

Forum:[Hack Forums](#)

Thread: [License System for Python apps.](#)

Qismon - June 17, 2024, 8:47 am

Lately I have had a few people ask about how to sell/rent a Python app without having it leaked or cracked.

Many people suggest using Beeware to compile it into an executable, but we all know that can easily be reversed.

What I have done to secure a few programs I have made in Python is develop an interactive console menu as the front-end if you will.

You install your app onto a simple bare-bones Debian VPS and modify the user logins to execute the app instead of bash/shell.

1. Make sure to add the shebang at the top of the python app that you want run on login.

Code `#!/usr/bin/env python3`

2. Also add this code to the main function of your app before any other code so you are in the correct working path.

Code `os.chdir("/path/to/python/app")`

3. Create a new file called `new_license.sh` and include the code below.

Code `#!/bin/bash`

```
new_license() {  
    printf "Enter username: "  
    read -r licenseUser  
  
    printf "Enter password: "  
    read -r licensePass  
  
    printf "Date Format >> 2024-04-20\n"  
    printf "Enter cutoff date: "  
    read -r cutoffDate  
  
    adduser --quiet --disabled-password --gecos "User" $licenseUser  
    echo "$licenseUser:$licensePass" | chpasswd  
  
    usermod -e $cutoffDate $licenseUser  
  
    chmod +x /root/PythonApp.py  
    usermod -s /root/PythonApp.py $licenseUser  
}
```

`new_license`

4. Make the `new_license.sh` executable.

Code `chmod +x new_license.sh`

5. Create a new user by running the bash script and entering the needed information. This step can be repeated when needed to create a new user.

Code `./new_license.sh`

Now login by ssh using ssh or putty and the user/pass you set in step 5. You should be presented with your console application. Enjoy and if you run into any problems send me a DM and I can help you out.

Ren And Stimpy - June 17, 2024, 8:55 am

Nice share mate! Keep it up!

mtaujanskas - June 17, 2024, 3:35 pm

so this is restricted to ssh access only? and what if the program is nontrivial and requires any sort of i/o?

Tentco - June 17, 2024, 6:45 pm

(Jun 17, 2024 03:35 PM)mtaujanskas Wrote: [\[CITE\]](#) so this is restricted to ssh access only? and what if the program is nontrivial and requires any sort of i/o?

Idk about this but for windows, simply use <https://github.com/Nuitka/Nuitka> and use a pre-existing license SDK, like KeyAuth.

Qismon - June 18, 2024, 5:55 am

(Jun 17, 2024 03:35 PM)mtaujanskas Wrote: [\[CITE\]](#) so this is restricted to ssh access only? and what if the program is nontrivial and requires any sort of i/o?

In that case I use a Flask server as an example and I run it as a service. All incoming data is stored in a sqlite3 DB and the ConsoleMenu can access it when logged in through SSH.

If you need to do something like a download then you can write a file temporary to `/var/www/html`.

(Jun 17, 2024 06:45 PM)Tentco Wrote: [\[CITE\]](#) Idk about this but for windows, simply use <https://github.com/Nuitka/Nuitka> and use a pre-existing license SDK, like KeyAuth.

You can do same on Windows, just host the app on Linux so its always running. Then in Windows use `cmd.exe/powershell.exe` to run ssh.

Nuitka I feel is same as Beeware in terms of cracking though and the file size for any Python app is huge once compiled.

Tentco - June 18, 2024, 6:10 am

(Jun 18, 2024 05:55 AM)Qismon Wrote: [\[CITE\]](#) In that case I use a Flask server as an example and I run it as a service. All incoming data is stored in a sqlite3 DB and the ConsoleMenu can access it when logged in through SSH.

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Qismon - June 18, 2024, 6:19 am

(Jun 18, 2024 06:10 AM)Tentco Wrote: [\[CITE\]](#) Nuitka is not same, it translates source to C and is obviously less in size most of the time.

Honestly I have not tried it before, but it uses CPython correct?

I have never been able to get a exe for Python less than 7MB and even with just print() it gets detected as malware.

Tentco - June 18, 2024, 6:23 am

(Jun 18, 2024 06:19 AM)Qismon Wrote: [\[CITE\]](#) Honestly I have not tried it before, but it uses CPython correct?

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7mb for hello world sounds like pyinstaller.

Qismon - June 18, 2024, 6:25 am

(Jun 18, 2024 06:23 AM)Tentco Wrote: [\[CITE\]](#) <https://github.com/Nuitka/Nuitka>

7mb for hello world sounds like pyinstaller.

PyInstaller or Beeware had the same problem with compiled size. Thanks I'll check it out sometime today.

mtaujanskas - June 18, 2024, 8:07 am

(Jun 18, 2024 05:55 AM)Qismon Wrote: [\[CITE\]](#) In that case I use a Flask server as an example and I run it as a service. All incoming data is stored in a sqlite3 DB and the ConsoleMenu can access it when logged in through SSH.

If you need to do something like a download then you can write a file temporary to /var/www/html. so it's not a drop-in module for an application (and not even necessarily Python-specific)? and you also have to rework your application based around the axiom that you have no access to the user's system in any way whatsoever.

Qismon - June 24, 2024, 6:00 am

(Jun 18, 2024 08:07 AM)mtaujanskas Wrote: [\[CITE\]](#) so it's not a drop-in module for an application (and not even necessarily Python-specific)? and you also have to rework your application based around the axiom that you have no access to the user's system in any way whatsoever.

Never said it was a drop in module or Python specific. No need to rework your application at all either, it's literally 1 chdir statement to make sure you are in the same path as the running app.

I have been renting a builder that runs on same tech and without any problems of having access to the users system.

DashPHP - June 24, 2024, 6:12 am

Interesting approach. Thanks for sharing.

Novo - June 24, 2024, 4:15 pm

So when the user connects to the ssh user it will instantly open the python script? and what if they do CTRL + C? i did do an app like that a while ago. seems cool.

Qismon - June 25, 2024, 6:30 am

(Jun 24, 2024 04:15 PM)NovoDev Wrote: [\[CITE\]](#) So when the user connects to the ssh user it will instantly open the python script? and what if they do CTRL + C? i did do an app like that a while ago. seems cool.

Yes instead of opening bash shell as normal it will run the python app. Ctrl+C will kill the SSH

session but if you are in a while loop or running threads then it will just break from the loop.

Novo - June 26, 2024, 6:08 am

(Jun 25, 2024 06:30 AM)Qismon Wrote: [\[CITE\]](#) Yes instead of opening bash shell as normal it will run the python app. Ctrl+C will kill the SSH session but if you are in a while loop or running threads then it will just break from the loop.

Seems very cool. Thank you for sharing this!

RoadHouse - June 26, 2024, 7:34 am

this is gold i must say and lately I'm working on python project which catch and leave for time being

Tyr - June 26, 2024, 11:43 am

Wow. Fantastically composed post that obviously took you some time. Thank you for contributing this.

Qismon - July 5, 2024, 7:12 am

(Jun 26, 2024 07:34 AM)RoadHouse Wrote: [\[CITE\]](#) this is gold i must say and lately I'm working on python project which catch and leave for time being

When you are done with it and ready to add the system to it, let me know I can help you with it.

SIM-5604220 - February 11, 2025, 5:09 pm

Is not better to use PyInstaller?

I'm about to start with this. I want to add some custom licenses for trials periods.

Is that possible?

Klonopin - February 19, 2025, 6:31 am

This setup is not a real license system and is highly insecure because:

No actual license enforcement – It just creates system users and forces them into a shell, which is trivial to bypass.

SSH access allows easy escape – Users can execute arbitrary commands using SSH options (scp, sftp, ssh user@server command).

No software protection – The Python script remains on the server and is fully accessible. Users can copy, modify, or extract it.

No cryptographic security – No encryption, authentication tokens, or server-side validation exist.

Manual user management is inefficient – Every license requires manually adding system users, making it unscalable.

This is not licensing; it's just poorly implemented user access control.

Why not just use OAuth, it's free & secure.

(Jun 17, 2024 06:45 PM)Tentco Wrote: [\[CITE\]](#) Idk about this but for windows, simply use <https://github.com/Nuitka/Nuitka> and use a pre-existing license SDK, like KeyAuth.

Yeah.. I don't recommend using KeyAuth. I suggest making your own authentication or using OAuth.

JuWacky - February 19, 2025, 12:30 pm

Why not just use an SQL database of keys you can give to people on a server then using an obfuscator for your python code like PyArmor? Seems easier.

SIM-5630113 - March 14, 2025, 2:49 pm

Is there any way to use / add licenses per X time.

I. e sell my tools with a 30min license to use before buying ?