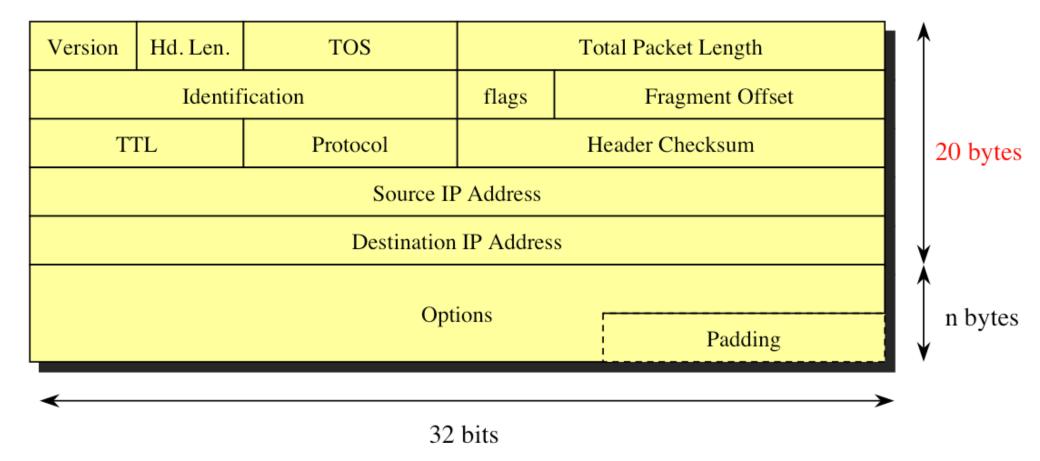


IPv4 Header vs IPv6 Header

Rob Blokzijl RIPE Chair

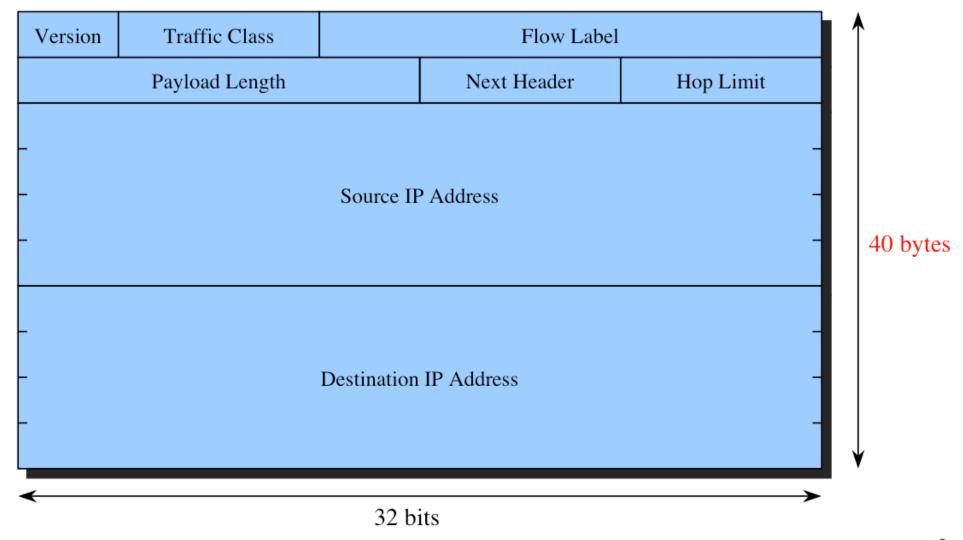


IPv4 Header





IPv6 Header





IPv6 Header Fields

- Version: IP version 6
- Traffic Class: used in congestion control
- Flow Label: QoS management
- Payload length: payload length in bytes
- Next header: specifies the next encapsulated protocol
- Hop Limit: replaces the ttl field of IPv4
- Source and Destination addresses: 128 bits each



What is not in the header

- Security
- Quality of Service
- Autoconfiguration
- Better Internet Routing



Header Format Simplification

- Fixed length of header
 - Length field eliminated by no options
- No fragmentation on router
 - Fragmentation field and option field moved to extension header
 - Hosts should use the path MTU discovery
- No header checksum
 - Reduce cost of header processing, no checksum updates at each router

Improvement of routing speed