Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Network Operating Systems and Services (NOSS)

(ACCA5023)

Worksheet 4

ROUTING AND PACKET FILTERING WITHIN CORE TCP/IP SERVICES AND CRITICAL FAILOVER/REDUNDANCY PRACTICES

Objectives:

•This component of the assessment is divided into two diverse areas.

•Firstly, you are expected to incorporate Routing and Remote Access Services into your scenario. The role of ARP, Routing Tables and Routing Protocols is demonstrated. This will also require the deployment of example core TCP/IP services. Then the role of Firewalls (software) through IP Packet Filtering is utilised to show how inbound and outbound traffic to the network can be filtered for enhanced security.

•The second part of the assessment requires an independent research element into the role of Failover Clustering in enterprise networks. This will require a more detailed understanding, by your attempting to configure the role and detailing the necessary 'prerequisite' technologies and resources for successfully implementing a high availability solution. NB: You are not expected to demonstrate a fully working Failover Cluster, but you are however expected to provide as much detail as possible as to 'how' this role can be implemented into the network. Also why it is of such critical importance.

NB: YOU ARE REQUIRED TO SCREEN CAPTURE THE COMPLETION OF THESE TASKS IN EVERY WORKSHEET AS YOUR EVIDENCE OF UNDERTAKING THE TASKS REQUIRED. PRACTICE USING THE SNIPPET TOOL AND CAPTURE EVIDENCE AND BUILD YOUR WORKSHEETS USING A WORD PROCESSING PACKAGE SUCH AS MICROSOFT WORD. YOU SHOULD PROVIDE SUITABLE NARRATIVE ALONGSIDE THE SCREEN CAPTURES TO IMPROVE THE QUALITY OF YOUR PRACTICAL TASKS.

Task 1: Utilising ARP and Routing Tables

Task 2: Remote access to Server from Client

Task 3: Installing and configuring the Routing and Remote Access Service

Task 4: IP Packet Filtering

Observational Tasks

NB: You should use a proper referencing style here when submitting your answers.

Observational Tasks

4) How do Router's reference which networks they are able to connect to?

5) Discuss in detail about the failover Clustering and its role within the Window Server OS environment

6) Discuss the importance of network security policies and maintenance as a Network Administrator of an Enterprise Network which operates in multiple locations nationwide.