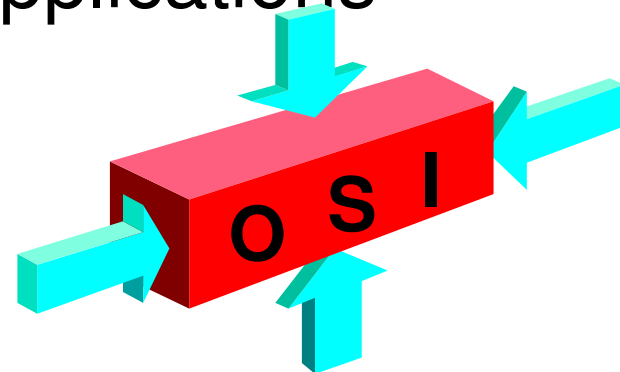


# WHY DO I NEED A STANDARD ?



- Many types of connection media :  
telephone lines, optical fibers, cables,  
radios, etc.
- Many different types of machines and  
operating systems
- Many different network applications

➔ **need for  
a STANDARD in  
communication  
technology:**



# OSI Reference Model



**High Layers: In charge of data transmission between hosts.**

7  
6  
5

**Application Layer**

**Presentation Layer**

**Session Layer**

**Transport Layer**

**Network Layer**

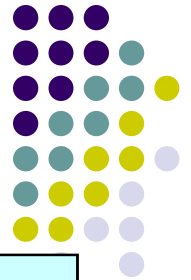
**Data Link Layer**

**Physical Layer**

**Low Layers: In charge of data transmission in network.**

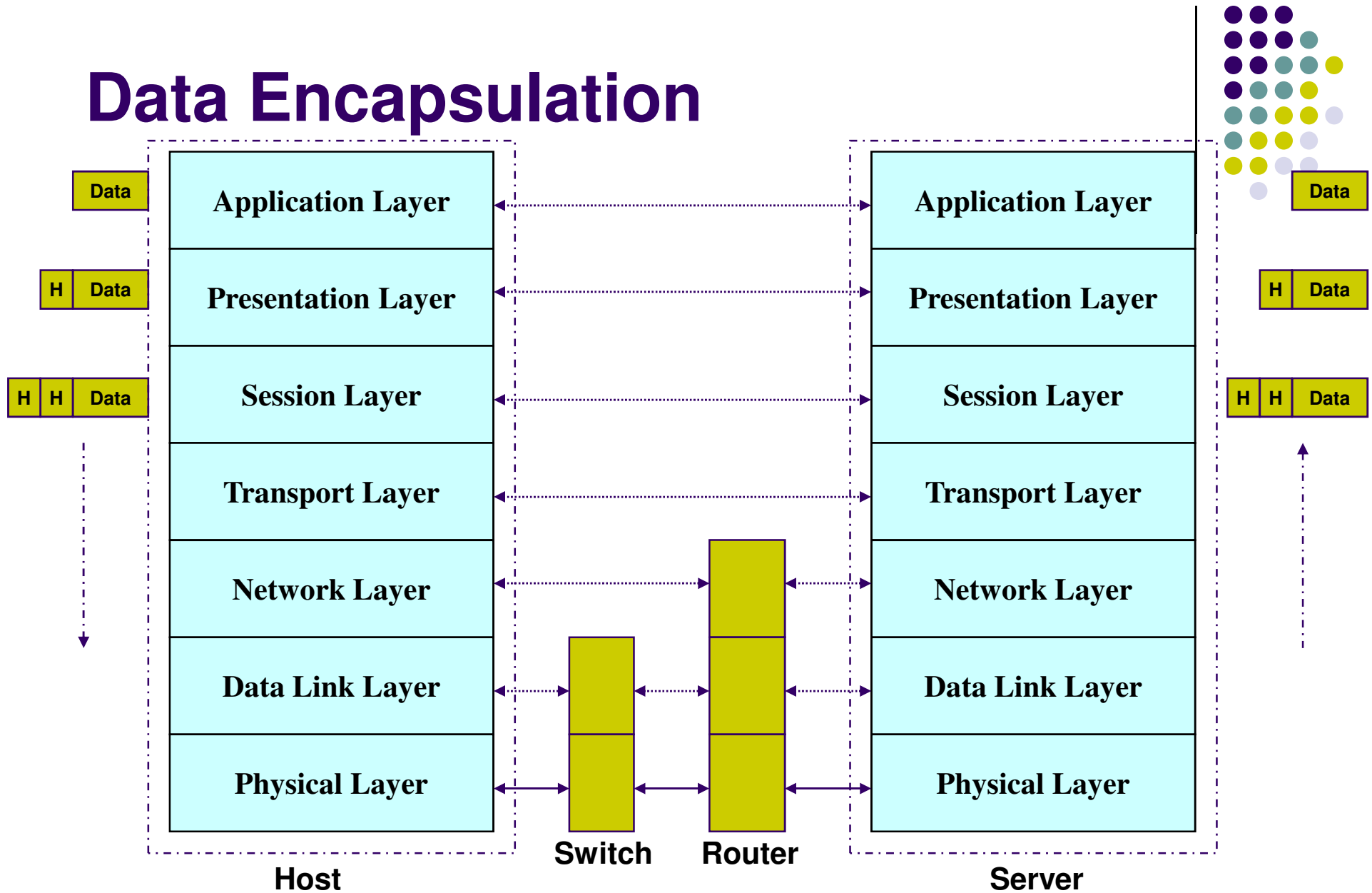
4  
3  
2  
1

# Functions of the Seven Layers



Provide communications between applications.	7	Application Layer
Deal with data format problems.Data Encryption,Decryption	6	Presentation Layer
Establish, maintain and manage sessions. Synchronization	5	Session Layer
Establish, maintain and manage end to end connection. Fragmentation	4	Transport Layer
Addressing and routing.	3	Network Layer
Provide link medium access and link management. Error Detection and Correction	2	Data Link Layer
Bit flow transmission.	1	Physical Layer

# Data Encapsulation



- Data encapsulation and de-capsulation process.