

Redes de Computadores

Computer Networks

labs

Presentation of Lab Project 1

Lab class 3

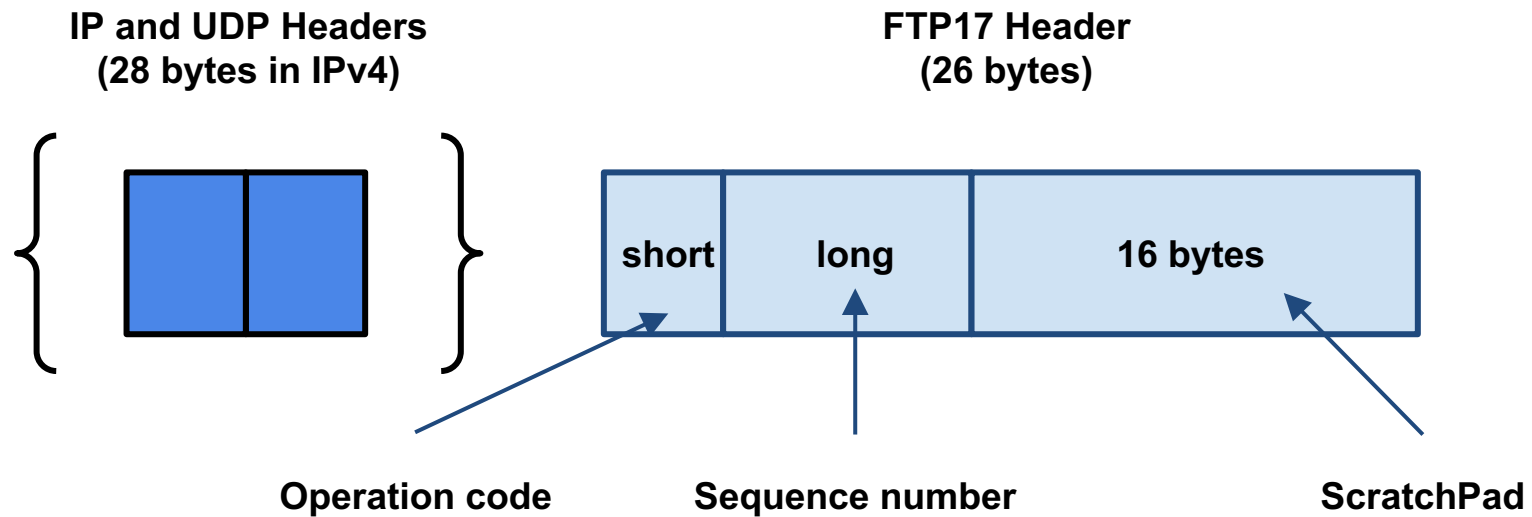
Goal

- Build a FTP17 protocol client to upload files to a FTP17 server
 - Server and protocol definitions are given as well as a small client using the stop & wait protocol
 - The available server supports: stop & wait, sliding window simple GBN with several window sizes, optimized GBN, selective repeat, or a mix of these several protocols able to increase the performance transfer
 - The size of the client window and the value of the client timeout can be constant or dynamically adapted
 - The available server has the size of its receiving window as parameter

Minimum required work

- The client implements the protocol GBN, using only cumulative sequence numbers, with constant window size and timeout values
- Maximum grading of this is 15 over 20
- A more elaborated protocol deserves a better grading, up to 20 over 20
- However, grading also considers the quality of the implementation (programming and program structure) and of the report

FTP17 Protocol Header



- Sequence numbers are cumulative and start at 1
- Server always copies the client ScratchPad value in its answer

FTP17 Protocol Messages

UPLOAD	0		File Name (byte[])
ERROR			Error Message (byte[])
DATA	...		Data (byte[])
ACK	...		Discarded (byte)
FIN	... +1		
FINACK	... +1		

FIN and FINACK messages have sequence numbers equal to the file size + 1

Sequence numbers are cumulative, represent the order of the first byte in DATA messages and the next expected byte order in the ACK messages. They are ignored in the ERROR messages.