperational group when dealing with users of scientific, cultural, or land management applications. It is imperative that a knowledge base be established from internal technical support and be shared for all DOI to use. EGIS is planning to do this by making its internal archive of technical support accessible to all DOI.

EGIS maintains a DOI-wide accessible Web site focused on guidance to implement ESRI software licensing and applications. The Web site contains links to frequently asked questions (FAQ) dealing with licensing as well as guidance on what software is available under the ELA and what is available for purchase. EGIS highly encourages feedback to make the complex content of the Web site understandable to all. Modification from feedback and evolution of the ESRI BPA make the Web site dynamic and encourage DOI users to periodically view it for changes. Maintaining this Web site also limits the

contractual type questions posed by DOI staff to ESRI, which is a factor in keeping ELA costs down.

The operational experience of the COTR allows other administrative support staff to be more efficient. For example, the CO does not have the time to stay current with such complex technology, so the COTR does the vast majority of the work in developing and maintaining terms and conditions of the DOI ESRI BPA. This greatly minimizes the CO's activities and essentially limits the involvement to direct negotiations and official activities with the BPA. The vast majority of communications between ESRI and DOI also involve the COTR and other EGIS staff, again limiting the effort of the CO and ensuring software licensing terms are understood and clear to DOI. Direct coordination between the COTR and EGIM representative also limits the time needed for financial support staff. The COTR stays current with each bureau's usage of ESRI GIS software, which relates to the amount of their contribution to the yearly ESRI ELA fee. The funding commitments are also closely monitored by the COTR so the financial support staff has a greatly reduced task load, essentially only processing the paperwork to transfer funds.

Figure 2
DOI Support Costs from USGS Personnel

	Hours/Year	Salary Costs
Lead COTR, Project Manager, GS-13	500	$27,500.00
Contracting Office, GS-13	80	$4,500.00
Junior Proj. Mgr., Web Admin., GS-11	200	$6,500.00
Office of Finance Personnel, GS-9	80	$2,500.00
Totals	**860**	**$41,000.00**

Similar to the experience of BLM administration costs on the DOI hardware contracts, the above costs are 0.8 percent of the entire DOI ESRI ELA fee. DOI OCIO has also analyzed ELA administrative costs and determined them to be approximately 1.2 percent of the total fee to administer the four major ELAs.

Challenges   Staying current with the ESRI software and associated software and hardware technology is very difficult and time consuming. It would be optimal to have a COTR who also uses the ESRI technology in applied science or other DOI-related applications, but the time commitment involved in technical support coordination, software distribution, and USGS HQ and DOI administrative activities makes this nearly impossible. Operational experience with software deployment is more important for the role of the COTR because that activity is more directly related to how the software products are licensed. This allows the COTR to thoroughly understand licensing options proposed by the vendor and do better economic analysis for DOI on the software's usage.

J-9722

Conclusion   Due to its efficiency and cost-effectiveness, the ESRI ELA is the only software procurement currently utilized by all eight bureaus in DOI. It is the most cost-effective ELA used by DOI, accounting for approximately 58 percent of the published cost savings over General Services Administration costs of the five major software agreements used by DOI.

Figure 3
Software ELA Highlights
DOI & GSA Cost Comparisons for Basic ELA Offerings
(Minimum Seat Enrollment Required)
(Dollars in Millions)

Software Products	Actual DOI Cost	Comparable GSA Cost	DOI $ Savings Over GSA	DOI % Savings Over GSA	Duration of ELA
Oracle	$6.31	$12.92	$6.61	51.16%	05/24/01–05/24/06
Microsoft	$20.08	$30.35	$10.27	33.84%	09/30/02–10/31/05
Symantec	$1.47	$2.78	$1.31	47.12%	09/30/03–09/30/06
ESRI	$25.50	$59.00	$33.50	56.78%	10/01/03–09/30/08
Maximo	$2.64	$9.11	$6.47	71.02%	09/30/02–09/30/05
Subtotal	**$56.00**	**$114.16**	**$58.16**	**50.95%**	

The main factors for the success of DOI's ESRI ELA are as follows:

■ The COTR is bureau based and has direct operational experience implementing the ESRI ELA.

■ The COTR's experience makes other administrative personnel more efficient.

■ Each bureau is responsible for its internal technical support and software deployment to better meet its requirements.

■ ESRI passes the cost savings from CSS activities, mainly technical support and software distribution, to DOI.

■ Continual communication between the COTR and DOI EGIM representatives ensures DOI mandates, as well as the requirements of each bureau, are met in the terms and conditions of the ESRI BPA.

Appendix C: The Department of Homeland Security Enterprise License Agreement

The Department of Homeland Security and the Geospatial Management Office

DHS provides the unifying core for the vast national network of organizations and institutions involved in efforts to secure our nation. This exceedingly complex mission space requires DHS to protect, prevent, deter, and respond to both terrorist attacks and hazards that may face the nation.

Dictated under the Intelligence Reform and Terrorism Prevention Act of 2004 and later established through DHS Management Directive 4030, under DHS OCIO, GMO exercises executive leadership to coordinate the efficient management of geospatial information technology across DHS programs, systems, and initiatives. With this mission in mind, GMO works closely with mission owners and operators to understand their geospatial requirements, increase interoperability, and prevent unnecessary duplication of investment.

DHS Enterprise License Agreement and Agency Central Support

In an effort to consolidate existing departmental GIS software maintenance costs and provide improved GIS software accessibility, DHS executed an ELA with ESRI during the summer of 2006. Recognizing substantial additional benefit, DHS also joined other federal agencies by also electing to have its ELA with ESRI included under the General Services Administration existing government-wide software procurement vehicle known as SmartBUY. This ELA (and the additional SmartBUY benefits) enable DHS employees and its direct contractors to have unlimited access to software products listed on ESRI's GSA Schedule A product catalog. Available software products and features include but are not necessarily limited to

- ArcGIS Desktop (ArcInfo, ArcEditor, ArcView)

- Extensions to ArcGIS (Spatial Analyst, 3D Analyst™, Geostatistical Analyst, etc.)

- Developer tools (including ESRI Developer Network [EDN^SM] and ArcGIS Engine Runtime)

- ArcGIS Server (including ArcSDE and ArcIMS)

- Prenegotiated discounts on ESRI instructor-led training courses and software products on ESRI's GSA Schedule B listings. (ArcGIS Tracking Analyst, Tracking Server, ArcGIS Business Analyst, etc.)

- Designated callers for DHS direct access to ESRI technical support

- Limited number of free passes to the ESRI International User Conference

- Unlimited access to Virtual Campus training courses authored by ESRI

- Ability to provide GIS software to requesting state/local end users within presidentially declared disaster areas

The distribution of ESRI software and governance of the DHS ELA with ESRI is facilitated by GMO. Additionally, GMO has identified eight designated ACS points of contact throughout DHS to assist with the management of software licensing and installation and to provide initial (tier 1) technical support to component end users. Members of the DHS ACS team meet once a month to exchange effective practices for software deployment, discuss administrative/operational issues related to the ELA, and receive regular technical demonstrations from ESRI staff regarding the latest in GIS software functionality. These meetings also serve as an opportunity to transfer knowledge between DHS components regarding geospatial systems being developed or already in use within the department.

DHS Resources   In addition to the background information and general description of the DHS ELA described in the preceding sections, DHS GMO can provide additional information relating to its agreement with ESRI. Contact GMO@dhs.gov for more information.

ESRI
380 New York Street
Redlands, California
92373-8100 USA

Phone: 909-793-2853
Fax: 909-793-5953
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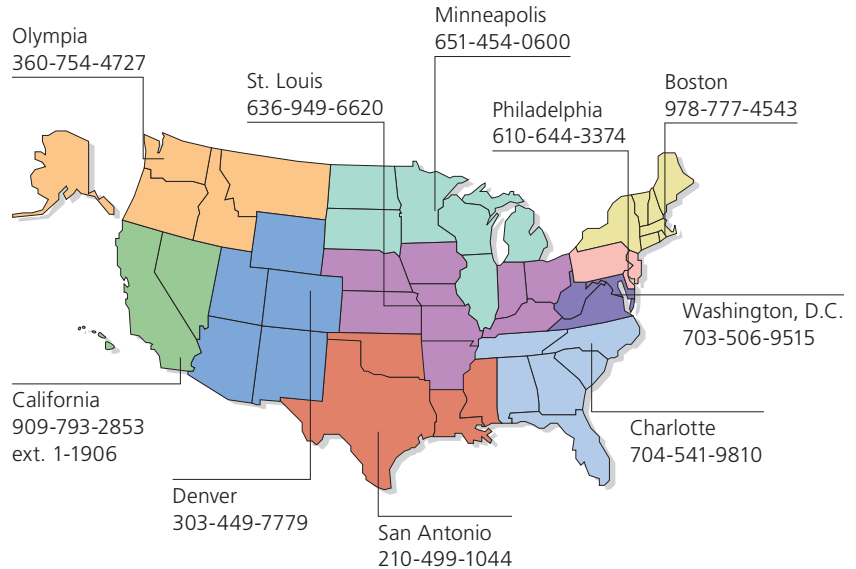
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