No Password SSH Keys Authentication Setup

REMOTE COMPUTER SETUP

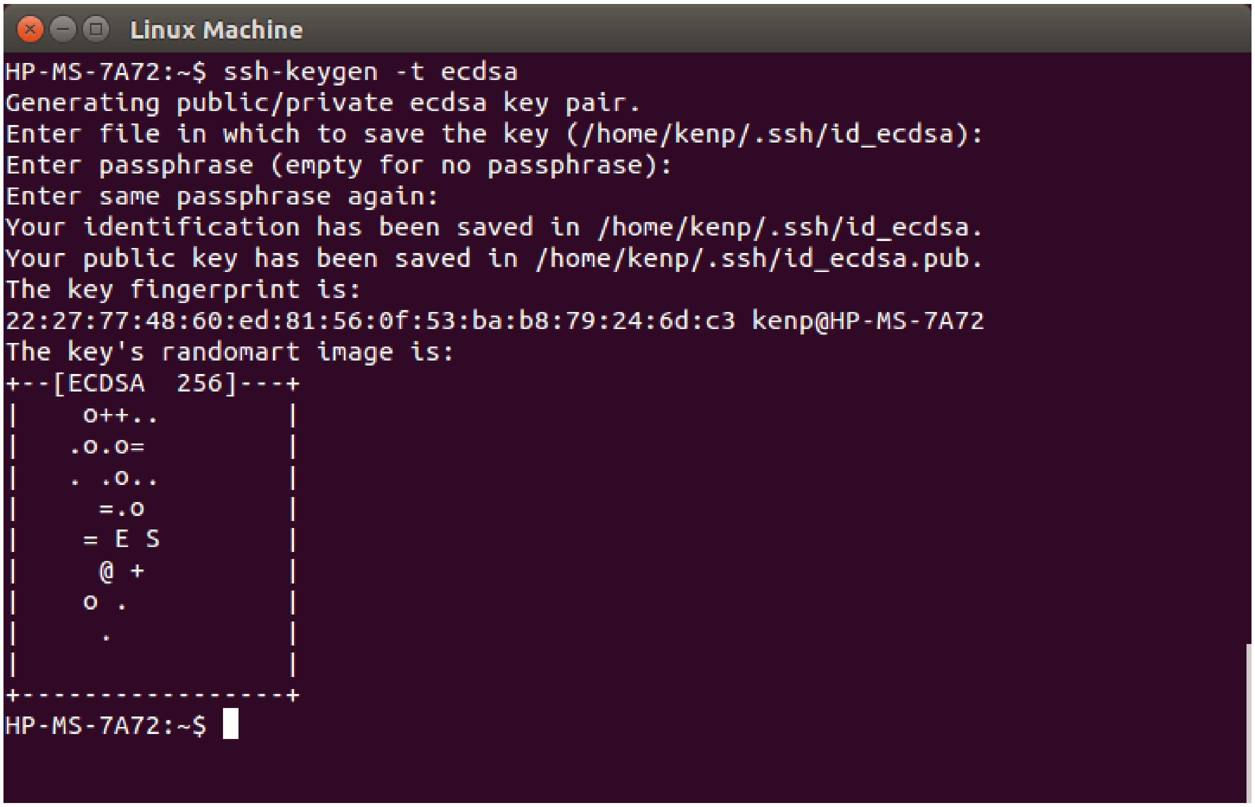
From a Linux machine get into a terminal prompt

You Linux login should be the same name as the user that you want as your WTI device login.

After you have logged in, we need to create some private and public keys (if they don’t already exist)

Enter the command: ssh-keygen –t ecdsa

All the default responses are accepted for answering the prompts for this command.



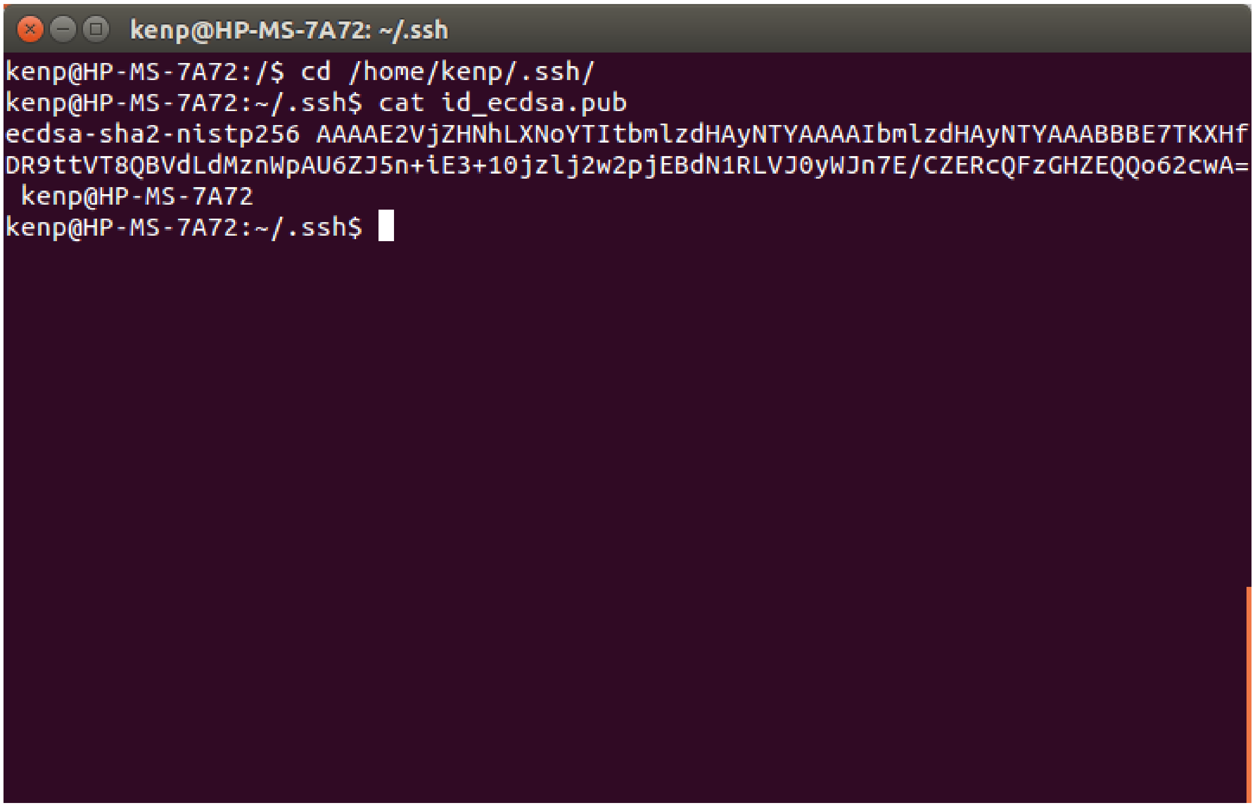
```
HP-MS-7A72:~$ ssh-keygen -t ecdsa
Generating public/private ecdsa key pair.
Enter file in which to save the key (/home/kenp/.ssh/id_ecdsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/kenp/.ssh/id_ecdsa.
Your public key has been saved in /home/kenp/.ssh/id_ecdsa.pub.
The key fingerprint is:
22:27:77:48:60:ed:81:56:0f:53:ba:b8:79:24:6d:c3 kenp@HP-MS-7A72
The key's randomart image is:
+--[ECDSA  256]---+
|    o++..        |
|   .o.o=         |
|   . .o..        |
|     =.o         |
|    = E S        |
|     @ +         |
|    o .          |
|     .           |
|                 |
+-----------------+
HP-MS-7A72:~$ 
```

Note: that you can use any type of key type in the step above we are using ecdsa as an example. For older WTI devices you may have to choose rsa or dsa

If we go to the directory /home/<username>/.ssh

We should be able to see both the private and public keys. We care about the public key (id_ecdsa.pub)

The private key should never leave the computer you generated the keys from.



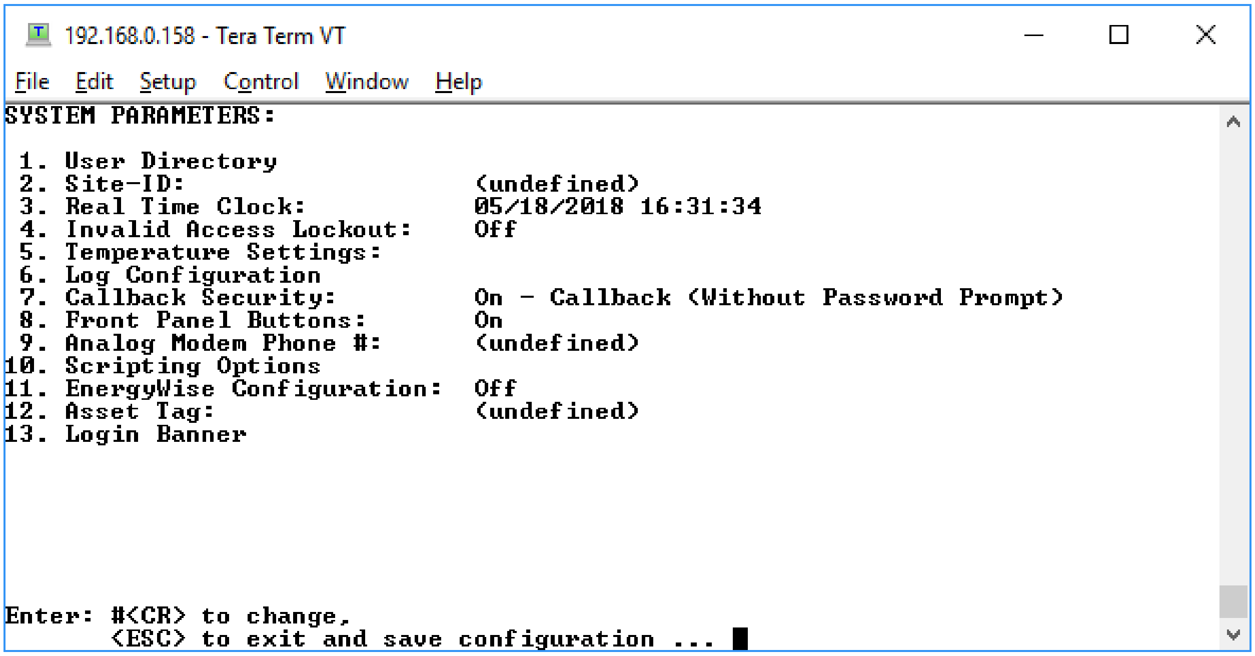
```
kenp@HP-MS-7A72:/$ cd /home/kenp/.ssh/
kenp@HP-MS-7A72:~/.ssh$ cat id_ecdsa.pub
ecdsa-sha2-nistp256 AAAAE2VjZHNhLXNoYTItbmlzdHAyNTYAAAAIbmlzdHAyNTYAAABBBE7TKXHf
DR9ttVT8QBVdLdMznWpAU6ZJ5n+iE3+10jzlj2w2pjEBdN1RLVJ0yWJn7E/CZERcQFzGHZEQQo62cwA=
 kenp@HP-MS-7A72
kenp@HP-MS-7A72:~/.ssh$ 
```

Copy your public key (/home/<username>/.ssh/id_ ecdsa.pub) to a flash drive for future use.

WTI DEVICE SETUP

We need to upload this key to the WTI device. For simplicity I am going to upload it via TeraTerm.

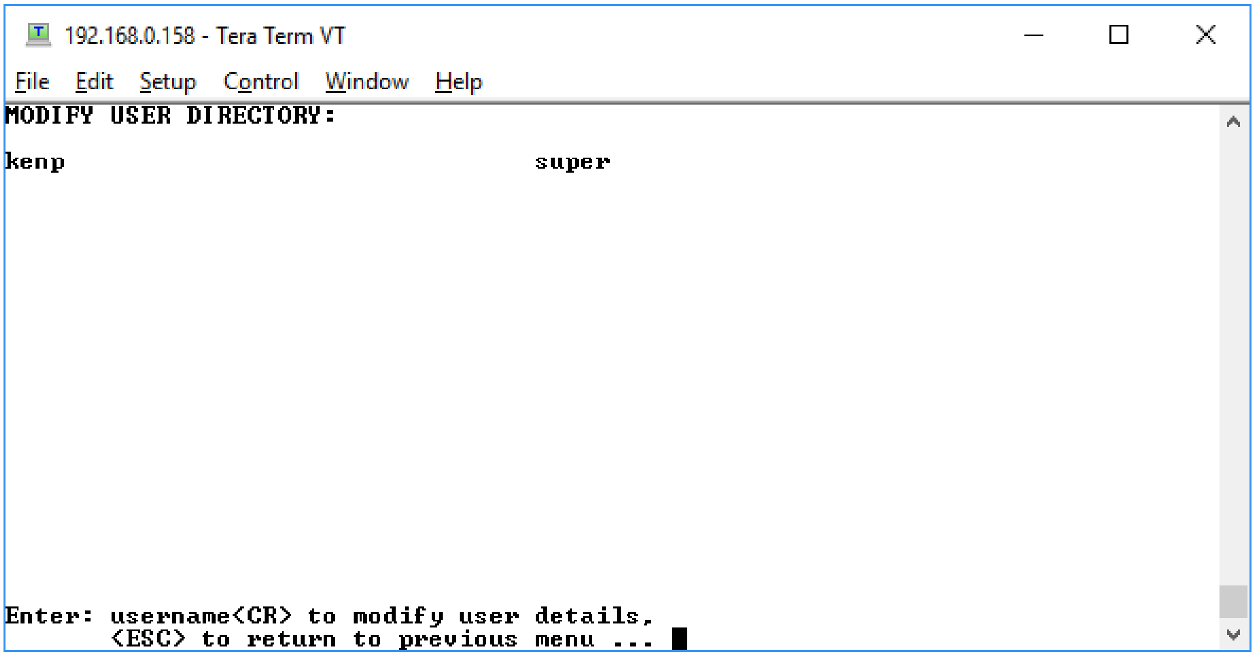
From TeraTerm, login to the WTI device and enter the command: /F


192.168.0.158 - Tera Term VT
File Edit Setup Control Window Help

```
SYSTEM PARAMETERS:

 1. User Directory
 2. Site-ID:                    (undefined)
 3. Real Time Clock:            05/18/2018 16:31:34
 4. Invalid Access Lockout:     Off
 5. Temperature Settings:
 6. Log Configuration
 7. Callback Security:          On - Callback (Without Password Prompt)
 8. Front Panel Buttons:        On
 9. Analog Modem Phone #:       (undefined)
10. Scripting Options
11. EnergyWise Configuration:   Off
12. Asset Tag:                  (undefined)
13. Login Banner





Enter: #<CR> to change,
       <ESC> to exit and save configuration ...
```

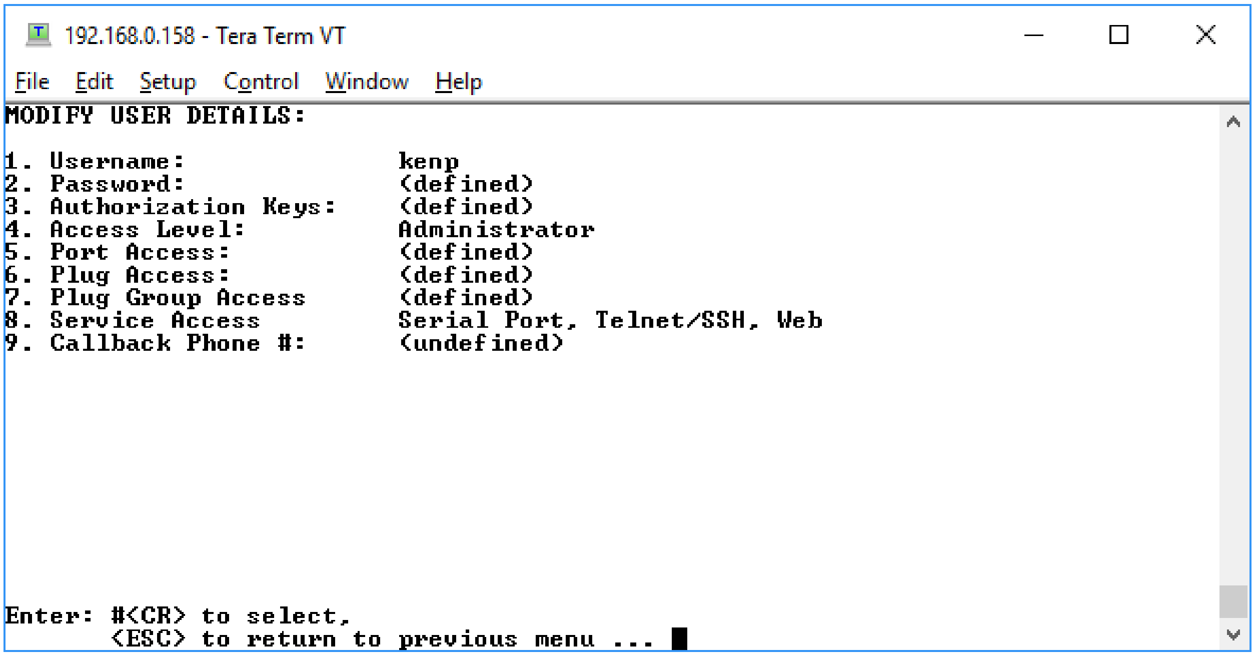
Then enter 1 to get into the User Directory, then 3 to Modify User Directory.

Enter the user's name that we create the key from in the previous section from the menu to edit it.


192.168.0.158 - Tera Term VT
File Edit Setup Control Window Help

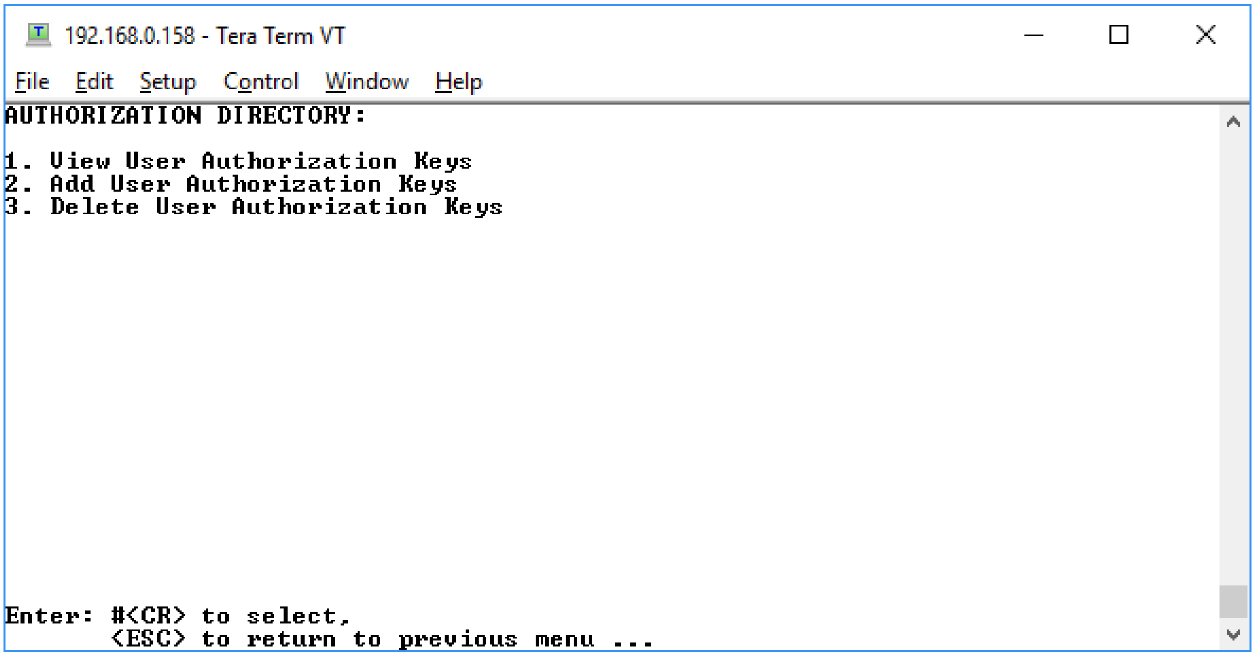
```
MODIFY USER DIRECTORY:

kenp                                   super











Enter: username<CR> to modify user details,
       <ESC> to return to previous menu ...
```

Now enter selection 3. Authorization Keys


192.168.0.158 - Tera Term VT
File Edit Setup Control Window Help

```
MODIFY USER DETAILS:

1. Username:                kenp
2. Password:                (defined)
3. Authorization Keys:      (defined)
4. Access Level:            Administrator
5. Port Access:             (defined)
6. Plug Access:             (defined)
7. Plug Group Access        (defined)
8. Service Access           Serial Port, Telnet/SSH, Web
9. Callback Phone #:        (undefined)





Enter: #<CR> to select,
       <ESC> to return to previous menu ...
```

Select option 2 “Add User Authorization Keys”

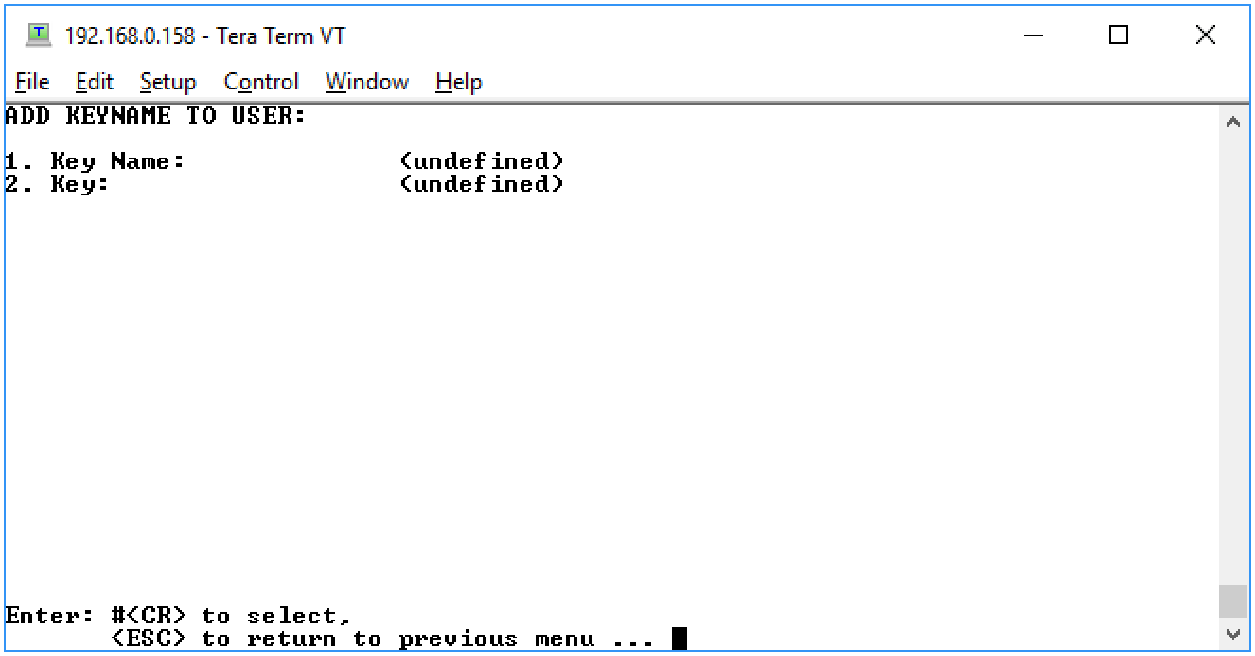


192.168.0.158 - Tera Term VT
File Edit Setup Control Window Help

```
AUTHORIZATION DIRECTORY:

1. View User Authorization Keys
2. Add User Authorization Keys
3. Delete User Authorization Keys









Enter: #<CR> to select,
       <ESC> to return to previous menu ...
```

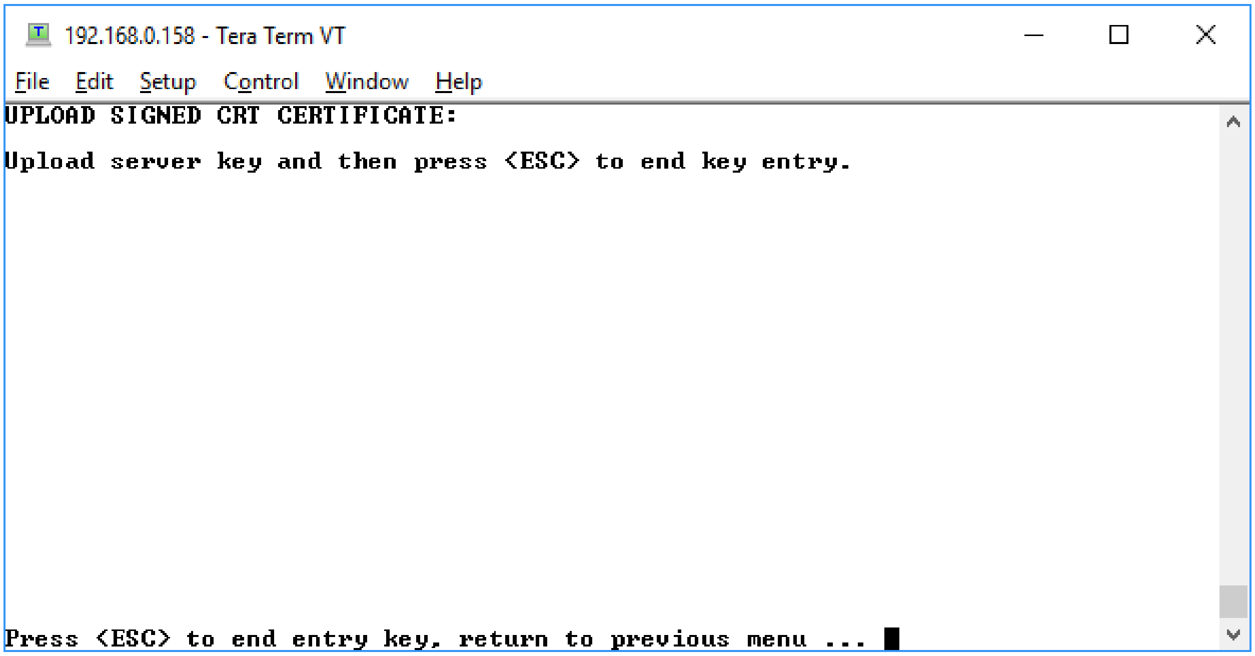
Select option 1 to modify the “Key Name”, this is a purely a description field, it’s only used to help you identify the key later.

After you enter a “Key Name”, select option 2. To upload the “Key”


192.168.0.158 - Tera Term VT
File Edit Setup Control Window Help

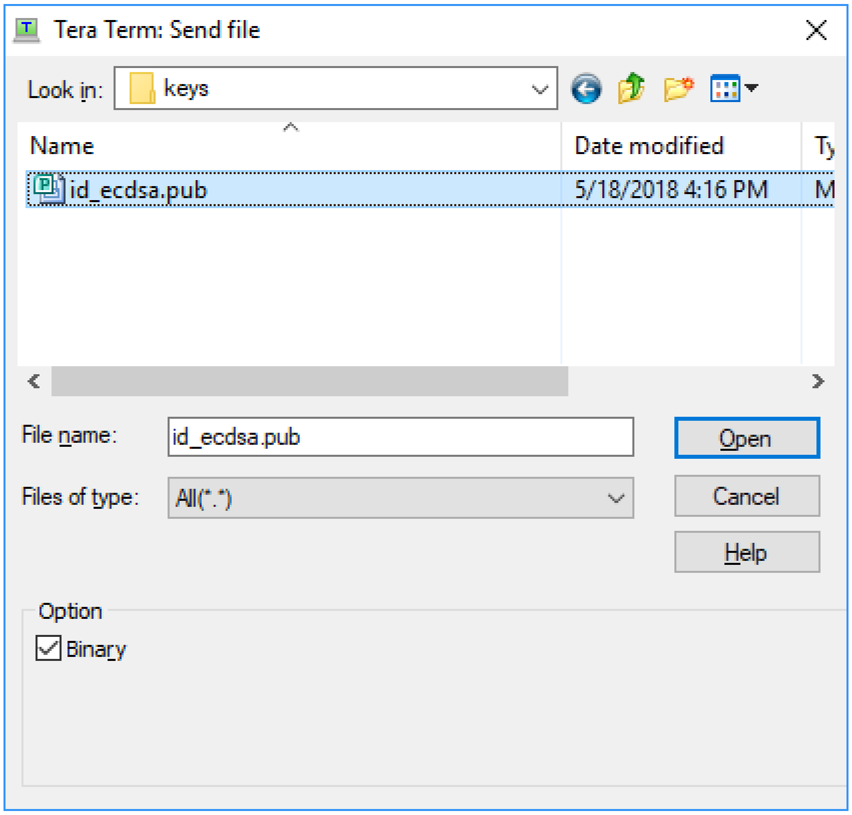
```
ADD KEYNAME TO USER:

1. Key Name:                (undefined)
2. Key:                     (undefined)











Enter: #<CR> to select,
       <ESC> to return to previous menu ...
```

At this point anything you enter here will be uploaded as the user's key. So you need to be careful you don't enter and keys (including the enter key)


192.168.0.158 - Tera Term VT
File Edit Setup Control Window Help

```
UPLOAD SIGNED CRT CERTIFICATE:

Upload server key and then press <ESC> to end key entry.










Press <ESC> to end entry key, return to previous menu ...
```

From the TeraTerm menu select “File”, then “Send File”, find the key we moved to the USB flash drive from the Linux machine and be sure to check the “Binary” checkbox. This prevents any extra <cr><lf> combinations to be sent. Then click on the “Open” button. This will send the file to the WTI box



Look in: keys

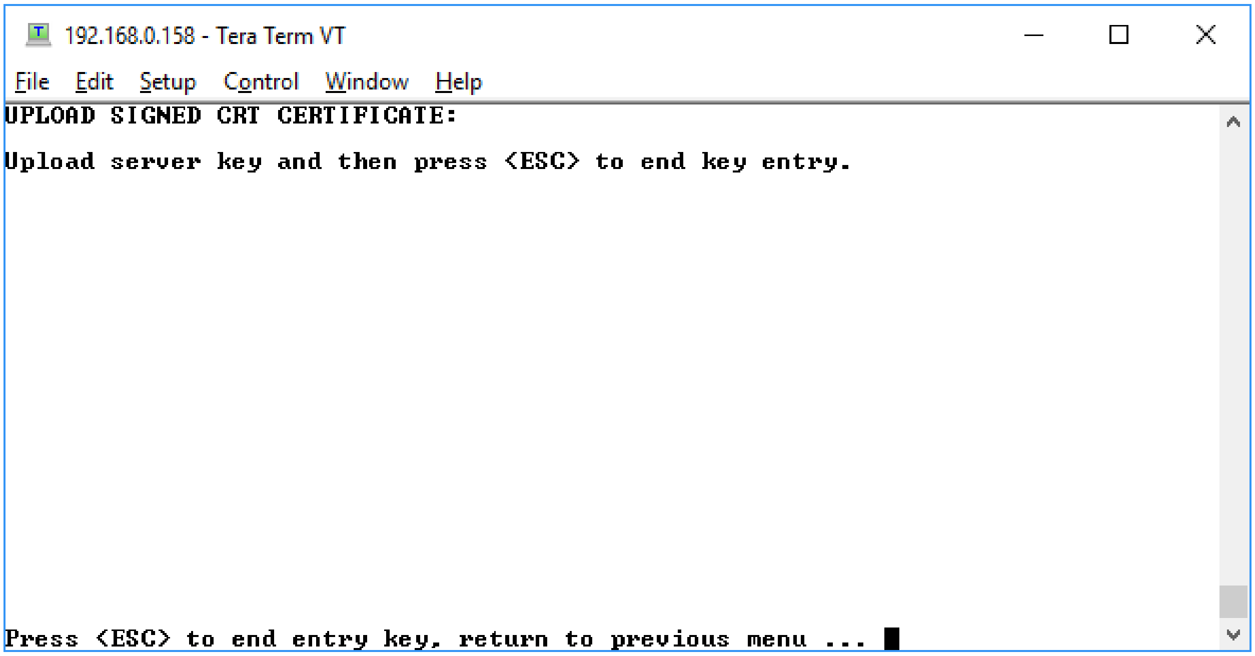
Name	Date modified	Ty
id_ecdsa.pub	5/18/2018 4:16 PM	M

File name: id_ecdsa.pub

Files of type: All(*.*)

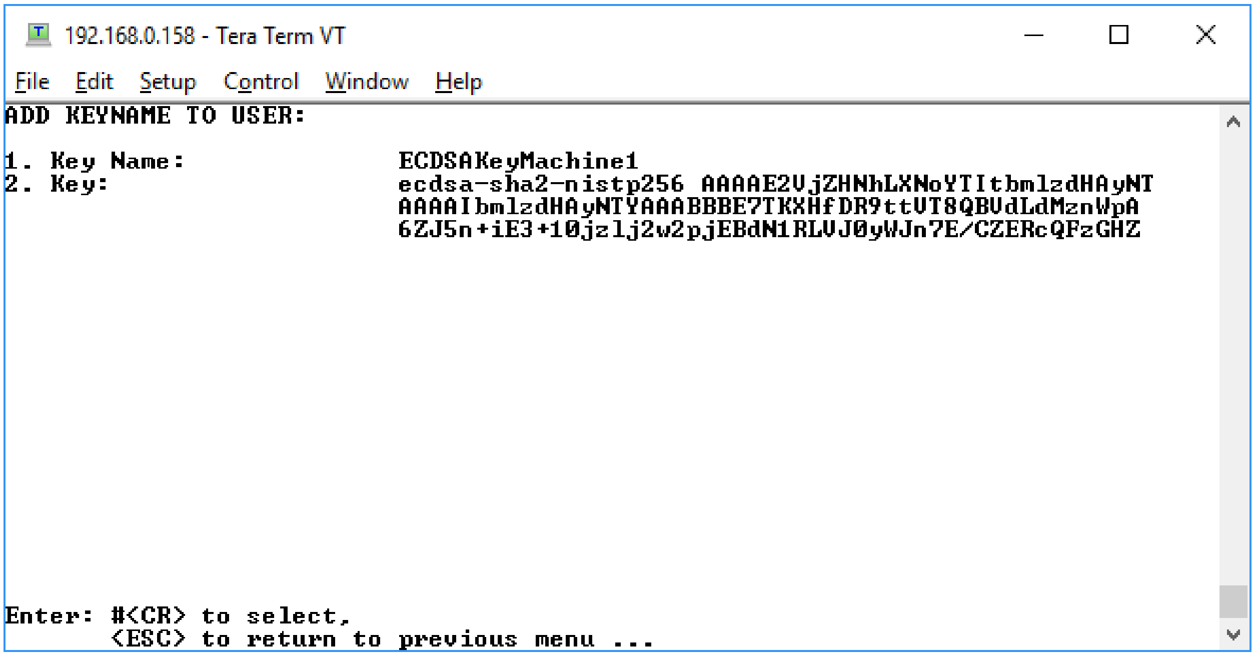
☑ Binary

You will now come back to the screen below, now press the <esc> key, this will end the upload sequence.


192.168.0.158 - Tera Term VT
File Edit Setup Control Window Help

```
UPLOAD SIGNED CRT CERTIFICATE:

Upload server key and then press <ESC> to end key entry.



Press <ESC> to end entry key, return to previous menu ...
```

You should now be at the screen showing the key that was uploaded and should look something like this:


192.168.0.158 - Tera Term VT
File Edit Setup Control Window Help

```
ADD KEYNAME TO USER:

1. Key Name:                  ECDSAKeyMachine1
2. Key:                       ecdsa-sha2-nistp256 AAAAE2VjZHNhLXNoYTItbmlzdHAyNT
                              AAAAIbmlzdHAyNTYAAABBBE7TKXHfDR9ttVT8QBVdLdMznWpA
                              6ZJ5n+iE3+10jzlj2w2pjEBdN1RLVJ0yWJn7E/CZERcQFzGHZ



Enter: #<CR> to select,
       <ESC> to return to previous menu ...
```

Now you can <esc> out to the main menu, go back to your Linux machine from the session that is logged in under <username> and enter your ssh command to the WTI device. For example

```
ssh kenp@192.168.0.22
```

You will get into the WTI device without a password.