TCP Segment

By

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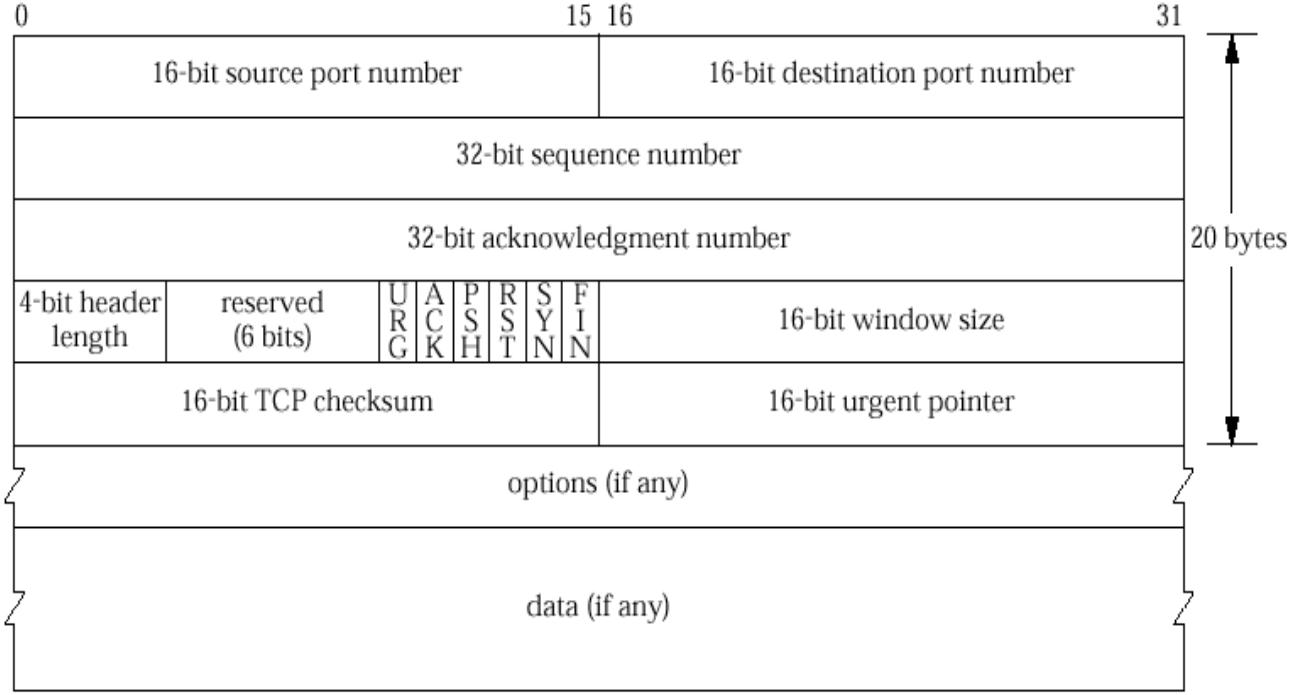
TCP – Segment

TCP Header



TCP – Segment

- ✓Source Port and Destination Port
  - ✓Identify processes at ends of the connection
- ✓Control bits
  - ✓URG urgent (urgent data present)
  - ✓ACK acknowledgment

TCP – Segment

- ✓PSH push request
  - ✓Inform receiver TCP to send data to application ASAP
- ✓RST reset the connection
- ✓SYN synchronize sequence numbers
- ✓FIN sender at end of byte stream

TCP – Segment

- ✓ Sequence Number: Position of the data in the sender's byte stream
- ✓ Acknowledgment Number: Position of the byte that the source expects to receive next (valid if ACK bit set)
- ✓ Header Length: Header size in 32-bit units. Value ranges from [5-15]
- ✓ Window: advertised window size in bytes

TCP – Segment

- ✓ Urgent
  - ✓ Defines end of urgent data or “out-of-band” data and start of normal data
- ✓ Checksum: 16-bit over header and data
- ✓ Options: up to 40 bytes of options

References

- ✓ Books: Data communication and Networking, Behrouz A Forouzan, Fourth edition
- ✓ Computer Networks, Andrew S. Tanenbaum, 4th edition, PHI
- ✓ Data Communication and Networks, Achyut Godbole, 2007, TMH.
- ✓ Computer Networks: Protocols, Standards, and Interfaces, Uyless Black, 2nd ed, PHI
- ✓ Various relevant websites

Thank You