

一键自动化安装 HTTP 服务

- 1) 首先在所有设备创建 hph666 用户并提权

```
[root@NFS ~]# useradd hph666
[root@NFS ~]# echo 123456|passwd --stdin hph666
[root@NFS ~]# useradd hph666
[root@NFS ~]# echo 123456|passwd --stdin hph666
更改用户 hph666 的密码。
passwd: 所有的身份验证令牌已经成功更新。
[root@Admin ~]# echo "hph666 ALL= NOPASSWD: ALL">>/etc/sudoers
[root@Nginx_Web_01 ~]# visudo -c

[root@Admin ~]# echo "hph666 ALL= NOPASSWD: ALL">>/etc/sudoers
[root@Admin ~]# visudo -c
/etc/sudoers: 解析正确
```

- 2) 不同用户下脚本的编辑（此部分可以忽略）

在 hh1 用户下创建脚本

```
[hh1@Admin ~]$ vim shengcheng_fenfa_sshkey.sh

#!/bin/sh
#载入系统函数库
. /etc/init.d/functions
#创建公钥
ssh-keygen -t dsa -P '' -f ~/.ssh/id_dsa >/dev/null 2>&1
if [ $? -eq 0 ];then
    action "创建密钥: " /bin/true
else
    action "创建密钥: " /bin/false
fi

[hh1@Admin ~]$ ls -ld shengcheng_fenfa_sshkey.sh
-rw-rw-r-- 1 hh1 hh1 582 10月 9 00:28 shengcheng_fenfa_sshkey.sh
```

使用 root 用户将 hh1 用户创建的脚本拷贝到用户 hph666 的家目录下+

```
[root@Admin ~]# cp /home/hh1/shengcheng_fenfa_sshkey.sh /home/hph666/
[hph666@Admin ~]$ ls /home/hph666/shengcheng_fenfa_sshkey.sh -ld
-rw-r--r-- 1 root root 582 10月 9 00:35 /home/hph666/shengcheng_fenfa_sshkey.sh
```

使用 root 用户修改 hph666 用户家目录下脚本的用户和用户组

```
[root@Admin ~]# ls -ld /home/hph666/shengcheng_fenfa_sshkey.sh
-rw-r--r-- 1 hph666 root 582 10月 9 00:35 /home/hph666/shengcheng_fenfa_sshkey.sh
```

- 3) 脚本架构:

上述步骤可直接忽略，直接在用户家目录下创建脚本（第 6 步）:

```
[hph666@Admin ~]$ tree
.
├── fen_sshkey_1.exp
├── scripts
│   └── install.sh
└── shengcheng_fenfa_sshkey.sh

1 directory, 3 files
```

- 4) 管理机通过非交互式 expect 脚本分发密钥

```
[hph666@Admin ~]$ vim fen_sshkey_1.exp
#!/usr/bin/expect
#判断参数个数，如果不满足 2 个参数就提示
if { $argc != 2 } {
    send_user "usage: expect fen_sshkey_1.exp file host\n"
    exit
}
```

```
#define var
#set 定义变量 file
set file [lindex $argv 0]
#set 定义变量 host
set host [lindex $argv 1]
#set 定义变量 password
set password "123456"

#spawn scp /etc/hosts root@10.0.0.31:/etc/hosts
#spawn scp -P65535 $file hph@$hosts:$dir
#spawn 定义要执行的命令
spawn ssh-copy-id -i $file "-p 65535 hhl@$host"
expect {
    #提示 "yes/no" , 就发送 yes 并回车继续
    "yes/no"          {send "yes\r";exp_continue}
    #提示 "***password", 就发送定义 password 变量并回车
    "*password"       {send "$password\r"}
}
expect eof

exit -onexit {
    send_user "hph say goodbye to you!\n"
}

#script usage
#example
#expect fenfa_sshkey.exp file host dir
#expect fenfa_sshkey.exp ~/hosts 10.0.0.41:~
注意：注释不能放在行末
```

```

[hhl@Admin ~]$ vim fen_sshkey_1.exp

#!/usr/bin/expect
#!/usr/bin/expect
#判断参数个数，如果不满足2个参数就提示
if { $argc != 2 } {
    send_user "usage: expect fen_sshkey_1.exp file host\n"
    exit
}

#define var
#set定义变量file
set file [lindex $argv 0]
#set定义变量host
set host [lindex $argv 1]
#set定义变量password
set password "123456"

#spawn scp /etc/hosts root@10.0.0.31:/etc/hosts
#spawn scp -P65535 $file hph@$hosts:$dir
#spawn定义要执行的命令
spawn ssh-copy-id -i $file "-p 65535 hhl@$host"
expect {
    #提示"yes/no"，就发送yes并回车继续
    "yes/no"      {send "yes\r";exp_continue}
    #提示 "***password"，就发送定义password变量并回车
    "*password"   {send "$password\r"}
}
expect eof

exit -onexit {
    send_user "hph say goodbye to you!\n"
}

#script usage
#example
#expect fenfa_sshkey.exp file host dir
#expect fenfa_sshkey.exp ~/hosts 10.0.0.41:~

```

5) 创建 HTTP 安装脚本

```

[hph666@Admin ~]$ vim scripts/install.sh
yum install httpd -y

[hph666@Admin ~]$ vim scripts/install.sh
yum install httpd -y

```

6) 创建生成、分发密钥以及安装 HTTP 服务的脚本

```

[hph666@Admin ~]$ vim shengcheng_fenfa_sshkey.sh

#!/bin/sh
#载入系统函数库
. /etc/init.d/functions
#创建公钥
ssh-keygen -t dsa -P '' -f ~/.ssh/id_dsa >/dev/null 2>&1
if [ $? -eq 0 ];then
    action "创建密钥: " /bin/true
else
    action "创建密钥: " /bin/false
fi
#分发密钥
for ip in 8 31 41

```

```

do
    expect fen_sshkey_1.exp ~/.ssh/id_dsa.pub 172.16.1.$ip >/dev/null 2>&1
    if [ $? -eq 0 ];then
        action "172.16.1.$ip" /bin/true
    else
        action "172.16.1.$ip" /bin/false
    fi
done
#远程安装 HTTP 服务
#sudo 提权
for i in 8 31 41
do
    ssh -t -p 65535 hhl@172.16.1.$i sudo yum install httpd -y
done

```

[hph666@Admin ~]\$ vim shengcheng_fenfa_sshkey.sh

```

#!/bin/sh
#载入系统函数库
. /etc/init.d/functions
#创建公钥
ssh-keygen -t dsa -P '' -f ~/.ssh/id_dsa >/dev/null 2>&1
if [ $? -eq 0 ];then
    action "创建密钥: " /bin/true
else
    action "创建密钥: " /bin/false
fi
#分发密钥
for ip in 8 31 41
do
    expect fen_sshkey_1.exp ~/.ssh/id_dsa.pub 172.16.1.$ip >/dev/null 2>&1
    if [ $? -eq 0 ];then
        action "172.16.1.$ip" /bin/true
    else
        action "172.16.1.$ip" /bin/false
    fi
done
#远程安装HTTP服务
#sudo提权
for i in 8 31 41
do
    ssh -t -p 65535 hhl@172.16.1.$i sudo yum install httpd -y
done

```

7) 执行 shengcheng_fenfa_sshkey.sh 脚本

```

[hph666@Admin ~]$ sh shengcheng_fenfa_sshkey.sh
创建密钥: [确定]
172.16.1.8 [确定]
172.16.1.31 [确定]
172.16.1.41 [确定]
install.sh 100% 21 0.0KB/s 00:00
install.sh 100% 21 0.0KB/s 00:00
install.sh 100% 21 0.0KB/s 00:00
已加载插件: fastestmirror
设置安装进程
Loading mirror speeds from cached hostfile
* base: mirrors.aliyun.com
* extras: mirrors.aliyun.com
* updates: mirrors.aliyun.com
base | 3.7 kB 00:00
extras | 3.4 kB 00:00
mysql-connectors-community | 2.5 kB 00:01
mysql-tools-community | 2.5 kB 00:00
mysql56-community | 2.5 kB 00:00
updates | 3.4 kB 00:00
解决依赖关系
--> 执行事务检查
---> Package httpd.x86_64 0:2.2.15-69.el6.centos will be 安装
--> 完成依赖关系计算

```

8) 在服务器上查看:

```

[hph666@NFS ~]$ ll .ssh/
总用量 4
-rw----- 1 hph666 hph666 602 9月 30 21:05 authorized_keys
[hph666@NFS ~]$ rpm -aq httpd
httpd-2.2.15-69.el6.centos.x86_64

```