2.3 Data Encapsulation

As you study this section, answer the following questions:

- How does data encapsulation facilitate data transmission?
- What are the TCP/IP encapsulation process steps on a sending host?
- What are the TCP/IP de-encapsulation process steps?
- What are TCP flags?
- How do packets and frames work?

Key terms for this section include the following:

Term	Definition
Transmission Control Protocol (TCP)	TCP is one of the main internet protocols. It allows computing devices and application devices to exchange messages over a network.
Address Resolution Protocol (ARP)	ARP is used to determine the MAC address of the host using the destination IP address.
Maximum transmission unit (MTU)	MTU is the largest size data unit that can be transmitted through the network.

This section helps you prepare for the following certification exam objectives:

Exam	Objective

CompTIA N10-008	1.1 Compare and contrast the Open Systems Interconnection (OSI) model layers and encapsulation concepts.
	• 1.1.2 Data encapsulation and decapsulation within the OSI model context
	  ◦ Ethernet header
	  ◦ Internet Protocol (IP) header
	  ◦ Transmission Control Protocol (TCP)/User Datagram Protocol (UDP) headers

- TCP flags
- Payload
- Maximum transmission unit (MTU)

2.3 Given a scenario, configure and deploy common Ethernet switching features.

- 2.3.8 Address Resolution Protocol (ARP)