CNT 4603: System Administration Spring 2011

Project Two

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Project Two: Overview

- **Title:** "Project Two: Active Directory Planning and Design"

- **Points:** 30 points

- **Due Date: Friday February 11th by 11:55 pm (WebCourses time)**

- **Objectives:** To gain familiarity with the issues surrounding the planning and design of an Active Directory for an organization.

- **Note:** This project will not involve the use of either Virtual PC or Server. This project is purely a design oriented project and will not deal with implementation issues per se.

Project Two: The Scenario

- What you are going to do in this project is pretend that you are the system administrator for an organization that has decided it will be upgrading its server infrastructure to Windows Server 2008. As the system administrator you will be in charge of several tasks related to this upgrade.

- The next couple of pages describe the basic structure of the organization and what the project will entail.

Project Two: The Scenario

- Advanced Network Technologies (ANT) makes network hardware and develops networking software solutions. Over the past ten years this company has pioneered several new technologies in network related devices and techniques, which have spurred rapid growth for the company.

- The company has one large office, research, and manufacturing complex in Chicago. This complex is divided into the following divisions: Business, Research and Development, Manufacturing, and Distribution. Parts manufacturing centers are located in Toronto and Montreal. ANT also has seven outlet stores in New York City, four outlets in Chicago, and two in Montreal. Each outlet store has a WAN connection to the central office computer center in Chicago.

- Due to an internal administrative decision several years ago, there is only one forest and domain for the company.

Project Two: The Scenario

- ANT is engaging in a full upgrade of its Windows Server 2003 network to Windows Server 2008. The upgrade includes using Windows Server 2008 Active Directory.

- ANT has pioneered many technological innovations and is very concerned about keeping its network and computer systems secure. As a system administrator in the ANT Information Technology (IT) department you are being charged with a number of tasks related to this upgrade.

- We'll break this project into two phases: phase 1 will focus on the AD installation planning and phase 2 will focus on the design of the AD.

Phase One – Planning the AD Installation

- The ANT IT department has formed a small installation planning committee consisting of the IT server operations manager, two system programmers, the current Active Directory administrator, and you. After the first meeting you've been assigned the task of preparing a small report to address the following questions:

- Based on the information covered in the three sets of lecture notes dealing with AD (Active Directory Parts 1, 2, and 3), what type of detailed information will be needed about the current ANT infrastructure and systems for the upgrade to proceed smoothly?

- What special considerations exist in terms of having both Windows Server 2003 and Windows Server 2008 servers as DCs?

Phase One – Planning the AD Installation

- For this phase, put your answer in terms of the domains, trees, and forests that might already be in place in the organization's structure and whether you consider it advisable to create a new domain in a new forest or to join as a new domain in an existing forest.

- Provide a justification for each decision that you make in terms of what information you deem important and how it may/may not affect the new AD structure/design.

- Comment on what domain names to use and whether a disjointed or continuous namespace would be the better choice.

- What about domain controllers?

- Provide some details about the desired forest functional level (the last bullet on the previous page).

Phase Two – The AD Design

- As mentioned earlier, due to an administrative decision several years ago, there is only one forest and domain for this company.

- Given what you know about the company's basic structure, how many forests, trees, domains, and OUs do you recommend?

- Do you recommend any sites? (Note that there are four IP subnets at the Chicago complex and two IP subnets at each of the Toronto and Montreal locations.)

- Create a (brief) report describing your recommendations and create a diagram of your proposed design.

- As before, justify each of the decision/recommendations that you make.