



## Hidden Friend : A Network Surveillance Application

Haaris Khan, Pinky Gangwani, Shaziya Quadri, Aishwarya Jambhulkar, Ashrafunnaz Qureshi

Anjuman College of Engineering and Technology, Nagpur, India

### ABSTRACT

Do you know what's going on actually behind you and your employee's screen in the office hours? Are you aware of what your child/family member is actually doing on the machine? Is it the same work for which purpose your machine has been borrowed/requested for a while? Have no idea? Get an idea. Hidden Friend application is alive now for answering all the above questions. Hidden Friend is a Network surveillance spying application which keeps the record of the activities of a subject's computer by capturing the screenshots of the desktop in a defined time and amount. Extended functionalities such as auto play install, physical drive, stealth mode, running as a hidden operating service, pattern-locked configuration panel, etc. makes it totally different and unique from other paid and heavy applications.

**Keywords :** Hidden Friend, Network Surveillance Application, HTML, Clip2Net, Greenshot, TinyGrab, Kwout, Free Keylogger

### I. INTRODUCTION

Hidden Friend is a Network surveillance spying application which keeps the record of the activities of a client's/employee's computer by capturing the screenshots of the desktop in a defined time and amount.

As the name "Hidden Friend" suggests, this application retrieves the subject's information by capturing the screenshots of his/her current activity in a much HIDDEN way (Stealth mode) and sends them to our desired Email destination.

Hence, it acts as our **FRIEND** by:

- revealing the reality of the victim's activities,
- keeping us updated about what the subject is doing actually,
- Introducing us to the actual working scenario.

### II. PROBLEM DEFINITION

In today's world, monitoring the network is a must for a system administrator. Using the application, admin can

avoid users misusing the system. Nowadays, human want everything to be done at the desk. And so, this project is not an exception. With this, the user is more benefited and hard tasks become simple.

It is an application which stays on system tray (optional) and capture the desktop in given time interval (say every 60 secs) and emails the captured images to us as message attachment (say every 30 mins). It ensures the captures are small enough and embedded inside HTML email so that we don't need to open hundreds of attachments and see the screenshots.

### III. EXISTING SYSTEMS

There are many systems existing in the IT industry and technical fields for capturing the screenshots, bundling them and embedding them in an HTML format, spying in the stealth mode and sending them to an SMTP server, respectively. Description of some of the existing systems is:

- Clip2Net

This free service allows you to upload desktop area image or files on the web really fast such as desktop area capture and upload, Video capture and upload, Upload image from Clipboard, Upload text documents and much more.

- **Greenshot:**

A free screenshot tool optimized for productivity. Greenshot is a light-weight screenshot software tool for Windows with key features such as quickly creating screenshots of a selected region, window or full screen; capturing of complete (scrolling) web pages from Internet Explorer, easily annotating, highlighting or obfuscating parts of the screenshot and much more.

- **TinyGrab:**

Social Screenshot sharing. Take a screenshot and share it with your clients or friends in less time than it took you to read this sentence! TinyGrab 2.0 makes simple screenshot sharing social. Taking the critically acclaimed original TinyGrab and building on it. TinyGrab 2.0 adds a tonne of new features and proves on the existing service.

- **Kwout:**

"Kwout" is a way you quote a part of a web page as an image with an image map. To use this service, all you need is to add the bookmarklet to your favourite browser. Takes a screenshot, cut out an area, and then embed it anywhere that you want.

- **Free Keylogger**

It is able to log keystrokes, clipboard data and site addresses without the screen capture which is fine for people who don't want to capture screenshots. There are a couple of invisibility settings such as the hidden mode hotkey (default Ctrl+Shift+Alt+U), removing shortcuts from start menu and uninstall list.

## IV. NEED FOR SYSTEM

The main aim of developing this Desktop Spying .Net based standalone application is to provide efficient solution for computer networks.

Since, Network is a connection of different computers and connected with a server and admin can have rights to control all connected systems.

The main advantage of this desktop spying is to manage all systems without misuse of all users, share files and folders can take screen shot of any system desktop image, and many more.

Some of the objectives of this application can be achieved by capturing the screenshots of the subject's computer in a defined time and sending them to the desired and defined Email Server. Objectives are as follows:

- Keep an eye on employees who spend too much time on web or chatting. See what they really do.
- Keep an eye on the child/siblings/family members. This enhances Parental Control.
- Keep an eye on students and see how they use the computer. Find the amount of time they browser inappropriate material on web.

## V. ADVANTAGES OF PROPOSED SYSTEM

The proposed system has many advantages over the existing manual systems. Some of them are as follows.

- It is very user friendly.
- It interacts with user to get information and to transfer the information.
- Since it looks like a windows program. It does not need any special training.
- It is fast and efficient. It saves times and energy to store transfers the information from one system to another system.
- Remote desktop spying

## VI. PROPOSED SYSTEM

This project is designed not only to achieve the aim of removing the improper usage of internet and saving time. But the main objective is for better work to take place.

This application is mostly used in colleges, schools and organizations. In case of schools and colleges, the master can keep an eye on all the students. If any of the students misuse the system, the master can get to know by seeing the screenshots.

In case of organization, the manager can monitor the staff systems and can know that what they are doing actually behind their professional faces. The manager monitors the staff performance and process status of the staff's works.

In the same way, we can execute other commands remotely like in internet browsing centres, they can monitor the systems and request the users to avoid browsing restricted web sites.

The proposed "Desktop-spying" has been developed with .NET as a front end. This system has been designed to cater the need of an organization, educational institute etc.

### Proposed System Features

Following are the features of the application:

- The application is graphical user interface.
- Event driven programming language where all the activities are triggered by one event or the other.
- Quick development of object based window database application with little coding.
- Built in database support (optional).
- Client server architecture benefits.
- Provides simple debugging tools.

## VII. WORKING

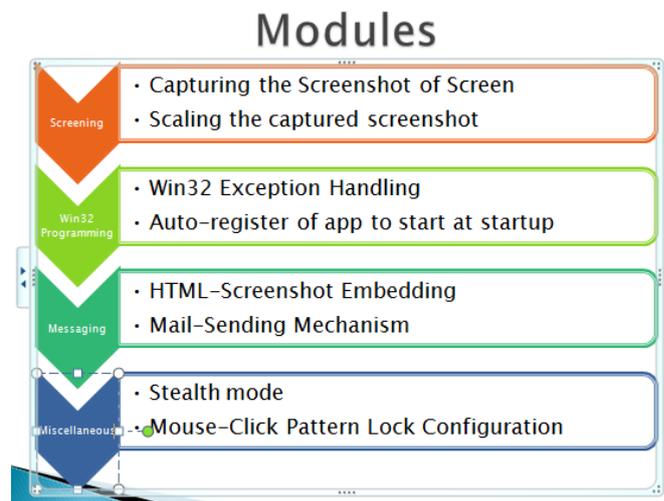
This application needs to be run on the target system only once. It will hide itself on the system

tray as a harmless icon and register itself on the start-up. And then it starts to capture the screenshots of the desktop according to the user defined capturing time. With the process going hidden in the background, client captures the desktop images by generating a print screen event. When the key press event is triggered, the system captures the currently displayed information in the monitor and places it in the clipboard memory of the client system and then after scaling down the resolutions of the captured screen, it saves the image in the user defined Path folder.

Then as per the user defined "Mail sending time", the screenshots are embedded in the HTML Message Attachment and once the connection will be established the server can receive the track of all the activities done by the client, in the Email server system. They need not to go the client system for any activities.

## VIII. MODULES

Since the aim of network surveillance by the administrator sitting on the server on the connected client system is too vast to achieve, that's why our application is divided into the following four modules:



### A. Screening Module:

The screening module is responsible for capturing the live screen activities on the victim's/client's system in the real-time as well as scaling it down

from high resolution to low resolution so that the scaled attachments can be send to the mail quickly with the usage of low bandwidth and data.

The Screening module comprises of following features:

- Capture Screenshot of Desktop
- Convert the Bitmap to Low Resolution JPEG

#### B. Win32 Programming Module

The Win32 Programming module is responsible for handling the exceptions and errors thrown by the program in the case of missing files, corrupted files, insufficient memory, deadlock occurrence ,stack overflow,etc.

The Win32 Programming module comprises of following features:

- Handling Win32 Exception
- How to register application to start at start-up

#### C. Messaging Module:

The messaging module plays a key role for embedding the captured screenshots/images into an HTML body so that it can be viewed easily without downloading each of them as well as it is responsible for sending the HTML-embedded images to the desired SMTP/Email server.

The messaging module comprises of two features:

- HTML-Screenshot Embedding
- Mail-sending mechanism

#### D. Miscellaneous Module:

This module comprises of certain incisive features that boosts the app's performance,tends to achieves the objectives of app,assures the security principles and enhances the efficiency and productivity of the application.

This module comprises of two features:

- Stealth mode

- Mouse-click pattern lock configuration

## IX. CONCLUSION

“Hidden Friend” is a network surveillance application which consumers very low memory, low resource usage, lightweight coded, low footprint and very easy to use desktop capture and email application.

Once it has been run in a computer, there's no need to install/run it again and again.All we need to do is skim through those emails every now and then and see what our subject is doing.

Thus, “Hidden Friend” is a simple desktop standalone application that is going to cater the needs of educational institutes ensuring proper usage of machines for educational purposes, as well as ensuring parental control in the home, ensuring proper usage of machines in the business institutes and companies, and so on.

## X. REFERENCES

- [1]. Capture the screen into a Bitmap- Stack Overflow:stackoverflow.com/questions/5049122/capture-the-screen-shot-using-net(Last Visited October 11,2016)
- [2]. www.codeproject.com Articles 22543 Desktop Spy Utility that Emails Subject's Screenshots To You:
- [3]. Desktop Spying .Net concept: http://1000projects.org/ (Last visited: 07 September,2016)