# SeMF 安装指南

- 1 基础环境安装(这里已 centos7.5 作为示例)
  - 1.1 Python 安装

安装相关软件

yum install zlib-devel bzip2-devel openssl-devel ncurses-devel sqlite-devel readline-devel tk-devel gcc make

```
[manage@oogn -j$ yum install zlib-devel bzip2-devel openssl-devel ncurses-devel sqlite-devel readline-devel tk-devel gcc make
Loaded plugins: fastestmirror
You need to be root to perform this command.
[manage@oogn -j$ yu root
[manage.oogn -j$ yu root
[manage.oogn -j$ yu root
[manage.oogn -j$ yu
```

切换 tmp 路径(免去删除过程文件,重启自动删除)

下载 python3 安装包,这里我选择的是 3.6.5

yun install wget -y

wget https://www.python.org/ftp/python/3.6.5/Python-3.6.5.tar.xz

```
[root@bogon manage]# cd /tmp
[root@bogon tmp]# wget https://www.python.org/ftp/python/3.6.5/Python-3.6.5.tar.xz
bash: wget: command not found
[root@bogon tmp]# yum install wget
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
* base: mirrors.talyun.com
* extras: mirrors.tuna.tsinghua.edu.cn
* eytras: mirrors.tuna.tsinghua.edu.cn
Resolving Dependencies
--> Running transaction check
---> Parkage wget.x86_64 0:1.14-15.el7_4.1 will be installed
--> Finished Dependency Resolution
```

# 解压文件包

tar -xvJf Python-3.6.5.tar.xz

cd Python-3.6.5

编译安装

./configure prefix=/usr/local/python3

make && make install

# 创建软链接

In -s /usr/local/python3/bin/python3 /usr/bin/python3

```
[rootehogon Python-3.6.5]# ln ·s /usr/local/python3/bin/python3 /usr/bin/python3
[rootehogon Python-3.6.5]# python
Python 2.7.5 (default, Aug 4 2017, 00:39:18)
[GCC 4.8.5 20150623 (Red Hat 4.8.5-16)] on linux2
Type "help", "copyright", "credits" or "license" for more information.
>>> exit()
[rootehogon Python-3.6.5]# python3
Python 3.6.5 (default, Jun 4 2018, 07:04:43)
[GCC 4.8.5 20150623 (Red Hat 4.8.5-28)] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> []
```

#### Rabitmq 安装 1.2

下载 erlang

wget

http://www.rabbitmq.com/releases/erlang/erlang-19.0.4-1.el7.centos.x86 64.rpm

```
root@ogon Python-3.6.5]# cd ...
root@ogon Inpl# wget http://www.rabbitmq.com/releases/erlang/erlang-19.0.4-1.el7.centos.x86_64.rpm
root@ogon Impl# wget http://www.rabbitmq.com/releases/erlang/erlang-19.0.4-1.el7.centos.x86_64.rpm
resolving www.rabbitmq.com (www.rabbitmq.com)... 104.20.63.197, 104.20.62.197, 2400:cb00:2048:1::6814:3fc5,
onnecting to www.rabbitmq.com (www.rabbitmq.com)|104.20.63.197|:80... connected.
TIP request sent, awaiting response... 200 OK
enght: 18580960 (18M) [application/x-redhat-package-manager]
aving to: 'erlang-19.0.4-1.el7.centos.x86_64.rpm'
918-06-04 07:10:51 (9.66 MB/s) - 'erlang-19.0.4-1.el7.centos.x86_64.rpm' saved [18580960/18580960]
```

#### 安装 rpm

rpm -ivh erlang-19.0.4-1.el7.centos.x86 64.rpm yum -y install erlang

```
root@bogon tmp]# rpm -ivh erlang-19.0.4-1.el7.centos.x8<u>6</u>64.rpm
Preparing...
Updating / installing...
1:erlang-19.0.4-1.el7.centos
[root@bogon tmp]# [
                                                ########################## [100%]
```

#### 查看版本:

erl -version

```
[root@bogon tmp]# erl -version
Erlang (SMP,ASYNC_THREADS,HIPE) (BEAM) emulator version 8.0.3
[root@bogon tmp]#
```

#### 下载 rabbitmg

wget

http://www.rabbitmg.com/releases/rabbitmg-server/v3.6.9/rabbitmg-server-3.6.9-1. el7.noarch.rpm

```
oot@bogon_tmp]#_wget_http://www.rabbitmq.com/releases/rabbitmq-server/v3.6.9/rabbitmq-server-3.6.9-1.el7.noarch.rpm
2018-06-04 07:16:15-- http://www.rabbitmq.com/releases/rabbitmq-server/v3.6.9/rabbitmq-server-3.6.9-1.el7.noarch.rpm
solving www.rabbitmq.com (www.rabbitmq.com)... 104.20.63.197, 104.20.62.197, 2400:cb00:2048:1::6814:3ec5, ...
unecting to www.rabbitmq.com (www.rabbitmq.com)|104.20.63.197|:80... connected.

The connected connecte
018-06-04 07:16:18 (1.83 MB/s) - 'rabbitmq-server-3.6.9-1.el7.noarch.rpm' saved [4918617/4918617]
```

### 安装 rabitmq

yum install rabbitmq-server-3.6.9-1.el7.noarch.rpm

```
[root@bogon tmp]# yum install rabbitmq-server-3.6.9-1.el7.noarch.rpm
Loaded plugins: fastestmirror
Examining rabbitmq-server-3.6.9-1.el7.noarch.rpm: rabbitmq-server-3.6.9-1.el7.noarch
Marking rabbitmq-server-3.6.9-1.el7.noarch.rpm to be installed
Resolving Dependencies
--> Running transaction check
--> Package rabbitmq-server.noarch 0:3.6.9-1.el7 will be installed
--> Processing Dependency: socat for package: rabbitmq-server-3.6.9-1.el7.noarch
Loading mirror speeds from cached hostfile
* base: mirrors.aliyun.com
* extras: mirrors.tuna.tsinghua.edu.cn
--> Running transaction check
--> Package socat.x86_64 0:1.7.3.2-2.el7 will be installed
--> Finished Dependency Resolution
```

#### 启动 rabbitmg

service rabbitmq-server start

开启 web 端

rabbitmq-plugins enable rabbitmq\_management

```
[root@bogon tmp]# service rabbitmq-server start
  Redirecting to /bin/systemctl start rabbitmq-server.service
[root@bogon tmp]# rabbitmq-plugins enable rabbitmq_management
The following plugins have been enabled:
    amqp_client
    cowlib
    cowboy
    rabbitmq_web_dispatch
    rabbitmq_management_agent
    rabbitmq management
  Applying plugin configuration to rabbit@bogon... started 6 plugins.
  [root@bogon tmp]#
  添加用户
  rabbitmqctl add_user <user> pwd
  添加 vhost
  rabbitmqctl add_vhost vhost
  设置标签
  rabbitmqctl set user tags User Tag[administrator, monitoring, policymaker,
  management]
  设置权限
  rabbitmqctl set_permissions -p vhost <user> ".*" ".*" ".*"
                                                                           (<conf> <write> <read>,
  正则表达式,'*'表示所有权限)
   Applying plugin configuration to rabbit@bogon... started 6 plugins.
[root@bogon tmp]# rabbitmqctl add_user test test23
  Creating user "test" ...
[root@bogon tmp]# rabbitmqctl add_vhost semf
  Creating vhost "semf" ...
[root@bogon tmp]# rabbitmqctl set_user_tags test administrator
Setting tags for user "test" to [administrator] ...
[root@bogon tmp]# rabbitmqctl set_permissions -p semf test ".*" ".*"
Setting permissions for user "test" in vhost "semf" ...
  [root@bogon tmp]# [
  安装 nmap
  yum install nmap
 防火墙设置
开放端口
firewall-cmd --zone=public --add-port=5672/tcp --permanent //rabbitmg api 端口
firewall-cmd --zone=public --add-port=15672/tcp --permanent //rabbitmg web 端口
firewall-cmd --reload
                                   //刷新防火墙规则
firewall-cmd --zone=public --list-ports //查看所有开放端口
[root@bogon tmp]# firewall-cmd --zone=public --add-port=5672/tcp --permanent
success
```

1.3

1.4

```
[root@bogon tmp]# firewall-cmd --zone=public --add-port=5672/tcp --permanent
success
[root@bogon tmp]#
[root@bogon tmp]# firewall-cmd --zone=public --add-port=15672/tcp --permanent
success
[root@bogon tmp]# firewall-cmd --reload
success
[root@bogon tmp]# firewall-cmd --zone=public --list-ports
5672/tcp 15672/tcp
[root@bogon tmp]# []
```

systemctl stop firewalld.service //关闭防火墙,生产环境不建议使用

#### 2 应用程序安装

2.1 应用安装

创建项目路径

mkdir SeMF

cd SeMF

```
[manage@bogon ~]$ mkdir SeMF
[manage@bogon ~]$ ls
SeMF
[manage@bogon ~]$ cd SeMF
[manage@bogon SeMF]$ [
```

#### 克隆项目

git clone https://gitee.com/gy071089/SecurityManageFramwork.git

```
[manage@bogon SeMF]$ git clone "https://gitee.com/gy071089/SecurityManageFramwork.git"
Cloning into 'SecurityManageFramwork'...
remote: Counting objects: 614, done.
remote: Compressing objects: 100% (375/375), done.
remote: Total 614 (delta 282), reused 464 (delta 207)
Receiving objects: 100% (614/614), 7.91 MiB | 2.17 MiB/s, done.
Resolving deltas: 100% (282/282), done.
```

# 进入项目目录:

#### 更改 setting 文件

cd SeMF

vi setting.py

### 更改如下信息:

EMAIL 相关为你邮箱的相关信息,参照注释进行修改

BROKER URL 是你之前安装 rabbitmg 设置的账号和密码,详情参考 1.2 章

```
#设置邮箱
#设置邮箱
#设置邮箱
EMAIL_HOST = 'smtp-mail.outlook.com' #SMTP地址
EMAIL_HOST = 25 #SMTP端口
EMAIL_HOST_USER = 'xxxx@xxx.com' #我自己的邮箱
EMAIL_HOST_PASSWORD = 'password3' #我的邮箱密码
EMAIL_SUBJECT_PREFIX = u' [SeMF]' #为邮件Subject-line前級,默认是'[django]'
EMAIL_USE_TLS = True #与SMTP服务器通信时,是否启动TLS链接(安全链接)。默认是false
#管理员站点
SERVER_EMAIL = 'vvvvv'
DEFAULT_FROM_EMAIL = '安全管控平台<Se@outlook.com>'

F设置队列存储
3ROKER_URL = 'amqp://test:test23@localhost/semf'
CELERY_ACCEPI_CONIENT = ['plckle', ']son', 'msgpack', 'yaml']
```

#### 数据库设置

这里的话,需要注意,默认是 sqlite,也可以选用 mysql,注意使用 mysql 创建数据库时,名称要与 NAME 一致,且字符类型为 utf-8

设置完成后,切换到项目根目录, 使用管理员权限安装依赖组件

sudo python3 -m pip install -r requirements.txt //安装依赖组件 python3 manage.py makemigrations //初始化数据表

```
Immunophospus Security Amonger removed by systemal manage ory submary sections

Will Change Origination, Foot, Security Security
```

python3 manage.py migrate //初始化数据库

```
Tanangekögen Securitikhangeframerik} python3 manage.py migrate

(perations to perform:

Apply all migrations: ArticleManage, AssetManage, MappedManage, NoticeManage, RBAC, SeMFSetting, TaskManage, VulnManage, admin,

s, sessions

Running migrations:

Applying demonstrations:

Applying demonstrations:

Applying ArticleManage, Osol initial... OK

Applying MarticleManage, Osol initial... OK

Applying AssetManage, Osol initial... OK

Applying AssetManage, Osol initial... OK

Applying MarticleManage, Osol initial... OK

Applying Violationage, Osol initial... OK

Applying of MarticleManage, Osol initial... OK

Applying anin, Osol initial... OK

Applying aninitial... OK
```

创建超级账号

python3 manage.py createsuperuser

```
[manage@bogon SecurityManageFramwork]$ python3 manage.py createsuperuser
Username (leave blank to use 'manage'): SeMF
Email address: test@test.com
Password:
Password (again):
Superuser created successfully.
[manage@bogon SecurityManageFramwork]$ [
```

初始化漏洞库(CNNVD 漏洞数据,测试环境可不执行,执行过程中出现 fail 表明漏洞信息不完善或不重要,可忽略)

#### python3 cnvd\_xml.py

初始化权限信息(主要包含菜单,权限以及管理员角色信息,该信息可在后台调整)

#### python3 initdata.py

```
[manage@bogon SecurityManageFramwork]$ python3 initdata.py
initassettype ok
initassettypeinfo ok
initrole ok
initrole ok
initrole ok
initsuperuser ok
initarticle ok
[manage@bogon SecurityManageFramwork]$ []
```

开启异步任务,执行 celery:

创建 sh 文件

vi celery.sh

写入如下信息:

python3 -m celery -A SeMF worker -l info --autoscale=10,4 >> logs/celery.log 2>&1 &

echo 'Start celery for semf'

执行 celery

chmod u+x celery.sh

sudo ./celery.sh

#### 查看 celery 情况:

# ps-ef|grep celery

```
[root@bogon SecurityManageFramwork]# ps -ef|grep celery
root 19683 1 1 08:30 pts/0 00:00:01 python3 -m celery -A SeMF worker -l info --autoscale=10,4
root 19687 19683 0 08:30 pts/0 00:00:00 python3 -m celery -A SeMF worker -l info --autoscale=10,4
root 19688 19683 0 08:30 pts/0 00:00:00 python3 -m celery -A SeMF worker -l info --autoscale=10,4
root 19689 19683 0 08:30 pts/0 00:00:00 python3 -m celery -A SeMF worker -l info --autoscale=10,4
root 19690 19683 0 08:30 pts/0 00:00:00 python3 -m celery -A SeMF worker -l info --autoscale=10,4
root 19724 19593 0 08:33 pts/0 00:00:00 grep --color=auto celery
[root@bogon SecurityManageFramwork]# ]
```

关闭 celery: ps -ef|grep celery|grep -v grep|awk '{print \$2}'|xargs kill -9 运行应用程序(正式环境部署,建议使用 nginx+uwsgi,部署方式自行百度): python3 manage.py runserver 0.0.0.0:8000

# 2.2 扫描器设置

这里我们已 Nessus 为例,目前只支持 nessus6: 访问 ip:port 登录系统,账号为 2.1 创建的用户



登录后访问 ip:port/semf/

SEMFSETTING		
Scanner policiess	+ 增加 🥒 修改	
Scanners	+ 增加 🥜 修改	

# 点击新增,选择 Nessus 相关信息

增加 scanner	
节点各种	Nessoló
节点英型	Nessus •
节点地址:	760pt.// 15.0034
节点状态	at .
API_KEY:	07ea6 (c1b5731c8615e199440ar7
API_SEC:	Method:
节点描述	Termont .
阿姆伯斯	CASE   FOR A CAS

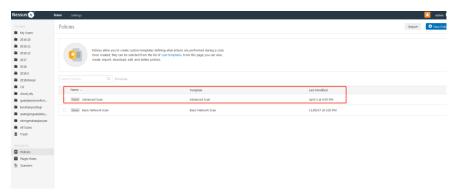
# API key 的获取

登录 nessus,选择 settings/My Account /APIKeys

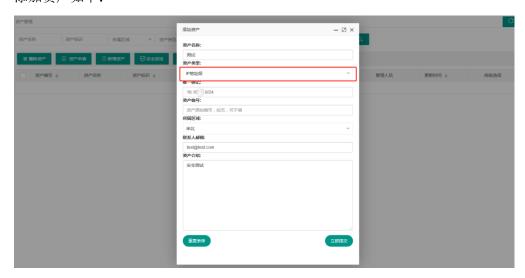


点击生成,即可获取一对密钥 key,复制到 Scanner 中并保存,请注意需要选择 Nessus 扫描器可扫描的资产类型

新建扫描策略,这里一定要将策略命名为 "Advanced Scan"(Nessus7 不提供 api,为了更好的过渡, 支持 Nessus7 后不忽略该步骤)



2.3 资产发现(为保证对内网最小影响,仅支持对录入系统的 ip 段进行资产发现,即 仅支持发现特定 IP 段内的资产) 添加资产如下:



选中资产,点击资产发现



后台会进行资产发现,发现后添加资产至系统(端口扫描和资产发现耗时较短,均不会出现任务,完成后会有消息通知,如端口扫描涉及的资产较多,会消耗很长时间,请耐心等待)

