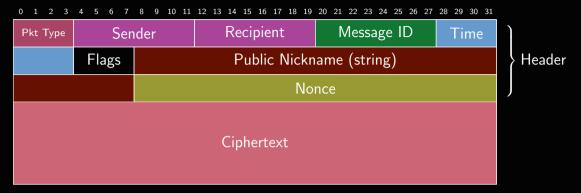
Message Packet (Threema Protocol Layer)



• Only the MSB of Flags is used

Message Packet on the Wire

O 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

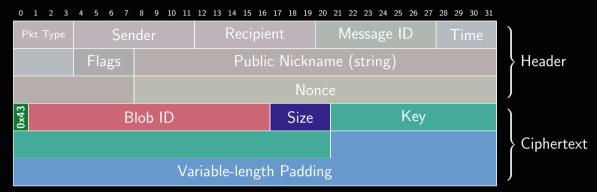
Length

Threema Client-to-Server Ciphertext

Text Message

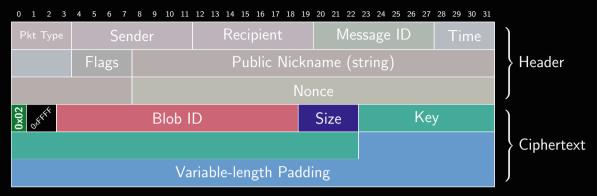
0 1 2 3	4 5 6 7	8 9 10 11	12 13 14 15 16 17 18 19	20 21 22 23 24 25 26 27	28 29 30 31	
	Ser	ider	Recipient	Message ID	Time	
	Flags	Public Nickname (string) Header			Header	
			No	nce		
0×01	1	ext	V	ariable-length Pad	ding	Ciphertext

Image Message

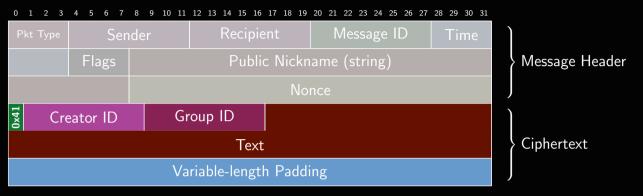


- Blob is symmetrically encrypted using Key and uploaded to asset server.
- Image captions are stored inside the image's EXIF data. These data leak upon creating such an image while the "save media to gallery" option is enabled.

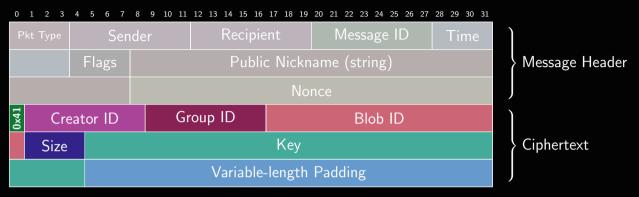
Audio Message



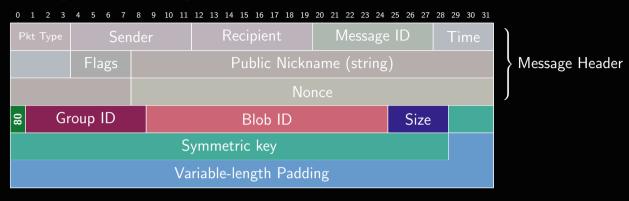
Group Message Packet



Group Image Message



Group Picture Update



Create/Update Group (members)



Acknowledgement Packet to Server

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Length	Pkt Type	Sender	Message ID	
		← Length	\longrightarrow	