

CMSC 417 Final Vocabulary Review

December 7, 2010

In addition to the vocabulary below, prepare for longer questions on the following topics:

- Routeviews snapshot of 'sh ip bgp': from <http://archive.routeviews.org/oix-route-views/2010.12/> (not in detail, just the basics).
- TCPDump output: use hw5 as refresher.
- dig +trace output: run it for your favorite hostnames.
- The TCP sawtooth, variations (like slow start).

Vocabulary:

- p -persistent CSMA
- 1-persistent CSMA
- 4B/5B
- 802.11
- A record
- accept (the system call)
- ack clocking
- ack implosion
- active open
- address
- advertised window
- AIMD (expand and define)
- ALOHA
- application layer
- ARP (expand and define)
- ARP table
- ARQ
- AS (path) prepending
- asymmetric key
- asymmetric routing
- attenuation
- authentication
- authorization
- Autonomous System
- backbone
- BAN logic: Believes
- BAN logic: Controls
- BAN logic: Fresh
- BAN logic: Said
- bandwidth
- bandwidth delay product
- best-effort delivery
- bind (the system call)
- bit stuffing
- bridge
- CE (in ECN)
- chosen plaintext attack
- clock recovery
- closed window
- congestion
- congestion avoidance

- congestion collapse
- congestion control
- congestion window (cwnd)
- connect (the system call)
- convergence layers
- count to infinity
- country-code top-level domain (ccTLD)
- CSMA/CA
- CSMA/CD
- CTS
- cumulative ack
- cwnd
- CWR (in ECN)
- cyclic redundancy code
- data-link layer
- delay
- delayed ack
- delayed ack rule in TCP
- demultiplexing
- DIFS
- dictionary attack
- dijkstra's algorithm
- distance vector
- DNS
- DoS (expand and define)
- drop tail
- duplicate ack
- early-exit
- ECE (in ECN)
- ECN
- ECT (in ECN)
- EGP
- encapsulation
- error correction
- error detection
- exponential backoff
- export filtering
- exposed terminal
- fast recovery
- fast retransmit
- file swarming
- firewall
- flat addressing
- flow control
- forwarding (different from routing)
- forwarding database (in a switch/bridge)
- frame (different from segment, packet)
- framing
- generic top-level domain (gTLD)
- hidden terminal
- hierarchical addressing
- hierarchy
- ICMP time exceeded
- IGP
- import (ingress) filtering
- initial sequence number (ISN)
- IP address prefix
- IP service model (four bad things)
- IP TTL
- Jacobson/Karels RTO algorithm
- Karn/Partridge algorithm
- Kerberos
- late-exit
- latency

- link state
- link state database
- link state packet
- listen (the system call)
- localpref
- lollipop sequence space
- MAC address
- man-in-the-middle attack
- Manchester
- MED
- metric
- MSL (expand and define)
- MSS (expand and define)
- MTU (expand and define)
- multicast
- multiplexing
- mutual authentication
- Nagle's algorithm
- NAT
- negative ack
- network byte order
- network layer
- noise
- non-persistent CSMA
- nonce
- NRZI
- optimistic ack
- origin AS
- OSPF
- OSPF areas
- packet (different from segment, frame)
- packet conservation
- passive open
- path vector routing
- physical layer
- PIFS
- preamble
- prefer-customer rule
- privacy
- private key
- protocol state machine (especially TCP's)
- RED
- reliable flooding
- replay attack
- replication
- retransmission
- retransmission (sender's) buffer
- RIP's infinity = 16
- route advertisement
- Route Views
- route withdrawal
- routing (different from forwarding)
- routing convergence
- routing loops
- RTO (expand and define)
- RTS
- RTT (expand and define)
- SACK
- scrambling
- segment (different from packet, frame)
- sentinels
- sequence numbers
- shared key
- SIFS

- signatures, certificates
- silly window syndrome
- sliding window
- slotted ALOHA
- slow start
- smoothed RTT
- smurfing
- so_reuseaddr
- spanning tree protocol
- split horizon
- spoofing
- stop and wait
- store-and-forward
- switched ethernet
- SYN cookies
- SYN flooding
- TCP (expand and define)
- TCP Reno
- TCP sawtooth
- TCP state machine
- TCP Tahoe
- TCP three-way handshake
- TCP Vegas
- tinygrams
- top-level domain (TLD)
- transit AS
- transport layer
- triggered update
- two criteria for accepting a distance vector route
- two-dimensional parity
- UDP
- UDP port
- valley-free routing
- vpn
- waterfall diagram
- window probes
- Zipf's law
- zombie