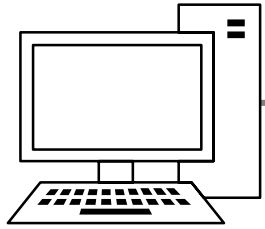
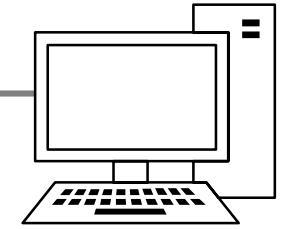


# OSI Reference Model - Encapsulation



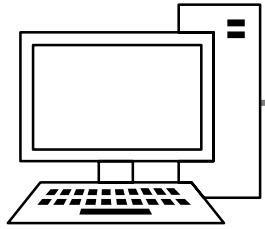
**Sender**



**Receiver**

Layer	Name	Includes	Devices
7			
6			
5			
4			
3			
2			
1			

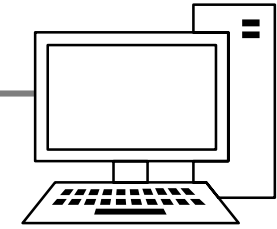
# OSI Reference Model - Encapsulation



**Sender**

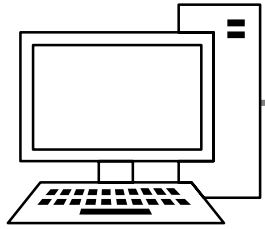


Layer	Name	Includes	Devices
7	Application		
6			
5			
4			
3			
2			
1			



**Receiver**

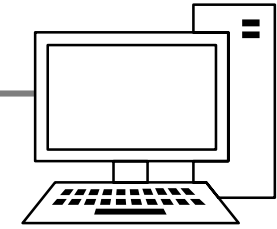
# OSI Reference Model - Encapsulation



**Sender**



Layer	Name	Includes	Devices
7	Application		
6	Presentation		
5			
4			
3			
2			
1			

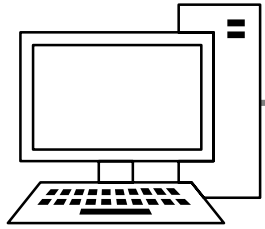


**Receiver**

L6

L7

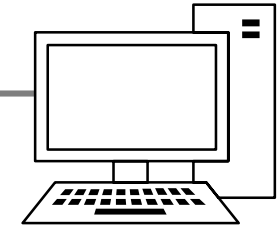
# OSI Reference Model - Encapsulation



**Sender**



Layer	Name	Includes	Devices
7	Application		
6	Presentation		
5	Session		
4			
3			
2			
1			



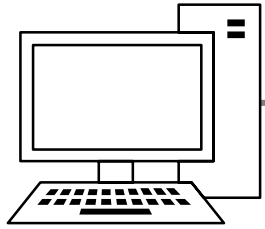
**Receiver**

L5

L6

L7

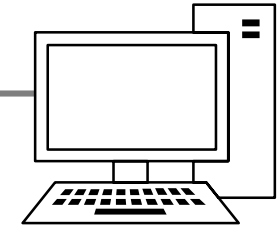
# OSI Reference Model - Encapsulation



**Sender**



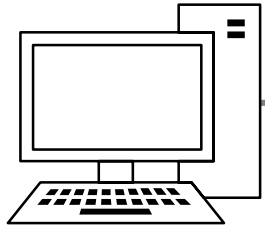
Layer	Name	Includes	Devices
7	Application		
6	Presentation		
5	Session		
4	Transport	TCP/UDP, Port	
3			
2			
1			



**Receiver**



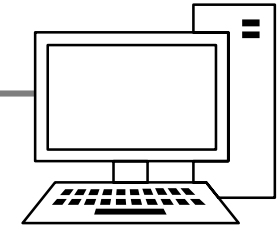
# OSI Reference Model - Encapsulation



**Sender**



Layer	Name	Includes	Devices
7	Application		
6	Presentation		
5	Session		
4	Transport	TCP/UDP, Port	
3	Network	IP Address	Routers
2			
1			



**Receiver**

L3

L4

L5

L6

L7

# The Domain Name System



- The Domain Name System (DNS) resolves a Fully Qualified Domain Name (FQDN) such as `www.cisco.com` to an IP address.
- Enterprises will typically have an internal DNS server which can resolve the IP addresses of internal hosts.
- Hosts will send their DNS queries to this server.
- If the internal DNS server cannot resolve a query, it will forward the request out to public DNS servers on the Internet.
- DNS requests are sent using UDP port 53 (and can fail over to TCP).