

Remote Desktop

An Introduction to RATs

A “Remote Administration Tool” is a piece of software that enables one to operate a computer from a remote location. A standard RAT comprises of two parts:

- A client
- A server

The ‘server’ is installed on the computer to be controlled, while the ‘client’ is kept on the controlling computer. The client can then send commands to the ‘server’ and control the remotely located computer.

Drawbacks of traditional RATs

This client-server architecture works well in most cases, however it does have its drawbacks.

- Every computer that is to be used for controlling requires the ‘client’ software to be installed on it.
- If there are several computers, running different Operating Systems, separate clients will have to be written for each of the platforms.

Web-Based RAT

It is to overcome these difficulties that a Web-based Remote Administration Tool is needed. It eliminates the need for specially written ‘client’ software. The ‘server’ in this case is a small HTTP daemon running on the remote computer, which accepts commands and displays results through a web-based interface. A HTTP daemon is a program that continuously waits for HTTP (Hyper Text Transfer Protocol) requests to come in from Web browsers, and on arrival of a request, performs the requested operation or sends back the requested item (i.e. Images, HTML files, etc.). The ‘client’ in this case can be just about any web browser running on any platform.

Platform/Tools

The server is being developed on GNU/Linux, on the Red Hat 9 distribution. However since the server is mainly written in java, which is a platform independent toolkit it can be ported to other platforms such as Windows with less effort.

The following languages/tools will be used in the development

- HTML & JavaScript
- JAVA

Advantages of Web based RAT

The system that we propose to build is a one which has a specialized web server running on the remote system, while the client can be any web browser. Such a web based RAT has the following advantages

- Since the only tool required is a web browser , the user can access the remote computer from anywhere and doesn't need to possess specially written client software with him
- Since as stated above ,that the only required client tool is a web browser the remote computer can be accessed/controlled from a computer running any operating system

Features of The Web Based RAT

- Tools to upload , download, copy, delete, rename, move files on the remote computer using a web based interface
- Ability to view a real time screen shot of the remote system in action
- Remotely execute system operations such as shutdown, restart, ejecting media etc.
- View list of processes running on the remote system and ability to kill them, or execute new ones.
- View system information of the remote system.
- Access a shell on the remote computer, through a java telnet client and an inbuilt telnet server.
- Control and view the desktop of the remote system through a java viewer.