Multimedia — Data Compression & VoD

Any information (or data) can be in the form of text, image, audio, video or graphics. These are known as different media. So, when a system presents some information through two or more than two media it is called multimedia. For example, TV presents audio and video; book presents text, image and graphs. Computer etc.

Thus Multimedia can be described as a field of computer science that integrates different forms of information and represents in the form of audio, video and animation along with the traditional media, i.e., text, graphics/drawings, images, etc.

In more conventional terms, we can say that a multimedia computer system has high capacity to integrate different media including text, image, graphics audio and video. The multimedia computer system stores, represents, processes manipulates, and makes available to users.

Data Compression

It is a reduction in the number of bits needed to represent data. Data compression can dramatically decrease the amount of storage a file takes up. As a result of compression, administrators spend less money and less time on storage.

Virtually any type of file can be compressed, but it's important to follow best practices when choosing which one to compress. Compression optimizes backup storage performance and has recently shown up in primary storage data reduction.

Compressing data can be a complex or lossy process. Lossless Compression enables the restoration of a file to its original state, without the loss of a single bit of data, when the file is uncompressed.

Lossless compression is the typical approach with executables, as well as text and spreadsheet files, where the loss of words or numbers would change the information.

Lossy compression permanently eliminates bits of data that are redundant, unimportant or imperceptible. Lossy compression is useful with graphics, audio, video and images, where the removal of some data bits has little or no discernible effect on the representation of the content.

Video on Demand (VoD)

It is a system that allows users to select and watch video content of their choice on their TVs or computers. Video on demand is one of the dynamic features offered by Internet protocol TV. VoD provides users with a menu of available videos from which to choose. The video data is transmitted via Real-Time Streaming Protocol.

VoD allows viewers to request immediate access to video content on their PCs or TVs. As opposed to a conventional TV broadcast system, VoD is a unicast transmission. But, VoD has limited use considering the bandwidth limitations of current network