

# Read divert sockets in java?

Asked 16 years, 3 months ago   Modified 12 years, 1 month ago

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If I was to create a ipfw divert rule to forward all FTP traffic to a specific socket, is it possible to use Java to connect to the socket and read the packet information? If so, how would i go about reading/writing to the socket?

java

ftp

tcp

ipfw



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asked Sep 21, 2008 at 12:41



abnev

469 ● 1 ● 8 ● 20

3 Answers

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not sure what you mean. If you're using a divert rule, then all you have to do is listen on that ip:port combination in your java app and you're all set. If you want to read the actual destination endpoint information, you'll need to use JNI for that.





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answered Sep 21, 2008 at 13:19

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Shachar

943 ● 1 ● 9 ● 18

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That's not true. [When you create the socket, you actually need to specify it's a divert port.](#) – [ianatha](#) Oct 26, 2012 at 1:59

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Yes, it's like a normal socket, you can read/write from/to it, but on Mac OS X, if you do want to modify the packet and insert it back, you need to recalculate the tcp check sum first.



<http://blog.loudhush.ro/2006/08/using-divert-sockets-on-mac-os-x.html>



This is a good post that introduce the basic usage of the divert socket on Mac OS X. You can actually create the rule in your C code.

For you case, just scan the packet for TCP or IP header and parse for whatever you want

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answered Nov 9, 2010 at 16:42

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Spike

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Java doesn't natively support binding onto a Divert socket. It's not exactly a cross-platform feature (it's a BSD/Mac OS X) thing...



You could try using the "socket" native function call through JNA.



Your code will look something like this:



```
public interface LibC extends Library {
    int socket(int domain, int type, int protocol);
    int close(int fd);

    /* stuff from /System/Library/Frameworks/Kernel.framework
    ... */
    /* ... /sys/socket.h */
    static int AF_INET = 2;
    static int SOCK_RAW = 3;
    /* .. netinet/in.h */
    static int IPPROTO_DIVERT = 254;
}

public static void main(String[] args) {
    LibC lib = (LibC) Native.loadLibrary("C", LibC.class);
    int fd = lib.socket(LibC.AF_INET, LibC.SOCK_RAW, LibC.IPPROTO_DIVERT);
    if (fd <= 0) {
        throw new RuntimeException("couldn't open divert socket");
    }
    System.out.println(fd);
    System.out.println(lib.close(fd));
}
```

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edited Oct 26, 2012 at 2:23

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answered Oct 26, 2012 at 2:00



ianatha

307 ● 3 ● 9