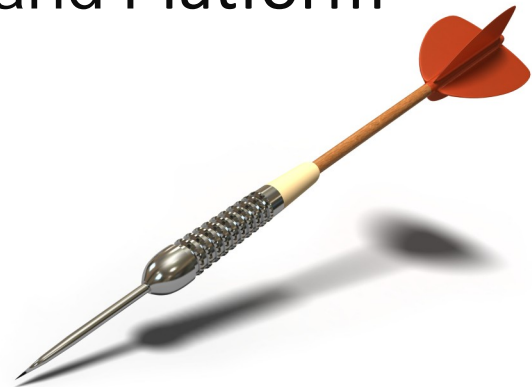




NPTEL VIEWER

Integrated with DHARA: A peer-to-peer
based Video on Demand Platform



A Product of Technology developed
at DOS LAB , IIT Madras

Technology at work for you

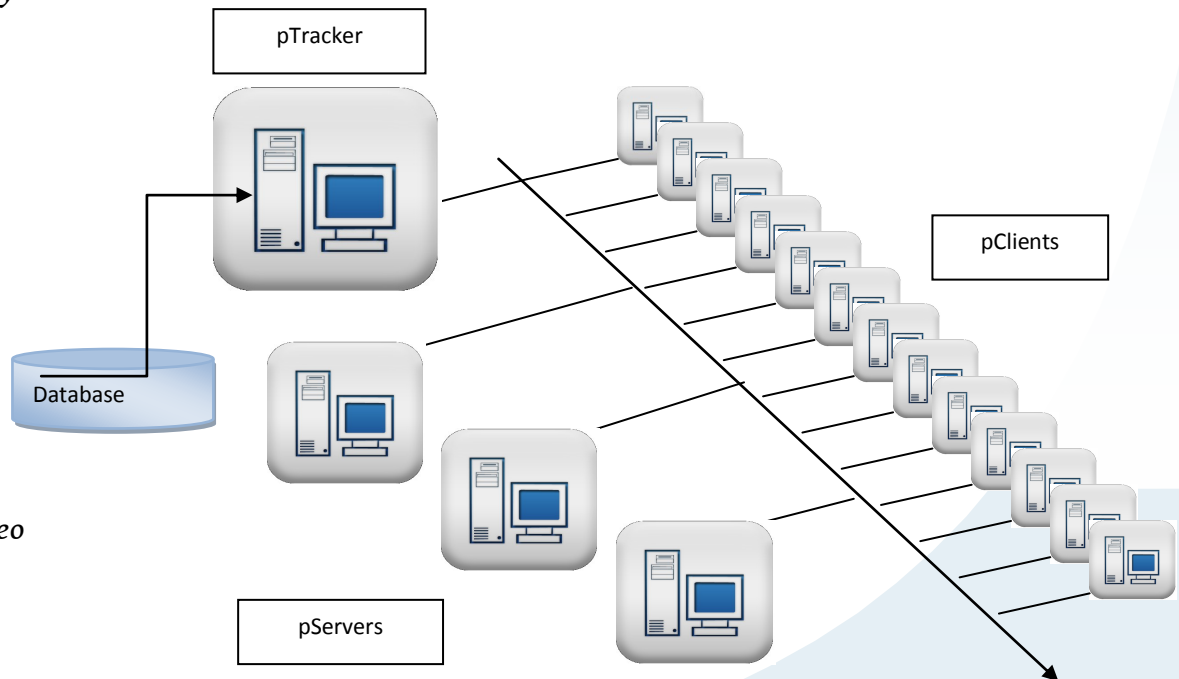
NPTEL Viewer is Video on Demand (VOD) solution to watch NPTEL Videos hosted in the Local Area Network (LAN). NPTEL VIEWER includes a streaming server based on Dhara framework (a peer supported video streaming framework).

Dhara framework is an efficient P2P based video streaming system built under the auspices of Prof. D Janakiram(Dept of CSE, IIT Madras), to provide a low-cost and better performance alternative to High-end Hardware server configurations. Dhara Framework is easy to install and maintain.

HOSTING NPTEL VIDEOS IN LAN IS NOW EASY

- ◆ No high-end server configuration required
- ◆ No special proprietary software required
- ◆ Easy to maintain
- ◆ Easy to use web interface
- ◆ Easy to Maintain
- ◆ Easily Extendable
- ◆ Search available
- ◆ Support up to 30 parallel streams
- ◆ Handles multiple video Formats
- ◆ Seek to any playtime

Dhara Framework



Dhara Components

a. **pTracker**: pTracker is a most reliable Peer that holds the Metadata of the whole system. It uses a MySQL database to log the system information. pTracker does not contain any video files (vfiles). Every system connects to the pTracker in order to join the system.

b. **pServer**: pServer is the peer that holds the vfiles of the system. Each server disk space is divided into Rep space and Seed Space. Every vfile in the system has one pServer associate with it and is stored as the seed content of that pServer. pServer can contain total disk space of about 500 GB.

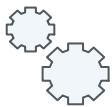
c. **pClient**: pClient is used by the user to view the vfiles. pClients have about 1Gb of disk space that can hold replicas of vfiles as determined by the pTracker.

P.S. : pTracker, pServer does not require high-end configuration systems. A Peer is nothing but a Desktop computer.



Why NPTEL Viewer?

A cost-effective solution for colleges to reap the benefits of NPTEL by hosting the video in their LAN Networks



Learn as you like it

Colleges can now provide students with access to NPTEL in Video-on-Demand (VOD) mode. By this students can access any video they want at any time. This provides the student and faculty with the freedom to 'learn as they like it'. This has shown to improve the NPTEL usage among students and faculty.

Students and faculty can access the videos anywhere from a computer connected to the college LAN. This removes the limitation of access points.

Apart from watching a video faculty and students also need the enhancing features like searching for right lectures and courses, making and sharing notes and comments, rating the lectures and courses. This makes the learning more comfortable and continuous.



Saves a lot of...

Money: Providing a VOD type access to the students and faculty requires costly hardware and software to the tune of 1 to 1.5 lakh of rupees. By using Dhara Framework, NPTEL Viewer removes the need for any additional hardware and uses the existing PC hardware and effectively utilizing the resources.

Effort: Maintaining a high-end server for providing requires technical personal and is riddled with problems in case of upgradation and expansion. NPTEL Viewer is easily extendable in terms of both increasing the system capacity and video catalog. Administrator has total control over the system

Time: Instant access to any video from any playtime of user choice saves time. User can easily seek to any part of the video.



System Requirements

- ◆ Java 1.6 installed on all the peers
- ◆ VLC player installed on the peers that watch video
- ◆ Windows environment
- ◆ MySQL installed on the pTracker



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