Computer Tech Essay, Research Paper

Common Network Architectures

There are many different types of networks used today that could be evaluated. I would like to take a brief look at three main types of networks, the host-based network, the client-based network, and the client-server network. I would like to look at both the advantages and disadvantages of each type.

In the host-based network there is a host or server, often a mainframe computer that does virtually all of the work on the network. The host computer provides data to all users on the network, and also performs all application functions. A benefit of a host-based network is that there is one central computer for all end users. If, however, the amount of users grow beyond the capacity, the host can become overloaded. It then takes more time to access and transfer information over the network. The only solution is to upgrade which is often very expensive for large host computers.

Client-based networks are configured to where the client computer does most of the work in managing data. The application software on the client computer is responsible for the presentation logic, the application logic, and the data access logic used in data management. The server only stores the data needed by the client. The problem with this network type is that the circuit can become overloaded with large amounts of information being transmitted to the client computers. The client computer, usually a microcomputer, can also become overloaded as a result of storing so much information.

The third and most popular type of network is the client-server network. The client-server network shares the workload between the client computer and the host computer. The client computer is usually responsible for presentation logic and application logic. The host computer is left with the task of storing data and data access logic. These functions must all be accomplished for the network to transmit and receive information properly. Sometimes the application logic may be split between the client and server.

There are some important benefits to using the client-server architecture as compared with the host-based network. First of all this type of network is scalable. When the number of end users increases, upgrading can be done gradually and with less money as compared to the host-based network architecture. When a server becomes overloaded you can simply add another one and simply transfer some of the application logic or data storage to the new server. Client-server design also allows for service to many different types of clients and servers. There is also no central point of failure that will halt the entire network if it fails, as there would be in a host-based network.

Writing software for client-server networks is much more difficult than for host-based networks. The complexity is greater than that of the host-based network, therefore the programmer is often required to know several languages to effectively write network software.

All of these networks have there advantages and disadvantages. The host-based architecture is becoming a thing of the past. High demand for information and increasing numbers of network users requires huge host computers making the central host computer more susceptible to failure and long term problems. The client-based network could remain widely used because microcomputers are becoming more and more powerful with a greater capacity for data storage. The client-server network is however used more than any other network because of its flexibility in serving a variety of clients and its scalability. Networking is definitely an area of computer science that demands its administrators to possess a high level of skill and expertise in order to remain on the cutting edge of technology.

Data Communications.

Bibliography

83 Desperado By The Eagles

G G7 C Cm

Desperado, why don’t you come to your senses ?

G Em7 A7 D7

You been out ridin’ fences for so long now

G G7 C Cm

Oh, you’re a hard one, I know that you got your reasons,

G B7 Em7 A7 D7 G

These things that are pleasin’ you can hurt you somehow

D Em BmDon’t you draw the queen of diamonds boy,

C GShe’ll beat you if she’s able,

Em7 C G D

You know the queen of hearts is always your best bet

Em Bm C G

Now it seems to me some fine things have been laid upon your table

Em A7 Am7But you only want the ones you can’t get

D D7 G G7 C Cm

Desperado, oh you ain’t gettin’ no younger,

G Em7 A7 D7

Your pain and your hunger, they’re drivin’ you home

G G7 C Cm

And freedom, well, that’s just some people talkin’

G B7 Em7 A7 D7 G

Your prison is walkin’ through this world all alone

D Em BmDon’t your feet get cold in the winter time ?

C GThe sky won’t snow and the sun won’t shine

Em7 C G D

It’s hard to tell the night time from the day Em Bm

You’re losin’ all your highs and lows C G Am7

Ain’t it funny how the feelin’ goes away

D D7 G G7 C Cm

Desperado, why don’t you come to your senses

G D Em A7 D7Come down from your fences, open the gate

G G7 C Cm

It may be rainin’, but there’s a rainbow above you

G B7 Em C G Am7You better let somebody love you,

G B7 Em Am7 D7 G

You better let somebody love you before it’s too late

———————————————————–Chords used:

E A D G B e +———–+A7 x 0 2 0 2 0Am7 0 0 2 0 1 0

B7 x 2 1 2 0 2C 0 3 2 0 1 0Cm x x 5 4 3 3D x 0 0 2 3 2

D7 x x 0 2 1 2Em 0 2 2 0 0 0Em7 0 2 2 0 3 0G 3 x 0 0 0 3

G7 3 x 0 0 0 1 +———–+