## Introduction

Computer Network
Internet
Distributed System
Middleware
Workd Wide Web
Resource Sharing
VPN (Virtual Private Network)
Servers
Clients
Client-Server Model
Communication Medium
Email (Electronic Mail)
IP Telephony
Voice over IP (VoIP)
Desktop Sharing
E-commerence (Elecontronic Commerece)
Connectivity
Peer-to-Peer Communication
instant messaging
Twitter
Social Network
Facebook
Wiki
Wikipedia
IPTC (IP TeleVision)
Ubiquitous Computing
Power-line Network
RFID (Radio Frequency IDentification)
Hotspot

Fixed Wireless Network Mobile Wireless Network Text Messaging (Texting) Short Message Service GPS (Global Positioning System) M-Commerence (Mobile-Commerence) NFC (Near Field Communication) Sensor Network Wearable Computer Network Neutrality DMCA takedown notices Digital Millenium Copyright Act Profiling Cookies Gmail Botnet Phishing **CAPTCHAs** Broadcast Links Point-to-Point Links Unicasting Multicasting Interplanetary Internet PANs (Personal Area networks) Bluetooth LAN (Local Area Network) Enterprise Network AP (Access Point)

Wireless router (Base Station)

IEEE 802.11 (WiFi)

Ethernet

Switced Ethernet
Switch
Port
Virtual LAN (VLAN)
Classic Ethernet
MAN (Metropolitan Area Network)
Cable Headend
WiMAX
WAN (Wide Area Network)
Host
Communication Subnet (Subnet)
Transmission Lines
Switching Elements
internetworks
Network Service Provider
ISP (Internet Service Provider)
ISP Network
Gateway
Network Layers (Network Levels)
Protocol
Peers
Physical Medium
Interface
Network Architecture
Protocol Stack
Header
Error Detection
Error Correction
Routing
Protocol Layer
Addressing (Naming)

Internetworking
Scalable
Statistical Multiplexing
Flow Control
Congestion
Real-Time
Quality of Service
Confidentiality
Authentication
Integrity
Connection-oriented
Negotiation
Circuit
Conectionless
Packet
Store-and-Forward Switching
Cut-Through Switching
datagram service
acknowledged datagram service
Request-Reply service
primirivies (operations)
OSI (Open Systems Interconnection)
OSI Model
Physical Layer
Data Link Layer
Data Frames
Acknowledgement Frame
Network Layer
Transport Layer
Sessions
Dialog Control

Token Management Synchronization Presentation Layer Application Layer HTTP (HyperText Transfer Protocol) TCP/IP Reference Model Link Layer Internet Layer IP (Internet Protocol) ICMP (Internet Control Message Protocol) Transport Layer TCP (Transmission Control Protocol) UDP (User Datagram Protocol) ARPA (Advanced Research Projects Agency) ARPANET IMPs (Interface Message Processors) Sockets DNS (Domain Name System) Computer Science Network (CSNET) Fuzzball **NSFNET** ANS (Advanced Networks and Services) ANSNET NAP (Network Access Point) DSL (Digital Subscriber Lines) DSL Modem DSLAM (Digital Subscriber Line Access Multiplexer) Cable Modem CMTS (Cable Modern Termination System)

Broadband

FTTH (Fiber to the Home)

POP (Point of Service) IXPs (Internet eXchange Points) Transit Tier 1 ISP Data Center Server Farm Colocation (hosting) AMPS (Advanced Mobile Phone System) GSM (Global System for Mobile communications) UMTS (Universal Mobile Telecommunications System) WCDMA (Wideband Code Division Multiple Access) Cellular Network Frequency Reuse Air Interface Cellular Base Station Code Division Multiple Access (CDMA) Radio Access Network RNC (Radion Network Controller) Node B Core Network MSC (Mobile Switching Center) GMSC (Gateway Mobile Switching Center) PSTN (Public Switched Telephone Network) GPRS (General Packet Radio Service) SGSN (Servicing GPRS Support Node) GGSN (Gateway GPRS Support Node) Handover (Handoff) Soft Handover Hard Handover

HSS (Home Subscriber Server)

SIM Card (Subscriber Identity Module)

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LTE (Long Term Evolution) ISM (Industrial, Scientific, and Medical) AP (Access Point) Ad Hoc Network Multipath Fading Path Diversity OFDM (Orthogonal Frequency Division Muliplexing) CSMA (Carrier Sense Multiple Access) ALOHA WEP (Wired Equivalent Privacy) WiFi Protected Access (formally WAP, replaced by WAP2) Passive RFID Active RFID UHF RFID (Ultra-High Frequency RFID) HF RFID (High Frequency RFID) LF RFID (Low Frequency RFID) Multihop Network WiFi Alliance De facto Standards De jure Standards 3GPP (Third Generation Partnership Project) PTT (Post, Telegraph & Telephone administration) ITU (International Telecommunication Union) ITU-T **CCITT** ITU-R CD (Committee Draft) DIS (Draft International Standard) IS (Interational Standard)

NIST (National Institute of Standards and Technology)

IEEE (Institute of Electrical and Electronics Engineers)

IAB (Internet Activities Board)

Internet Architecture Board

RFCs (Request For Comments)

IRTF (Internet Research Task Force)

IEFT (Internet Engineering Task Force)

Internet Society

Proposed Standard

Draft Standard

Internet Standard

World Wide Web Consortium (W3C)