

Assignment 3 – Instructions

Please consider the following scenario as providing the context for this assignment. Make all your choices, assumptions, ideas, suggestions, and explanations explicit. Phrase your answers in a professional manner, as you would do in a business/professional environment. Please pay attention to every detail and always answer the questions as precisely as you can.

Submission guidelines: While comprehensibly preparing your answers to the questions below is important, please also try to be as concise as possible in order to limit the amount of extraneous information and the length of your submission. The expected length of a complete submission is not more than 1 or 2 pages. Please record your answers in a MS Word file, name that file using the format Group#.docx (e.g. Group1-A3.docx), upload it to your group folder, and give me a printed hard copy in class.

Scenario:

You are a networking and communications consultant working for HoustonComm Systems, Inc, further referred to as HCS. HCS is a company providing technology consulting services to start-ups and established large companies in need of such services. Recently HCS has been approached by the Division of Computing and Mathematics (DCM) at University of Houston-Clear Lake (UHCL). DCM wants to set up a new computer lab with the characteristics listed below and is seeking your help in the area of network security.

Computer Lab characteristics:

Hardware

- 28 workstations
- 28 laptop computers
- 1 network printer
- 6 switches (various types)
- 6 routers
- 1 gateway
- 2 local physical servers with 2 virtual servers each for a total of 4 servers available
- 2 racks with networking equipment
- Cables will run from individual workstation to the racks but no fixed networking configuration will be used. The cables can be connected in different ways to various networking equipment and this flexibility will be used as a didactical tool.
- The laptop computers are intended as devices that can be checked out for long periods of time (months) and can be connected wirelessly to the computer lab servers and used for semester-long projects.
- The computer lab will have one connection to the local BN through equipment located in another room.

Software

- Virtual server software on physical servers
- NOS on servers
- Dual operating systems on individual workstations
- Common workstation software

Task:

Please identify a minimum of **10 distinct threats** (4 or more intrusion, and 6 or more disruption, disaster, destruction) for the provided context. Please also identify a minimum of **6 distinct assets** to be protected and assign them **priorities**. With this information, prepare a control spreadsheet and specify a minimum of **12 distinct controls** that you suggest be considered in order to address the impact of the identified threats on the assets.

Please make all assumptions explicit and explain any and all suggestions that are not very simple, clear and straightforward.

Include in your final deliverable the control spreadsheet and any explanations needed for making it clear. There is no need to provide written content for the identification of assets, threats, or controls unless there is an obvious need for more clarity.