

Figure 8.19 *Timestamp option*

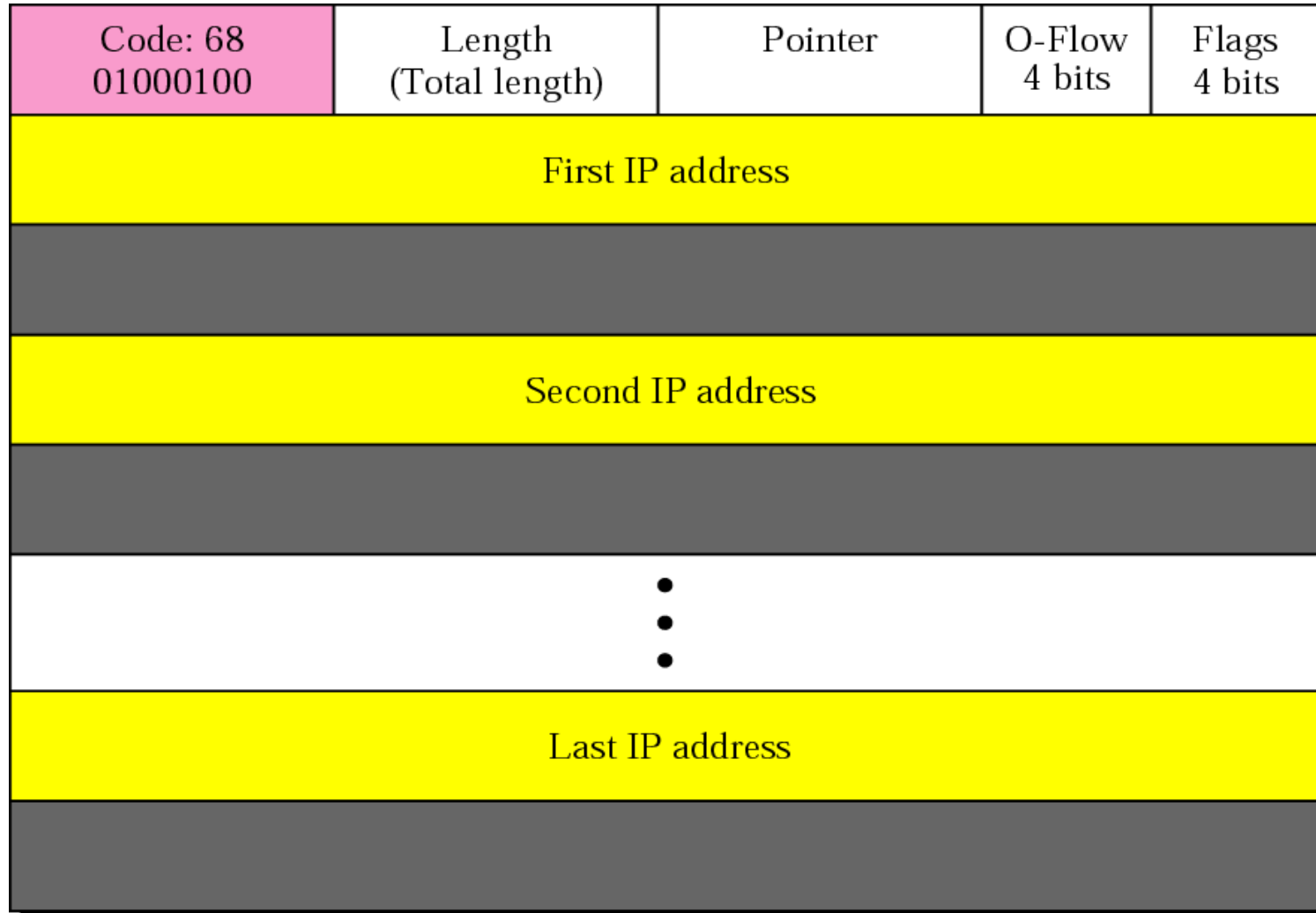


Figure 8.20 *Use of flag in timestamp*

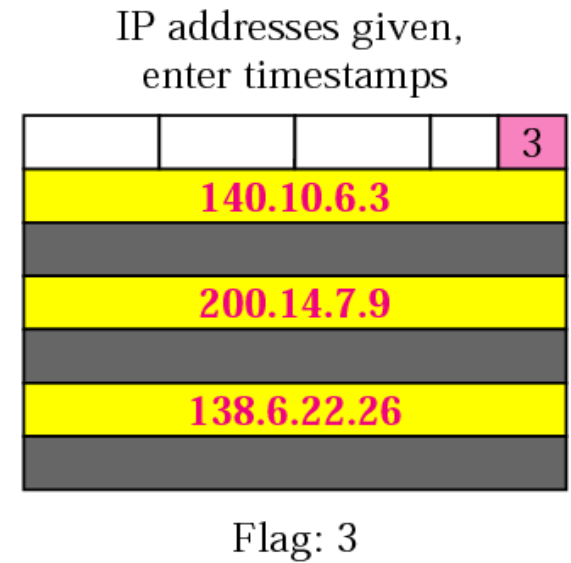
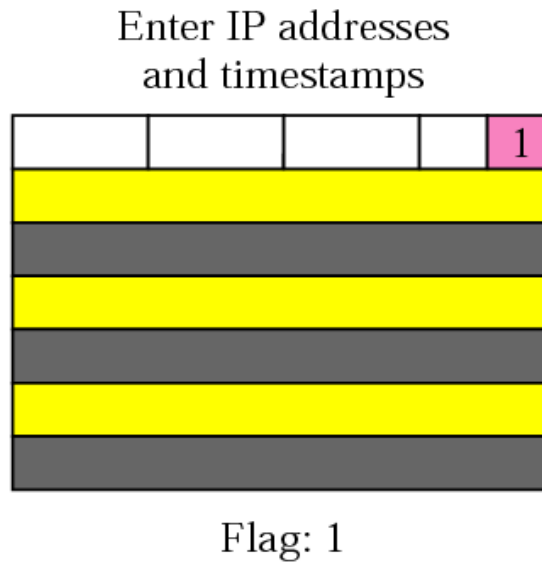
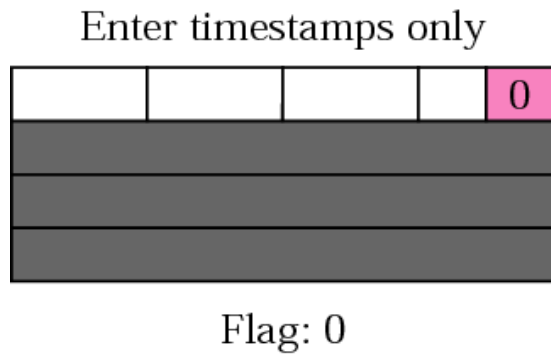
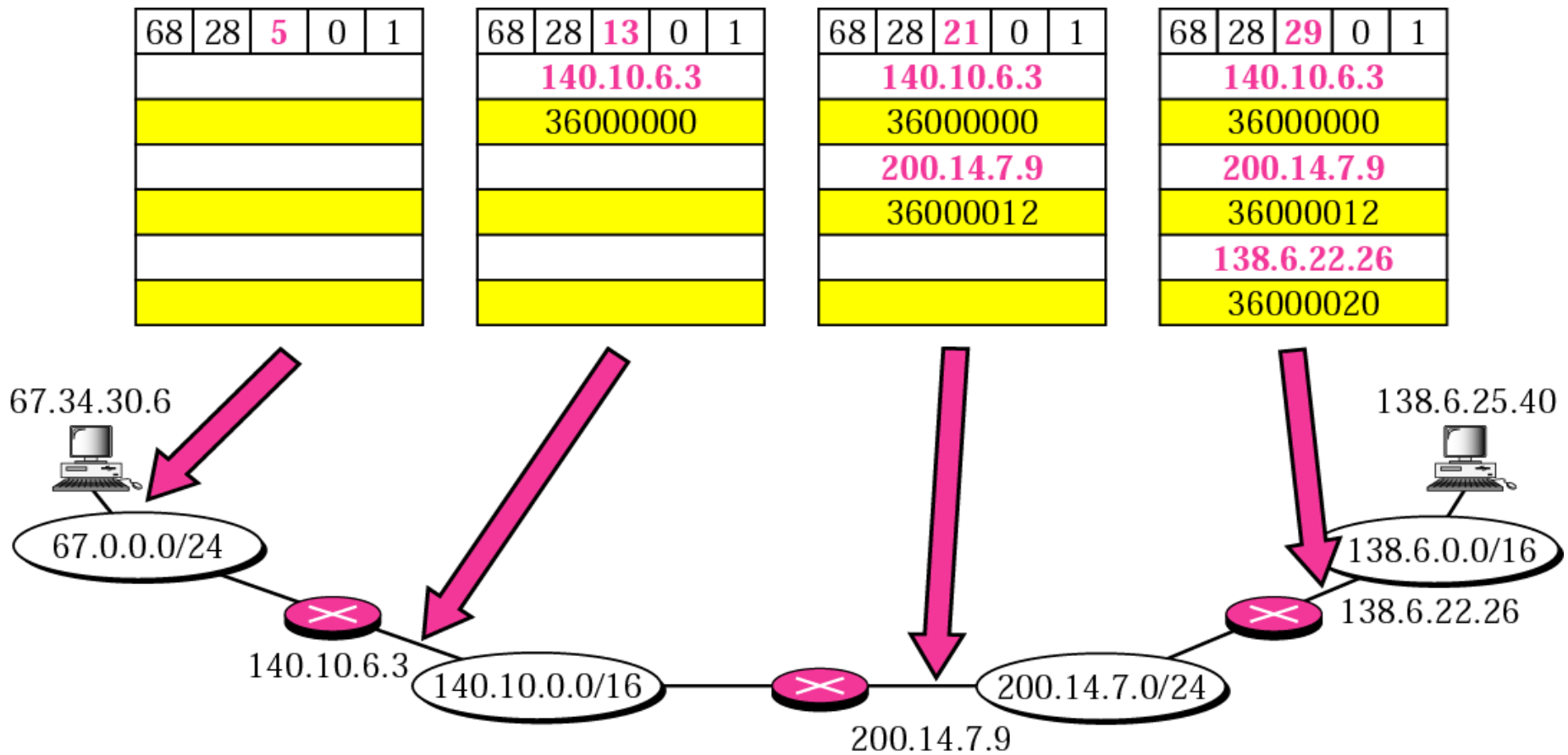


Figure 8.21 *Timestamp concept*





Example 10

Which of the six options must be copied to each fragment?

Solution

We look at the first (left-most) bit of the code for each option.

- a. No operation: Code is 00000001; not copied.*
- b. End of option: Code is 00000000; not copied.*
- c. Record route: Code is 00000111; not copied.*
- d. Strict source route: Code is 10001001; copied.*
- e. Loose source route: Code is 10000011; copied.*
- f. Timestamp: Code is 01000100; not copied.*



Example 11

Which of the six options are used for datagram control and which are used for debugging and management?

Solution

We look at the second and third (left-most) bits of the code.

- a. No operation: Code is 0**00**00001; datagram control.*
- b. End of option: Code is 0**00**00000; datagram control.*
- c. Record route: Code is 0**00**00111; datagram control.*
- d. Strict source route: Code is 1**00**01001; datagram control.*
- e. Loose source route: Code is 1**00**00011; datagram control.*
- f. Time stamp: Code is 0**10**00100; debugging and management control.*

8.5 IP PACKAGE

We give an example of a simplified IP software package to show its components and the relationships between the components. This IP package involves eight modules.

The topics discussed in this section include:

Header-Adding Module

Processing Module

Queues

Routing Table

Forwarding Module

MTU Table

Fragmentation Module

Reassembly Table

Reassembly Module

Figure 8.26 *IP components*

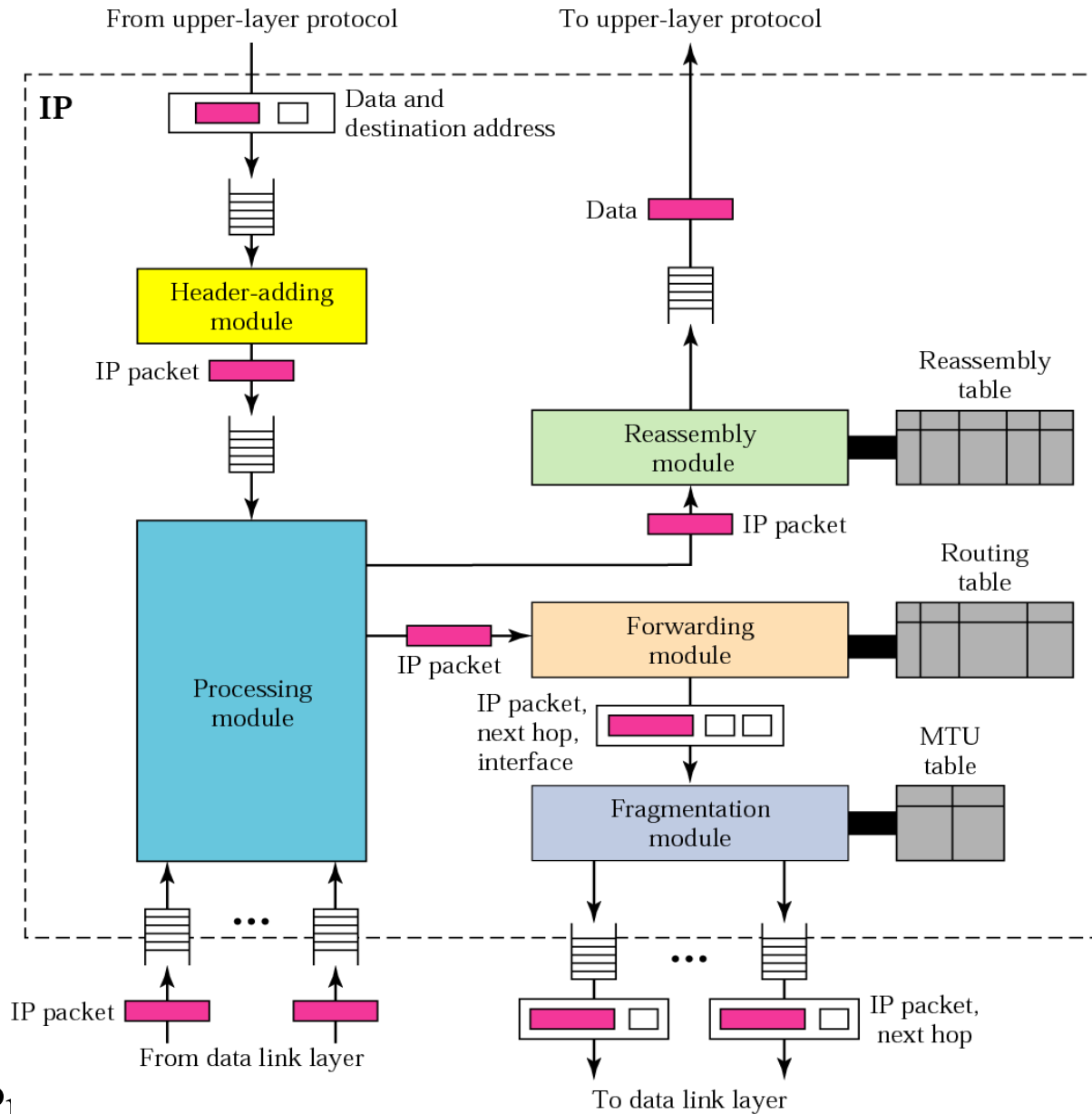




Figure 8.27 *MTU table*

Interface Number	MTU
.....

Figure 8.28 *Reassembly table*

St.: State

S. A.: Source address

T. O.: Time-out

D. I.: Datagram ID

F.: Fragments

