

Blue Team Level 1 Certification (Standard)

- Welcome to Blue Team Level 1!
- 4 Topics
- Lab and Forum Access

SECURITY FUNDAMENTALS DOMAIN

- Introduction to Security Fundamentals
 - 1 Topic
- Soft Skills
 - 7 Topics
- Security Controls
 - 5 Topics | 1 Quiz
- Networking 101
 - 6 Topics | 1 Quiz
 - Section Introduction: Networking 101
 - Network Fundamentals
 - The OSI Model
 - Network Devices
 - Network Tools
 - Ports and Services
 - Activity: End of Section Review: Networking 101
- Management Principles
 - 4 Topics | 1 Quiz

PHISHING ANALYSIS DOMAIN

- PA1) Introduction to Emails and Phishing
 - 7 Topics | 1 Quiz
- PA2) Types of Phishing Emails
 - 10 Topics | 2 Quizzes
- PA3) Tactics and Techniques Used
 - 12 Topics | 2 Quizzes
- PA4) Investigating a Phishing Email
 - 8 Topics | 2 Quizzes
- PA5) Analysing URLs, Attachments, and Artifacts
 - 8 Topics | 1 Quiz
- PA6) Taking Defensive Actions
 - 12 Topics | 1 Quiz
- PA7) Report Writing
 - 7 Topics | 1 Quiz
- PA8) Phishing Response Challenge
 - 3 Topics | 1 Quiz

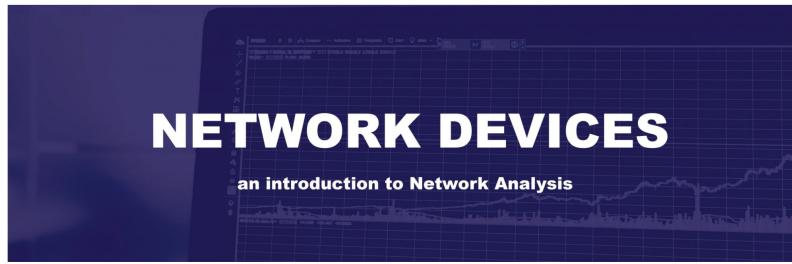
THREAT INTELLIGENCE DOMAIN

- TI1) Introduction to Threat Intelligence
 - 7 Topics
- TI2) Threat Actors & APTs
 - 6 Topics | 2 Quizzes
- TI3) Operational Threat Intelligence
 - 7 Topics | 1 Quiz

Network Devices

Blue Team Level 1 Certification (Standard) > Networking 101 > Network Devices

COMPLETE



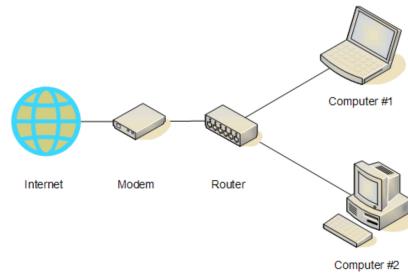
When we talk about network devices, what comes to mind first? You're probably thinking about routers and firewalls, and whilst these are present in essentially every network, there are a number of other devices that are used to create infrastructure within businesses, providing them with IT systems that can communicate and help business operations. Most networks are small, such as your home network and office networks, and even bigger networks are broken down into smaller ones.

We will cover the following network devices in this lesson:

- Switch
- Router
- Hub
- Bridge
- Firewall

Router

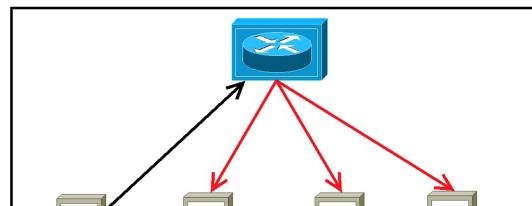
A router is a network device that forwards data based on a logical address. In the case of TCP/IP networks the router would forward data based on IP addresses of systems. If you're on your home network and want to visit Google.com, your request will go to the router (DNS will convert the domain name Google.com into the IP address), and your request will be sent over the internet to the Google.com web server IP.



http://www.geekswoknow.com/articles/wired_and_wireless_routers.php

Hub

A hub is a network device that connects all devices on a Local-Area-Network or LAN. When a system sends data to the hub on one port, the hub will broadcast these to all other attached devices (see image below). Hub's can be referred to as "dumb" devices, because they do not understand who is the intended recipient of the data that has been received, so it sends it to all devices. Although the data will eventually reach the intended system, it generates unnecessary traffic, and can also allow attackers to steal data. If an attacker is connected to a hub, whenever any connected host sends data, it will be sent to every other host, including the attacker's machine!



TI4) Tactical Threat Intelligence

7 Topics | 2 Quizzes

TI5) Strategic Threat Intelligence

5 Topics | 1 Quiz

TI6) Malware and Global Campaigns

6 Topics | 1 Quiz

DIGITAL FORENSICS DOMAIN

DF1) Introduction to Digital Forensics

5 Topics

DF2) Forensics Fundamentals

10 Topics | 5 Quizzes

DF3) Digital Evidence Collection

8 Topics | 1 Quiz

DF4) Windows Investigations

3 Topics | 3 Quizzes

DF5) Linux Investigations

4 Topics | 2 Quizzes

DF6) Volatility

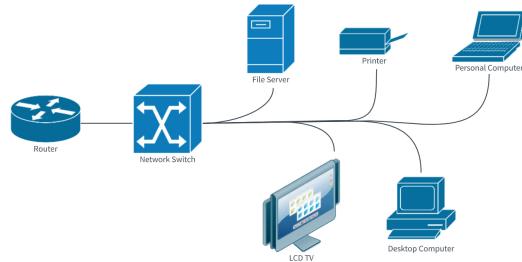
3 Topics | 1 Quiz



<https://geek-university.com/ccna/what-is-a-network-hub/>

Switch

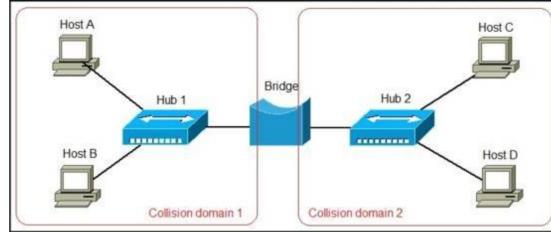
A switch works as a smart version of a hub, because it actually understands where to send data, instead of sending it to everyone. It achieves this by using MAC addresses as unique identifiers for recipients of incoming data, so it can send it to the right system. In this diagram below, if the Desktop Computer wants to print a document, they would send the request which would reach the Network Switch, which will know to send it to the Printer as the Desktop Computer will include the MAC address in the request (which is gained by using Address Resolution Protocol, or ARP).



<https://www.lucidchart.com/pages/templates/network-diagram/network-switch-diagram-template>

Bridge

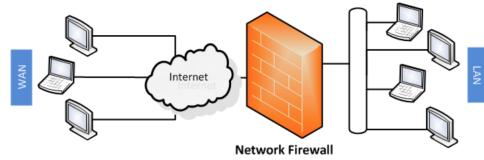
A network bridge device works to connect separate networks to make them into one larger network. This is different than a router, which allows networks to be connected but work independently. In the OSI model, bridging works at Layer 2, the Data Link Layer.



<https://geek-university.com/ccna/what-is-a-network-bridge/>

Firewall

A firewall is a network device that provides fundamental network security, by monitoring incoming and outgoing traffic and determining whether to allow or block it, based on rules. Firewalls can come in software form, or hardware form as physical devices that are plugged into network infrastructure. This allow us to create private networks, where only intended communications can come in, or out.



<https://www.wesolveit.co.uk/services/data-security/network-security-management/firewall-unified-threat-management/network-firewalls>

