IMMERSIVE LEARNING ENVIRONMENT

LAB: BASIC ARP PROCESS

LEARNING OBJECTIVE

The objective of this lab is for students to gain knowledge on Basic ARP process. This document provides basic essential knowledge on ARP process and how it helps in network communication.

DESCRIPTION

ARP stands for Address Resolution Protocol. It is a protocol for mapping an IP (Internet Protocol) address to a MAC (Media Access Control) address that is recognized in the local network. An ARP cache table is usually used to maintain records of each MAC address and its corresponding IP address.

When an incoming packet destined for a host machine on a particular local area network arrives at a gateway, the gateway asks the ARP program to find a physical host or MAC address that matches the IP address. The ARP program looks in the ARP cache and, if it finds the address, provides it so that the packet can be converted to the right packet length and format and sent to the machine. If no entry is found for the IP address, ARP broadcasts a request packet in a special format to all the machines on the LAN to see if one machine knows that it has that IP address associated with it. A machine that recognizes the IP address as its own returns a reply so indicating. ARP updates the ARP cache for future reference and then sends the packet to the MAC address that replied.

COMPONENT SECTIONS

- Game file/folder name: ARP game
- Movie file name: ARP Movie
- Power Point file name: Basic ARP.ppt
- Assessment file name: Basic ARP Quiz.doc

WHAT TO SUBMIT

Submit the quiz document by answering all the questions.