

Network Programming for Windows 04:

Other Supported Protocols

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✓ **IrDA**

– Infrared Data Association

✓ **AppleTalk**

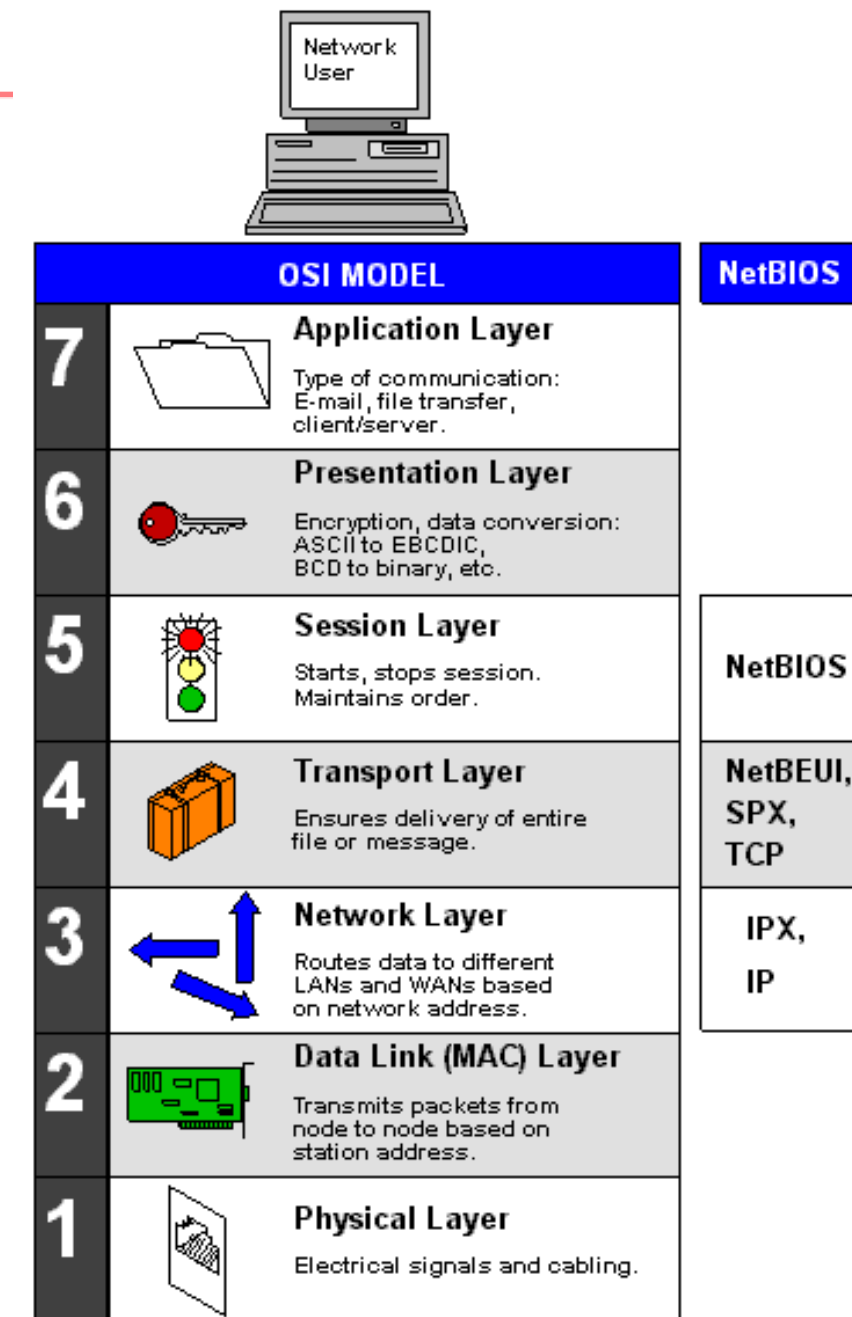
✓ **Bluetooth**

AppleTalk



✓ NetBIOS



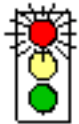




- Network Basic Input/Output System
- NetBIOS was developed in 1983 by [Sytek Inc.](#) as an [API](#) for software communication over [IBM PC Network LAN](#) technology.
- NetBIOS normally runs over [TCP/IP](#) via the [NetBIOS over TCP/IP](#) (NBT) protocol.



✓ IPX/SPX

- IPX and SPX are derived from [Xerox Network Systems](#)' IDP and SPP protocols, respectively.
- IPX is a [network layer](#) protocol (layer 3 of the [OSI Model](#))
- SPX is a [transport layer](#) protocol (layer 4 of the OSI Model).
- The SPX layer sits on top of the IPX layer and provides connection-oriented services between two nodes on the network.



OSI MODEL		NETWARE	TCP / IP
7	 Application Layer Type of communication: E-mail, file transfer, client/server.	NCP (NetWare Core Protocol)	FTP, SMTP, DNS, Telnet
6	 Presentation Layer Encryption, data conversion: ASCII to EBCDIC, BCD to binary, etc.		
5	 Session Layer Starts, stops session. Maintains order.	Named Pipes, NetBIOS	TCP (delivery ensured) UDP (delivery NOT ensured)
4	 Transport Layer Ensures delivery of entire file or message.	SPX	
3	 Network Layer Routes data to different LANs and WANs based on network address.	IPX	IP (ICMP, ARP, RARP)
2	 Data Link (MAC) Layer Transmits packets from node to node based on station address.	LSL (ODI, NDIS)	
1	 Physical Layer Electrical signals and cabling.	LAN Driver	
		Physical	

MY **BRIGHT** FUTURE

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