

# Understand Linux Networking

# **Agenda**



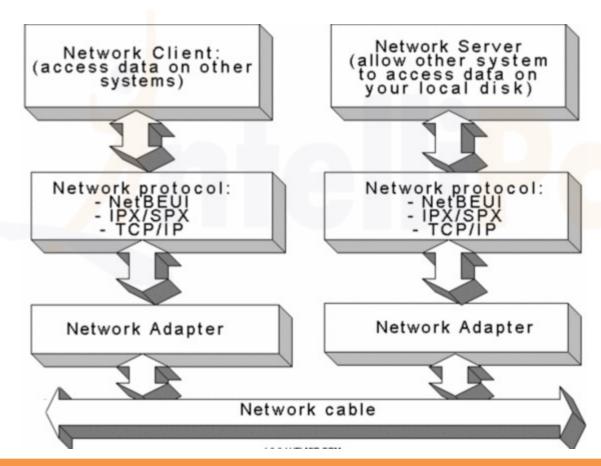
- Networking Basics
- Linux Networking
- Network Hardware
- Network Commands
- Configuring a Network
- DHCP & DNS Concepts



## **Networking Basics**



How two systems communicate over a network:



## **Linux Networking**



TCP/IP stack:

Kernel controls the TCP/IP protocol

Ethernet adapter is hooked to the kernel in with the ifconfig command

`ifconfig` reveals the ip address as well as netmask and broadcast addresses



#### **Network Hardware**



- Typically linux finds the NIC (PCI) at bootup but the administrator needs to tell linux that the card is to be enabled.
- If linux doesn't discover the NIC (network interface card) you must assign the card type, interrupt and base address for the card in the linux kernel.

#### **Network Commands**



- ifconfig
- netstat
- ping
- traceroute
- route

# **Configuring a Network**



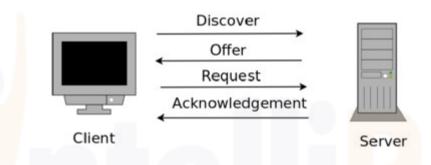
- Configuring a Static IP
- Configuring a Dynamic IP
- DNS client setup
- DHCP client setup



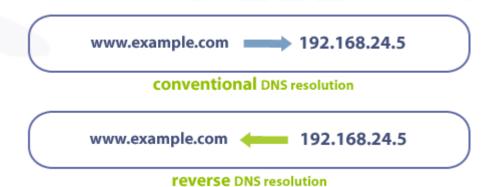
## **DHCP & DNS Concepts**



DHCP



DNS







# Thank You

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