



Client Configuration Guide

Windows v2.1

*This document is designed to quickly get you up and running on
Microsoft Windows with the free KiTTY SSH client.*

TELESPLOIT

December 1, 2017

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telesploit
exploitation at a distance
www.telesploit.com

Overview

The Telesploit solution consists of three distinct parts: the Telesploit server, the Telesploit relay, and an SSH capable client.

Telesploit Server

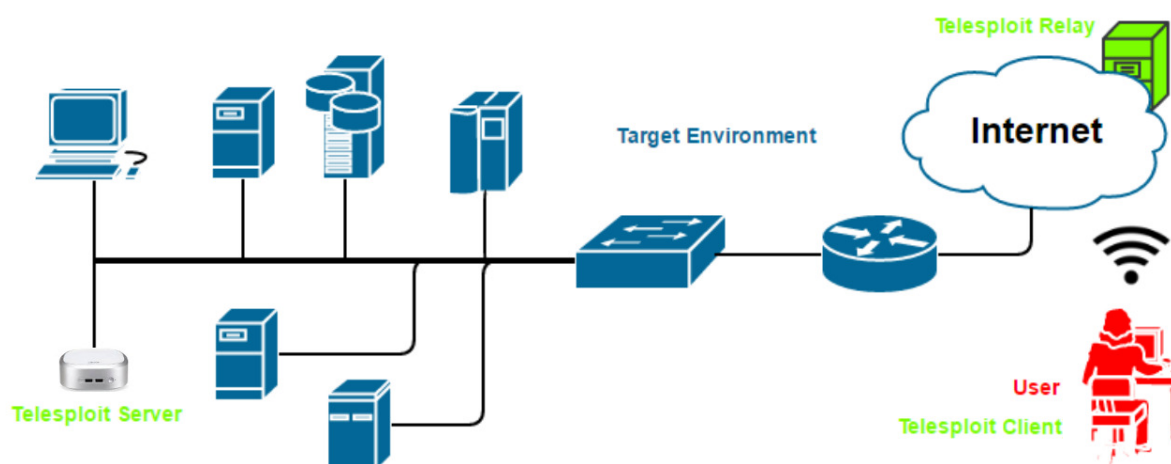
The server runs a customized version of Kali Linux and is deployed within the target environment. Once network connectivity and power have been applied to the device, it will automatically connect to the relay server and create TLS encapsulated reverse SSH tunnels in its default configuration. These connections provide access to a command line interface (SSH), remote desktop (VNC), web proxy (Squid), and many other applications on the Telesploit server.

Telesploit Relay

The relay runs in the cloud and provides secure access to the Telesploit server from Internet-connected clients using SSH key-based authentication. The relay includes pre-configured IRC and Mattermost servers for team-based communication and collaboration.

Client

The client connects to the Telesploit server via the relay. Penetration testing tools, such as Metasploit, can then be run directly from the server within the target environment or proxied through the established connections.



Client Setup

KiTTY Portable Download and Setup

Download KiTTY Portable from <http://www.9bis.net/kitty/>. Place the program `kitty_portable.exe` in its own directory and run it. This will create several files and subdirectories. Close the application.

Telesploit will provide a URL to download the customized configuration files for connecting to your dedicated relay and server.

Example: <https://relay-d015.telesploit.com/>

`b58e067ac6b7666cfbc539a4980363cc6c6cea55269916aa0285b82f2bbc4769/kitty.zip`

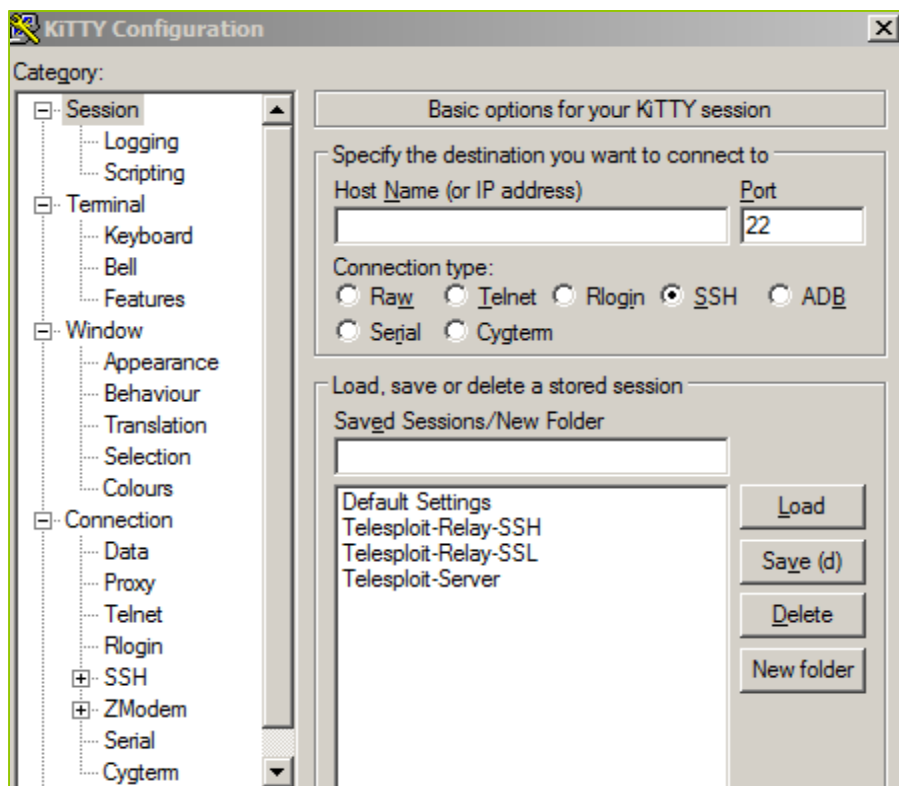
The integrity may be validated by performing a `sha256sum` on the file. The value should match the subdirectory name in the URL.

CertUtil -hashfile kitty.zip SHA256

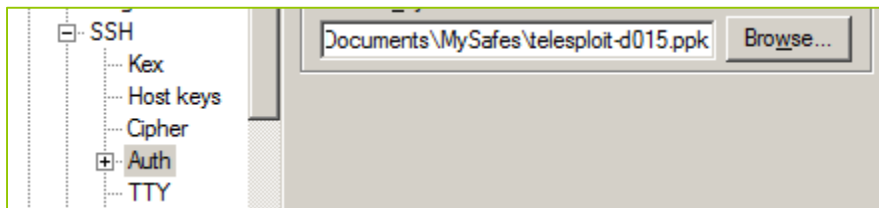
```
C:\Telesploit\support>CertUtil -hashfile kitty.zip SHA256
SHA256 hash of file kitty.zip:
b5 8e 06 7a c6 b7 66 6c fb c5 39 a4 98 03 63 cc 6c 6c ea 55 26 99 16 aa 02 85 b8 2f 2b bc 47 69
CertUtil: -hashfile command completed successfully.
```

If the checksums match then place the archive, `kitty.zip`, in the same directory as `kitty_portable.exe` and unzip it. The file `telesploit-readme.txt` should appear in the directory and three new files will be added to the Sessions subdirectory.

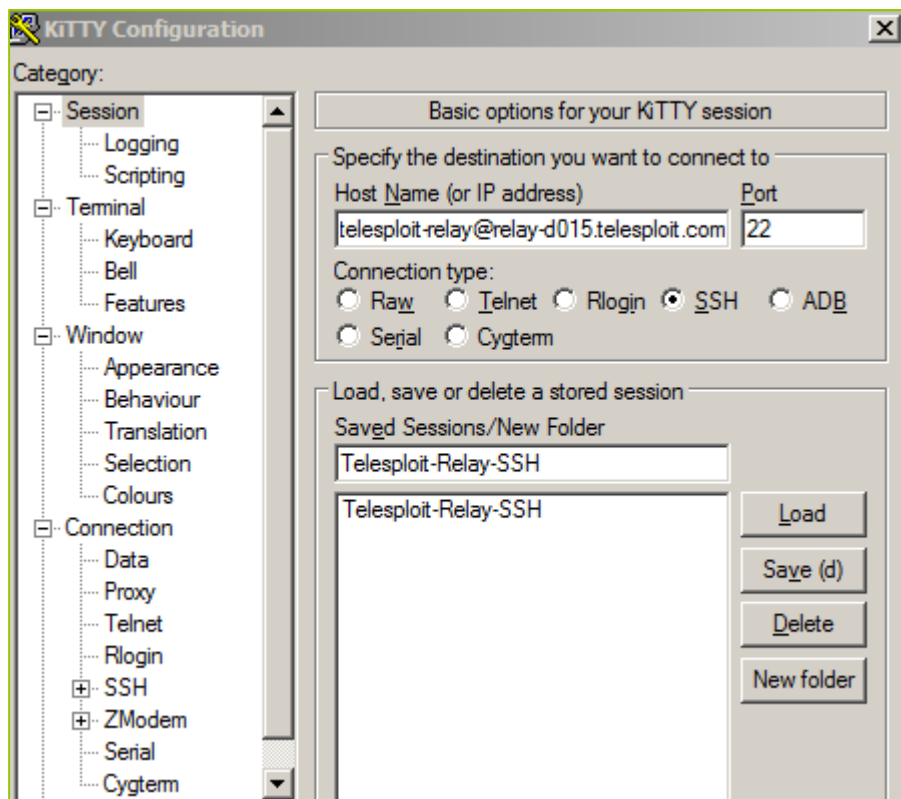
Reopening the application should reveal three new entries, Telesploit-Relay-SSH, Telesploit-Relay-SSL, and Telesploit-Server.



Load each session and specify the private key that corresponds to the public key provided to Telesploit during the pre-deployment process.



Return to the Session tab and select Save. Perform this action on all three sessions.



Telesploit-Relay-SSH: This configuration uses a direct SSH connection to the relay server to establish tunnels for accessing SSH, VNC, and Squid and SOCKS proxies running on the server. It also creates tunnels to access the IRC and Mattermost instances running on the relay.

Telesploit-Relay-SSL: This configuration creates an SSL/TLS connection to the relay server in order to establish tunnels for accessing SSH, VNC, and Squid and SOCKS proxies running on the server. It also creates tunnels to access the IRC and Mattermost instances running on the relay. Use this configuration when outbound SSH is restricted from your environment. It requires that ncat, part of the nmap suite, be installed on the local client.

Telesploit-Server: Once tunnels have been established to the relay this configuration may be used to establish console access on the server.

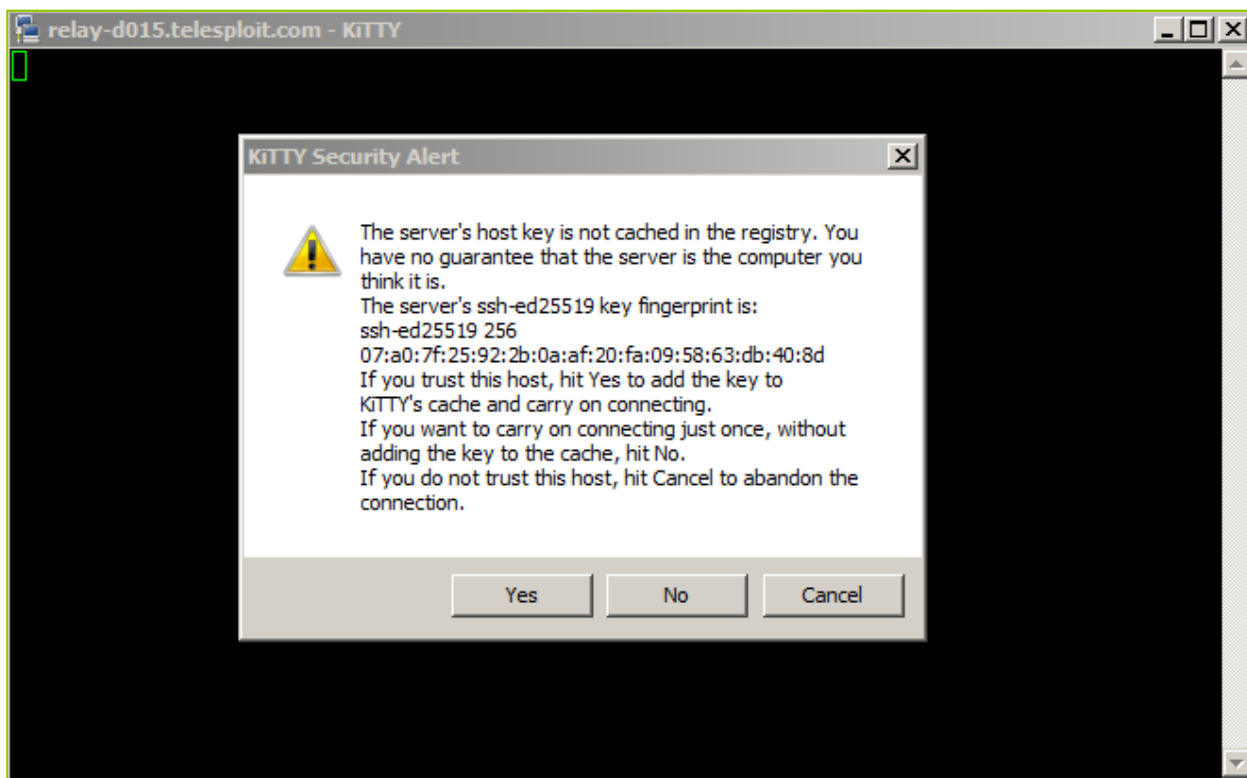
The readme.txt file contains the server, relay, and port assignments for your Telesploit deployment. These should be used to replace the examples given in the subsequent sections.

```
For detailed instructions download the Windows Configuration Guide from https://www.telesploit.com.  
Telesploit Server: telesploit-d015  
Telesploit Relay: relay-d015.telesploit.com  
Assigned Ports:  
SSH: 13015  
VNC: 23015  
Web Proxy: 33015  
SOCKS Proxy: 43015  
IRC: 53015  
Collaboration: 63015
```

Establish SSH Tunnels and Connect to the Server

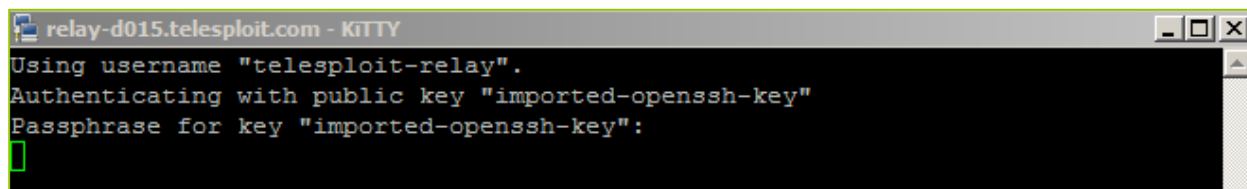
Once the KiTTY client has been configured for your environment, verify that you can create SSH tunnels to the relay by opening either Telesploit-Relay-SSH or Telesploit-Relay-SSL.

The first time you connect to the relay server KiTTY will pop-up a security alert indicating that the host key hasn't been cached.



If you are connecting from a trusted environment accept the relay fingerprint and enter the passphrase for your private key.

The session window will appear to hang, but the tunnels will have been established. Minimizing the window will not have an effect on your connection. Closing the window will tear down the tunnels.



```
relay-d015.telesploit.com - KITTty
Using username "telesploit-relay".
Authenticating with public key "imported-openssh-key"
Passphrase for key "imported-openssh-key":
█
```

With the tunnels established open another instance of KiTTY and select Telesploit-Server. The first time you connect to the server you will receive another security alert. If you are connecting from a trusted environment accept the server fingerprint and enter the passphrase for your private key. You should now have a console session on the server.



```
root@telesploit-d015: ~
Using username "root".
Authenticating with public key "imported-openssh-key"
Passphrase for key "imported-openssh-key":

The programs included with the Kali GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Kali GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.

root@telesploit-d015:~#
```

Common Tool Configuration

Please note that the SSH, VNC, Squid, and PostgreSQL services provided on the Telesploit server have been configured to only listen on localhost. If you install any additional services, such as Nessus, and do not want them to be exposed to the testing environment then restrict their access as well.

The following sections assume that you have configured the Telesploit client and established the required SSH tunnels.

Command Line Interface

Your SSH client of choice may be used by configuring it with the following values. Adjust the port number to match your Telesploit deployment.

Example SSH Configuration

Host: localhost (127.0.0.1)
Username: root
Password: N/A
Private Key: Your SSH private key
Port: 13015

Note: As with any remote console, Telesploit recommends using a detachable session, such as screen, for long running processes.

This example uses KiTTY and the Telesploit-Server configuration.

```
root@telesploit-d015: ~  
Using username "root".  
Authenticating with public key "imported-openssh-key"  
Passphrase for key "imported-openssh-key":  
  
The programs included with the Kali GNU/Linux system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*/copyright.  
  
Kali GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent  
permitted by applicable law.  
  
root@telesploit-d015:~#
```

Remote Desktop

Your VNC client of choice may be used by configuring it with the following values. Adjust the port number to match your Telesploit deployment.

Example VNC Configuration

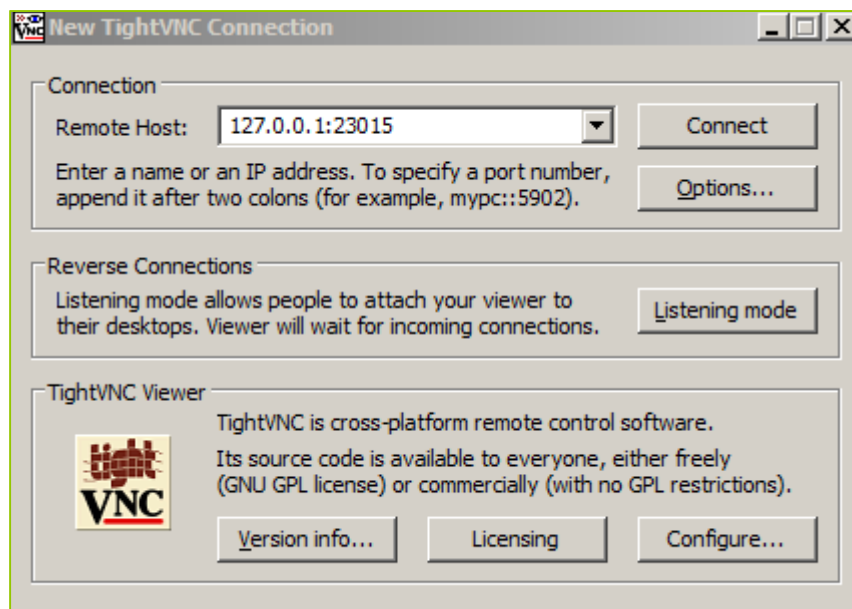
Host: localhost (127.0.0.1)

Username: <NONE>

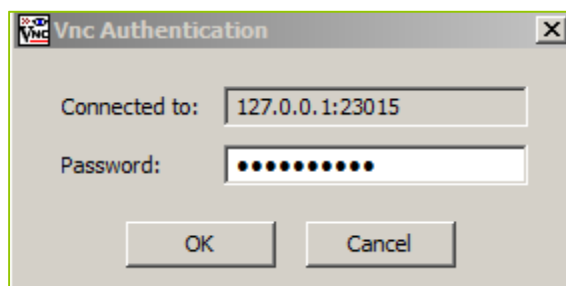
Password: telesploit

Port: 23015

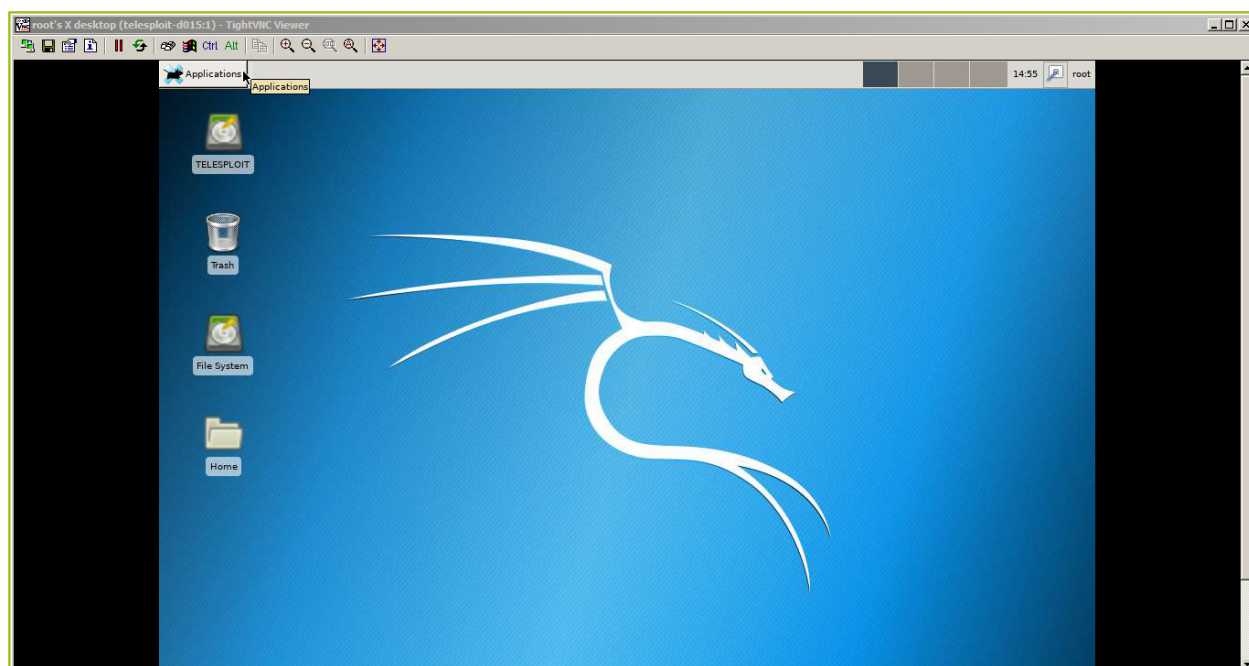
The following example uses the open source client, TightVNC.



You will be prompted to enter the VNC password. As the VNC server is only listening on localhost, and connectivity requires SSH key authentication, this password is superfluous and has thus been set to 'telesploit' for all deployments.



Selecting the OK button will return a remote desktop on the Telesploit server.



Web Proxy

Your browser and web application assessment tools of choice (e.g. Chrome, Edge, Burp Suite, Zap) may be used by configuring them with the following values. Adjust the port number to match your Telesploit deployment.

Example Web Proxy Configuration

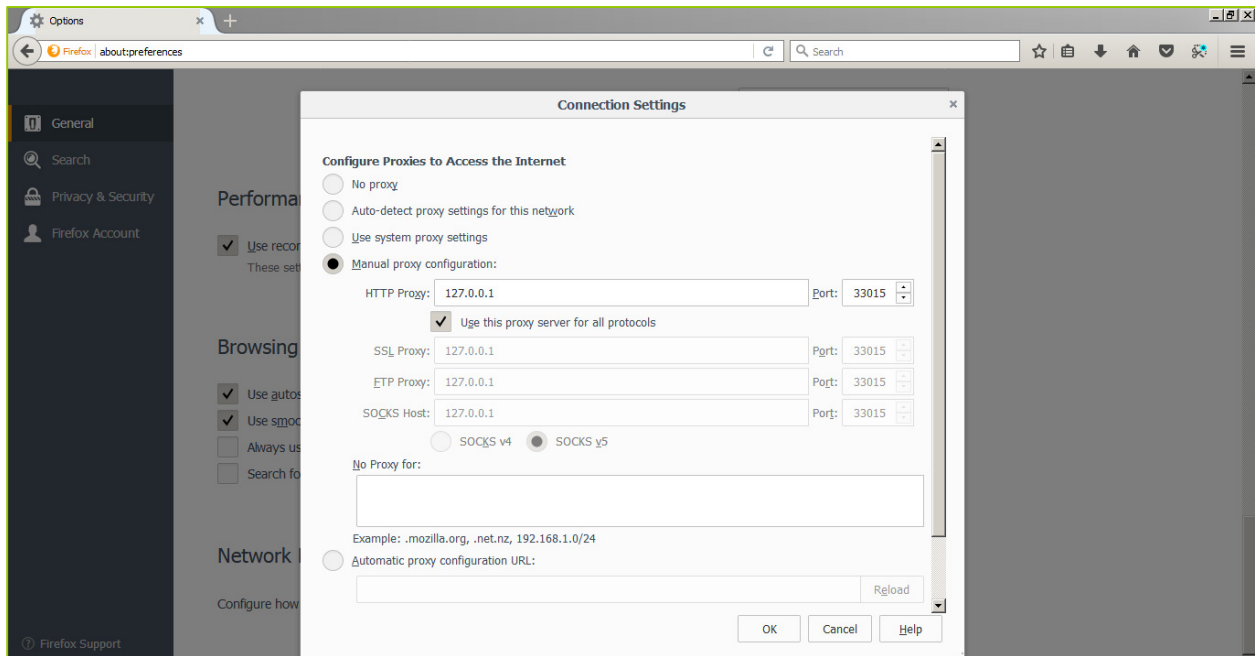
Host: localhost (127.0.0.1)

Username: <NONE>

Password: <NONE>

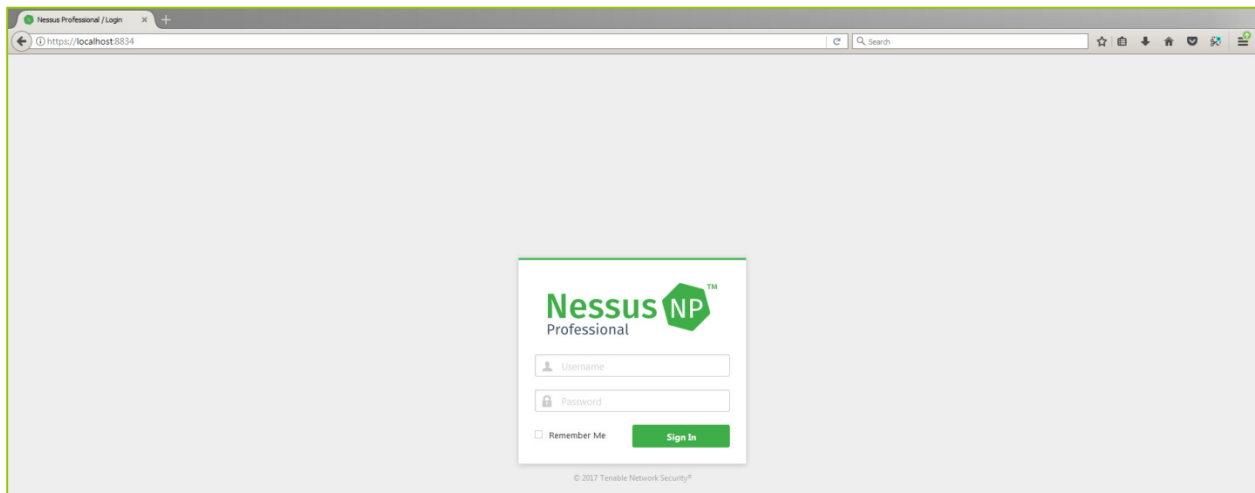
Port: 33015

In Firefox these settings can be found under Options -> Network Proxy -> Settings.



Web applications within the target environment can then be accessed by entering their IP address or Fully Qualified Domain Name along with port they are running on just as if you were testing from the local network.

Web-enabled applications running on the Telesploit server itself, such as Nessus (license not included), can be accessed by entering localhost or 127.0.0.1 and the port number.



File Transfer

In addition to command line utilities, such as scp, file transfer tools like FileZilla may be used by configuring them with the following values. Adjust the port number to match your Telesploit deployment.

Example File Transfer Configuration

Host: localhost (127.0.0.1)

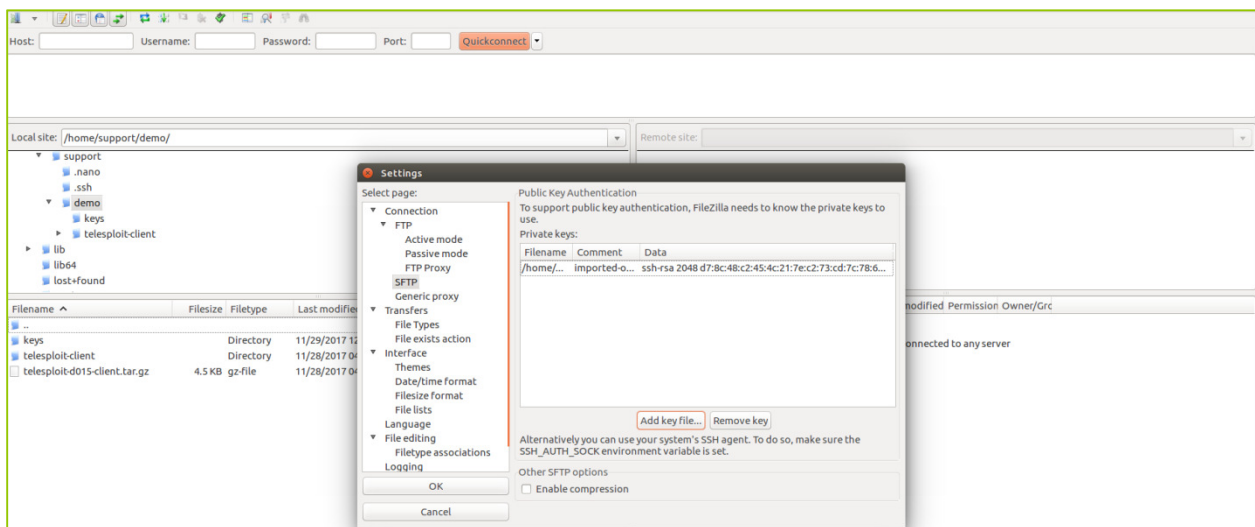
Username: root

Password: N/A

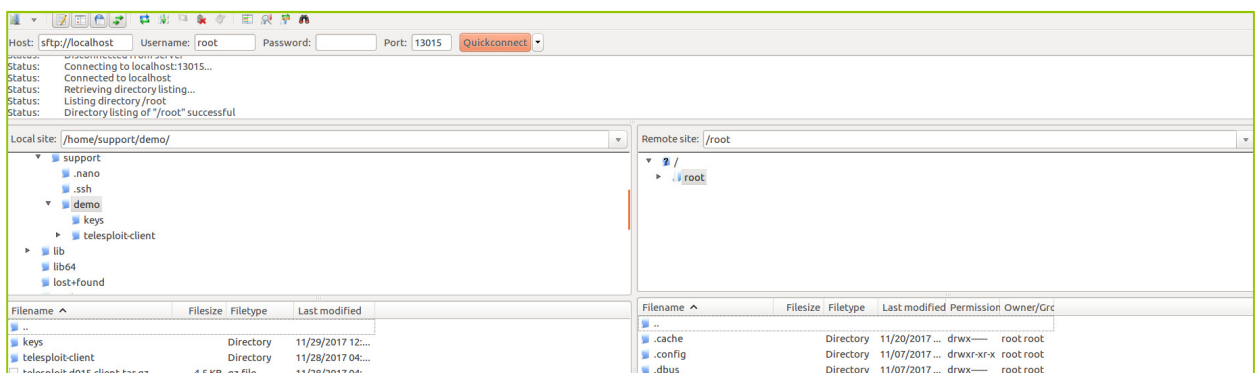
Private Key: Your SSH private key

Port: 13015

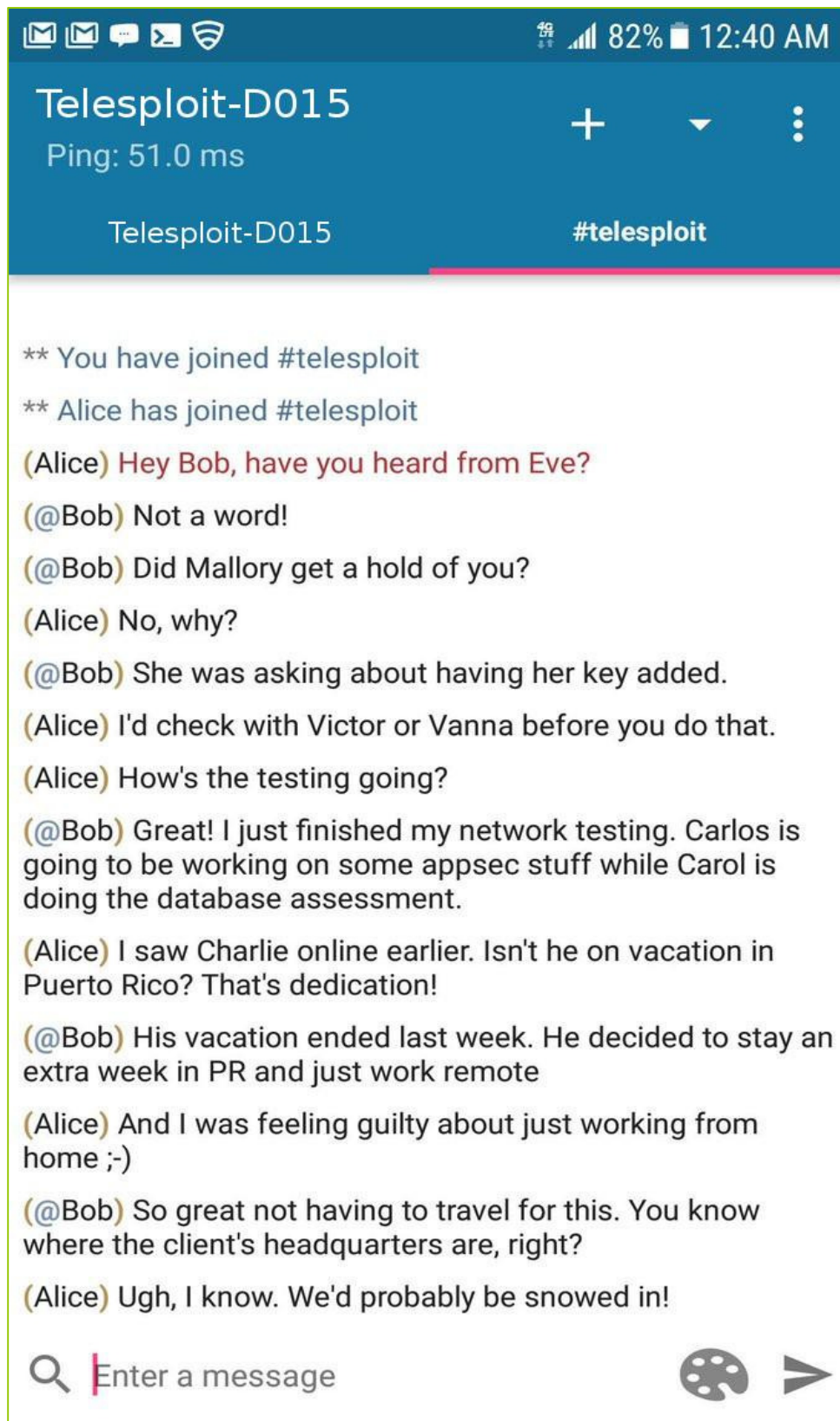
The following example uses FileZilla. To configure the application to use your SSH private key select Edit -> Preferences -> SFTP -> Add key file.



Enter sftp://localhost in the Host field, leave the password blank to force key-based authentication, and enter the SSH port number assigned to your deployment in the Port field. Select Quickconnect, accept the SSH fingerprint, and enter the password to your private key.



Stay connected on the go with mobile SSH and chat applications.



Collaboration

The Telesploit relay has a Mattermost instance installed and both the client and server create SSH tunnels to communicate with it. A web browser or Mattermost client may be used by configuring them with the following values. Adjust the port number to match your Telesploit deployment.

Example Mattermost Configuration

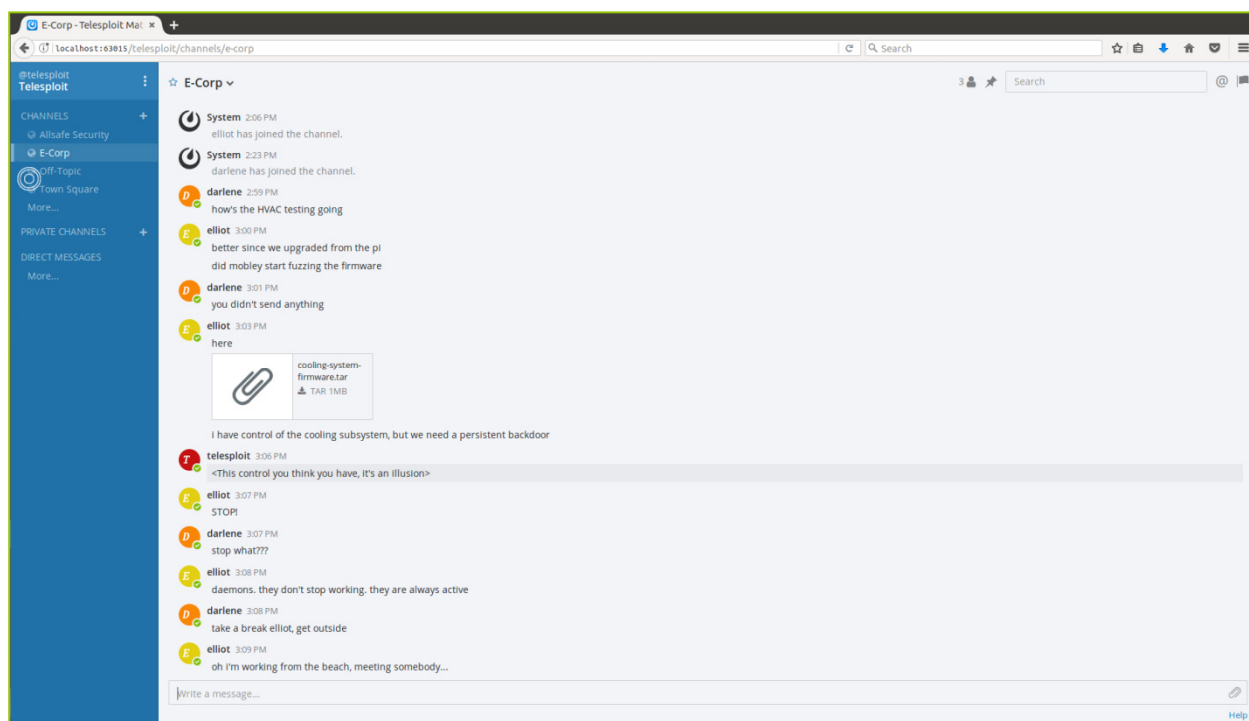
Host: localhost (127.0.0.1)

Username: <Assigned by Mattermost Admin>

Password: <Assigned by Mattermost Admin>

Port: 63015

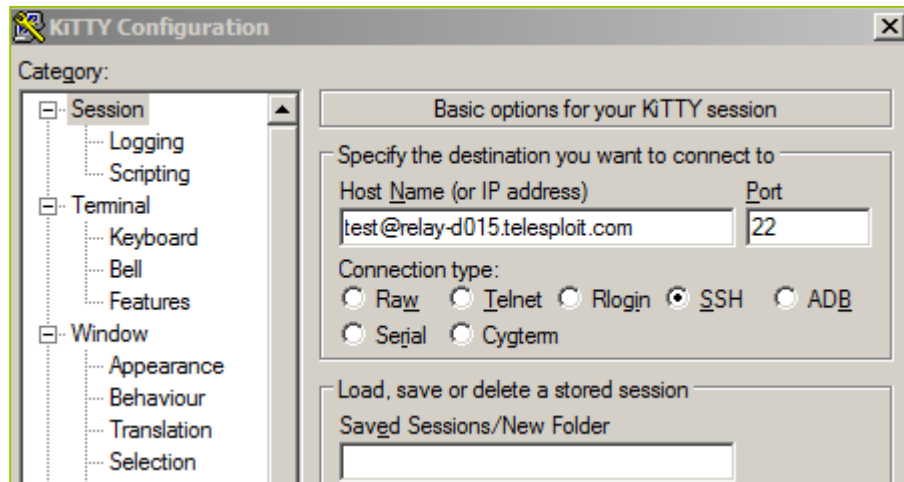
The first configured user will become the Mattermost admin. The following example uses a standard browser to access the collaboration platform.



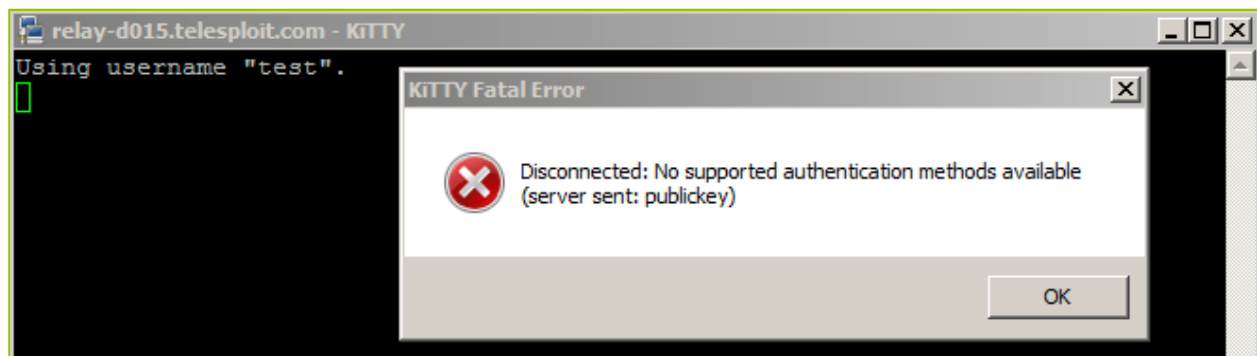
Troubleshooting

If you are unable to connect to the Telesploit server, then verify that you are able to directly connect to the relay.

If your client is configured to use an SSH connection, then try directly accessing the SSH server on the relay.



You will not be able to successfully login with the above settings, but it will validate that nothing is blocking your access and that the relay is up.



If you are using SSL/TLS proxied connections, then try accessing the SSH server through the HA Proxy running on the relay using ncat. You should see output similar to the following if nothing is blocking your access and the HA Proxy and SSH server are up.

```
C:\Telesploit\support>ncat -v --ssl relay-d015.telesploit.com 443
Ncat: Version 6.49BETA4 ( http://nmap.org/ncat )
Ncat: SSL connection to 52.14.156.116:443.
Ncat: SHA-1 fingerprint: 117D 8A64 F399 4A7D F9CF 84B8 07DF 2358 E4B0 6E84

SSH-2.0-OpenSSH_7.2p2 Ubuntu-4ubuntu2.2
Protocol mismatch.
close: Result too large
```

If either of the above tests result in timeouts or no connections then verify that your outbound connections are not being blocked by a firewall or Intrusion Prevention System. Contact Telesploit support for additional assistance.