UDP File Transfer

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Windisch, 10.01.2018

1 Ethernet frame

Maximum data payload 1'500 Bytes
IP header -20 bytes
UDP Header -8 Bytes
Data 1'472 Bytes

D/C bit -1 Bit
Transaction ID size -31 Bit
Sequence number size -4 Bytes
Remaining data size 1'464 Bytes

Max file size 4GB = 4'096MB = 4'194'304KB = 4'294'967'296 Bytes

N data packets 2'933'721

D/C bit -1 Bit
Transaction ID size -31 Bit
Sequence number size
Remaining data size -4 Bytes
1'464 Bytes

Max file size 4GB = 4'096MB = 4'194'304KB = 4'294'967'296 Bytes

N data packets 2'933'721

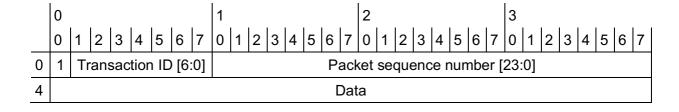
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2 Packet types

2.1 Control Packet

| | 0 | | | | | | 1 | | | | | | 2 | 2 | | | | | | 3 | | | | | | | | | | |
|---|-----------------------|------------------|---|---|---|---|---|-----------------------|-----|---|---|---|-----|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 1 | 2 | 3 | 4 | 5 6 | 6 7 | 7 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 0 | 0 Command [6:0] | | | | | | | Command Data 1 [23:0] | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Command Data 2 [31:0] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Pa | Padding 26 Bytes | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

2.2 Data Packet



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3 Command Packet

3.1 Command list

| Code | Short | Name | Data 1 | Data 2 |
|------|-------|---------------------------|--------|-------------|
| 0x00 | FTS | File transfer start | TCID | NSEQ |
| 0x01 | FTP | File transfer stop | TCID | 0x0000 0000 |
| 0x02 | ACKFP | Acknowledge data packet | TCID | SEQNBR |
| 0x03 | ACKFT | Acknowledge file transfer | TCID | 0x0000 0000 |
| 0x04 | | | | |
| | | | | |
| | | | | |
| | | | | |

3.2 FTS: File transfer start

Command field: 0x00

Data 1: Transaction ID

Data 2: Number of sequences to be transmitted

3.3 FTP: File transfer stop

Command field: 0x01

Data 1: Transaction ID Data 2: 0x0000 0000

3.4 ACKFP: Acknowledge data packet

Command field: 0x02

Data 1: Transaction ID

Data 2: Acknowledged sequence number

3.5 ACKFT: Acknowledge file transfer

Command field: 0x03

Data 1: Transaction ID Data 2: 0x0000 0000

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