ATM Service Categories

ATM supports the following service types:

- Constant Bit Rate (CBR).
- Unspecified Bit Rate (UBR).
- Variable Bit Rate-Real Time (VBR-RT).
- Variable Bit Rate-Non Real Time (VBR-NRT).

They are used for the QoS purpose.

CBR

CBR provides ensured, constant bandwidth. The bandwidth assigned to the CBR service is decided by the Peak Cell Rate (PCR). With CBR service, a source station can send ATM cells at PCR constantly with assured QoS.

Typically, CBR is suitable for jitter-sensitive, real-time applications, such as audio and video.

VBR-RT

The VBR-RT service is provided for applications that have strict restrictions on delay and jitter, such as audio and video.

A VBR-RT connection is described by the PCR, sustainable cell rate (SCR), and maximum burst size (MBS). With the VBR-RT service, a station can send burst traffic at PCR with the maximum traffic size being MBS without cell loss and the average cell rate being SCR.

VBR-NRT

The VBR-NRT service supports non-real-time applications with burst traffic. A VBR-NRT connection is described by PCR, SCR, and MBS. The VBR-NRT service is suitable for applications sensitive to cell loss but not to delay.

UBR

The UBR service does not make any service quality commitment, guaranteeing neither cell loss ratio (CLR) nor cell delay. When traffic congestion occurs, cells of the UBR service are dropped first. The UBR service is suitable for applications with low requirements for delay and bandwidth.