

## ATM Cell Header Fields

The following definitions summarise the ATM cell header fields as shown in the figure above

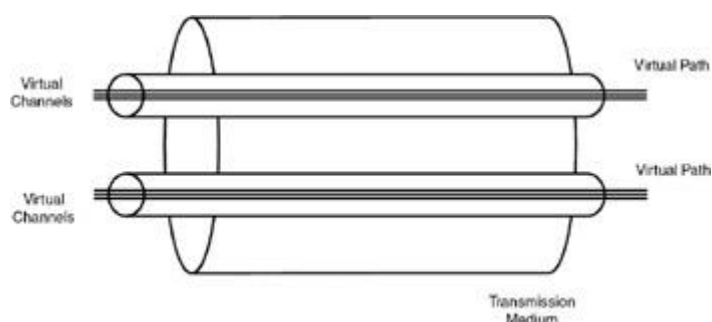
- **Generic Flow Control (GFC)** – It supports local functions, such as recognizing multiple stations that send a single ATM interface. This field is generally not used and is set to its default value of 0 (binary 0000).
- **Virtual Path Identifier (VPI)** – In conjunction with the Virtual Channel Identifier (VCI), it recognises the next destination of a cell as it transfers through a series of ATM switches on the way to its destination.
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- **Payload Type (PT)** – It denotes in the first bit whether the cell includes user data or control data. If the cell includes user data, the bit is set to 0. If it includes control data, it is set to 1. The second bit denotes congestion (0 = no congestion, 1 = congestion), and the third bit denotes whether the cell is the last in a sequence of cells that define a single AAL5 frame (1 = last cell for the frame).
- **Cell Loss Priority (CLP)** – It denotes whether the cell should be removed if it encounters extreme congestion as it transfers through the network. Suppose the CLP bit similar is to 1, and the cell should be discarded in preference to cells with the CLP bit equal to 0.
- **Header Error Control (HEC)** – It evaluates checksum only on the first 4 bytes of the header. It can be valid a single bit error in these bytes, thereby preserving the cell instead of discarding it.

## ATM LOGICAL CONNECTIONS

ATM provides fast packet switching and so can be used for multimedia communication. In voice and video applications, the packets have to reach the destination in sequence and without variable delay.

The logical connection between two end nodes is called virtual channel connection (VCC). A bundle of VCCs that have the same end points is called the virtual path connection (VPC).

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Using the virtual path has the following advantages:

1. Once a virtual path is established, establishing new virtual channel connections is easy. The processing is reduced and connection setup time is much less.
2. The switching is very fast and, as a result, network performance and reliability will increase.
3. The network architecture will be simplified.