# CIS 297 Capstone Project 11-28-16

Class members are to organize into small teams, each with a "Project Manager" guiding elements of the overall project. Each week, highlighted components of the project are to be discussed among and between the group members in "team meetings," in order to complete the project two weeks prior to the end of the class term. A week prior to finals, there will be a "Department Wide" presentation in which a functioning network will be included in a student presentation displaying the process of completing the project starting from the RFP to the successful functiong miniture network. Each team will have a designated Project Manager while all students will participate in all teams. Teams required in order to address the RFP include the following:

- **Research and budgets** = Identify vendors, product costs and support contract fees for all materials to address RFP.
- **Server Implementation** = Identiiify specifications and design opions for Servers hosting Websites, Video Conference System, Databases and other elements pertatining to the RFP.
- **Cisco Device Implementation** = Identiiify specifications and design opions for routers, switches, Internet Service Providors and network related cabling.
- **Website Design** = Design and develop afunctional website which applies to the requrement of the RFP.
- **Database Design** = Create realtime interactive database which supports imput and display of orgainizational tracking chractertics including, First and Last name, Locations, Titles, Phone Numbers, Offices, etc.
- **Maintaniance and Infrustructure Support** = Design support structure for network and infrastructure including aspects of required staffing such as "Network Administrators", "Computer Repair Techs" and "Third-Party Vendor Support".

The items and services below will be created in a group project in which all the students in the Network Technology Capstone will participate in assigned teams. Students are to read a Request for Proposal, design a plan of implementation, divide up tasks between team participants and create a functioning representation simulating a company encompassing three different states that are all interconnected. At the conclusion of the impelelementation phase, the class will present a functioning network display to outside technology business representatives, community college faculty and interested students. The terms below describe elements required for students to master as well as concepts to be used in the midterm and/or final exam in CIS 297.   Responding to a Request for Proposal, the student teams must perform the following activities:

Create a three-city Wide Area Network inclusive of the following components:
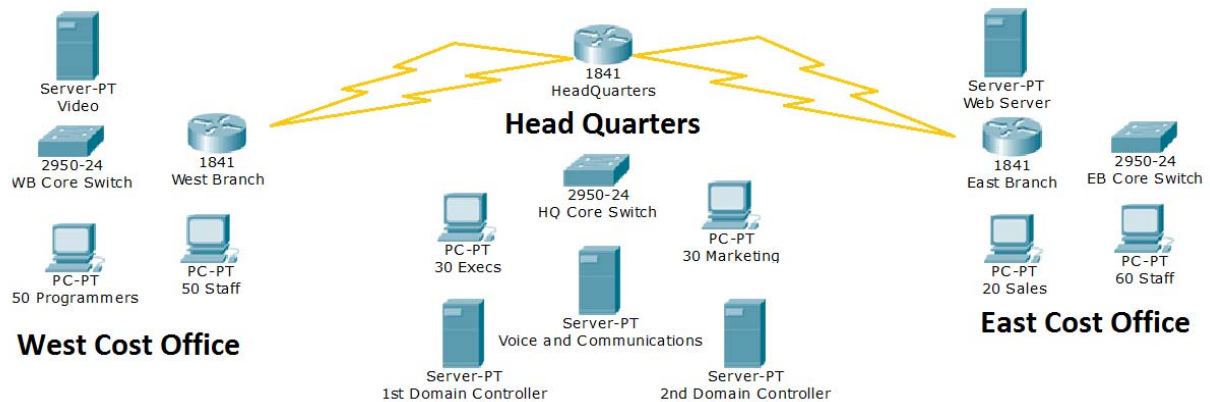
- Microsoft-based Security Domain (Called "Active Directory")
- Network Operations, Security and Support Services Structure
- E-mail Server and Print Server
- "FTP-Type" File Server with document encryption Services
- Telephone (VoIP) and Video Server
- Security Group Policies
- Roaming Profiles and Network Drives
- Application or Terminal Services Server
- Interactive Employee Database
- Company Website
- Three Routers connected via Serial High-Speed Connections
- Three Switches utilizing Vlans and Variable length Subnet masks
- 12 Functioning desktops (Simulating three hundred users)
- Optional Elements such as Linux Servers and wireless Access Points