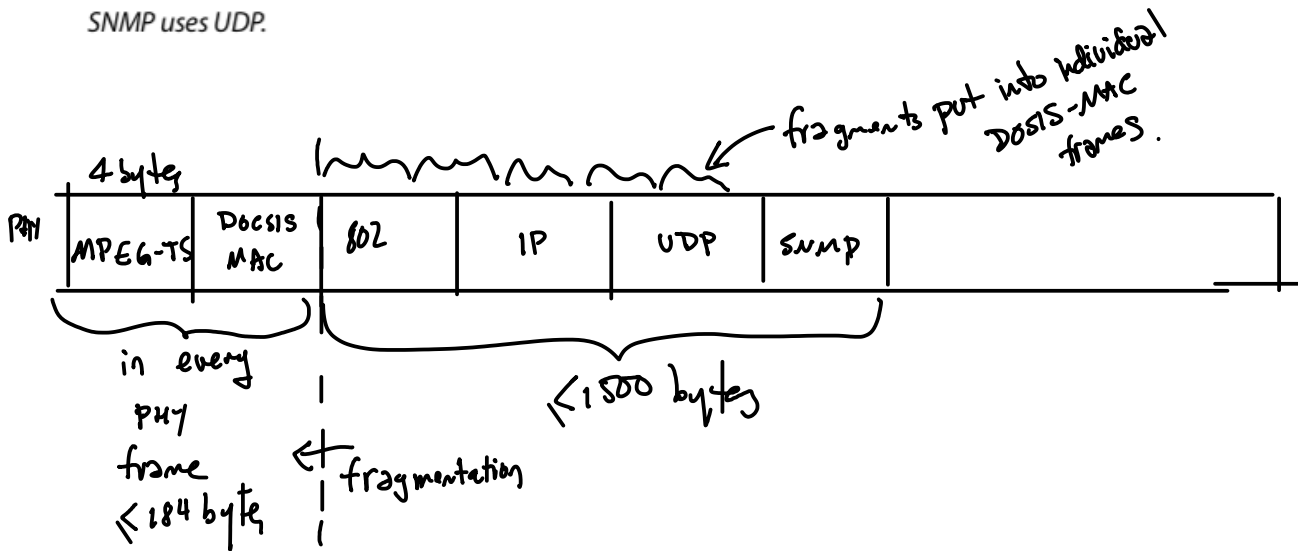


# Lecture 6

**Exercise 1:** List the protocol layers (headers) between the PHY and the payload of a downstream SNMP frame. *Hint: Assume SNMP uses UDP.*



**Exercise 2:** Assuming the maximum number of CMs per uplink is determined by available SIDs, each CM is allocated two SIDs and only SIDs from 0x0001 to 0x1FFF are available, how many CMs could be supported per uplink channel? What is the longest time offset that can be specified in a MAP frame assuming the length of a mini-slot is 25 $\mu$ s?

$$\text{total SIDs} = 2^{13} - 1 = 8191$$

$$\text{max CMs} = 4095$$

$$\begin{aligned} \text{max offset} &= (2^{14} - 1) \cdot 25\mu\text{s} = 16383 \cdot 25 \times 10^{-6} = \frac{16383}{4} \times 10^{-4} \\ &\approx 0.4\text{s}, \end{aligned}$$