

An Efficient Secure Parallel Distributed Control Protocol for Content Delivery Networks



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ABSTRACT:

Technology has its own way to put forward the next level of research. In the era of Fine dine of IT revolution, where we use the Socket layer and its encryption mechanism is a hot cake in the IT Industry, having a good competition to provide the best of best solution to content delivery in the secured way. In this paper where we considered the best practice to implement the network content delivery to be acknowledge based where to need know the bandwidth and traffic involved which will measure the speed and will follow up the mechanism of parallel Protocol system. Meanwhile we implemented the Distributed system where if the corresponding network is busy, we need to implement the best of distribution to the next possible deliverable protocol based network and depending upon the time and its constraint like speed, band width will decide the size of data with the secure encryption mechanism.

KEYWORDS: Content Delivery Network (CDN), control theory, request balancing, Acknowledgement.

INTRODUCTION:

In the Domain of the networking we look forward always introductory of rival currently, the basic Internet is mainly based on one computing system model; the client-server model. In the client-server model a server or a pool of servers stores information and services and waits passively for the clients to request them. The client can be any consumer that request services from the server. The client-server model requires network components to function properly. These network components are located between the client and the server for structured communication, i.e. the basic Internet interconnectivity structure. The servers and clients connect to the Internet access providers, who in turn connect to the Internet backbone provider for connection to the whole Internet. These together with the

software used in the network form the basic Internet infrastructure, which can be used for content distribution. The smaller content providers transfer data to the CDN through an ISP. Despite all the talk about the Internet growing and the need for new solutions, DCP1 has not received any signs from the market on the need for a system like information networking even though they are in the networking business.

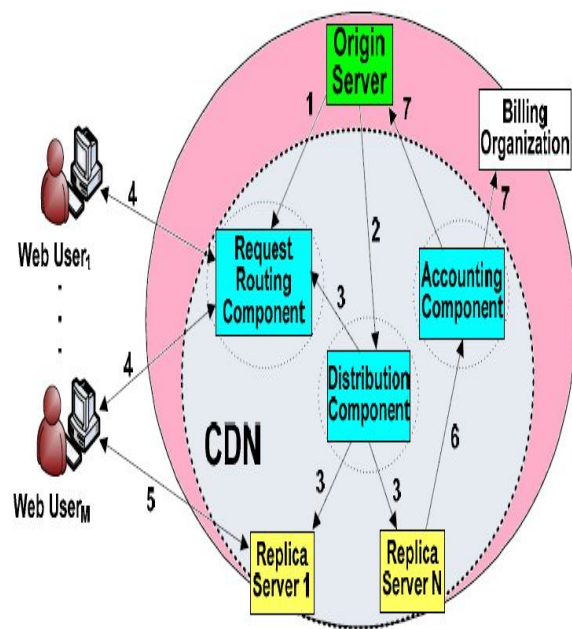


Fig. 1.1 Illustration Of CDN in load Balance of DS.

The CDNs' business model is to build or rent networks and to sell capacity. Content providers pay the CDNs for the services they offer based on the amount of

traffic transferred. For the larger content providers, a direct link is connected to the CDN for transfer of content. Thus it may take ten years for the concept to be widely deployed. It would seem that the network is going in the general direction of information networking but it will be slow. Some issues have been raised: how will the routers communicate with each other? In addition, the possibility that no common standard is provided and manufacturers have their own standards exists, which leads to routers not being able to communicate with each other. This was a problem when the current Internet was implemented.

II.RELATED WORK

CDN where we follow up the steps to look forward the best of the related methodology to implement the load balancing t in the efficient and perfect way in the aspect of parallel and distributed network. Technologically we usually follow up many aspects where it leads to the perfect way of implementation. A content delivery network offers still more comprehensive services than cloud computing. The CDN was designed as an overlay on top of the basic Internet to provide better content distribution services. Internet overlays are

virtual topologies that reside on top of the basic Internet and add value to the Internet by, for example, guaranteeing the data retrieval and offering load balancing. The current Internet was originally designed as an overlay to the telephone network and has not had major architectural changes since the beginning. It is an end-to-end network that connects two hosts wishing to communicate with each other. A data center provider rents out data servers to anyone who requires server capacity. The server can be rented to practically anyone: the content provider in the client-server model, the CDN service provider in the CDN model or as cache servers in the CCN model. Thus, for a data center provider, it also does not matter which content distribution model is in use.

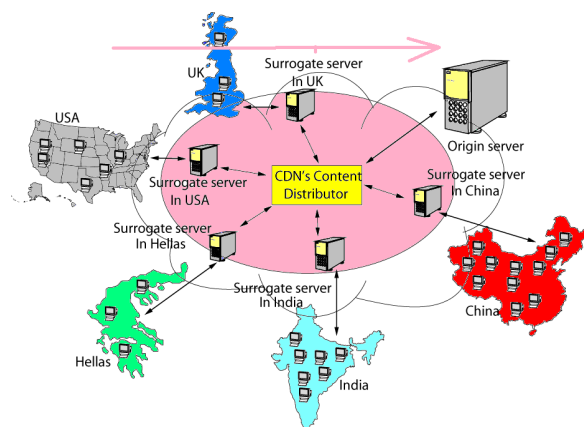


Fig. 2.1 Illustrated View of CDN Distributed Architecture

III.METHODOLOGY

In the Load balance factor where we look for a technological best implication in the category of parallel and distributed, secured and high end delivery s typical to the industry of networking, which leads us to some of the best algorithmic approve with a very good technically feasible and smart solution can be implemented easily and robust to the environment of the solution provider. The basic idea of information networking is that the network has cache servers that cache data. The data moves freely in the network. No clear standards on the existence of origin servers have been defined yet. If origin servers do exist, they would need less capacity as the data requests do not have to always go by the origin server due to the caches. This means cost savings for the content provider. It adopts a publish/subscribe model, where the power is within the receiver rather than at the sender. The publishers are the content providers that publish data into the network. The subscribers express interest in certain data and the network delivers this data to them when it becomes available. The network has rendezvous points (RPs), where the matching of subscriptions and published

data is done and forwarded. The publication may be cached by intermediate network components and when more than one subscribes to the data, the data is multicast to the subscribers. Optimization and optimal control theory are well-suited to the problem of computer network security. Once the myriad of objectives mentioned above are translated into an appropriate cost function, these tools allow us to minimize the cost function. In several cases that we will investigate, security objectives can be specified as state variables and security tools correspond to control inputs. With the appropriate choice of system model and cost structure, optimization and optimal control theory tools apply very directly.

In the above fig. 3.1 we describe the best of the approach to implement will take time before the majority of routers have caching capabilities. However, the development is going in the direction of a complete semantic network. Take, for example, the Cisco UCS (Cisco, 2010b) that installs blade servers into its routers. The blade servers cache content closer to the consumers; it is more efficient and feasible and is a step in the right direction. The information on value networks and costs are based on public information as well as interviews. The next sections will follow the general structure of first explaining the value network's traffic, monetary and intangible flows and then explain the weighted arrows separately.

4. CONCLUSION AND FUTURE ENHANCEMENT

In the Modern era of Information Technology, we usually put forward the best thinking to be the best, but the best has its own way of Implementation. In this paper, we put fo0rweadr the load balancing in the parallel and distribute CDN where the way we maintain is acknowledge based approach in order to avoid the unnecessary load to network making traffic jam. In the peering mechanism we have implemented the mirror

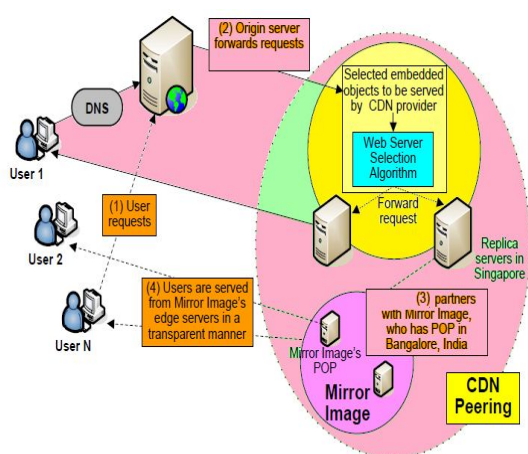


Fig. 3.1 Architectural Flow of the CDN implements the CDN and Load Balance.

image of the previous maintain the session and the delivery of data would like to the beset way we put forward. On the other part of future enhancements we look forward to implement the best of maintaining the acknowledgement, but the implementation can be done in various aspects which we look forward for the best of other approach to implement enhancement.

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