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① Discuss three techniques for Scaling distributed System & Compare Advantages and disadvantages.

Advantages

Scalibility of System will reflects ability to handle takes a system grows in size where the distributed System is Scalable that works continously efficient as user & resources begin to grow.

They are three techniques of Scaling.

* Geographical Scalability :- A geographical System is one where there will a user delay may be significant are noticed. So maintain higher load (or) resources. If nodes are Servers those Server and could be located one (or) one can different place.

* Size When the System has Scalable where there is user and resource to System without any loss for performance. More resources where used need Support are often compounded with Ciminations of Centralized Services, although they different.

Disadvantages

→ Problem with size Scalability that Server (or) group Sever can become a bottleneck. When needed to increase number of requests.

→ Three abuses for bottleneck.

- Computation limited by storage capacity including Input and output.
- Network between user and centralized Services.

② Transaction nested transactions is set of operation performed on data across two (or) more data where coordination should actually do.

Coordination is needed to ensure the transaction are nested one about and also that subtransactions abort too.

It should coordinate to see if all are committed while each of them can do.

Without coordinator informs / ordus to do to request it cannot commit. Coordinator is very important in nested transaction.

* Nested transaction should wait to commit until coordination should wait to commit.

Nested transaction :- Top level transaction can open Subtransaction & each subtraction can open further transaction & Subtraction can open further transaction depending. And Subtractions are at same level can run concurrently. It is database started to identify scope of already started transaction.

In Idea of nesting is Explicit transactions If a program starts a transaction they involve another procedure to new start new transaction. If procedure Execute first will have its own transaction. Implementation not available on. Oracle and DB2.

(3) This problem depend on control over some conditions

Latency is problem of any communication; and the latency is high, clients may be delayed but to avoid this we have some methods! large client requests can be broken to smaller parts. When small parts are sent immediately starts working than waiting for big data.

Latency is high, clients may be delayed but to avoid this we have some methods. Client utilize delay time between sending & recieving. Fewer number of bridges or routers a packet lower latency and other alternative is to use high speed network links (or) shorts distance in and the application cannot reduce latency, and it effects by choice of protocol and the high latency, network than a protocal allow multiple packets to send acknowledgement.

4ans). In structured is an architecture which node maintain information and it will enable developers create/implement protocols on web easily and provides great flexibility for multi-path and Ex P2P, ZP network. Overlay network is built on top of physical network. Nodes in underly network nodes provide essential routers. logical cannot be physical test path. Source & destination may fail logically next to each but Hence, may delay message delivery, even though better path available and P2P is one best Example for Overlay network.

When message is routed across network the shortest path is choosen between sources and distination and nodes in underlay network delay nodes provide essential routes but overlay network nodes.

5) The requirement of distribute system deals and churn changes and high churn rate can increase / decrease costs quality and we can Explain performance through stochastic process / model. Adding some randomized can also reduce churn. Flexible - cluster based protocol is used - to handle churn in P2P network. cluster nodes work together to achieve efficient routing and size of cluster between upper & lower bound. protocol achives desirable level of stability to absorb input changes, imposes rate at which nodes join and ears the overlay network.

minimizing clues

- Computer system organization
- Dependable and fault-tolerant System
- mathematics of computing
- Probability & Statistics

and the large amount of arriving & departing participants within short time in P2P network.