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AJAX BASED REMOTE FILE EXPLORER

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ABSTRACT

ARFE is the Java EE based application to access the ARFE system over the web using web browser and web (http) protocol. ARFE system specifically is being developed to develop the protocol and also the complete operating model around it to form the user access the files from totally different desktops remotely over the internet without compromising security (firewall). ARFE addresses the current issues and improves the file accessing between the different computer over the wide area network using the latest cutting edge technologies like AJAX, XML, Java EE and other such web technologies.

In this paper we have a tendency to propose to develop the remote file manager that breaking the barriers between the communication systems over the web. This Application is innovative idea and it's implementation to bring the desktop like experience to the web based application.

Keywords: Ajax, xml, Java EE, Web, Web 2.0, Web applications, Web Services

I. INTRODUCTION

In today's world what matters to the people is the time and quality. There also are alternative ways to access the remote system however none of them is reliable and user friendly in order that the users can not be able to perform the task in minutes. The traditional way to these problems was FTP servers. But there is no good feature rich FTP client to access the remote system as if it was present locally. Also you won't come to know about what the file contents are without downloading it locally causing lot more network load and also of no use. User doesn't always fell the command line way to do such simple tasks. FTP protocol itself has some limitations about what it can do and what not. Also it desires few ports to be kept open having the danger of virus or vulnerable code attack on the system. Still FTP can't be served as telnet as well if in some case user want to execute the command (generally needed in Linux environment). So there don't already exists any similar application to

modify the tasks and therefore *ARFE* has taken birth within the ever-changing world. The *ARFE* addresses the subsequent things

- User Friendliness
- No compromise with the features and functionality
- Reliability and availability
- Security
- Extensible
- Easy to use for unknown as well as experts
- OS like front end
- Everything integrated
- Customizable as per user's preferences

In this *ARFE* system the protocol is vogue so on prime of that developing the Ajax primarily based File Manager application to access, connect and communicate with the remote system as a district of the internet primarily based OS. It produces this potential by coming up with such a software package to work in local area network, WAN and Internet cloud firmly. It aims to provide the more freedom and independence to the customer to access the important resources almost from anywhere and anytime irrespective of location, distance and time with the rich interface over the web.

1.1. Motivation:

Current market survey is completed on current theories and implementations of such ideas. The result of the survey is that there are giant companies, which are also working on the similar idea. Presently the most preferred media for sharing and accessing the file is still email and people exchange the large files, data through email systems. Another choice to access the remote machine square measure telnet, ftp, ssh, remote desktop connection etc. and that they all have some common issues go with them. The present systems have following common issues.

- To use them, user needs to install them on his system
- These are not platform independent solutions
- User not always allowed installing his own software on the system
- This doesn't work with firewall on and we have to compromise with security to enable those
- When both the systems are behind subnet, this becomes totally difficult and so on...
- So, there was need to improve the system.

1.2. Related work:

1.2.1 CASE STUDIES OF EXISTING SYSTEM

1. Remote Desktop Services

Remote Desktop Services, at one time referred to as Terminal Services, is one amongst the elements of Microsoft Windows (both server and client versions) that permits a user to access applications and information on a foreign pc over a network. Terminal Services was developed by Microsoft's for implementation of thin-client terminal server computing, where Windows applications, or even the whole desktop of the computer running terminal services, square measure created accessible to an overseas client machine. The consumer can either be a fully-fledged system, running any package as long as a result of the terminal services protocol is supported, or a clean bones machine powerful enough to support the protocol (like Windows FLP). With terminal services, entirely the program of associate application is given at the patron. Any input to that is redirected over the network to the server, wherever all application execution takes place. This is often in distinction to streaming systems, like Microsoft Application Virtualization, during which the applications, whereas still keep on a centralized server, area unit streamed to the consumer on-demand so dead on the consumer machine.

2. Telnet

Telnet may be a UNIX operating system utility that allows you to login to another computer on the Internet provided you've got an account thereon computer. This can be particularly helpful if you're employed half time and need to login to the computers in school from work once hours or throughout breaks. If you are doing not live close to the field and therefore the department dial-in phone lines don't seem to be a neighborhood decision, you may be ready to use telnet if it's provided by associate degree on-line service to that you subscribe. When you sign off of machine Name you may be back on the machine from that you issued the telnet command. If the pc isn't native to our network, you'll need to see it by the name by that it's noted on the Internet.

3. FTP

FPT stands for file transfer protocol. A protocol could be a set of agreements between persons or governments or (in this case, computers) governing however communications can proceed. Ftp could be a protocol that specifies a technique for transferring files between computers. it's conjointly the name of a UNIX system utility that enables you to repeat files between two computers. The two computers could be a computer secluded on the net and also the computer to that you're presently logged on or it would be the pc at college and your notebook computer reception. Ftp (the utility) needs that you simply have associate account on every machine. Some pc sites have special accounts only for accessing their files by persons from alternative sites. The login name for the account is anonymous and your e-mail address is typically used as an Arcanum.

II. PROPOSED WORK

1. Communicator service to server web requests and dispatch
2. Designing the communication Protocol for this purpose
3. Implementation the proposed protocol of both the ends
4. Multi-channel support for the communication protocol
5. Communication and Interaction GUI front end Interface

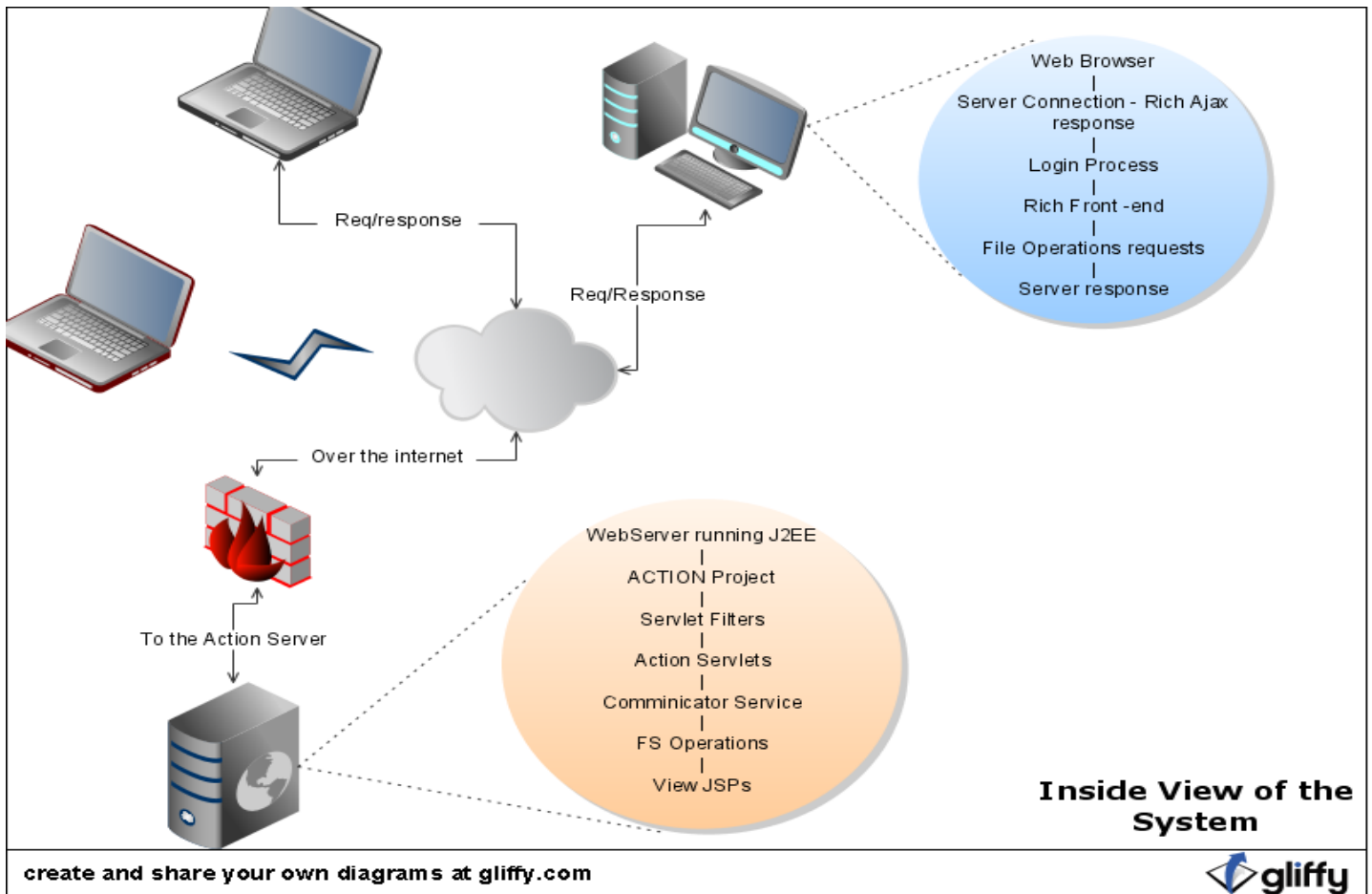


Figure 1. ARFE Architecture

2.2. Working of Reverse protocol:

Desktop to Server

- When Desktop service starts, it makes “auth” request to the Central Server
- Central server is multi threaded and on desktop's auth requests, subscribes the desktop1

- For a given “user” there can be multiple desktop services running on different systems
- Central server keeps the map of user's running desktop services
- Desktop service on auth receives success/failure message back from server and keeps the connection alive
- After successful auth process, desktop services starts acting as a server and waits for the requests from server on the keep alive channel
- Server starts acting as a client to send requests to the appropriate desktop service of the users.

Web App to Central Server protocol

The loggen in user access the system from Java EE web Application. User's files and desktop services data is not with the web app. It is with central server. So web app needs to connect to central server and request the appropriate data from it to serve it back to the user on the web client (browser). The protocol works in following fashion.

- After user login, the web app requests central server to get the list of running desktop services.
- This protocol is like http and not keep alive. Connect, Request, Response and disconnect.
- The central server then responds the list of desktop services back to the web app which web app renders on UI using HTML, JS (Ajax) and CSS
- When user clicks, expands the desktop service node, web app again makes the request to the central server to get the list of shared folders on the given desktop service.
- Central server can't serve this request directly so it finds the desktop service and delegates the request to that desktop service to get the shared folders.
- If service is not found or not running, central server removes it from the list and responds web app with the error. Web app removes the service from the list.
- Every time user interacts with web app and performs any operation, web app connects to Central Server and requests the data from it. Central Server also then asks the data to desktop services and then returns it back to web app. Web app then paints it on the web UI in user's browser.

3. RESULT

System must achieve complete file system operations and command execution capability like:

1. Open folder
2. Create Folder or File
3. Copy, Cut, Paste file or Folder
4. Rename or delete the folder or file.
5. Zip – Unzip feature.
6. File upload and download feature
7. Share creation feature.

8. History and bookmark management.
9. Right click context menu and multiple function operations.

Command execution on DOS (windows System) or Shell terminal (Unix based System). View and access multiple desktops if the services are running for the same user.

III. CONCLUSION AND FUTURE WORK

ARFE will be one of the best products, which is using the latest technologies in the market. We got a very useful exposure on the high end java networking, architecture designing and the client side technologies. ARFE is the cost effective solution for consumers, end users, ISPs & Universities to have the online File System access across the globe which works cross OS.

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XML and format, structure knowledge

- <http://en.wikipedia.org/wiki/XML>

For programming, development (java, J2EE, HTML etc.)

- <http://java.sun.com/>
- <http://java.sun.com/j2ee>
- <http://java.sun.com/webservices/jaxp/index.jsp>
- <http://w3c.com/>

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