Errata
Computer Networks: An Open Source Approach

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1. **Page xiii**

   Change "**6.7.3 Session Initialization Protocol (SIP)**" to "**6.7.3 Session Initiation Protocol (SIP)**"

Chapter 1

1. **Page 3, the last line from the bottom**

   Change "**ultra-velvet**" to "**ultra-violet**"

2. **Page 5, Line 4 from the top**

   Change "**fiber-to-the-block**" to "**fiber-to-the-building**"

3. Page 11, in Figure 1.4

   Change "**0.1 ms**" to "**0.1 μs**"

4. **Page 34, Line 8 from the top**

   Change "**application program interface**" to "**application programming interface**"

5. **Page 47, the final sentence in "Transmission Delay vs. Propagation Delay" under Common Pitfalls**

   Change "100 km" to "1000 km" and "50 μs" to "5 ms"

Chapter 2

1. **Page 57, Line 36 & Line 40**

   Change "**the maximum data rate is $B \times \log_2 2(1 + S/N)$**" to "**the maximum data rate is $B \times \log_2 (1 + S/N)$**"

   Change "**the maximum data rate is $3k \times \log_2 2(1+1000)$ kbps, or about 32.9 kbps**" to "**the maximum data rate is $3k \times \log_2 (1+1000)$ kbps, or about 29.9 kbps**"

2. **Page 71, Line 11 & 14**

   Change "**Motion Picture Experts Group**"/"**motion picture experts group**" to "**Moving Picture Experts Group**"/"**moving picture experts group**"

3. **Page 76, Line 2 from "Polar return-to-Zero (RZ) with Self-Synchronization"**

   Change "**Fig 2.8**" to "**Fig 2.11**"

4. **Page 79, Block coding section, line 1**

   Remove "**, also known as channel coding,**"

5. **Page 97, Table 2.7, row 5**

   Change "**Modulation scheme**" to "**Spread spectrum scheme**"

6. **Page 98, line 13**

Change "$\log_{10}$ C/R dB" to "$10 \log_{10}$ C/R dB"

7. **Page 102, Receiver in Figure 2.36**

   Change **"modulator"** to **"demodulator"**

8. **Page 107, the module before output data stream in Figure 2.40**

   Change **"serial-to-parallel converter"** to **"parallel-to-serial converter"**

9. **Page 111, Line 11, 12, 13, 18**

   Change **"AMC"** to **"ACM"**

Chapter 3

1. **Page 129, Line 4 from "3.1.2 Addressing"**

   Change Chapter 5 to Chapter 6.

2. **Page 130, Line 3 from "IEEE 802 MAC Address"**

   Change "Fiber Distribution Data Interface" to "Fiber Distributed Data Interface".

3. **Page 131, Step 1**

   Change "Shift F by 2^5" to "Shift F left by 5 bits".

4. **Page 131, the line below Step 2**

   Change "module-2" to "modulo-2".

5. **Page 139, the bottom line**

   Change "Algorithms" to "Algorithm Implementations".

6. **Page 171, the 5th line in the 2nd paragraph**

   Change "fiber-to-the-block" to "fiber-to-the-building".

7. **Page 179, Figure 3.31**

   There are two branches from send_timer() but the first branch is empty. The 1st branch should be tx_resume().

8. **Page 192, the 4th line in the 3rd paragraph**

   Change "GARP is a subset of …" to "GMRP is a subset of …"

9. **Page 222, the last sentence of Problem 19**

   Change "… for this packet?" to "… for this frame?"

Chapter 4

1. **Page 229, Line 12 from "The Reception Path" &**

   Page 230, Figure 4.3

   Change "udp_v4_rcv()" to "udp_rcv()"

2. **Page 241, the last sentence of Performance Matters**

   Change "sequential hashing" to "sequential search"

3. **Page 246, Line 2**

   Delete "16-bit long".

4. **Page 288, Line 9 in Figure 4.49 The distance vector routing algorithm**
   change "else if ((Distance+ lc(x,y))&rt(Dest).distance){"
   to "else if ((Distance+ lc(x,y)) < rt(Dest).distance){"

5. **Page 290, Figure 4.51's caption**
   Change "Figure 4.45" to "Figure 4.46"

6. **Page 298, the line below "Data Structures"**
   Change "described" to "is described"

7. **Page 311, the 6th line from the top**
   Change "LOCAL_REF" to "LOCAL_PREF"

8. **Page 317, the 8th line from the top**
   Change "Multicast extension of OSPF" to "Multicast extensions to OSPF"

Chapter5

1. **Page 372, Figure 5.25**
   Change "0 of more 32-bit words" to "0 or more 32-bit words".

2. **Page 378, Line 1**
   Change "If the receiver has a retransmission timeout" to "If the probe timer goes off".

3. **Page 414, Exercise 6**
   Change "Subsection 5.3.8" to "Subsection 5.3.7".

4. **Page 414, Exercise 9**
   Change "any meaningless terms" to "any meaningful terms".

5. **Page 414, Written Exercise 4**
   Change "What will the RTT and …" to "How will the RTT and …".

6. **Page 415, Written Exercise 15**
   Change "some fields in the IP layer" to "some fields in the IP header".

Chapter 6

1. **Page 427, Line 4 from "Various Data Types"**
   Change "(111111)" to "(11111111)"

2. **Page 429, the last entry of Table 6.3**
   Change ".bi" to ".biz"

3. **Page 438, the second line from the bottom**
   Change "is formed by" to "is formed with"

4. **Page 455, the first line from the bottom**
   Change "full qualified domain name" to "fully qualified domain name"

5. **Page 459, Line 10 from "6.4.1 Introduction".**
   Change "Universal Resource Locator" to "Uniform Resource Locator"

6. **Page 463, the second line of the 2nd paragraph**

   Change "The first example consists of a naming authority or path "/home/ydlin/courses/index.html" and a unique string "index.html"" to "The first example consists of a naming authority (or path) "/home/ydlin/courses" and a unique string "index.html"".

7. **Page 463, the second line from 6.4.3 HTML and XML**

   Change "As a descendent …" to "As a descendant".

8. **Page 463, the third line from 6.4.3 HTML and XML**

   Change "HTML provides a means" to "HTML provides a mean".

9. **Page 480, the third line**

   Change "degradation of the conditions" to "gradation of the conditions".

10. **Page 489, the second line of item "3. at:"**

    Change "tobork-level" to "network-level"

11. **Page 489, the first line of item "8. egp:"**

    Change (External Gateway Protocol) to "(Exterior Gateway Protocol)"

12. **Page 498, the fourth line from "6.7.2 H.323"**

    Change "ReSerVation Protocol" to "Resource Reservation Protocol".

13. **Page 501, 6.7 Session Initialization Protocol (SIP) & the first line below it**

    Change "Session Initialization Protocol" to "Session Initiation Protocol (SIP)".

14. **Page 519, the 5th line of the third paragraph**

    Change "IdleHeap" to "fIdleHeap".

15. **Page 522, inside the features of IP telephony of Table 6.29**

    Change "P2P file-sharing built on top of Kazaa" to "built on top of P2P file-sharing Kazaa".

16. **Page 524, the 4th line from the top**

    Change "and decentralized and unstructured P2P is the third generation" to "the decentralized and unstructured P2P is the second generation, and the decentralized and structured P2P is the third generation".

17. **Page 529, the 7th line from the top**

    Change "it is bounded by log(n)" to "it is bounded by *O(log n)*".

18. **Page 529, the 3rd line from the bottom**

    Change "upload priority to those peers that have higher download rates" to "download priority to those peers that contribute higher upload rates".

19. **Page 533, the 11th line from the top**

    Change "… is down every 10 seconds …" to "… is done every 10 seconds …".

20. **Page 537, the pseudo-code of calculateUnchokes()**

    Line 10, add ";" at the end of line, i.e.,

    change "add the peer to the chokes list"

to "add the peer to the chokes list;"

Line 12, remove "{" at the end of the line, i.e., change
"IF not forced to refresh the optimistic unchoked peers {"
to "IF not forced to refresh the optimistic unchoked peers"

Line 13-15, merge them into two lines and add ";" at the end, i.e., change
"move the peers in the optimistic_unchokes list to the
best_peers
        list until the number of peers exceeds max_optimistic"
to
"move the peers in the optimistic_unchokes list to the
best_peers list until the number of peers exceeds max_optimistic;"

Line 16, add ";" at the end of the line, i.e., change
"add peers to the best_peers list if its download rate is higher than 256"
to "add peers to the best_peers list if its download rate is higher than 256;"

Line 17-19, merge them into two lines and add ";" at the end, i.e., change
 "call UnchokerUtil.updateLargestValueFirstSort to sort
 the best_peers
     list according to the download rate"
 to "call UnchokerUtil.updateLargestValueFirstSort to sort
 the best_peers list according to the download rate;"

Line 26-28, merge them into two lines, remove "." and add ";" at the end, i.e.,
change
 "call UnchokerUtil.getNextOptimisticPeer to get more
 optimistic
        unchoke peers. (factor_reciprocated is set to true)"
to
 "call UnchokerUtil.getNextOptimisticPeer to get more optimistic
        unchoke peers (factor_reciprocated is set to true);"

21. Page 538, the 8th line in the first paragraph
    Change "These peers are sorted a into the …" to "These peers are sorted into
    the …".

Chapter 7

1.   **Page 589, Line 5 in Written Exercise #13.**

Change "2, 10, and 4 units" to "2, 2, 10, and 4 units".

Appendix

1. **Page 717, Line 6 from "What Is ns?"**
   Change "Network Animation" to "Network Animator"