

**ADVANCEMENT TOWARDS EFFICIENT SEARCH IN PEER-TO-PEER
NETWORKS****Kondeti Sridhar¹, A.Shyam Prasad²**¹M.Tech Student, Dept of CSE, Malla Reddy College of Engineering & Technology, Hyderabad, T.S, India²Assistant Professor, Dept of CSE, Malla Reddy College of Engineering & Technology, Hyderabad, T.S, India**ABSTRACT:**

Peer-to-peer overlay networks, running at application layer, carry out scheduling and routing devoid of any knowledge of underlying physical networks. A variety of peer-to-peer systems have turn out to be most accepted Internet applications and a most important section of Internet traffic is attributed to them. A novel algorithm described as Selective Dynamic Query is projected. The Gnutella developer community projected Dynamic Query (DQ) method to get back sufficient results at a small traffic cost. By solving a Knapsack programming difficulty, selective dynamic query calculates best possible combination of a group of neighbours with an appropriate integer TTL value for subsequently query round. To permit querying of resource in unstructured systems of peer-to-peer, two most important categories of query protocols are developed. The Selective dynamic query algorithm does not necessitate any upgrade in previous peers except the inquiry node itself; consequently, the flag data in support of transition are not needed.

Keywords: *Peer-to-peer networks, selective dynamic query, Dynamic Query, Flag data.*

1. INTRODUCTION:

The unstructured topology is an accepted representation in several peer-to-peer systems as: unstructured peer-to-peer systems are extremely flexible to peers' failure and sustain an extremely low

transparency at peer arrivals as well as departures; they are uncomplicated to be implementing and encompass minute overhead in topology upholding. As unstructured networks do not offer any evidence to make easy a resource query,

researchers are facing substantial challenges when scheming query algorithms in those networks. A variety of peer-to-peer systems have turn out to be most accepted Internet applications and a most important section of Internet traffic is attributed to them. To allow permit querying of resource in unstructured systems of peer-to-peer systems, two most important categories of query protocols are developed. Quite a lot of researchers have compared performance of expanding ring with previous algorithms in peer-to-peer networks. A number of researcher's effort to get better search competence by exploiting geographical as well as temporal locality. A novel algorithm described as selective dynamic query is projected. By solving a Knapsack programming difficulty, selective dynamic query calculates best possible combination of a group of neighbours with an appropriate integer TTL value for subsequently query round. Selective dynamic query is actually an optimization procedure with two objectives such as minimizing response latency as well as traffic cost. If in each iterative round TTL value is chosen wisely and query packets are broadcasted to accurate number of neighbours, it is likely that within only one or else two iterations,

there would be adequate returned results and outlay and latency could be reduced. This is perception behind our approach: the inquiry node constantly tries to develop degree heterogeneity of the entire residual neighbours. The Selective dynamic query algorithm does not necessitate any upgrade in previous peers except the inquiry node itself; consequently, the flag data in support of transition are not needed. Selective dynamic query calculates a best possible grouping of integer TTL value in addition to neighbours set for subsequently query round. Selective dynamic query make available a fine grained control; its latency is secure in the direction of renowned minimum one by means of Expanding Ring; in mean time its traffic expenditure is moreover small. All the way through extensive simulations, performances of the controlled-flooding algorithms including selective dynamic query and other existing algorithms are expansively analyzed under a variety of scenarios.

2. METHODOLOGY:

Peer-to-peer overlay networks, running at application layer, carry out scheduling and routing devoid of any knowledge of underlying physical networks. Traffic cost

as well as response latency are two significant metrics in support of algorithms concerning resource query in unstructured systems. Quite a lot of researchers have compared performance of Expanding Ring with previous systems in peer-to-peer systems. Developer community of Gnutella put forward Dynamic Query (DQ) method to get back sufficient results at a small traffic cost. To allow permit querying of resource in unstructured systems of peer-to-peer systems, two most important categories of query protocols are expanded. Controlled-flooding-based system manage iterative flooding process: rather than blind flooding, a TTL value of integer is approved in every packet of individual query round; extent of flooding can subsequently be controlled. Controlled-flooding-based algorithms are extensively used in unstructured networks for instance wireless ad hoc networks. Expanding Ring is initial such protocol. The subsequent kind of query procedure is random-walk based. The nodes of query give out a query packet, which is subsequently forwarded in an unsystematic fashion until it ultimately hits the target. Random-walk-based algorithms can decrease network traffic and improve the system scalability. For applications of

energy-constrained, random-walk-based protocols are measured as superior choices. An overview of Performance comparison with a range of network sizes was shown in fig1. As in unstructured peer-to-peer networks, their response latencies are moreover high to be satisfactory for users. A novel algorithm described as selective dynamic query is projected. The Selective dynamic query algorithm does not necessitate any upgrade in previous peers except the inquiry node itself; consequently, the flag data in support of transition are not needed. Selective dynamic query calculates a best possible grouping of integer TTL value along with neighbour set for subsequently query round and it is actually an optimization procedure with two objectives such as minimizing response latency as well as traffic cost. The most important thought behind selective dynamic query is: rather than processing floating TTL value, selective dynamic query dynamically calculates a most favourable combination of an appropriate integer TTL value and equivalent group of neighbours using mathematical programming. Performances of the controlled-flooding algorithms including selective dynamic query and other existing algorithms are expansively analyzed

under a variety of scenarios. Topologies of peer-to-peer systems are divided into three dissimilar categories such as centralized, decentralized but structured, along with decentralized and unstructured. Napster like centralized systems contain their resource directories hosted at several central servers. A centralized topology scales defectively and suffers from single-point-of-failure difficulty.

3. RESULTS:

The most important thought behind selective dynamic query is: rather than processing floating TTL value, selective dynamic query dynamically calculates a most favourable combination of an appropriate integer TTL value and equivalent group of neighbours using mathematical programming. We highlight that selective dynamic query is well planned each query round always tries to terminate the query in a minute TTL value, with the intention that inquiry node can limit range of flooding and possibility of overshooting, and decrease perspective response latency; greedy in each iteration, inquiry node propagates query packets to calculated subset of neighbours with considered TTL value, expecting to get hold of necessary number of results through these

neighbours at one time; and ; safe with reasonably low integer TTL values, selective dynamic query can be more antagonistic on neighbour selection.

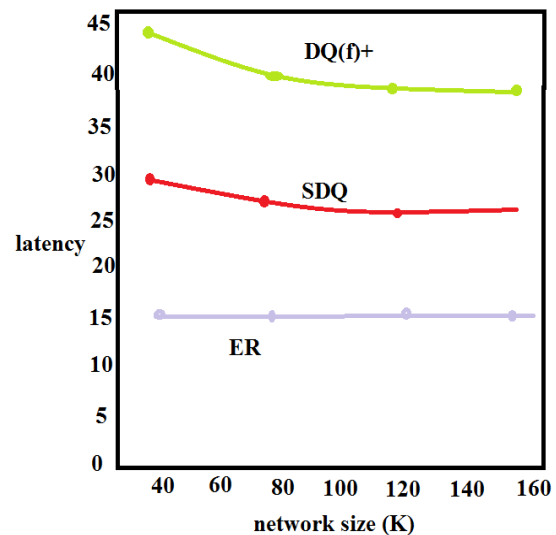


Fig1: An overview of Performance comparison with a range of network sizes

4. CONCLUSION:

Traffic cost as well as response latency are two significant metrics in support of algorithms concerning resource query in unstructured peer-to-peer systems. As unstructured networks do not offer any evidence to make easy a resource query, researchers are facing substantial challenges when scheming query algorithms in those networks. A number of researcher's effort to get better search competence by exploiting geographical as well as temporal locality. A

novel algorithm described as Selective Dynamic Query is projected. Topologies of peer-to-peer systems are divided into three dissimilar categories such as centralized, decentralized but structured, along with decentralized and unstructured. Selective dynamic query is actually an optimization procedure with two objectives such as minimizing response latency as well as traffic cost. The Selective dynamic query algorithm does not necessitate any upgrade in previous peers except the inquiry node itself; consequently, the flag data in support of transition are not needed. Selective dynamic query make available a fine-grained manage: its latency is secure in the direction of renowned minimum one by means of ER; in mean time its traffic expenditure is moreover small. Random-walk-based algorithms can decrease network traffic and improve the system scalability. Performances of the controlled-flooding algorithms including selective dynamic query and other existing algorithms are expansively analyzed under a variety of scenarios.

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