

Modified Incremental Affinity Propagation Clustering Based on Client Server Access Transfer

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ABSTRACT

The client server mixed with the clustering technology is together mixed to create a better and smarter experience of watching videos. Existing technologies provide importance to sharing of media files over the web. The importance in this paper is given to the online sharing of media files without web. The data consumption and the downloading option is given an enhancement compared to the existing modules. The data is spent only to the usage, and the data consumption is not repeated for multiple views of the same media files. In order to do this, ports are used and we use an affinity protocol to skip the stop and go procedures thus incrementing the speed of data retrieval.

Index Terms: Miap Technology, Server N-cluster, Media Diversity, Non-web Technique

1. EVOLUTION OF MEDIA DIVERSITY

Decades over coming, the new methods for communication and exchange of data's have been far advanced with all methods focusing on the improvement of the efficiency and the time constraint. Examples adhoc networks. Why is there such a change though? They can be used to overcome the difficulties faced by the classic structures which were used before.

These packet network systems construct network overlays in order to compensate any lack of quality of service (QoS) by network diversity due to a poor path chosen due to the availability of multiple routes to the successful destination. Network diversity presents several advantages for users especially in the field of streaming of videos wherein they are provided with multiple links and steam ports so that the same stored memory can be transferred to the user via a different module streams.

Thus supporting the development of new multimedia communication applications by the available groups of bandwidth, storage or resources provided by groups providing services.

Simultaneous drawback of the unnecessary wastage of memory exists i.e. instead of one definite stream usage of multiple streams provide a costly ordering of the memory buffers.

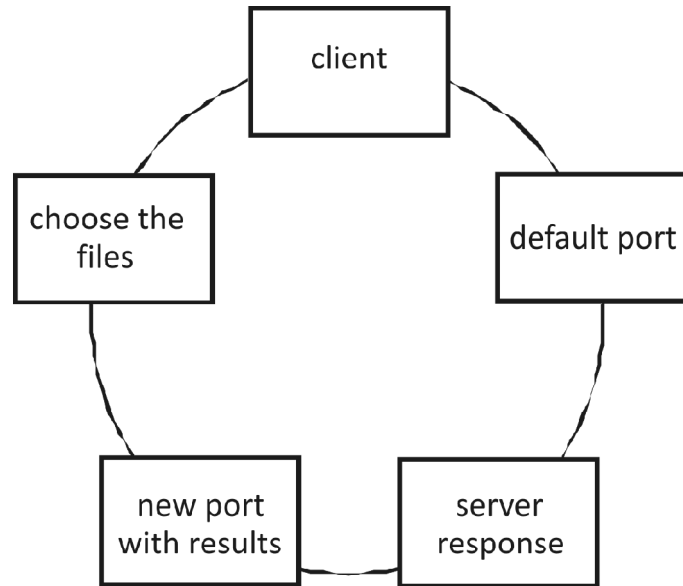
2. FIELDS OF USAGE OF MIAP TECHNOLOGY

This principle can be used any or everywhere where in there Is a domestic server and there is a mass client server requirement. Be it a company or office environment, the clients can access all the documents from the server database at an once for stretch usage and can encounter simplicity. The simple methodology of this MIAP technology saves a great deal of time compared to the trivial module which doesn't hop control each and every time thus preventing the quick flow of transfer of the files to and fro from the client and server end. The existing deal of technologies could cause a jam of the local network system when there is

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a bizarre number of a user. Here the access deals with a specific time limit with the number of users accessing the network at a time. The promising quick change of the net access and its speed thus provides a very high quality access and less traffic issues. A multi-task can also be performed and the demanded files can be sent to the users even if more than one user requires the same file at the same time. Below shown diagram is the pictorial representation of the port hop technique leaving the default port for new client?



MIAP TECHNIQUE

3. THE DATABASE

The storage limitations of the database are specific to the server capabilities. With a high end server, many gigabytes of data can be stored. These database is the back end of the client and server access. The front end is the one that interacts with the user and that enhances a communication with the server requesting a single or a group of files. The backend is the database where all the data is being stored. This data can be of any requirement of the group. The data can be a group of text , audio or video graphic files. These files are mined into a very organized group segregated in terms of alphabetical order. Sorting can be done in many appropriate ways. When the user sends in a request asking for a particular key word, then the database refers automatically to key word search and then gives the result as a group of files which contain the keyword with most relevance at the top and lesser on as it goes down the line. The keyword search and deliver results have been one of the finest filtering mechanism. It is being used by top web search lists such as Google and Yahoo. This is very accurate as the most searched and the most used links will be the top ones and hence it is not a worry that millions of results are turned to the users and what they would have to choose.

4. EXISTING TECHNIQUES

To carry out the existing process, there may be several different strategies and techniques that can be highly efficient. Let us look into the varying methodologies that are possible and efficient.

As we would want to compare many of the existing top techniques, we would like into the video-streaming system methods. With this we can broaden the base of our reality check stream of the work. The steaming of videos can be very elegantly carried out by many of the small websites as well as many leading big scale organizations. The video in terms of being showcased on the website can be shown in two manners, one is the streaming and the other one is in the stored format. Playing the videos are used for live relay with

a bit of delay. Streaming of videos is highly dependent on the speed of transmission, capable of being carried out by the Ethernet card. The transmission speed of the videos uploaded in the central database of the two-end server ranges between 350 and 500 Mbps. The required speed shall be 250 Mbps minimum to view the video without buffering. The videos which are being streamed cannot be recorded and viewed at a later time. In case of You Tube, data is uploaded at a rate of 2 Gbps. This means 172800 Gb data can be uploaded in a day, and 5184000 Gb data in a month. You Tube spends around 3 Million USD for storing the data per day. This Company uses different servers for storing different categories of information. You Tube does not allow live streaming of videos. You Tube does not have the technology to identify the streams which are socially not advisable for uploading, however, it gets reported by the end-users for deletion later. You Tube does not have the manpower to identify the quality and type of data being streamed and uploaded. Three methods to stream a video are progressive download, RTMP streaming and adaptive HTTP streaming. You Tube uses the progressive downloading technique. The data gets downloaded very fast, however, You Tube users may not view the entire downloaded stream and skip to the next stream. Thus the data downloaded goes a waste when it is not fully viewed by the end-user. Every download attempt starts the process of downloading the entire data afresh. This method wastes a lot of data, also called as pseudo-streaming. Adaptive HTTP streaming is a new streaming format with attempt to join the merits of progressive download and RTMP streaming. The video from the server is broken down into fragments (a few seconds of segment). Fragments get downloaded in installments and not at the same time, thus reducing the wastage of data. Adaptive HTTP streaming method may become a more reliable method in the long run, though this method needs standardization. Almost any streaming video can be downloaded. The security and the confidentiality of the video thus downloaded is always under threat. It also means multiple users can download the same video and use.

These are techniques that are over the web. There are subtle changes in the working offline. The techniques used are similar yet the way they are carried out has benefits. The offline mechanisms have more safe transfer of videos and overcome multiple copies being uploaded. Though there may be external insecurities, confidentiality is maintained.

The principles currently used are infinity propagation technique. This refers to the technique used in the server-client module. In server client module there is no web and no internet, hence there is no medium of exchange of files. Moreover there is no defined end users who receive the files. Standardization is the first that has to be looked into and maintain throughout the transmission. The current techniques include CDN methodology which is efficient only for the internet or the web technology. The amount of drawbacks that exist is still on a larger side. The data consumed for the minimal usage is not taken into account. Because of these cases, the bandwidth is high and the data ends quickly comparatively. In case of watching a part of the High Quality videos and not using them fully wastes a very high amount of data. Online and off the web, the techniques exist such a way there is not a cluster formation by a single server. The server is locked onto just one client and there is a multi-server waste of the data.

ARCHITECTURE

Mesh overlay architecture works such a way that there is a self-organization of nodes in a directed mesh (Fig. 3). The data from the main source is being distributed among many different peers. These peers are connected to the mesh topology via the parent peers who get authorization from the server via the port acceptance methodology. Once the parent peers get the connection within the network they forward the data required to their child peers which are solely connected to the parent. The reason why these came into the existence was that they enhanced the provisions at a very cheap price and the ability to the flexible advantages are very high. Structural maintenance is also extremely cheap and there is a very secure means of transport of data. This topology also lasts for a longer period of time as they have many paths and if any one of them gets disturbed or busy they can still stay well and could provide the information that is required.

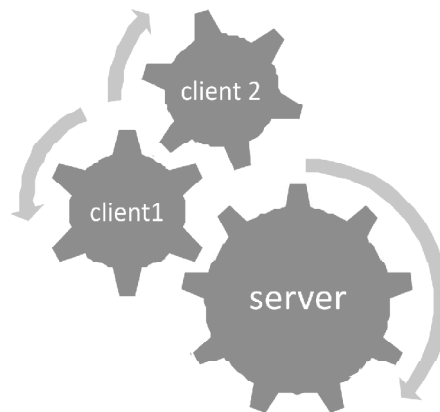
Part of a mesh architecture for media delivery. Peers are Interconnected and provide an overlay network for streaming with path diversity.

In both architectures, there is a very high level of complexity as there is a lot of amount of streaming of the media that takes places and there has to be an appropriate transfer of the data if there is a clash to the respected system on the approach of the first come first serve principle. Moreover even with the appropriate time arrangement of peers there is no hundred percent accuracy in transmission as there is no strict time for the transfer of files or stopping it. This multimedia data paths have very unique specs in how dynamic a statistical properties there is to show and that can be carried out with atleast specific secure paths. The delivery of the video only works only on the state of the network that has a role to play.

5. PROPOSED SYSTEM

The proposed system overcomes the demerits of the existing technologies and the drawbacks of the very common usage of the video over the web. The major concerns for most of the secure transmissions of the data are the originality. There are many duplicates of a single video I.e. more than one owner claiming the creator or the legalized distributor. This happens due to the download option in most cases. The download option if not given along with the video, still there are many free software to download a MP3 or a video file with any extension. This is the first problem that we have encountered. In our methodology, we have disabled the download option for any video that is being streamed. The second problem which was the wastage of unwanted data spent is also overcome. We are using an intelligent module here. This module deals with the problem of buffering the video. The video doesn't buffer from the main server. It doesn't get stored in the cache or the temporary storage of the clients system. In our module, there is only a streaming of the video in a continuous process. There is no loss of data if the connection is terminated in between. The data is being showcased as and when the video is played. It is a more on the moment process. The third thing is, the video that has been buffered can be watched again on the web even if the connection is terminated. In our case, as soon as the connection is terminated, the videos get shut down. The interface is closed. In case of a video watched and played later, it has to be downloaded once again. Therefore, double the data is being lost. With n number of views, (n-1) times the data gets lost. In our module, no data or bandwidth gets spent without reason. With more bandwidth speed, less cost, this gets more effective and the experience is raised, and it gets better. Like any other audio player where the audio can get enhanced, we would provide a platform wherein the audio clarity and the volume can be boosted and improves the over all experience.

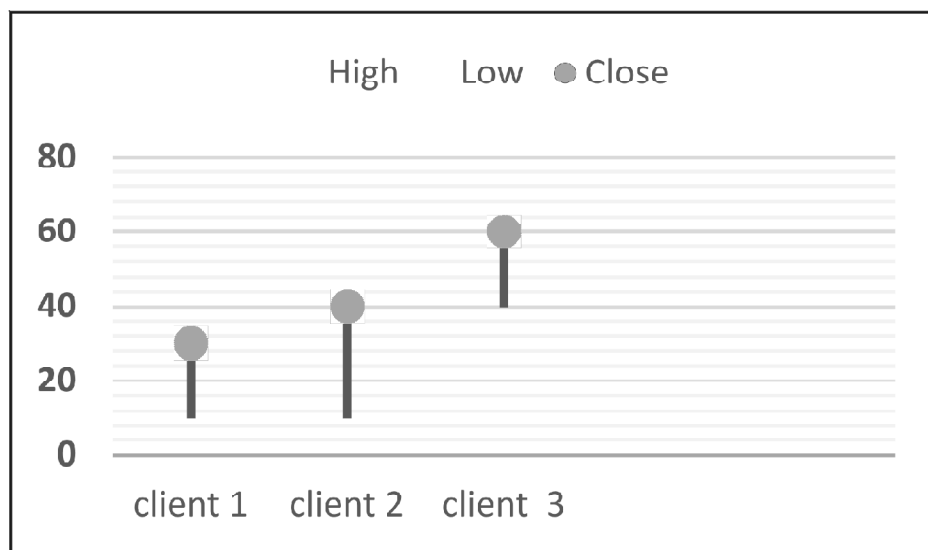
Compared to the existing non-web service provided, it is a faster transition of the videos. The port and the wait of the server for the response of a client is changed. In our case, the client only contacts and connects with the server with the default port number of the server.



SERVER N- CLUSTER

Once we enable the connection, the request which is sent along the request, is taken into account. This response query is filtered from the database and it is being sent to the client in a new port. Client gets acknowledged of the new port. As shown in Fig. (2), the cluster is formed with a server handling a set of clients. It has to accept the new port connection. Once accepted, it would be given a time period of say ten seconds to choose its required elements. Once that it is done, the videos are being played one after the other. The server makes a move back to default port in order to respond with the next client and so on. It is not only a necessity that it has to be a video, it can be any other file and this can be followed. This is a real time event and hence the RTTP protocol is used to execute the running part. The environment can also be increased with affinity to the liking of the user. The clients can be viewing a video for any specified time. It can be for a large or small video.

If the server terminates for any reason, then it would end into a close stage as shown in the below figure. In the previous techniques there is no close option even if the net connection is terminated.



STATUS OF THE CLIENTS

6. PROPOSED ALGORITHM

Client can only connect to a server if they have the IP address of the server. Let there be a default port wherein server connects with client along with the requested files. Server returns the files with the next free port. Client views the files in the new port. It gets only a time period where it has to choose the required files. If time is over, the connection gets terminated. Within the time, if the client sends it request, server gives the files. Server returns to the default port and then handles the next client in the same steps mentioned above.

7. COMPARISON BETWEEN EXISTING AND PROPOSED MODULE

Why do we need this new methodology? Why do we not prefer existing famous client server trends? Why not apply globalized methods for domestic transfers?

Though many different client server means can exist, we would look in detail with the video transfer means. The media diversity is being checked out here because the famous systems of these are YouTube.

This can be used for such huge servers because they have such a huge usage. Billions of people use the website and the videos and hence there is a huge income source for the YouTube Company. And this is not a huge amount of money being spent. They get a huge profit as well. This is a profit organization to an extent. This doesn't go well with the domestic scale as there is no profit to look for. Moreover there is about a GB of data is being uploaded into the server every second into the YouTube databases. This is surely not

going to happen in cases of domestic level. There is a definite level of brought down in terms of local usage. The uploading of a file into the database is also not a billion people. It's usually a very few people who is at maximum the number of the people part of the server. This doesn't cause a traffic of the server updates. The server is In our case there is only a limited number of the users can upload videos. So there is a huge drop down in the stats of the domestic matters. The Domestic means when they ask for a video the speed of transmission can be of a few milliseconds later as there is always less users accessing the network and there is less handling of ties. In this domestic case, we can always use a hopping means to transfer the control using a server access code method. The transfer can be organized and there we can handle each and every client and donate the direct control by then putting a slot for the server to transfer the contents to the client and move ahead. There is a to and fro motion of the server from giving a port number to the next vacant client requesting for the files.

Memory access= 1MB per MS of transfer time.

Total storage if 2TB database, still the access time for individual client, will be very less and the speed is very high.

8. FIELDS OF USAGE

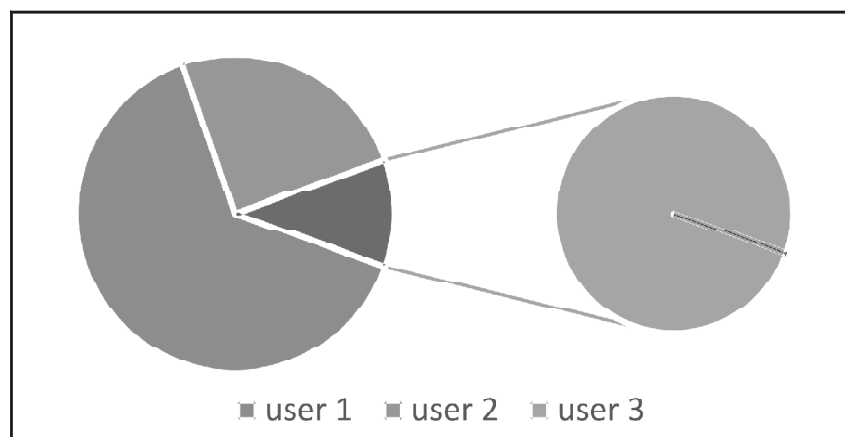
Why and where can we use this? This method is a unique data saving method. Any and everyone will be interested in opting for a methodology which has additional security, confidentiality and quicker access. This can be used in companies and institutions wherein confidentiality of the shared entity is to be only viewed within the group. There is no leakage of data elsewhere. Let us take a look at one of the places where it can be viewed Training institutes (teaching) can use this new technique very well. The

Videos of staffs taking a lecture can be recorded and stored in the database. This is connected to the server.

The registered users to the institute can opt for an offline course. A software will be given to the client. This can be simply downloaded by the client on his/ her system. The IP address acts like the password. Then the server acknowledges the client and the video is transferred. There is no methods to download the video. This is to ensure only the institution registered entries can view. If it's to be within a specific time, then that can also be enhanced by the server by adding restrictions at the server side. This

Depends from place to place. There are some places where they use a separate domain for mail to share files. Even in these cases a mail sent can be a loop hole. The entire work can be downloaded from sent files and taken elsewhere. This will be not permitted here. This adds that extra safety.

As we can see below, the old module would require a server for each part of the work done by a single server in a cluster.



EXISTING-PROPOSED

9. CONCLUSION

Overall, there is a modified system to enrich the viewing of media files over an online off web client-server system. The speed of the transmission of the video is quick and there is a clarity of the vision. There are features like the media players. The hopping port technique used here is to produce the extra speed which is being lacked in the exiting techniques without web. With the specified quantity of data alone spent, there can be greater usage of data viewed and spent. The quality of the video is also the same as that is in the database. That can be increased in quality only at the server end. The control of the server end is by few people alone that makes it a unity end access mean. Therefore there is no downloading of videos by any client.

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