University of Maryland
University College

Project Instructions

You have been recently hired as a network security analyst for a small accounting firm. The firm realizes that it needs help to secure its network and customers' data. With your background and skills, the firm is looking to you to provide guidance. In addition to helping the firm secure its network, the firm requires that you obtain your CompTIA Security+ certification within 60 days of being hired.

In addition to the owner, who serves as the overall business manager, there are about 20 people on staff:

➢ 10 accountants
➢ 3 administrative support specialists
➢ 1 vice president
➢ 1 financial manager
➢ 2 interns

There is also one IT support technician on staff, who has basic computer hardware and networking knowledge. He has requested that the firm create a website, hosted internally, so that new customers can get information about the firm. This will be important to remember as you complete your final project.

The firm has a simple network. There are 20 computers and two multipurpose printers. All computers and printers are connected wirelessly to a NETGEAR MR814 device. This router is connected to a Motorola SB3100 cable modem. Staff email accounts are set up through the company's Internet provider. Employees use a combination of Microsoft Outlook and standard web browsers to access their e-mail. The owner uses his personal iPad during work hours to check and respond to email messages.

Prior to your hiring, the firm hired a network cabling contractor to run Cat 6 cables from the central wiring closet to all offices and cubicles. The firm wants to move away from using wireless as the primary network connection, but wants to keep wireless access for customers coming to the building. The technician who did the wiring mentioned to your supervisor that he should look into setting up a Windows Server domain to manage user access, instead of the current peer-to-peer network. He also recommended that the firm invest in a managed switch and a firewall, and look into having some backups. The internal IT support technician agreed with these recommendations but needs your help to implement them.

You've been asked to assess the current vulnerabilities and provide a recommendation to the firm's owner on how to better secure the network infrastructure. Now that you are aware of the firm's history, your assessment and recommendation should provide specifics about the network security settings that must be implemented and the equipment that must be procured, installed, and configured. The firm's owner has a basic understanding of computing, so it is important that you explain the technical issues in layman's terms.

In this learning demonstration, you will use TestOut Security Pro to help you understand how to identify and assess network infrastructure and pass the CompTIA Security+ certification. In order to identify your strengths and weaknesses, you will first complete the practice exam that will prepare you for the certification. The learning materials within LabSim will help you understand the types of vulnerabilities within a network and how to address them. As you step through each set of activities, you will submit a Vulnerabilities Assessment and Recommendation Document in three parts. Use the results of the certification practice exam you took at the beginning of the class to help guide you on which areas within LabSim you should pay closer attention. You must complete all online labs in LabSim; these are the activities with the computer mouse icon. Some of the other areas in LabSim are optional. You can complete any or all of those if you feel you need to learn more about the topics.

There are nine steps in this project that lead you through each deliverable. Begin with Step 1, obtaining access to TestOut Security Pro and enrolling in LabSim, and then continue with Step 2, taking the practice exam.

66.67 % 4 of 6 topics complete

Steps to Completion

How to Access the Practice Exam - Video

LabSim Instructions

Turnitin Instructions

Vulnerabilities Assessment and Recommendation Document (Parts 1-3)

Project Template for Parts 1-3