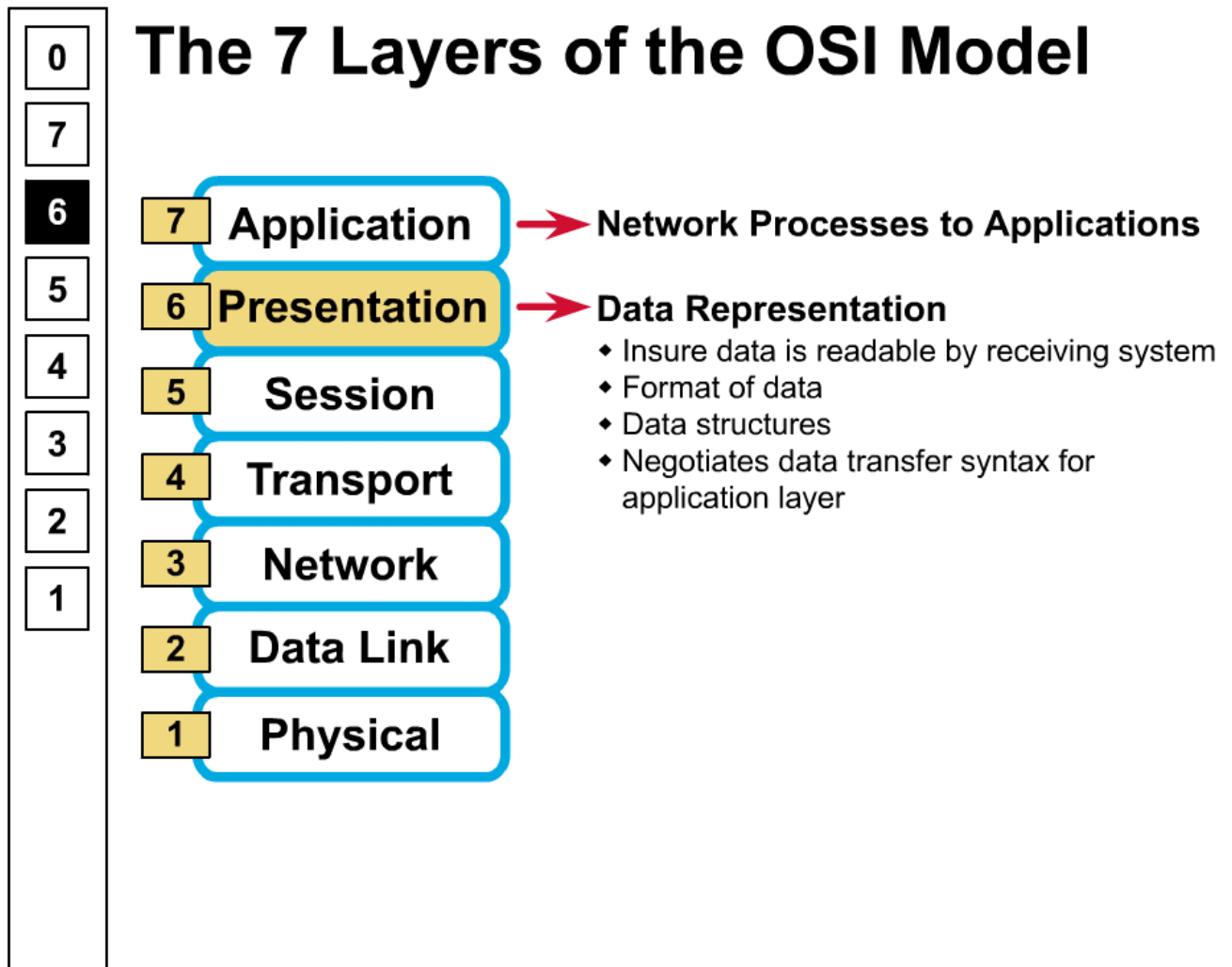


Responsible for program to program communication

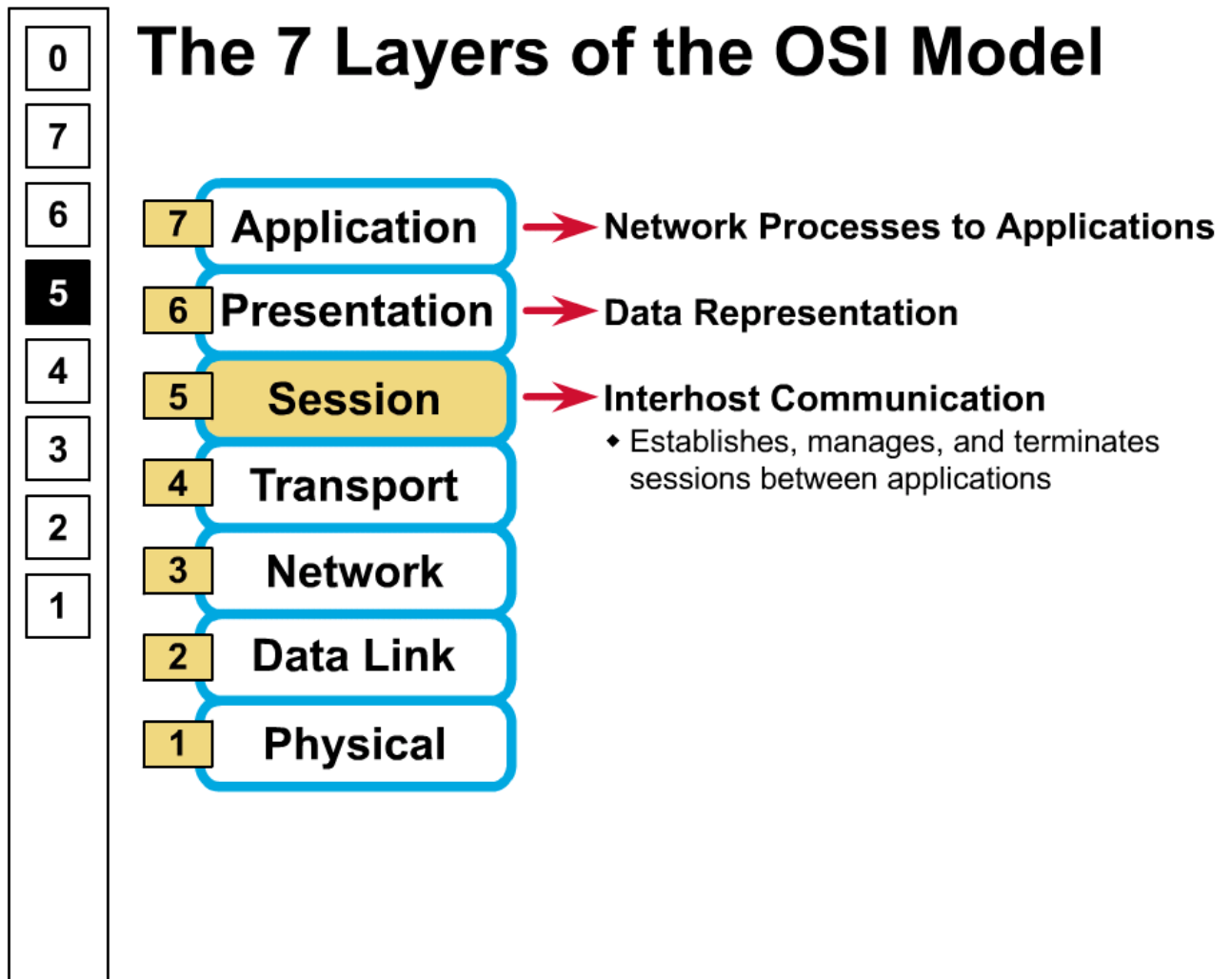
- Provides services directly to applications, such as electronic mail, file transfer and terminal emulation
- Responsible for identifying and establishing the availability of the intended partner and required resources
- Responsible for determining if sufficient communication resources exist to reach the remote partner

The 7 Layers of the OSI Model



- Manages data presentation conversions. e.g., Converting from EBCDIC to ASCII.
- Data encryption, decryption, compression and decompression

Does this by using Abstract Syntax Notation 1 (ASN.1) ASN.1 standardisation allows differing computer architectures to exchange data that are from differing computer architectures.

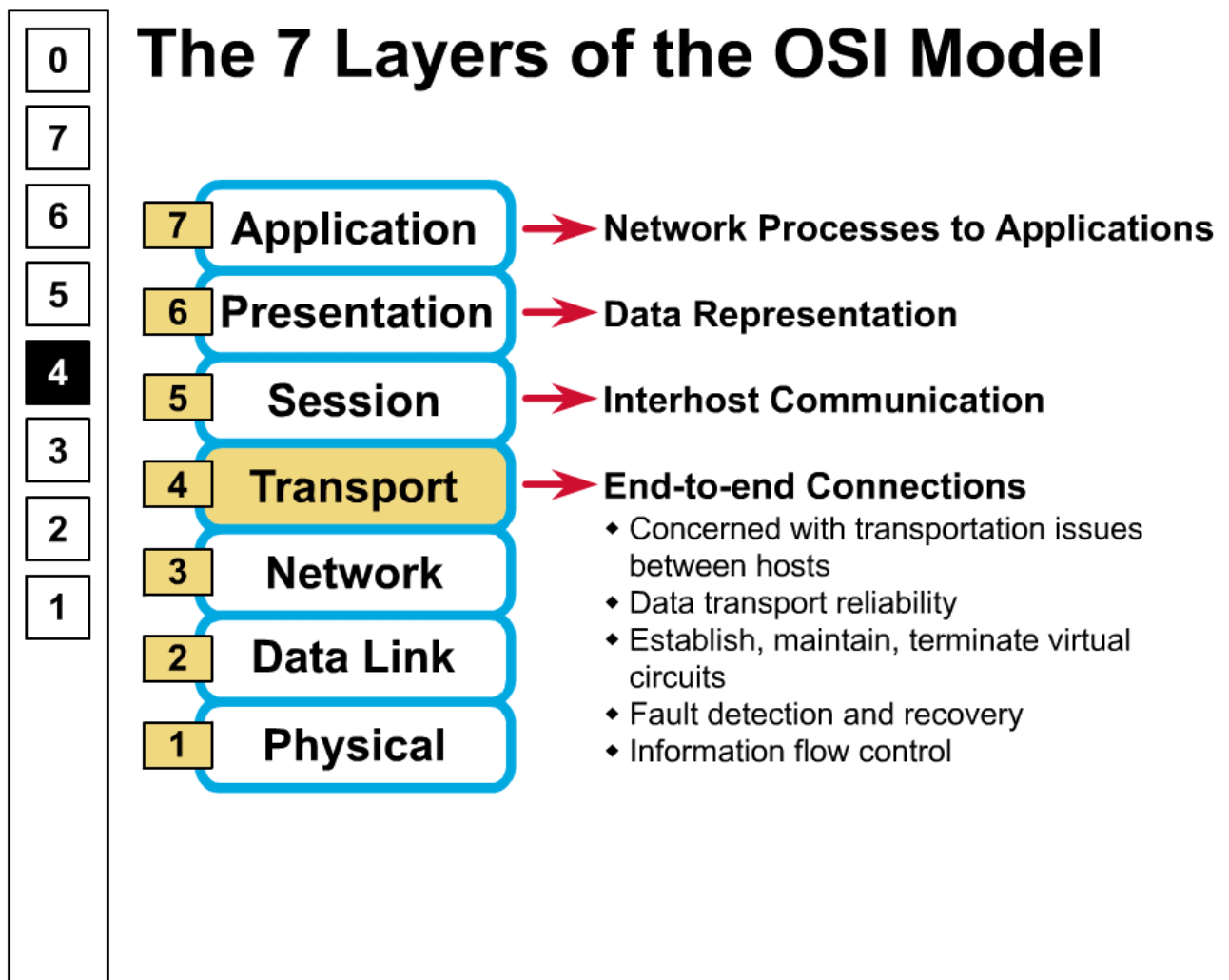


Responsible for establishing and maintaining communications channels. In practice, often combined with the Transport Layer.

Facilitates a dialogue between communicating systems and controls the dialogue:

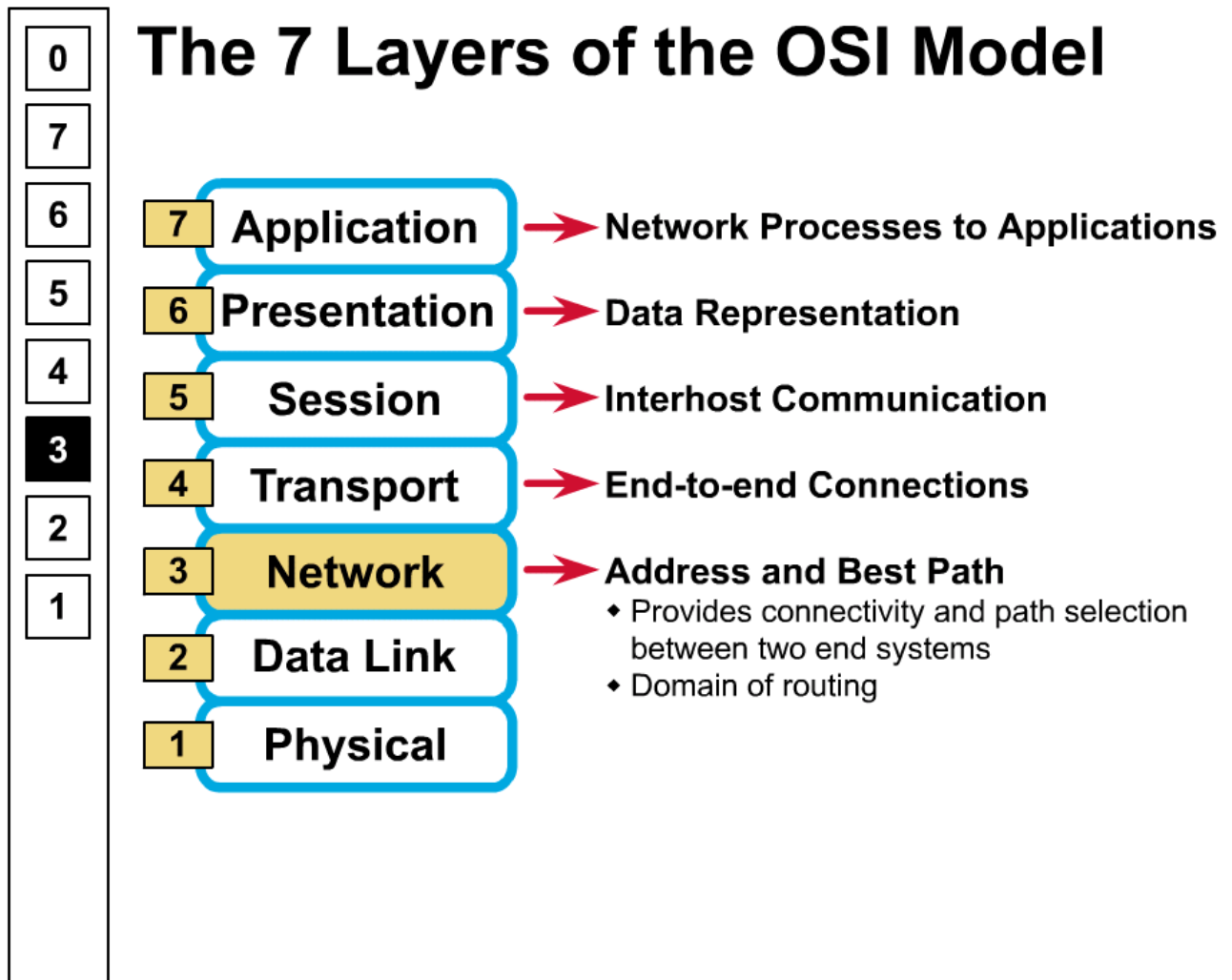
- Simplex
- Half-duplex
- Full duplex

Session set up by connection establishment, data transfer and connection release.



Responsible for end-to-end integrity of data transmission.

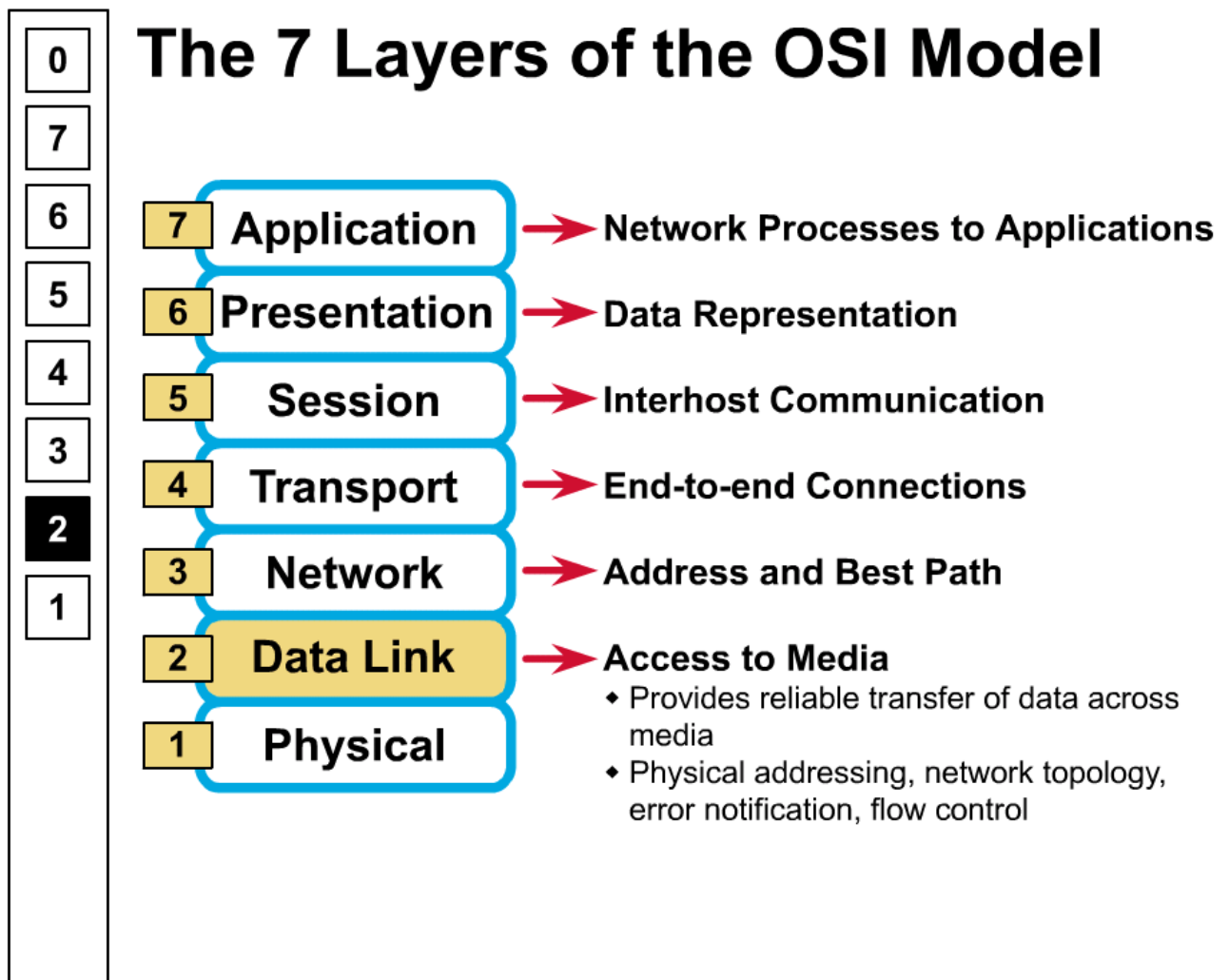
- Segments data and also reassembles data from upper layers
- Delivers data in connection and connection-less modes
- Includes simplex (one way), half duplex (both ways, one at a time) and full duplex (both ways simultaneously)
- Flow control and error recovery



Routes data from one node to another.

- Establishes a connection between two nodes by physical and logical addressing
- Includes routing and relaying data through internetworks

Layer's primary function is to deliver packets from the source network to the destination network.



Responsible for physically passing data from one node to another.

- Ensures hardware addressing of the device and delivery to the correct device
- Translates data messages from upper layers to frames, enabling hardware to transmit upper layer messages as a bit stream
- Provides flow control to the layer 2
- Also carries a Frame Check Sequence to make sure the frame received is identical to the one transmitted.

Sub-layers:

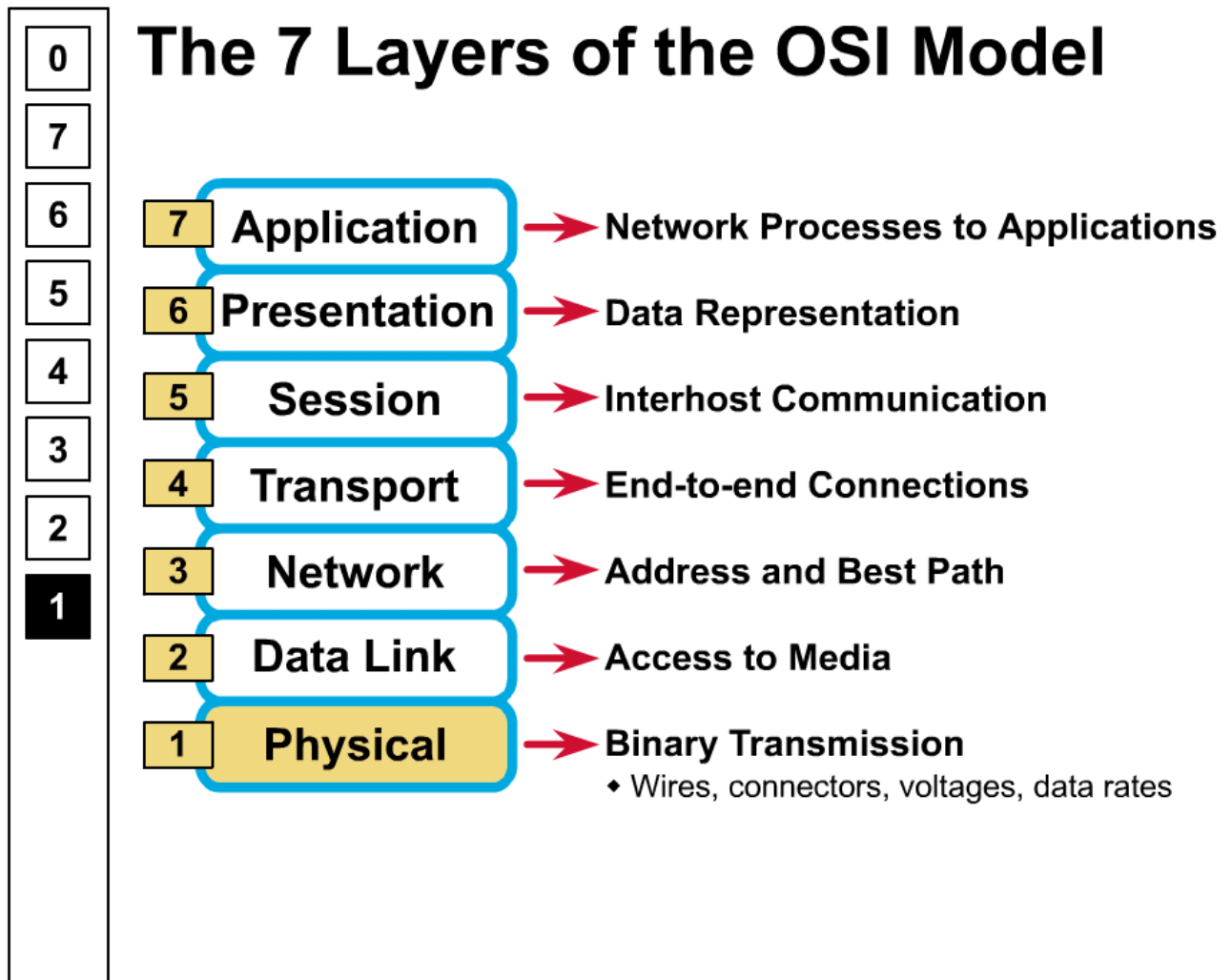
Logical Link Control (LLC)

Runs between the Network Layer and MAC sub-layer, providing flexibility between the two layers.

Media Access Control (MAC)

Responsible for framing. Builds frames from the 1's and 0's that the Physical Layer picks up from the wire.

The 7 Layers of the OSI Model



Transmits the raw bit stream and includes electrical signaling and hardware interface. Manages putting data onto the network media and taking the data off.