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# EXPERIMENT 3

AIM: To Study the Framing Mechanism in Data Link layer

### THEORY: MAIN WALLES date HIME: YROTH

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· Data link layer takes the packets from the Network layer and encapsulates them into frames

receivers and about the total moi of

- Packet may be divided into small sized frames. Smaller sized frames makes the flow control and error control more efficient
- o Then, it sends each frome bit-by-bit

  At receiver's end, data link layer picks up
  signals from hardware & assembles
  them into frames.

received might not be able to locate

on identify the beginning of next frame.

Paga No.	02
Data	

TYPE	S OF	FRAMING	Haal	SUNIC	AUA999	- IMAN
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Framming types

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## METHODS OF FRAMING:

#### 1. CHARACTER COUNT

· This method ensures data link layer at the receivers end about the total no. of characters that follow, and about cohere the frame ends. One report strooms in

3631513240301 Frame 1
3 character 5 characters Frame 3 3 characters characteras this were finil and count

· Disadvantage: If any how the character count is disturbed or distorted by an error occurring during transmission, they received might not be able to locate on identify the beginning of next frame.

# 2. BIT STUFFING PO19

- This method is also known as bit-oriented framing in which extra bits are being added by network protocol designers to the data stream.
  - o Most protocols use a special 8-bit
    pattern flag 01111110 as a result of the
    delimiter to stipulate the beginning
    and so the end of the frame.

Data > [000111111100 111110100] 071 [323] [A]

sisadvantages size of frame varies unportdicarde

Flag Header 00011111100011111001000 Trailer Flag

Disadvantage: This technique doesn't encure
that the sent data is intact at the
neceiver side. It is menely a way to
ensure that transmission starts and ends
at the correct places of the

## 3. BYTE STUFFINGS AND SOUNDED LONG

- byte once there is a flag on escape character within the text
- The sender sends the frame by adding three additional ESC bits and therefore the destination machine receives the frame and it removes the extra bits to convert the frame into an identical message

	Tamil I I I
	Floa ESC =
	Byll studing -
	Flag Header Esc Flag Flag Esc Trailer flag -
	The state of the s
- 4	On it was a summing a but ofulling
	following are the example of byte stuffing
	phighral Htm.
4,50%	oniginal Atta
	A Flog B A ESC FLAG B
	A ESC B A ESC ESC S
	A ESC Play B A ESC ESC ESC FLAT B
	A SC FIAS B A ESC ESC ESC ESC ESC ESC
1 4.01	Fireflort   ecospositions in the real season gold
	· Disadvantage: Size of mame varies unpredicated
4/11	du to byte insertion
	with the destrict of all the training the second
	CONCLUSION:
283,743	BURN BURN OF CONTRACTOR WAR STREET
	· framing facilitates two of the primary functionalty
	i- It provides a mechanism for flow control
	that manager the trains for such that
14	the congestion of data is not there on
	slow receivers because of the tast sender
	11. 17 provides reliable pransfer services à desta
	permeen two largers of the peer naturous.
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