

Examrace

Discussion on HDLC Frame Format of HDLC & Transfer Mode

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Discussion on HDLC: Frame Format of HDLC & Transfer Mode (Computer Science)

Topics

- Introduction on HDLC
- Primary and Secondary Stations
- HDLC Frame Format
- Transfer Modes:
- Asynchronous Response Mode (ARM) : Normal Response Mode (NRM)
- Asynchronous Balanced Mode (ABM)

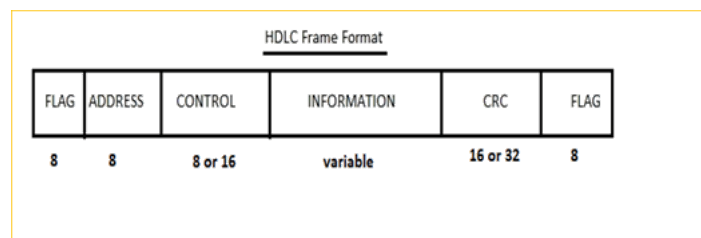
HDLC

- HDLC stands for High Level Data Link Control
- It is a bit oriented transmission protocol
- It works at a data link layer which is second layer (layer 2) of OSI seven layered architecture model for data communication
- It embeds information in a data frame that allows devices to control data flow and correct errors
- HDLC is proposed by IBM in 1970s from SDLC i.e.. Synchronous Data Link Control Standard
- Sessions are created for communication purpose in it.

Primary & Secondary Stations

- **Primary Station:** The one who sends commands. Data Link Management and Connection/Disconnection are the basic responsibilities of primary station. Frames issued by primary station are called as commands.
- **Secondary Station:** These are the stations which responses and frames issued by secondary stations are called as responses.
- **Combined Station:** It acts both like primary and secondary stations. They have both commands and responses.

Frame Format of HDLC



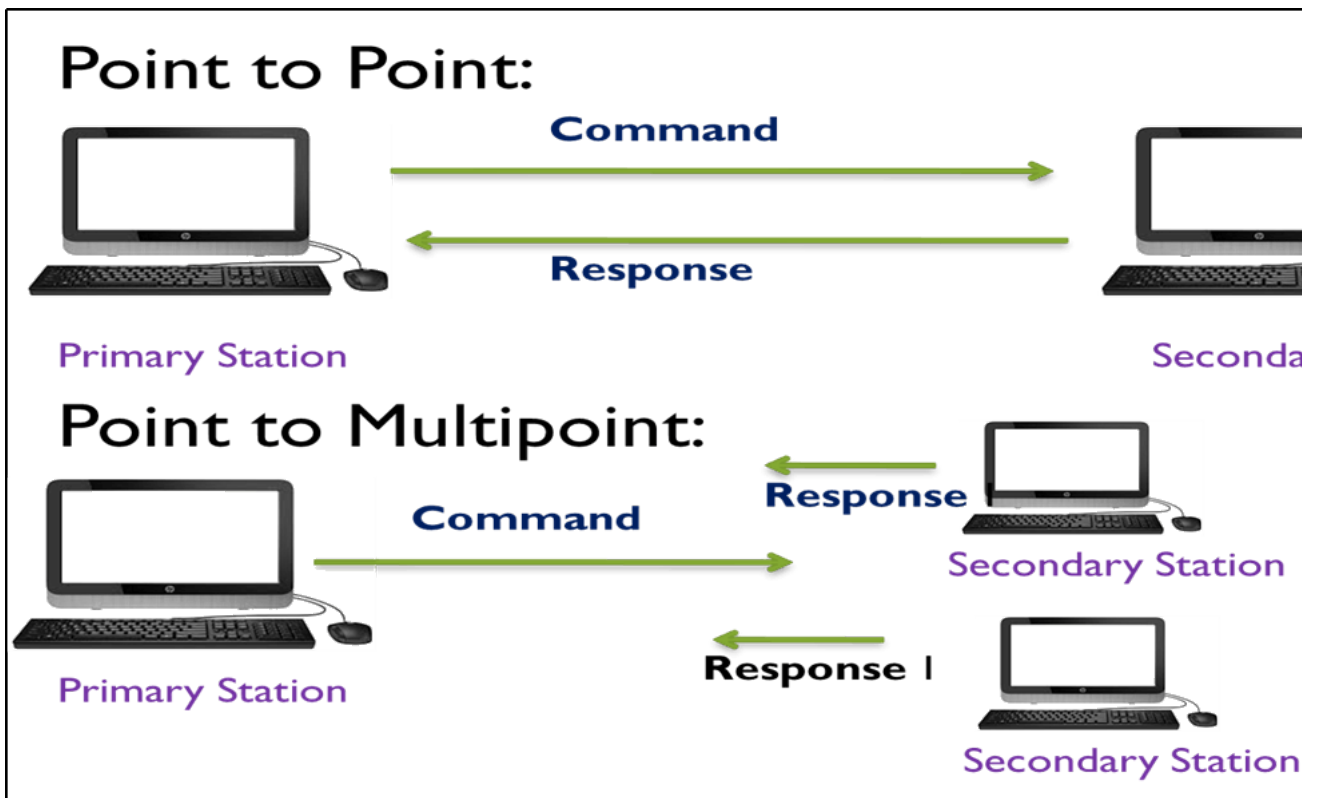
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- I-Frame: Information Frame-0 bit in control field
- S-Frame: Supervisory Frame-10 bit in control field
- U-Frame: Un-numbered Frame-11 bit in control field

Transfer Mode

Transfer Modes:

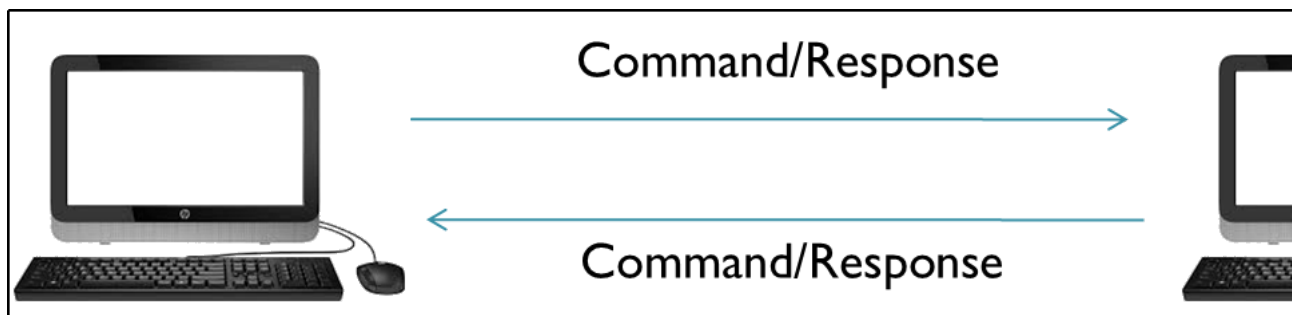
1. Normal Response Mode (NRM) : Point to Point and Point to Multipoint
2. Asynchronous Balanced Mode (ABM) : Point to Point

Normal Response Mode (NRM)

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Asynchronous Balanced Mode (ABM)

- Point to Point:



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- Workstation acts as both primary and secondary stations depending upon the requirement.

MCQ

Q1. HDLC stands for:

1. High Data Logical Control
2. High Level Data Link Control
3. High Destination Logical Control
4. High Definition Logical Control

Answer: B

Q2. HDLC is:

1. Bit oriented
2. Code transparent
3. Both (a) and (b)
4. None of these

Answer: C

#Introduction on HDLC

#Primary and Secondary Stations

#HDLC Frame Format

#Transfer Modes:

#Asynchronous Response Mode (ARM)

#Normal Response Mode (NRM)

#Asynchronous Balanced Mode (ABM)

✉ Mayank

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