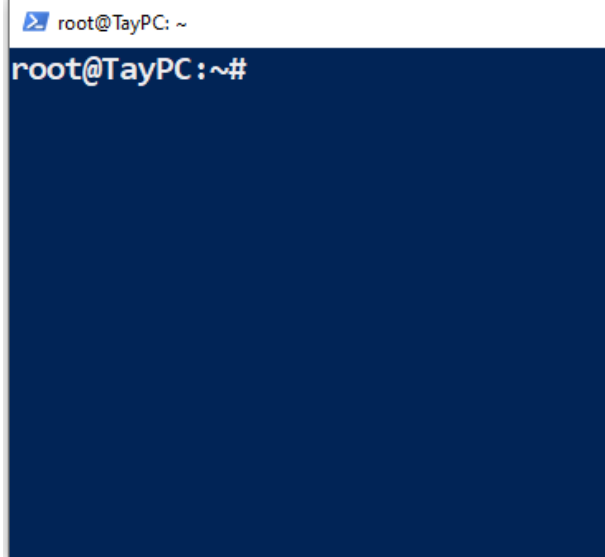
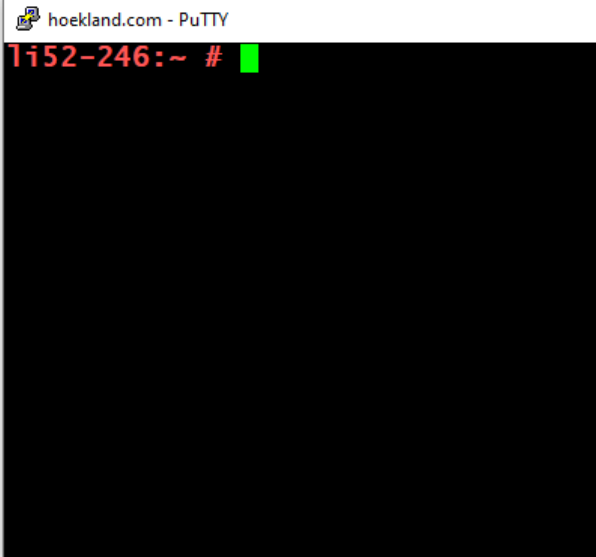


Running “Agentless” Through SSH Key Exchange

You can install a Cimitra Agent in one location, and then through SSH key exchange, you can allow a Cimitra Agent to run remote commands to another Linux box via ssh.

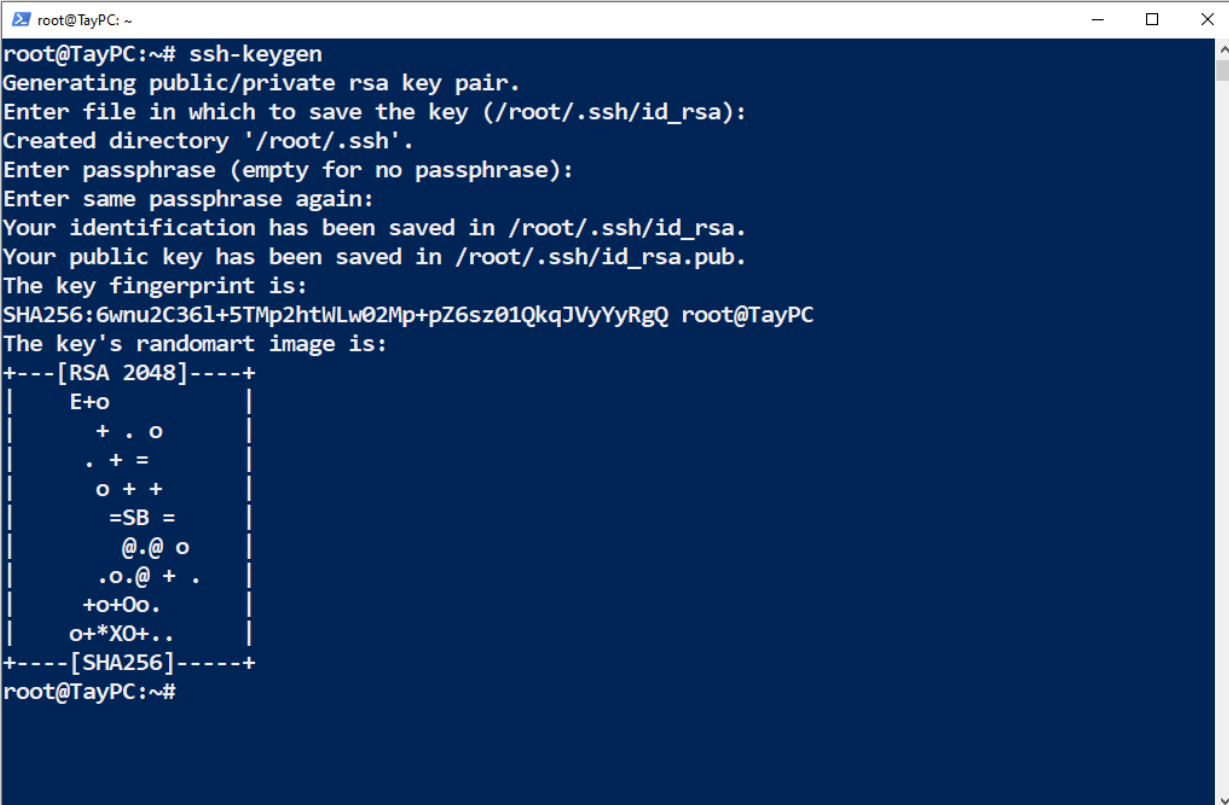
Linux Box 1	Linux Box 2
Cimitra Agent is already deployed to this box	Cimitra Agent will not be deployed to this box
IP Address: 192.168.99.1	192.168.99.2
Generates SSH Public Key	Receives Linux Box 1's SSH Key into it's authorized keys
	

On **Linux Box 1** - Where the Cimitra Agent is Deployed

1. Login is as the root user
2. Generate an SSH Public Key

ssh-keygen

NOTE: Follow the prompts, but if a key already exists you will be prompted to replace it, generally you **DO NOT WANT TO REPLACE** the SSH-Key. You can just press the **[Enter]** key if you do not want to use a passphrase. See the screenshot below.



```
root@TayPC: ~  
root@TayPC:~# ssh-keygen  
Generating public/private rsa key pair.  
Enter file in which to save the key (/root/.ssh/id_rsa):  
Created directory '/root/.ssh'.  
Enter passphrase (empty for no passphrase):  
Enter same passphrase again:  
Your identification has been saved in /root/.ssh/id_rsa.  
Your public key has been saved in /root/.ssh/id_rsa.pub.  
The key fingerprint is:  
SHA256:6wnu2C36l+5TMp2htwLw02Mp+pZ6sz01QkqJVyYyRgQ root@TayPC  
The key's randomart image is:  
+---[RSA 2048]-----+  
|  
| E+o  
| + . o  
| . + =  
| o + +  
| =SB =  
| @.@ o  
| .o.@ + .  
| +o+Oo.  
| o+*XO+..  
|  
+---[SHA256]-----+  
root@TayPC:~#
```

3. The contents of the **id_rsa.pub** file on **Linux Box 1** need to get appended to a file called **authorized_keys** file on **Linux Box 2**. From **Linux Box 1** issue the following command to append the contents of the **id_rsa.pub** file to the **authorized_keys** file on Linux Box 2.

```
cat /root/.ssh/id_rsa.pub | ssh root@192.168.99.2 "cat >>  
/root/.ssh/authorized_keys"
```

- a. When prompted, enter the root password for **Linux Box 2**.

NOTE: You can use some other user other than the **root** user. So for example, if you had a user with the id of **tkratzer** on both Linux boxes, you could use a command such as:

```
cat /home/tkratzer/.ssh/id_rsa.pub | ssh  
tkratzer@192.168.99.2 "cat >>  
/home/tkratzer/.ssh/authorized_keys"
```

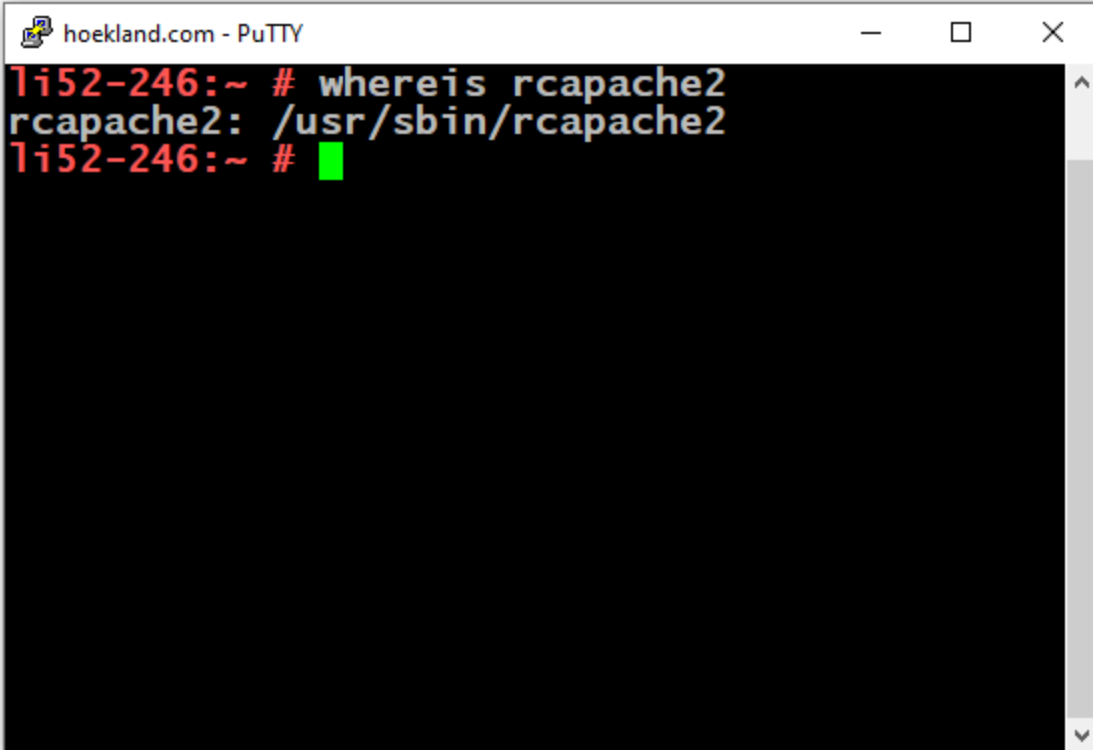
4. From **Linux Box 1**, issue a command on **Linux Box 2** using the following syntax:

```
ssh root@192.168.99.2 ls /tmp
```

Or

```
ssh tkratzer@192.168.99.2 ls /tmp
```

5. If you need to call a command that is in a search path on Linux Box 2, you have to indicate the entire path to the command. So for example, to get the status of the Apache server, we first need to discover where the **rcapache2** command exists on Linux Box 2. You use the **whereis** command to determine the location of a command:



```
hoekland.com - PuTTY  
Ti52-246:~ # whereis rcapache2  
rcapache2: /usr/sbin/rcapache2  
Ti52-246:~ # █
```

So the command you would issue from **Linux Box 1** to execute a command on **Linux Box 2** would be as follows:

ssh root@192.168.99.2 /usr/sbin/rcapache2

```
Select root@TayPC: ~
root@TayPC:~# ssh root@192.168.99.2 /usr/sbin/rcapache2 status
* apache2.service - The Apache Webserver
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; disabled; vendor preset: disabled)
   Active: active (running) since Mon 2019-12-02 11:32:49 MST; 1 weeks 1 days ago
 Main PID: 10455 (httpd-prefork)
   Status: "Total requests: 0; Current requests/sec: 0; Current traffic:  0 B/sec"
    Tasks: 11
   Memory: 15.3M
     CPU: 32.428s
    CGroup: /system.slice/apache2.service
            |-10455 /usr/sbin/httpd-prefork -DSYSCONFIG -C PidFile /var/run/httpd.pid -C Include /etc/
apache2/sysconfig.d//loadmodule.conf -C Include /etc/apache2/sysconfig.d//global.conf -f /etc/apache2
/httpd.conf -c Include /etc/apache2/sysconfig.d//include.conf -DSYSTEMD -DFOREGROUND -k start
            |-10460 /usr/sbin/httpd-prefork -DSYSCONFIG -C PidFile /var/run/httpd.pid -C Include /etc/
apache2/sysconfig.d//loadmodule.conf -C Include /etc/apache2/sysconfig.d//global.conf -f /etc/apache2
/httpd.conf -c Include /etc/apache2/sysconfig.d//include.conf -DSYSTEMD -DFOREGROUND -k start
            |-10461 /usr/sbin/httpd-prefork -DSYSCONFIG -C PidFile /var/run/httpd.pid -C Include /etc/
apache2/sysconfig.d//loadmodule.conf -C Include /etc/apache2/sysconfig.d//global.conf -f /etc/apache2
/httpd.conf -c Include /etc/apache2/sysconfig.d//include.conf -DSYSTEMD -DFOREGROUND -k start
            |-10463 /usr/sbin/httpd-prefork -DSYSCONFIG -C PidFile /var/run/httpd.pid -C Include /etc/
apache2/sysconfig.d//loadmodule.conf -C Include /etc/apache2/sysconfig.d//global.conf -f /etc/apache2
/httpd.conf -c Include /etc/apache2/sysconfig.d//include.conf -DSYSTEMD -DFOREGROUND -k start
```