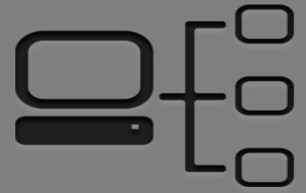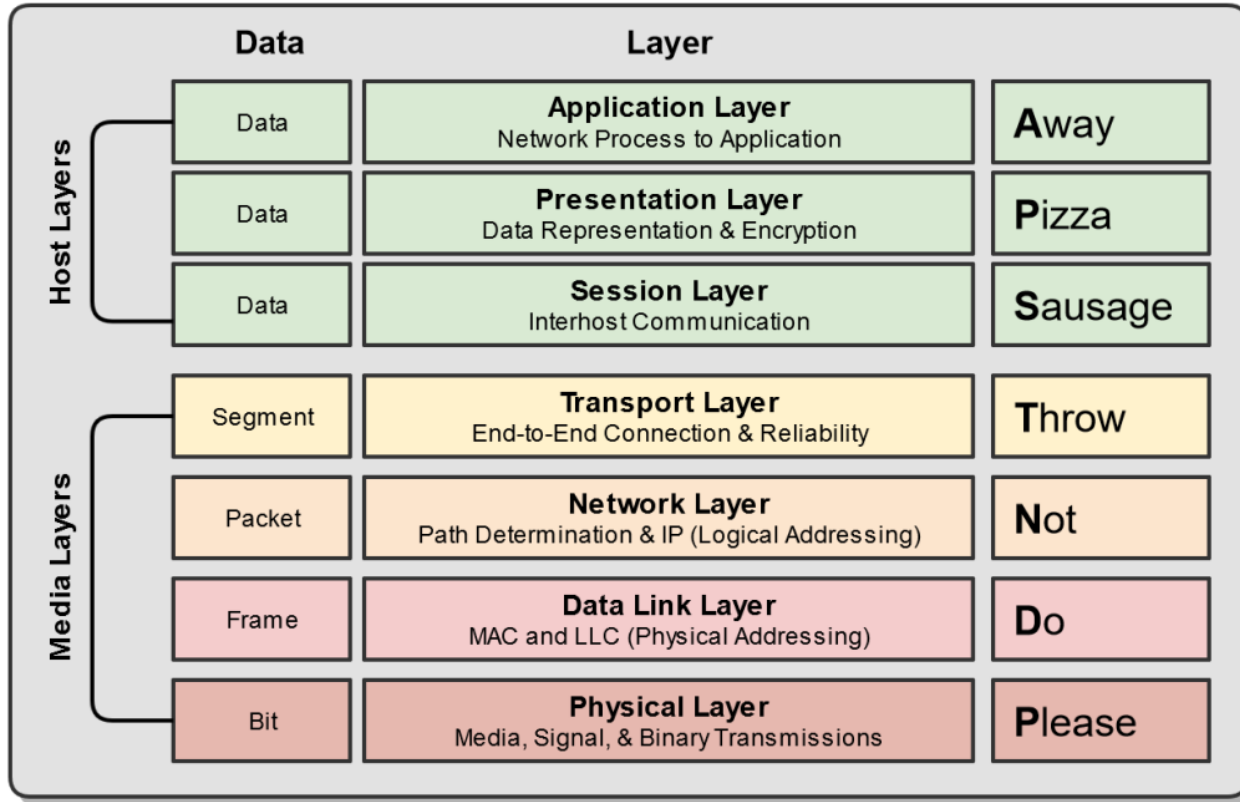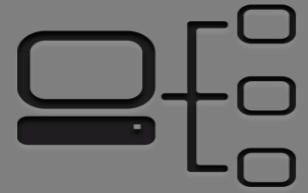# The OSI Model

- **What is it?**
- The *Open Systems Interconnection (OSI) Reference Model*
  - A **conceptual** framework showing us how data moves throughout a network.

- **Why was it developed?**
  - Created to give us a guide to under how networks operate.

- It is only a **reference model**, so don't get wrapped up in the details.

- It is not implemented in the **real world**, TCP/IP is.

The OSI Model Stack

– The OSI Model breaks down the complex task of computer-to-computer network communications into 7 layers.

– **Upper Layers (Host Layers)**

- Handled by the **host computer** and performs application-specific functions, such as data formatting, encryption, and connection management.

– **Lower Layers (Media Layers)**

- Provide **network-specific** functions, such as routing, addressing, and flow control.

The OSI Model Visualized

Data	Layer	
Host Layers		
Data	**Application Layer** Network Process to Application	**A**way
Data	**Presentation Layer** Data Representation & Encryption	**P**izza
Data	**Session Layer** Interhost Communication	**S**ausage
Media Layers		
Segment	**Transport Layer** End-to-End Connection & Reliability	**T**hrow
Packet	**Network Layer** Path Determination & IP (Logical Addressing)	**N**ot
Frame	**Data Link Layer** MAC and LLC (Physical Addressing)	**D**o
Bit	**Physical Layer** Media, Signal, & Binary Transmissions	**P**lease

OSI Communication