Preparing for Implementation: Organization Cooperation & Security Review

Discussion Questions (100 points)

Learning Objectives (when completed the student will be able to…)

1. (40 points) Prepare a list of possible organizational cooperators for a fictitious fire department.

2. (20 points) Suggest similar organizational cooperators for the Valles Caldera.

3. (40 points) Perform a security review of a fictitious fire department.

Fire Department Cooperation Questions (40 points)

Scenario

For this exercise, recall and consider the fire department case study used in earlier examples and exercises. First, review their mission statement.

Fire Department Mission Statement

Our role is to protect our community, environment, and property from the impacts of fire by:

- adopting and encouraging fire prevention
- detecting fires early
- responding rapidly to incidents to reduce the consequences of fire

Our work will be undertaken in partnership with the community, to customer-focused standards at the forefront of international best practice, and with regard for financial stability.

Step 1: Consider interorganizational relationships.

Answer the following questions:

1. With which organizations do you think the fire department has interactions?

The organizations have to be with emergency response, hospitals, and government to figure out the layout of the whole city.

2. What form might these interactions take? For example, do the interactions include data sharing, common data formats, or data collections?
Data collection is with the government because of the layout of the city. Data sharing deals with different fire departments in the city, and common data formats will have to deal with both the government and the fire departments to help ease response time when it requires a collaboration to help pinpoint fires. Hospitals require data collection because there must be a place to take people that are in trouble.

Valles Caldera Cooperation Questions (20 points)

Scenario

For this exercise, recall and consider the Valles Caldera GIS. First, review their mission statement.

Step 1: Consider interorganizational relationships.

Answer the following questions:

1. With which organizations do you think the fire department has interactions?
Valles Caldera has to work with forest rangers to pinpoint fires and also figure out where to propose controlled burn areas. They also have to work with emergency response (fire, ambulance, etc.) to pinpoint exact locations that have problems.

2. What form might these interactions take? For example, do the interactions include data sharing, common data formats, or data collections?
Data sharing has to deal with everybody noted above because they all serve a purpose to helping people. Common data formats would deal specifically with forest rangers and fire departments simply because they deal with the same problems. Data collections deal with all agencies simply because they all have specific locations and areas to deal with and also need the shortest amount of time to deal with these problems.

Fire Department Security Review Questions (20 points)

Scenario

In this exercise, you'll review a sample security review document for the fire department system, then be asked to provide recommendations for physical, logical, and archival security measures.

Step 1: Review Fire Department System Document

Review the fire department system described below and consider these factors:

1. Physical security

2. Logical security

3. Archival security

A Simple Fire Department System GIS Implementation

Overview

The planned fire department GIS will display, at various scales, maps of the department area. It will be possible to place icons on these maps representing incidents and the resources allocated to them. Users at individual fire stations will be able to obtain the following information products:

1. a view of all the incidents in the area for which they are responsible

2. the status of those incidents

3. details of the resources dispatched to deal with these incidents

The information products will be used to ensure efficient handling of real time incidents and to analyze patterns and trends in incident occurrences over a period of time. The planning section within the fire department will have to assume the new role of data analysis.

The fire department has a realistic budget allocation for GIS this year, but is expecting its income from public funds to be dramatically reduced in the next fiscal year. It must, therefore, purchase all necessary capital items this fiscal year. Due to budget cuts, the fire department expects to begin negotiations shortly to relocate a number of its stations. By selling current high-value fire station sites, the fire department will be able to buy lowervalue sites for additional stations in the area. Construction at these new sites is not yet underway.

Data

Base maps will be obtained from a subcontractor. The subcontractor will produce a base dataset from scanned images and provide it on CD-ROM.

Address data is shared with other emergency services and the planning department. The fire department receives updates on a weekly basis and must provide details of errors and corrections as part of the arrangements for sharing of this dataset. There is no established access control to the data.

Other necessary data will be produced and provided by the fire department.

Technology

All data will be stored in-house on a server, with access provided to individual end users via PC terminals. A limited number of Windows® NT™ workstations will be used for database maintenance and analysis operations. A separate vendor will be used for GIS software. Fire department vehicles will be equipped with innovative and specially developed in-cab facilities for displaying and querying maps. The fire department has a preferred vendor for hardware and is standardizing on the Windows operating system for end users.

Step 2: Consider physical security

Based on your review of the fire department's GIS implementation, think of some recommendations for physical security.

List your recommendations for physical security below:

Physical security basically means having some sort of system protecting the servers. Clearly there must be some form of identification to protect against people that shouldn't be in the area of the server in the first place.

Step 3: Consider logical security

Based on your review of the fire department's GIS implementation, think of some recommendations for logical security.

List your recommendations for logical security below:

Watch out for hackers trying to recognize problem areas and also trying to find specific addresses.

This will help in preventing people from hitting the same area again.

Step 4: Consider archival security

Based on your review of the fire department's GIS implementation, think of some recommendations for archival security.

List your recommendations for archival security below:

I would suggest watching out for people that want to know specific addresses that have had problems with fire, etc.

History plays a huge role in showing the problem areas so clearly there must be systems and restrictions in place to prevent unauthorized access. This will help prevent people from learning about unnecessary problem areas.

Methods:

1. Fill in this document with your answers. Rename the document to "MyName_Lab07." Return it through the assignment tool in Blackboard.

GRADING:

Posts: Very good post (insightful) = 100 points, Good post (complete but not insightful) = 85 points, Poor Post (incomplete and/or irrelevant, or just poorly thought out) = 70 points. No Post = 0 points.