# **Understanding Client-Server Model**

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## Abstract

The electronic document is a real-time client-server model defined in two computer programs to communicate. Client-initiated communication, send a request to the server. They are usually computer networks and software applications will be install. So we also determine that all cell phone devices work as a client. Server is typically a device with file and database, as well as the complexity of your application, such as 1 Web site. They have a large central processor, larger hard drives and more memory, more customers. Server client request, provide resource sharing customer, and in the context of the client, it will not be processed. In this paper, we have a client/server architecture, as well as client/server system.

Key words: Client-server architecture client-server system

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## Introduction:

A client-server model defines two computer programs to communicate. Client-initiated communication, send a request to the server. They are usually computer networks and software applications will be installed. Hand phones devices be able to be used the same as a client. Server is typically a device and file and database, as well as compensation for the application, such as Web site. They have a large central processor, larger hard drives and more memory, more customers. Server client request, provide resource sharing, customer, and in the context of the client, it will not be processed. Client-to-server model, and tend to occur in a network with multiple computers. But it be able to occur on private systems. Client-server form sees the function, such as e-mail, internet access, and access to the database. 0 Web browsers is in fact work like a client. It is software that is in the local processing of data from Web server. In a distinctive client-server system, in which a server is enabled and that you are waiting for a customer. A quantity of services using the same server. They are often large applications. Internet host and TCP/IP (Transmission Control Protocol/Internet Protocol) is based on the client/server model. TCP/IP user, so that the client's request, FTP (File Transfer Protocol) server (Sullivan, 2000)

Client-server architecture, in sort to decrease network traffic to specific requirements. It is not the entire file will be transferred. Here be two types of client-server architecture, the architecture, and the two types of 3-tier architecture. In two-tier client server structural design, the user interface will be added in the client's data is stored on the server. Processing of information is a breakdown of user interface and data management server environment. In such a 3-tier client/server structural design, middleware is used between user interface and data management server environment. This will help to address the shortcomings in that respect, and respect for two-tier client-server structural design. It increases the workability of a huge digit of users. It also increases the elasticity, a comparison of this two-stage process. However, the development of the environment is more complex application development the two-stage procedure (answer.com)

## What Is a Client-Server System?

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Client/server and distributed computing model, the customer service application servers. Client and Server is often a different computer, you can connect to each of the computers on your network.

A client is a process or a program, a message will be sent to the server's system. The messages from the server for a specific work like a customer's search for a evidence in a folder, or in a part of a document on the server's hard disk. Management of confined resources, like as the exhibit, keyboard, hard drive, and other peripherals.

If the server is running, or the client request, transmitted over the network. Server receives and performs an action, such as a database query and read the file. Server process will usually result in high-performance PC, workstation, or host computer. For instance of a client-server system is an application that permit a proxy to get the information in fundamental record server. To get information through a computer program, a graphical user interface (GUI). An account number in GUI, how much can be withdrawn or deposited. PC Client check the input data received, transfer the data to the record server and the results will be displayed on the server.

Client-server model, in which an addition of the object-based (module) programming model, in which a large part of the software in some of the smaller components, a custom interface. Interactive components of the exchange of information or through a Remote Procedure Call (RPC). Call a component is the client, the so-called server components. This mode will create the advantage of better maintenance and scalability.

A client/server environment is usually requires more than one brand and devices from different manufacturers. Vendor independence and freedom of choice, is to further the benefits of the model. Easy-to-use PC device can be connected to a single mainframe-based server, for example. Client/server systems can be scaled and not focus on the solution, such as the functionality of the server can be distributed more and more on the server computer, such as the number of customers will increase. Server processes can be run in parallel, in each process of customer service. Shortcomings of the client/server model for safety, it will be even more difficult, and one in a disseminated surroundings, a central management of disseminated systems may be

(01)

too much and more costly, and maintenance of a central system, in which the data distributed across multiple servers must be maintained in the failure of a single server may result in a large client/server system is not available. If a server fails, your customers can continue to make progress.

In addition, the computer network can be a performance or reliability standards: If the network fails, the entire server is not accessible. When a client to perform high data traffic on the network, all of the client from a longer response time (Ross, 2010).

### The Architecture of the Client-Server System

A client is a program, a system (host) and receives a service from one server to another. Clientserver model, including 100 million Web, e-mail, remote login, and file transfer too many other common applications. Client-to-server Internet applications are defined as distributed applications, because a client is typically a computer program that is running on the server, on another computer.

Client server, but interactive send message exchange of the Internet. The level of the abstraction layer, the router, and links to other locking nuts and bolts of Internet art is a black box, and send the message of the Internet, spread applications.

In a client/server architecture, the server is always a host and client can at any time, or in some cases. For example, a typical example is that one is always on the host. In a client-server structural design, the client cannot communicate directly with each other. For instance, the two browser cannot communicate directly with each other. In addition, the server is always on the host computer, the client can reach the server will send a packet to the address of the server.

A server that have not possible the most recent of which all of the customer requirements, is completely outside the server if you have only one or two of the requirements of the server. To resolve this issue, data-intensive computing is often a powerful virtual server, server-client architecture, application is a client-server infrastructure is often intensive, that is to say, you must have a service provider, you will need to purchase, install, and manage the server. Supplier must have an interconnection of expensive and bandwidth costs, and send and receive date and

infrastructure-intensive. For example, universal service, for example Facebook, a social network infrastructure and high costs.

However, not all of the Internet including a client and a server program. It includes 0-led mode of modern network architecture client-server applications, as well as peer-to-peer (P 2 P). This is a

different client/server, P 2 P, direct link between sometimes which host to connect to. For example, the Internet phone (such as Skype), document (for example (BitTorrent) shared files (such as optimization and IPTV (E . gpplive). The development of the structural design of the client-server system described in the following figure. 4



Figure 1: The client/server system

## **Development of Client-Server**

There have been some recent developments in client-server listed below are the developments.

- OPC UA
- What is the application
- iber V
- The drop-down box
- iCloud

## Whatsapp Client

To find the information you are looking for, the client is always only need to restart whatsapp client, do not need to be connected to the Internet.whatsapp client will remember:

- A contact in the list, the name of each file image and status information.
- The dialog box.
- The panel discussion.
- The status will be displayed.
- Your first and last name.

All of the information that can be considered to be an "offline" status.

### Whatsapp Server

If all of the agencies to know what information server, not the customer. In order to achieve this goal, the information is only available on your phone and backup on the server. When you log in, you will return to the home page, locate the server contains the following options:

- A list of the names of contacts, photos, and status information, configuration file
- The dialog box.
- The panel discussion.
- status information.
- Your first and last name.

All of the information in the client also whatsapp whatsapp on the server. (6



#### Viber

### Figure 2: Viber as a client-server

Viber provide adequate preventive measures to protect personal data security, the prevention of substance abuse , loss and unauthorized access. Even if we cannot guarantee that unauthorized access to your personal information, we do not have physical, electronic, and step by step safety to protect the security of personal data. Personal data will be stored in our server and network security, access is limited to a few authorized personnel and staff. However, there is no data transmission over the Internet, or type of electronic storage, is 100% secure. In this case, we are in a business environment changes, such as mergers and acquisitions in other companies, sales of all or part of the asset, the personal information may be the transfer of assets. As the first part of the transaction, the new entity will need the same level of protection for your personal data, and this privacy policy. If we are unable to reach an agreement, in which case, obligations, and we do not change society (Terpstra, 2013).

#### **OPC U A Framework**

Another recent development is a OPC UA client-server architecture, development, monitoring and control of application automation has been Visual Studio 2008 and OPC UA SDK. The proposed framework is a solution, the integration of the monitoring and control of the equipment manufacturing industry and the retail industry and Condition Based maintenance system, and based on the data and devices. The framework provides a set of libraries, classes, interfaces, and

sample implementations, so the user can easily available to developers and programrs, you can also create and implement OPC components and the associated application for monitoring and control (Van et al., 2010).

## i Cloud

In the Calendar, Address Book update the document in all of your small tools, such as iPhone, iPod ipads and feel. The iCloud free of charge, for an e-mail account, and from the iCloud you can delete a small program that you can find another folder. Let us assume that you send a message from iPad, and then you can find it from your Sent Mail Box MAC.



LOOK AT APPLE'S ICLOUD

Figure 3: iCloud as a client-server

## **Issues and Challenges**

• A client/server network is very complex. Therefore, it is a multi-point died only two or three individuals in the system.

- Setting up a server is a complex and technical challenges, as well as maintenance, and technical issues that have arisen. For this reason, it often requires a network manager, in order to address this situation, of course, is not very expensive.
- If the server has a problem, or if it is connected to the network, nor has it made any work. It is for this reason that this is the case, so they are reliable.
- Server is designed to be a robust, reliable, high-performance, and is not cheap. Operating systems are very expensive, the standard type, because it is a separate network environment[9].

The challenge of the client-server model of complexity, in its establishment in In addition, there is a further challenge, and reduce the cost and the security of the User field. For this reason, this is the real challenge in this rapidly growing and highly competitive environment, therefore, from the

above discussion, this is another challenge, and protection of the user is not safe, that means using Viber.

OPC UA client-server architecture is a challenging, but in the future, to put it into practice, to evaluate and improve the framework application real-time applications. In another case, the non-functional aspects, such as performance, scalability, and security must be monitored, and in-depth research. Redundancy policy we will develop and implement special data structures and services, have already been mentioned OPC UA specifications. These strategies, Please check carefully.

## Conclusions

Client-server structural design, in order to decrease network traffic to a specific requirements. This is not the entire file transfer, the client-server model an addition of the one object-based (or module) programming model, in which a big fraction of the software is divided into a number of smaller components, and through a well-interpreted interface. 0-led mode of modern network architecture client-server applications, as well as peer-to-peer (P 2 P). This is a different client/server, P 2 P, direct link between sometimes which host to connect to. For example, the

Internet phone (such as Skype ), document (for example, BitTorrent) shared files (such as optimization and IPTV (E.gpplive).

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