

# ArcGIS Enterprise 10.8.1 部署在Linux环境下安装教程

技术标签：[server \(/tag/server/\)](#)

## ArcGIS Enterprise基础部署Linux版安装教程)

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windows版安装教程:

Windows server2012配置enterprise10.8.1的Web\_Adaptor\_Java版安装详细教程 ([https://blog.csdn.net/weixin\\_40625478/article/details/108725197](https://blog.csdn.net/weixin_40625478/article/details/108725197))

# 1 准备工作

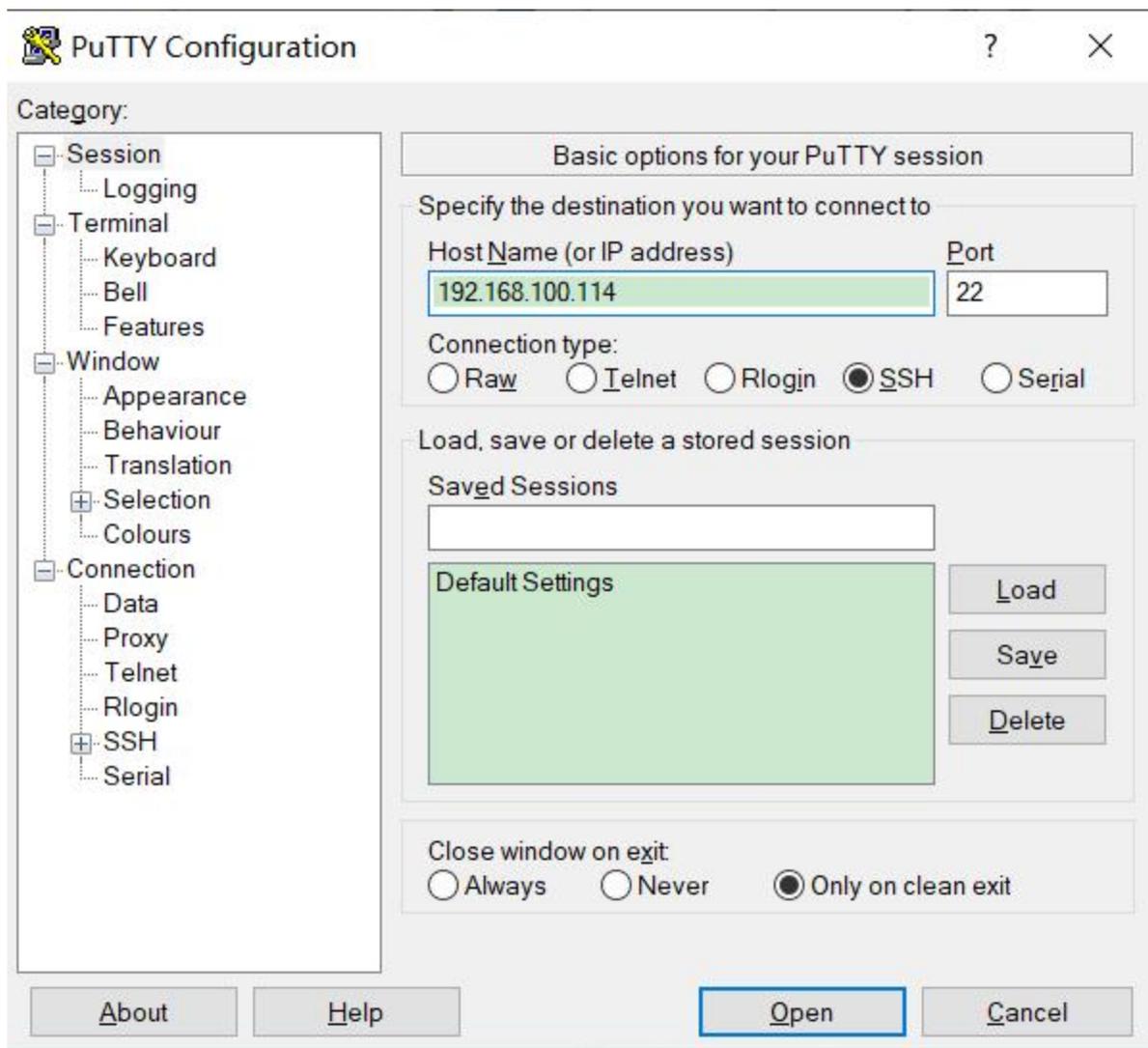
## 1.1 远程到Linux服务器

Linux一般作为服务器使用，而服务器一般放在机房，你不可能在机房操作你的Linux服务器，这时我们就需要远程登录到Linux服务器来管理维护系统。

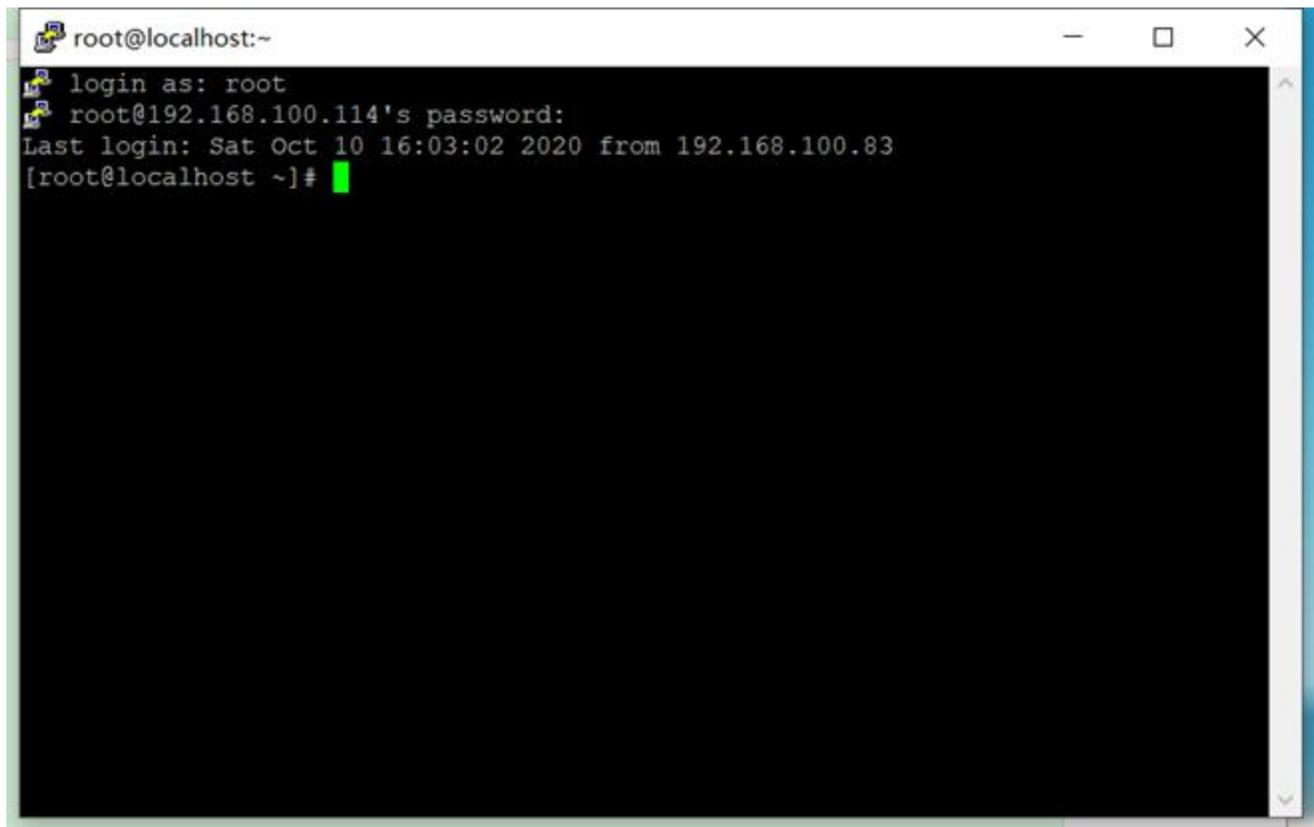
Linux系统中是通过ssh服务实现的远程登录功能，默认ssh服务端口号为 22。

Window系统上Linux远程登录客户端有SecureCRT, Putty, SSH Secure Shell等，这里我用的是putty。

安装好之后，输入服务器的ip和账户密码即可连接上。



连接之后显示界面如下，在这个界面中我们就可以输入各种Linux命令了：

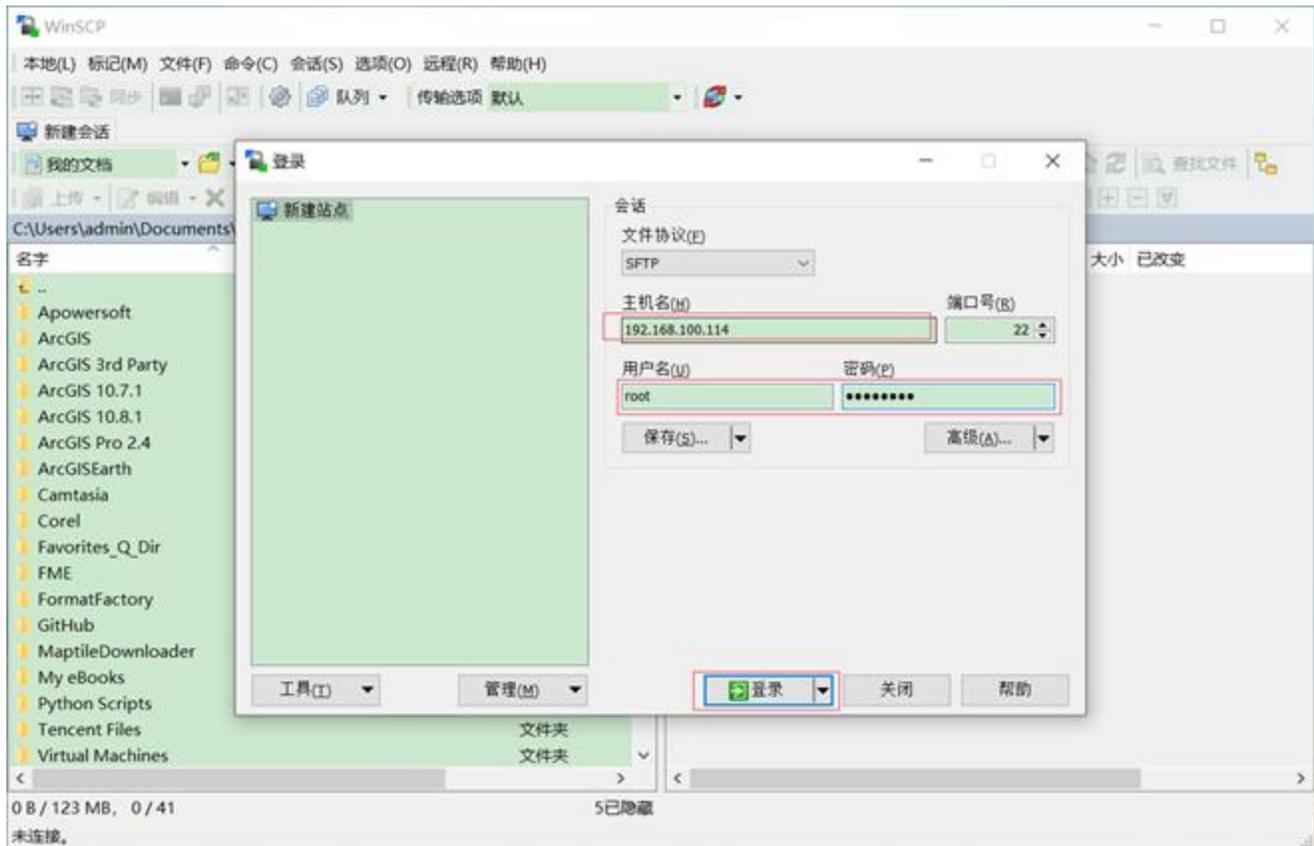
A terminal window titled 'root@localhost:~' with standard window controls. The terminal output shows a successful login as root. The prompt is '[root@localhost ~]#'.

```
root@localhost:~  
login as: root  
root@192.168.100.114's password:  
Last login: Sat Oct 10 16:03:02 2020 from 192.168.100.83  
[root@localhost ~]#
```

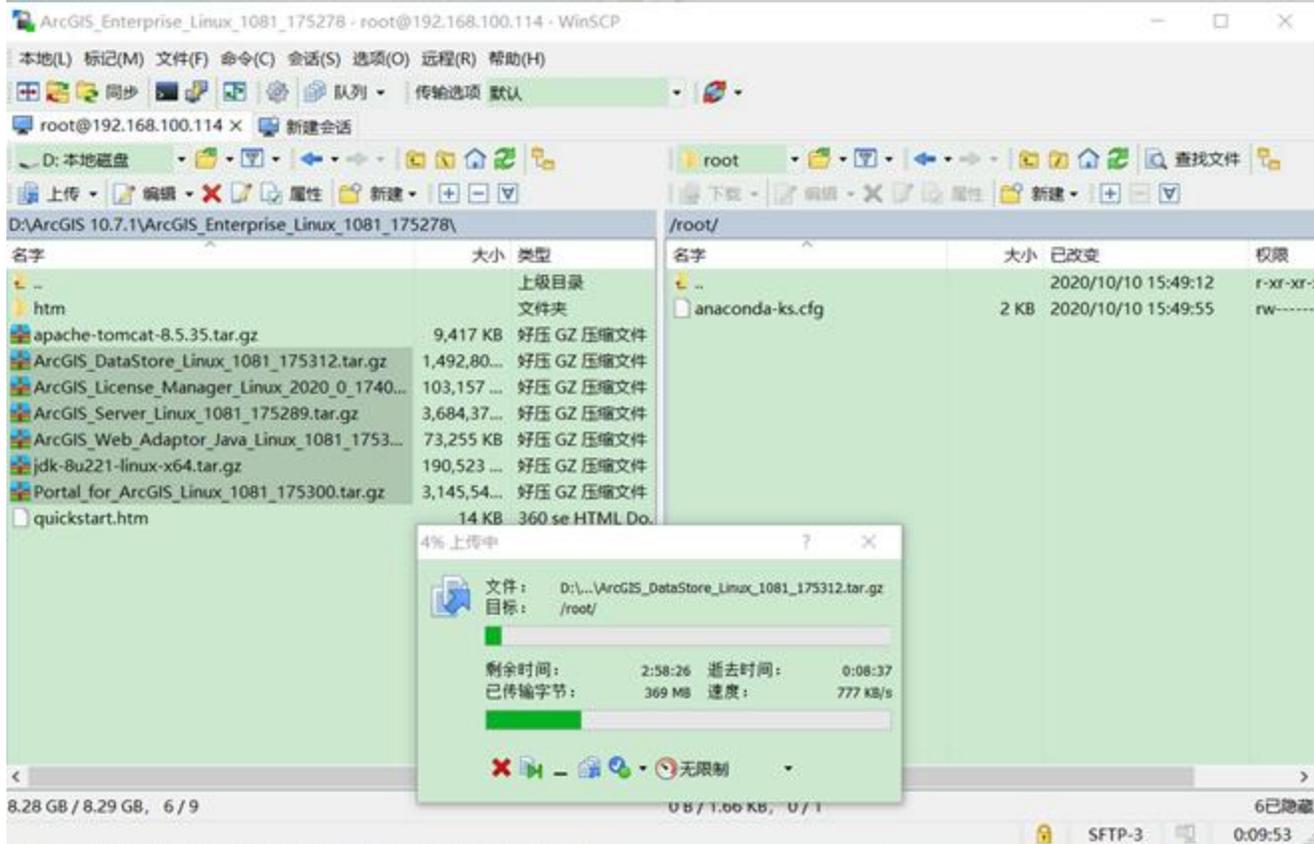
## 1.2 拷贝并解压安装介质

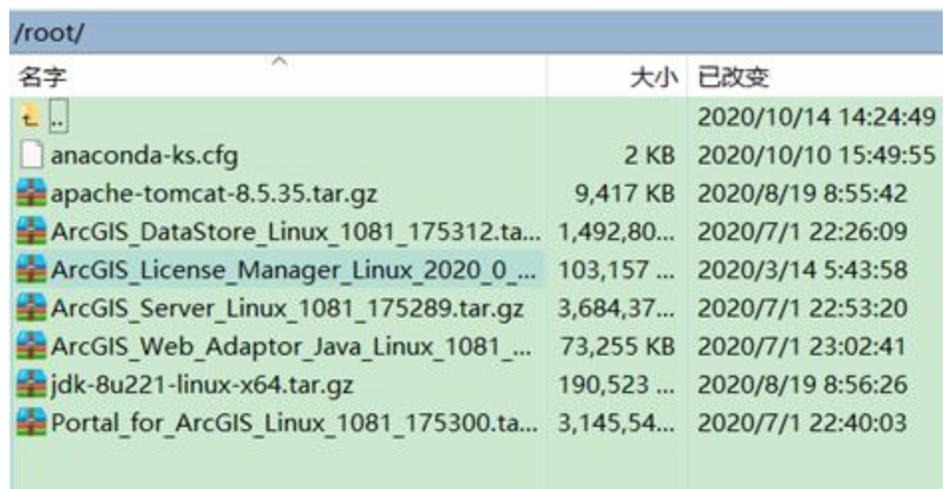
### 1.2.1 拷贝

首先，我们需要将放置在windows系统下的安装文件拷贝到Linux系统下。这里我用的是一款绿色免安装的WinSCP软件，可以可视化的在windows和Linux之间上传下载文件。



为了保险起见，上传完后我把文件夹改成了全英文，以保证全英文路径，如下/root/。



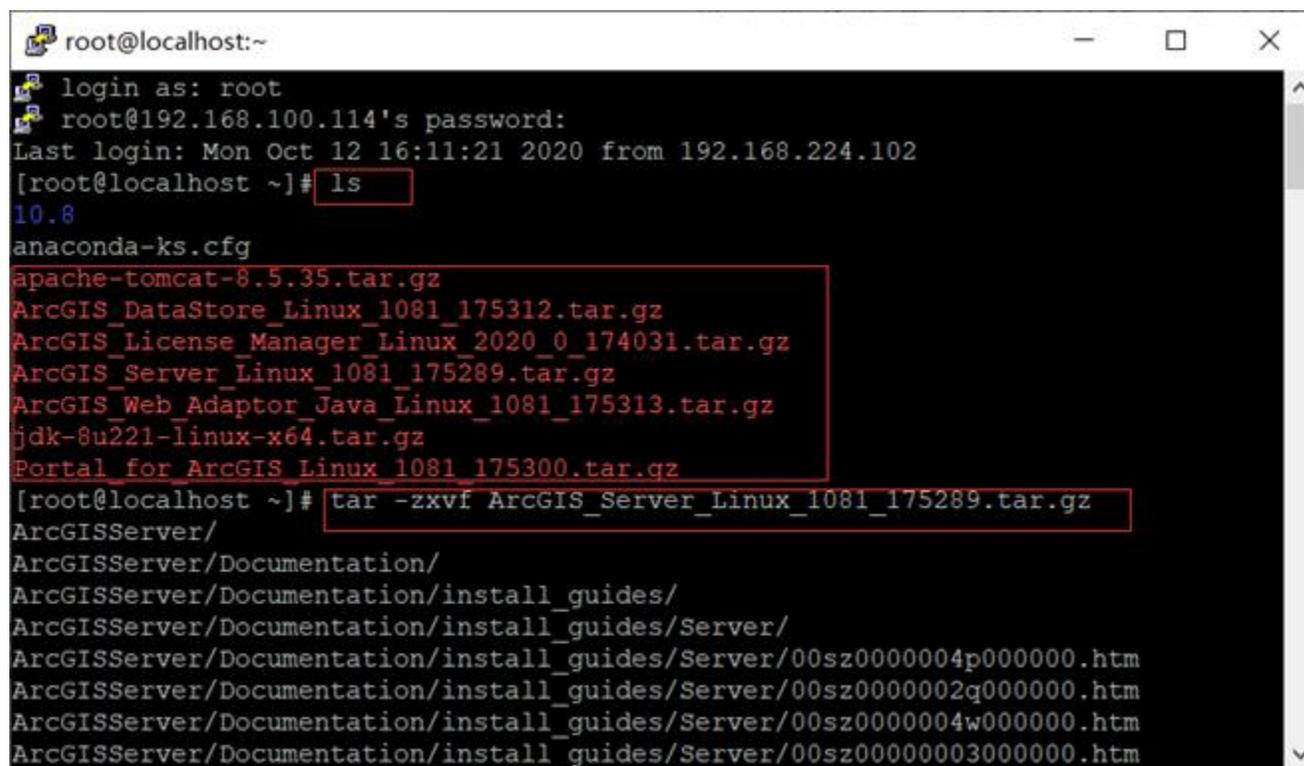


名字	大小	已改变
..		2020/10/14 14:24:49
anaconda-ks.cfg	2 KB	2020/10/10 15:49:55
apache-tomcat-8.5.35.tar.gz	9,417 KB	2020/8/19 8:55:42
ArcGIS_DataStore_Linux_1081_175312.ta...	1,492,80...	2020/7/1 22:26:09
ArcGIS_License_Manager_Linux_2020_0_...	103,157 ...	2020/3/14 5:43:58
ArcGIS_Server_Linux_1081_175289.tar.gz	3,684,37...	2020/7/1 22:53:20
ArcGIS_Web_Adaptor_Java_Linux_1081_...	73,255 KB	2020/7/1 23:02:41
jdk-8u221-linux-x64.tar.gz	190,523 ...	2020/8/19 8:56:26
Portal_for_ArcGIS_Linux_1081_175300.ta...	3,145,54...	2020/7/1 22:40:03

## 1.2.2 解压

接下来我们就可以使用以下命令对安装文件进行解压了，依次将所有文件和安装包都解压完成。如：

```
$ tar -zxvf ArcGIS_Server_Linux_1081_175289.tar.gz
```



```
root@localhost:~  
login as: root  
root@192.168.100.114's password:  
Last login: Mon Oct 12 16:11:21 2020 from 192.168.224.102  
[root@localhost ~]# ls  
10.8  
anaconda-ks.cfg  
apache-tomcat-8.5.35.tar.gz  
ArcGIS_DataStore_Linux_1081_175312.tar.gz  
ArcGIS_License_Manager_Linux_2020_0_174031.tar.gz  
ArcGIS_Server_Linux_1081_175289.tar.gz  
ArcGIS_Web_Adaptor_Java_Linux_1081_175313.tar.gz  
jdk-8u221-linux-x64.tar.gz  
Portal_for_ArcGIS_Linux_1081_175300.tar.gz  
[root@localhost ~]# tar -zxvf ArcGIS_Server_Linux_1081_175289.tar.gz  
ArcGISServer/  
ArcGISServer/Documentation/  
ArcGISServer/Documentation/install_guides/  
ArcGISServer/Documentation/install_guides/Server/  
ArcGISServer/Documentation/install_guides/Server/00sz0000004p000000.htm  
ArcGISServer/Documentation/install_guides/Server/00sz0000002q000000.htm  
ArcGISServer/Documentation/install_guides/Server/00sz0000004w000000.htm  
ArcGISServer/Documentation/install_guides/Server/00sz00000030000000.htm
```

## 1.3 环境说明

系统版本：CentOS 7.6.1810

软件版本：ArcGIS 10.8.1。

查看系统版本命令：cat /etc/redhat-release

```
[root@T990 bin]# cat /etc/redhat-release  
CentOS Linux release 7.6.1810 (Core)
```

本次采用1台机器的安装方式，即将Portal、Server、ArcGIS Web Adaptor、ArcGIS Data Store的基础组件都装在同一台机器上。

## 1.4 环境准备

### 1.4.1 关闭防火墙（可选）

停止防火墙：

```
[root@localhost home]# systemctl stop firewalld.service
```

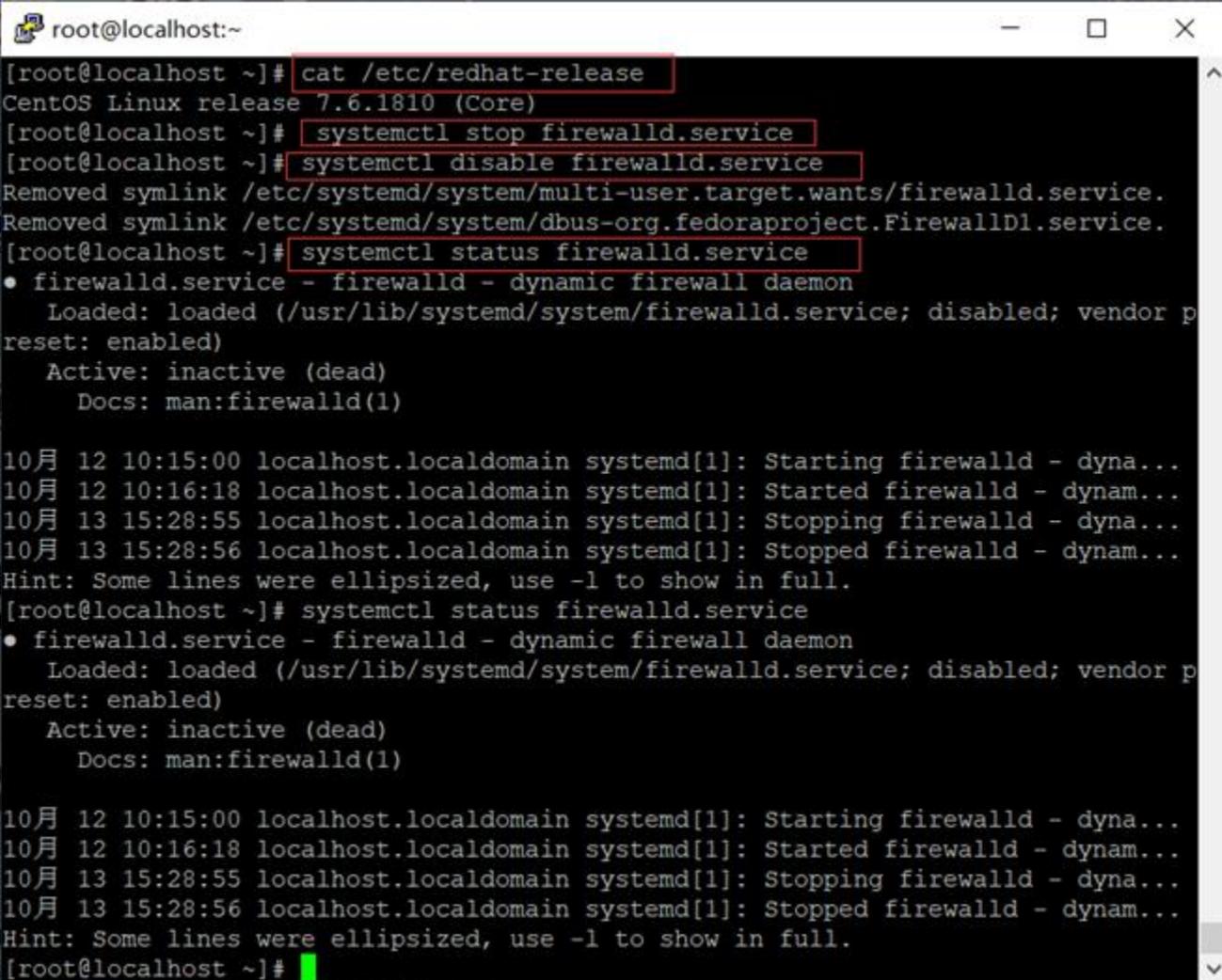
禁用防火墙的开机启动：

```
[root@localhost home]# systemctl disable firewalld.service
```

查看防火墙状态：

```
[root@localhost home]# systemctl status firewalld.service
```

以下提示说明防火墙已经关闭：

A terminal window screenshot showing the process of disabling the firewall. The user runs several commands: 'cat /etc/redhat-release' (output: CentOS Linux release 7.6.1810 (Core)), 'systemctl stop firewalld.service', 'systemctl disable firewalld.service', and 'systemctl status firewalld.service'. The status output shows the service is 'disabled' and 'inactive (dead)'. A log shows the service was started and then stopped. The terminal ends with a green cursor.

```
root@localhost:~  
[root@localhost ~]# cat /etc/redhat-release  
CentOS Linux release 7.6.1810 (Core)  
[root@localhost ~]# systemctl stop firewalld.service  
[root@localhost ~]# systemctl disable firewalld.service  
Removed symlink /etc/systemd/system/multi-user.target.wants/firewalld.service.  
Removed symlink /etc/systemd/system/dbus-org.fedoraproject.FirewallD1.service.  
[root@localhost ~]# systemctl status firewalld.service  
● firewalld.service - firewalld - dynamic firewall daemon  
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; disabled; vendor p  
   reset: enabled)  
   Active: inactive (dead)  
     Docs: man:firewalld(1)  
  
10月 12 10:15:00 localhost.localdomain systemd[1]: Starting firewalld - dyna...  
10月 12 10:16:18 localhost.localdomain systemd[1]: Started firewalld - dynam...  
10月 13 15:28:55 localhost.localdomain systemd[1]: Stopping firewalld - dyna...  
10月 13 15:28:56 localhost.localdomain systemd[1]: Stopped firewalld - dynam...  
Hint: Some lines were ellipsized, use -l to show in full.  
[root@localhost ~]# systemctl status firewalld.service  
● firewalld.service - firewalld - dynamic firewall daemon  
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; disabled; vendor p  
   reset: enabled)  
   Active: inactive (dead)  
     Docs: man:firewalld(1)  
  
10月 12 10:15:00 localhost.localdomain systemd[1]: Starting firewalld - dyna...  
10月 12 10:16:18 localhost.localdomain systemd[1]: Started firewalld - dynam...  
10月 13 15:28:55 localhost.localdomain systemd[1]: Stopping firewalld - dyna...  
10月 13 15:28:56 localhost.localdomain systemd[1]: Stopped firewalld - dynam...  
Hint: Some lines were ellipsized, use -l to show in full.  
[root@localhost ~]#
```

Tips: 不关闭防火墙时，可选择放行端口。单机环境下部署ArcGIS Enterprise时，可考虑仅开启：

1. 80和443, 确保外部客户端可通过Web Adaptor访问到Portal for ArcGIS或ArcGIS for Server服务页面;
2. 当Web Adaptor层未启用ArcGIS for Server的管理功能时, 则需开启6080和6443端口, 确保外部客户端上的ArcMap向此环境下的ArcGIS for Server发布服务。关于ArcGIS Enterprise更多的端口信息, 请参考下面的链接。

1. ArcGIS Server所用端口号:

<http://server.arcgis.com/en/server/latest/install/windows/ports-used-by-arcgis-server.htm>

2. Portal for ArcGIS所用端口号:

<http://server.arcgis.com/en/portal/latest/administer/windows/ports-used-by-portal-for-arcgis.htm>

3. ArcGIS Data Store所用端口号:

<http://server.arcgis.com/en/portal/latest/administer/windows/ports-used-by-arcgis-data-store.htm>

## 1.4.2 创建用户和组

使用groupadd和useradd命令创建用户arcgis和组esrichina, 并将arcgis用户加入esrichina组, arcgis用户的密码也是arcgis:

```
[root@localhost home]# groupadd esrichina
```

```
[root@localhost home]# useradd -g esrichina -m arcgis
```

```
[root@localhost home]# passwd arcgis
```

注:

1. cat /etc/passwd

查看所有用户的信息

```
[root@T990 ~]# cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:99:99:Nobody:/:/sbin/nologin
systemd-network:x:192:192:systemd Network Management:/:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
polkitd:x:999:998:User for polkitd:/:/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/var/empty/sshd:/sbin/nologin
postfix:x:89:89:/:/var/spool/postfix:/sbin/nologin
chrony:x:998:996:/:/var/lib/chrony:/sbin/nologin
support:x:1000:1000:support:/home/support:/bin/bash
arcgis:x:1001:1001:/:/home/arcgis:/bin/bash
```

## 2. cat /etc/passwd | grep 用户名

查找某个用户

```
[root@T990 ~]# cat /etc/passwd | grep arcgis
arcgis:x:1001:1001:/:/home/arcgis:/bin/bash
```

## 3. cat /etc/group|grep 组名

查找某个用户组

```
[root@T990 ~]# cat /etc/group|grep esrichina
esrichina:x:1001:
```

## 1.4.3 修改机器名，对应ip

ArcGIS Enterprise的安装要求计算机名是完全限定域名的形式。这一修改可通过编辑/etc/hostname和/etc/hosts两个文件实现。

### 1.4.3.1 修改hostname文件

命令如下: [root@localhost ~]# vi /etc/hostname

```
[root@localhost ~]# vi /etc/hostname
[root@localhost ~]# vi /etc/sysconfig/network
```

在文件中写入T990，保存。

```
[root@T990 ~]# vi /etc/hostname
localhost.localdomain

T990
~
~
~
~
~
```

Tips:

- 1、如果进入文件后不能输入或编辑，请按键盘i键，待底部出现insert字样即可编辑。
- 2、修改完后，按Esc+:+wq进行保存（Esc+:+q!不保存）。

#### 1.4.3.2 修改network文件

- 1) 将/etc/sysconfig/network文件中的hostname修改为T990，命令如下：

```
[root@T990 ~]# vi /etc/sysconfig/network
```

```
[root@T990 ~]# vi /etc/sysconfig/network
# Created by anaconda

HOSTNAME=T990
~
~
~
```

- 2) 使用more命令查看下修改是否成功：

```
[root@T990 ~]# more /etc/sysconfig/network
```

```
[root@T990 ~]# more /etc/sysconfig/network
# Created by anaconda

HOSTNAME=T990
```

#### 1.4.3.3 修改host文件

- 1) 使用vi /etc/hosts命令：

```
[root@T990 ~]# vi /etc/hosts
```

在/etc/hosts中添加hostname对应的ip地址，修改内容如下：

```
root@T90:~  
27.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4  
::1 localhost localhost.localdomain localhost6 localhost6.localdomain6  
  
192.168.100.114 T990.esrichina.com T990  
  
"/etc/hosts" 8L, 205C
```

2) 执行命令: hostname T990,

```
[root@T90 ~]# hostname T990
```

```
root@T990:~  
login as: root  
root@192.168.100.114's password:  
Last login: Wed Oct 14 10:38:31 2020 from 192.168.224.103  
[root@T990 ~]#
```

让修改的hostname立即生效 (重启也可以让hostname立即生效, 重启命令: reboot)

```
[root@T990 ~]# hostname T990
```

#### 1.4.3.4 检测主机名修改是否成功

检查下主机名是否符合规范，命令如下：

```
[root@T990 ~]# hostname 查看域名
```

```
[root@T990 ~]# hostname -f 查看完全限定域名
```

```
[root@T90 ~]# hostname
T990
[root@T90 ~]# hostname -f
T990.esrichina.com
[root@T90 ~]#
```

Tips: 1. 修改hosts文件, vim /etc/hosts, 一般不能去掉localhost, 去掉后zookeeper等框架可能会出问题;  
2. 不能只修改/etc/sysconfig/network, 而不修改/etc/hosts, 因为java的InetAddress要通过hostname来去/etc/hosts中找对应的ip, 取不到会报UnknownHostException异常。

## 1.4.4 修改文件夹权限

在第1章的1.2中我们已经拷贝并解压了安装文件, 且在第2.1.2节中创建了用户和组, 接下来我们需要修改文件夹的权限, 让创建的用户有权限访问上述文件夹。

依次运行chown和chmod对步骤1.2.2解压后的四个文件夹修改权限 (GeoEvent Server文件夹暂时无需处理)。先确保我们在解压文件所在位置, 用ls命令查看文件夹:

```
[root@T990 ~]# ls
10.8
anaconda-ks.cfg
apache-tomcat-8.5.35
apache-tomcat-8.5.35.tar.gz
ArcGISDataStore_Linux
ArcGIS_DataStore_Linux_1081_175312.tar.gz
ArcGIS_License_Manager_Linux_2020_0_174031.tar.gz
ArcGISServer
ArcGIS_Server_Linux_1081_175289.tar.gz
ArcGIS_Web_Adaptor_Java_Linux_1081_175313.tar.gz
jdk1.8.0_221
jdk-8u221-linux-x64.tar.gz
PortalForArcGIS
Portal_for_ArcGIS_Linux_1081_175300.tar.gz
WebAdaptor
[root@T990 ~]#
```

然后运行

```
[root@T990 arcgis]# chown -R arcgis:esrichina ArcGISServer/
```

```
[root@T990 arcgis]# chmod -R 755 ArcGISServer/
```

```
[root@T990 ~]# chown -R arcgis:esrichina ArcGISServer/
[root@T990 ~]# chmod -R 755 ArcGISServer/
[root@T990 ~]#
```

```
arcgis@T90:~
```

```
[root@T990 ~]# ls -l
总用量 8699096
drwxr-xr-x. 2 root    root          4096 10月 13 08:50 10.8
-rw-----. 1 root    root          1701 10月 10 15:49 anaconda-ks.cfg
drwxr-xr-x. 9 root    root           220 10月 13 15:15 apache-tomcat-8.5.35
-rw-r--r--. 1 root    root    9642757 8月 19 08:55 apache-tomcat-8.5.35.ta
r.gz
drwxr-xr-x. 5 1000009 1000019       103 7月 1 21:54 ArcGISDataStore_Linux
-rw-r--r--. 1 root    root    1528627258 7月 1 22:26 ArcGIS_DataStore_Linux_
1081_175312.tar.gz
-rw-r--r--. 1 root    root    105632168 3月 14 2020 ArcGIS_License_Manager_L
inux_2020_0_174031.tar.gz
drwxr-xr-x. 5 arcgis  esrichina    100 7月 1 22:11 ArcGISServer
-rw-r--r--. 1 root    root    3772800967 7月 1 22:53 ArcGIS_Server_Linux_108
1_175289.tar.gz
-rw-r--r--. 1 root    root    75012748 7月 1 23:02 ArcGIS_Web_Adaptor_Java
Linux_1081_175313.tar.gz
drwxr-xr-x. 7      10      143      245 7月 4 2019 jdk1.8.0_221
-rw-r--r--. 1 root    root    195094741 8月 19 08:56 jdk-8u221-linux-x64.tar
.gz
drwxr-xr-x. 5 1000009 1000019       97 7月 1 22:07 PortalForArcGIS
-rw-r--r--. 1 root    root    3221040621 7月 1 22:40 Portal_for_ArcGIS_Linux
_1081_175300.tar.gz
drwxr-xr-x. 4 1000009 1000019       77 7月 1 22:12 WebAdaptor
[root@T990 ~]# ls -l ArcGISServer
总用量 32
drwxr-xr-x. 3 arcgis esrichina    44 6月 20 08:41 Documentation
-rwxr-xr-x. 1 arcgis esrichina  1200 6月 20 08:40 Install.htm
drwxr-xr-x. 4 arcgis esrichina    51 5月 7 01:45 serverdiag
-rwxr-xr-x. 1 arcgis esrichina 26246 12月 11 2019 Setup
drwxr-xr-x. 4 arcgis esrichina    93 6月 20 08:43 setup_resources
[root@T990 ~]#
```

## 2 安装和配置ArcGIS Server

### 2.1 Server安装环境准备

#### 2.1.1 修改limits.conf文件

编辑/etc/security/limits.conf文件,

```
[root@T990 ~]# vi /etc/security/limits.conf
```

添加如下内容:

```
arcgis soft nofile 65535
```

```
arcgis hard nofile 65535
```

```
arcgis soft nproc 25059
```

```
arcgis hard nproc 25059
```

```
#*          soft    core      0
#*          hard    rss       10000
#@student   hard    nproc     20
#@faculty   soft    nproc     20
#@faculty   hard    nproc     50
#ftp        hard    nproc     0
#@student   -       maxlogins 4

arcgis soft nofile 65535
arcgis hard nofile 65535
arcgis soft nproc 25059
arcgis hard nproc 25059

# End of file
-- INSERT --
```

保存退出，执行如下命令使其生效：

```
[root@T990 ArcGISServer]# ulimit -Hn -Hu
open files                (-n) 4096
max user processes        (-u) 31191
[root@T990 ArcGISServer]# ulimit -Sn -Su
open files                (-n) 1024
max user processes        (-u) 31191
```

## 2.1.2 检测环境是否符合Server要求

切换到arcgis账户下，并切换到安装包目录下，由于我们刚开始文件是在root文件夹下面放着，那么我们需要把文件更换到home/arcgis文件下，



因为在arcgis用户下，对root文件没有权限：

```
[arcgis@T990 home]$ cd ..
[arcgis@T990 /]$ ls
bin  dev  home  lib64  mnt  proc  run  srv  tmp  var
boot  etc  lib  media  opt  root  sbin  sys  usr
[arcgis@T990 /]$ cd root
bash: cd: root: 权限不够
```

而我们刚开始的时候文件是在root文件中的：

名字	大小	已改变	权限
..		2020/10/14 14:01:02	r-xr-xr-
10.8		2020/10/13 8:50:40	rw-r--r-
apache-tomcat-8.5.35		2020/10/13 15:15:02	rw-r--r-
ArcGISDataStore_Linux		2020/7/1 21:54:12	rw-r--r-
jdk1.8.0_221		2019/7/4 19:37:59	rw-r--r-
PortalForArcGIS		2020/7/1 22:07:11	rw-r--r-
WebAdaptor		2020/7/1 22:12:05	rw-r--r-
anaconda-ks.cfg	2 KB	2020/10/10 15:49:55	rw-----
apache-tomcat-8.5.35.tar.gz	9,417 KB	2020/8/19 8:55:42	rw-r--r-
ArcGIS_DataStore_Linux_108...	1,492,80...	2020/7/1 22:26:09	rw-r--r-
ArcGIS_License_Manager_Lin...	103,157 ...	2020/3/14 5:43:58	rw-r--r-
ArcGIS_Server_Linux_1081_1...	3,684,37...	2020/7/1 22:53:20	rw-r--r-
ArcGIS_Web_Adaptor_Java_Li...	73,255 KB	2020/7/1 23:02:41	rw-r--r-
jdk-8u221-linux-x64.tar.gz	190,523 ...	2020/8/19 8:56:26	rw-r--r-
Portal_for_ArcGIS_Linux_1081...	3,145,54...	2020/7/1 22:40:03	rw-r--r-

进入arcgis用户中，然后命令进入到home/arcgis文件

```
[arcgis@T990 home]$ cd arcgis
[arcgis@T990 ~]$ ls
ArcGISServer
```

然后在运行ArcGISServer中下面的serverdiag脚本：诊断当前环境是否满足ArcGIS for Server安装要求。

运行serverdiag脚本诊断当前环境是否满足ArcGIS for Server安装要求。

```
[root@T990 ~]# su - arcgis
```

```
[arcgis@T990 ~]$ ./ArcGISServer/serverdiag/serverdiag
```

```
[arcgis@T990 ~]$ ./ArcGISServer/serverdiag/serverdiag
Folder location for zh_CN.UTF-8 not found. Defaulting to en_US.utf8

=====
                          ArcGIS Server 10.8.1 Diagnostic Tool
                          Hostname: T990
=====

DIAG000: Check for installation as root                [PASS]
DIAG001: Check for 64-bit architecture                 [PASS]
DIAG002: Check OS version                             [PASS]
DIAG003: Check hostname for invalid characters         [PASS]
DIAG024: Check /etc/hosts for hostname entry          [PASS]
DIAG004: Check installed packages                    [PASS]
DIAG005: Check system limits                         [PASS]
DIAG008: Check HTTP port                             [PASS]
DIAG009: Check HTTPS port                           [PASS]
DIAG010: Check Xvfb ports                            [PASS]
DIAG020: Check hostname IP address mismatches        [PASS]
DIAG026: Check processes for ArcGIS core services    [N/A]

-----
There were 0 failure(s) and 0 warning(s) found:

[arcgis@T990 ~]$
```

当出现“`There were 0 failure(s) and 0 warning(s) found:`”提示时，说明环境满足要求，可安装ArcGIS Server。

Tip: `su`命令用于切换当前用户身份到其它用户身份，之前一直用`root`用户执行各种命令，至此切换到ArcGIS用户进行安装。

## 2.2 安装ArcGIS Server

这里利用`console`模式进行交互安装。命令如下：

```
[arcgis@T990 ~]$ cd ArcGISServer/
```

```
[arcgis@T990 ArcGISServer]$ ./Setup -m console
```

```
[arcgis@T990 ~]$ cd ArcGISServer/  
[arcgis@T990 ArcGISServer]$ ./Setup -m console  
=====
```

ArcGIS Server 10.8.1 Diagnostic Tool	
Hostname: T990	
=====	
DIAG000: Check for installation as root	[PASSED]
DIAG001: Check for 64-bit architecture	[PASSED]
DIAG002: Check OS version	[PASSED]
DIAG003: Check hostname for invalid characters	[PASSED]
DIAG024: Check /etc/hosts for hostname entry	[PASSED]
DIAG004: Check installed packages	[PASSED]
DIAG005: Check system limits	[PASSED]
DIAG008: Check HTTP port	[PASSED]
DIAG009: Check HTTPS port	[PASSED]
DIAG010: Check Xvfb ports	[PASSED]

```
-----  
There were 0 failure(s) and 0 warning(s) found:  
  
Enter 'q' to quit or press enter to continue:  
█
```

接下来就是不断按enter键将安装协议阅读完，然后输入Y键接受安装协议：

```
arcgis@T990:~/ArcGISServer

Default Install Folder: /home/arcgis/arcgis/server
ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
:

=====
Pre-Installation Summary
-----

Please Review the Following Before Continuing:

Install Folder:
  /home/arcgis/arcgis/server

Disk Space Information (for Installation Target):
  Required:  8,471.38 MegaBytes
  Available: 174,369.6 MegaBytes

PRESS <ENTER> TO CONTINUE:

=====
Installing...
-----

[=====|=====|=====|=====|=====]
[-----|-----|-----|-----|-----]

=====
Authorization File
-----

Please enter the full path to your authorization file provided by Esri.

Example:
/path/to/server.ecp

Path: (Default: /path/to/file.ecp): /home/arcgis/10.8/ArcGISGIServerAdvanced_Ar
cGISServer_921702.ecp
```

```
Path: (Default: /path/to/file.ecp): /home/arctgis/10.8/ArcGISGIServerAdvanced_Ar
cGISServer_921702.ecp

=====
Installation Complete
-----

Congratulations. ArcGIS Server 10.8.1 has been successfully installed to:

/home/arctgis/arctgis/server

You will be able to access ArcGIS Server Manager by navigating to https://T990.
esrichina.com:6443/arctgis/manager.
```

Tip:注意默认的安装路径, 如果需要修改路径, 请手动输入一个路径, 如不修改, 按enter继续;

```
Path: (Default: /path/to/file.ecp): /home/arctgis/10.8/ArcGISGIServerAdvanced_Ar
cGISServer_921702.ecp

=====
Installation Complete
-----

Congratulations. ArcGIS Server 10.8.1 has been successfully installed to:

/home/arctgis/arctgis/server

You will be able to access ArcGIS Server Manager by navigating to https://T990.
esrichina.com:6443/arctgis/manager.
```

输入授权文件的位置, 继续, 出现以下信息, 说明安装成功。

```
arcgis@T990:~/arcgis/server/tools
[arcgis@T990 tools]$ ./authorizeSoftware -f /home/arcgis/10.8/ArcGISGIServerAdvanced_ArcGISServer_921702.ecp

Starting the ArcGIS Software Authorization Wizard

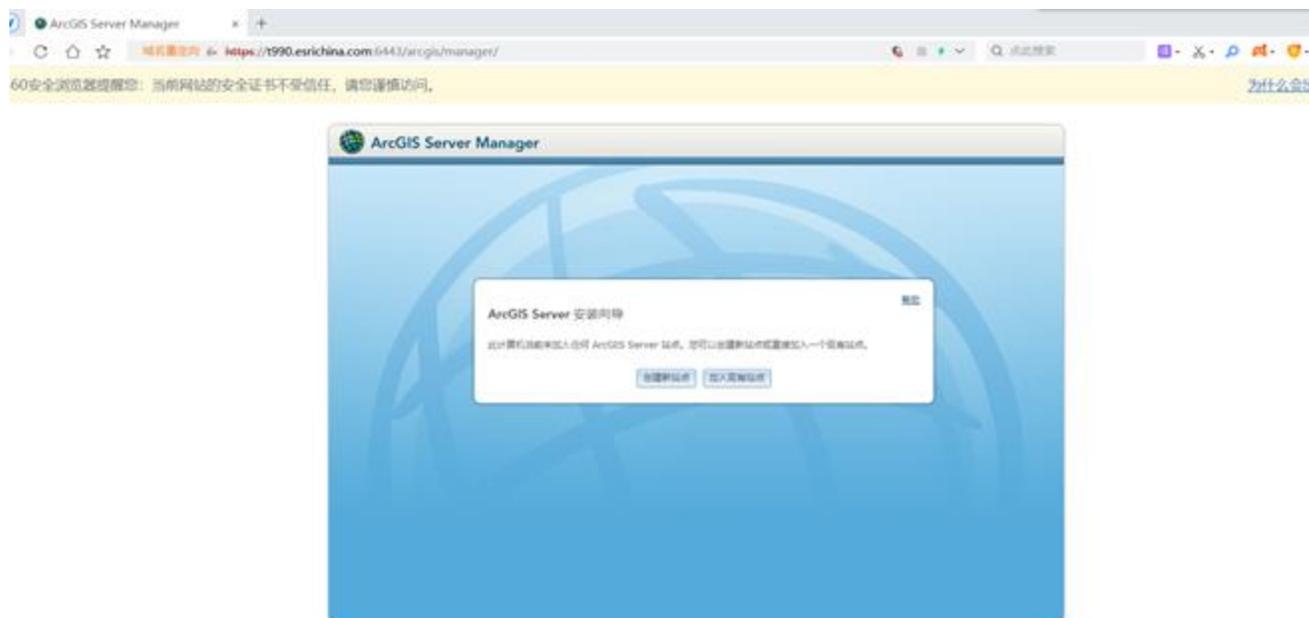
Run this script with -h for additional information.

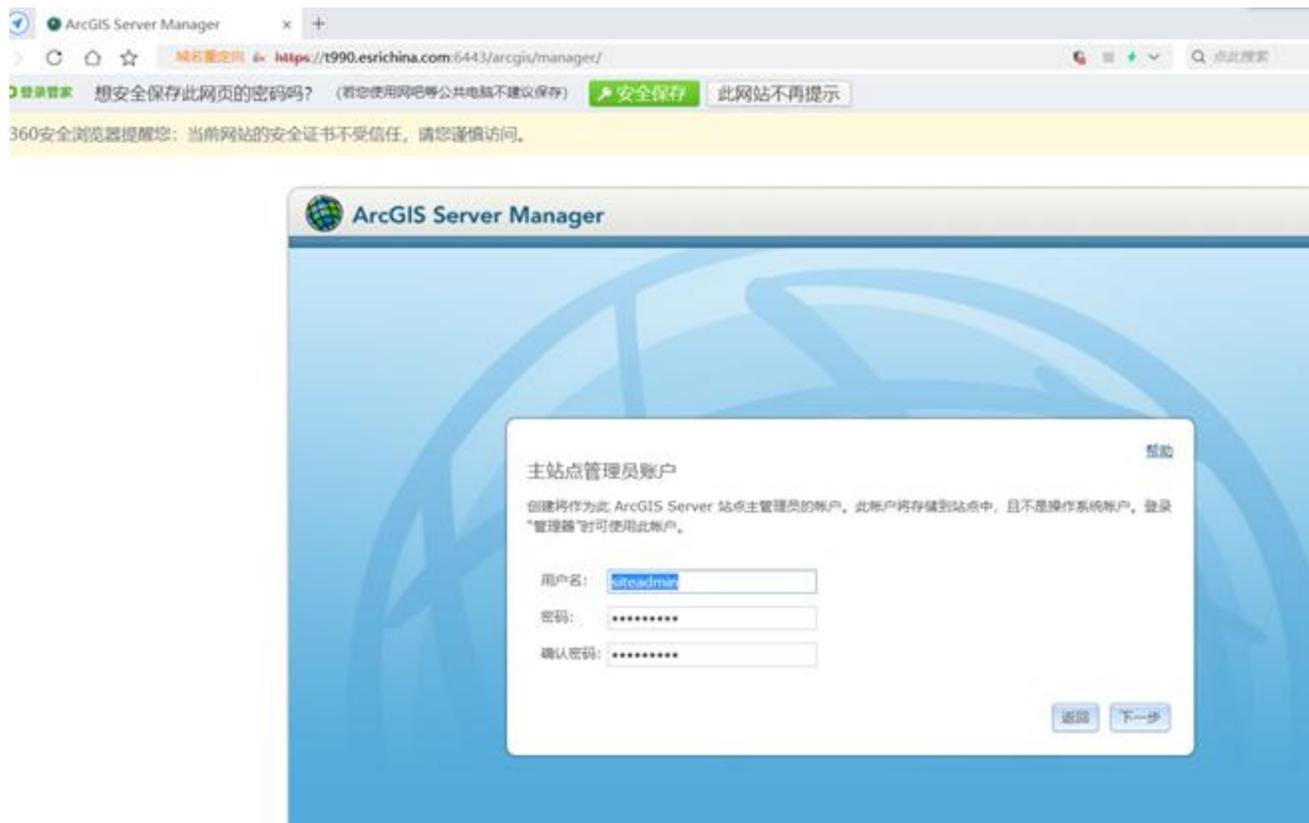
-----
Product          Ver   ECP#          Expires
-----
arcsdeserver     108   ecp915772031  30-aug-2022
datareviewersvr  108   ecp142160194  30-aug-2022
defensesvr       108   ecp828561575  30-aug-2022
interopserver    108   ecp289093806  30-aug-2022
jtxserver        108   ecp056234065  30-aug-2022
locatextsvr      108   ecp740615922  30-aug-2022
locrefserver     108   ecp670699186  30-aug-2022
maritimechsvr   108   ecp498666400  30-aug-2022
networkserver    108   ecp143591012  30-aug-2022
prodmapserver    108   ecp180183676  30-aug-2022
roadwayrepsvr   108   ecp468233970  30-aug-2022
svradv          108   ecp915772031  30-aug-2022
svradv_4        108   ecp915772031  30-aug-2022
svrenterprise   108   ecp915772031  30-aug-2022
[arcgis@T990 tools]$
```

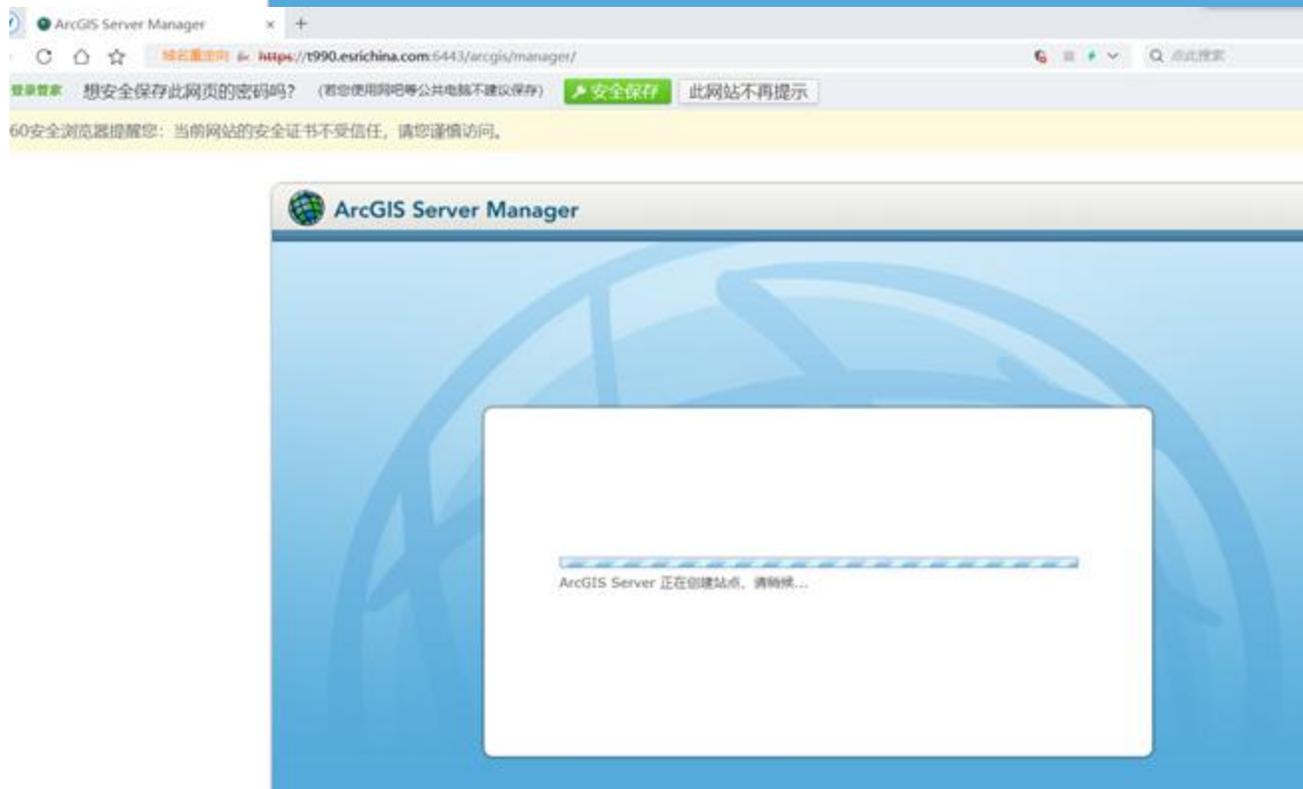
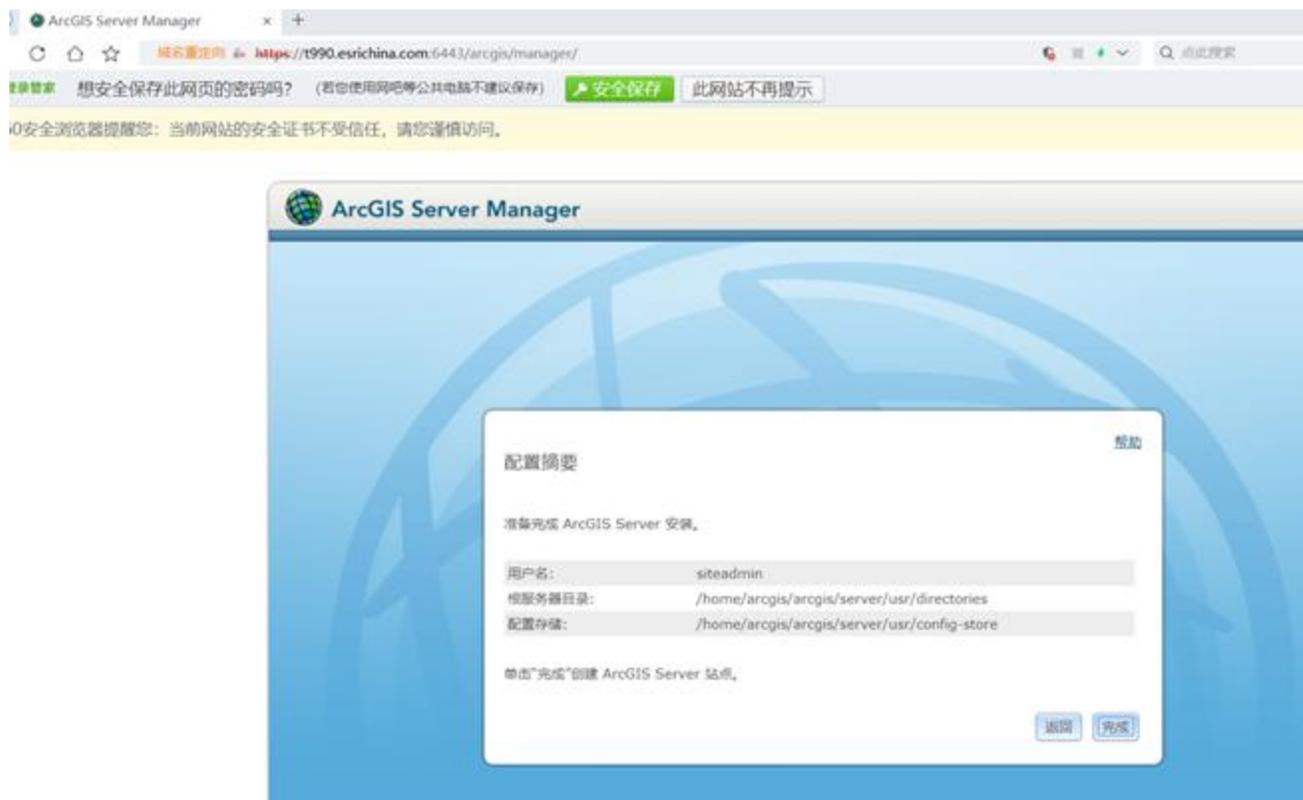
## 2.3 配置ArcGIS Server

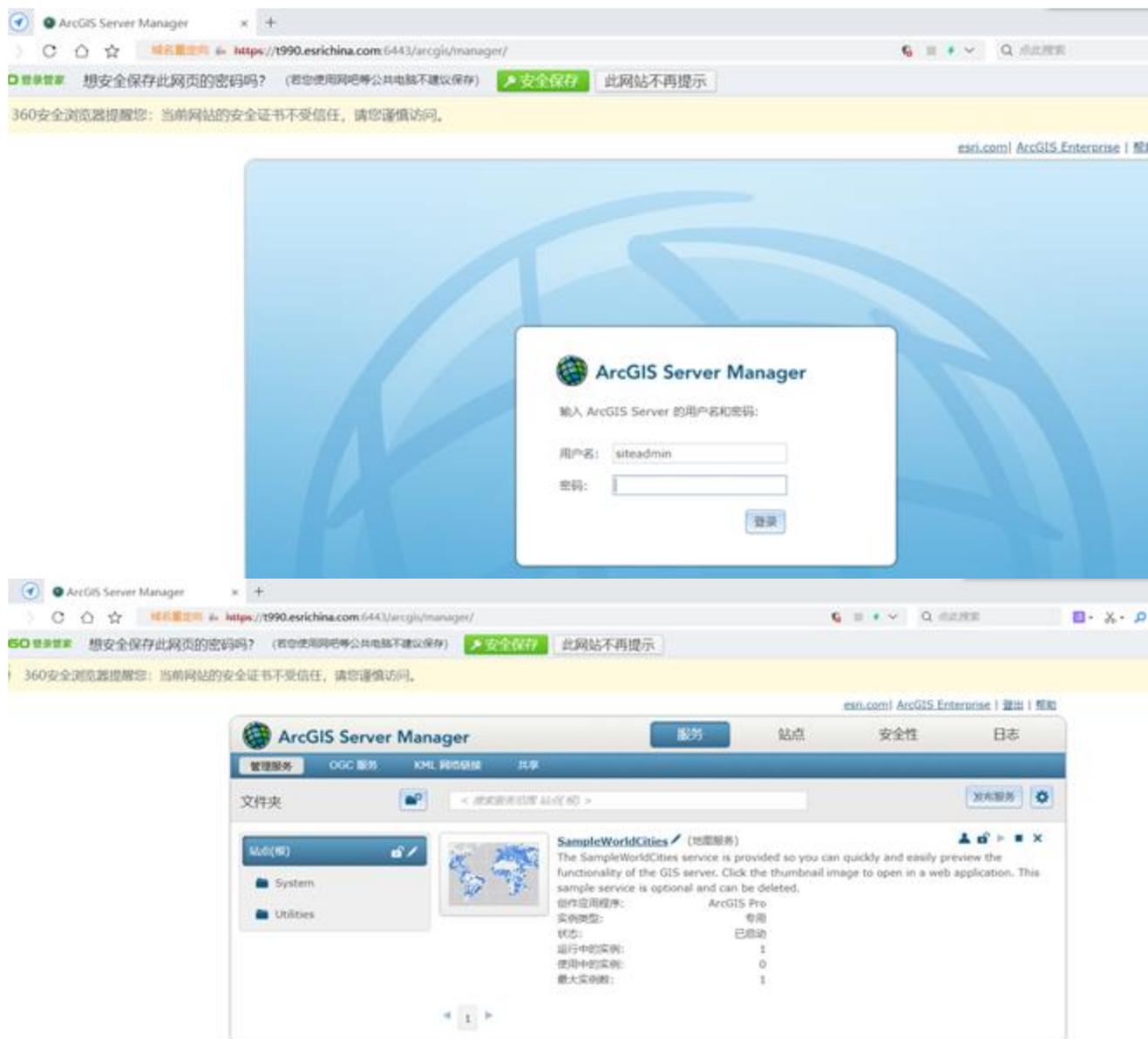
在浏览器中输入步骤2.2.2中返回的ArcGIS Server Manager地址，自动跳转至ArcGIS for Server的6443端口，开始进行站点配置。

创建站点、设置站点主账户的用户名和密码，配置Server目录等，直到完成Server配置。









## 3 安装和配置ArcGIS Data Store

### 3.1 诊断环境是否满足ArcGIS Data Store的要求

运行datastorediag脚本诊断当前环境是否满足ArcGIS DataStore的安装要求。

```
[root@T990 arcgis]# su - arcgis
```

```
[arcgis@T990 ~]$ ArcGISDataStore_Linux/datastorediag/datastorediag
```

```
[arcgis@T990 ~]$ ArcGISDataStore_Linux/datastorediag/datastorediag
=====
                ArcGIS Data Store 10.8.1 Diagnostic Tool
                Hostname: T990
=====
Unknown locale found (zh_CN.UTF-8). Using en_US.utf8.

DIAG000: Check for installation as root                [PASSED]
DIAG001: Check for 64-bit architecture                [PASSED]
DIAG002: Check OS version                            [PASSED]
DIAG003: Check hostname for invalid characters        [PASSED]
DIAG004: Check installed packages                    [PASSED]
DIAG005: Check relational and tile cache data store requirements [PASSED]
DIAG016: Check ArcGIS Data Store ports                [PASSED]
DIAG020: Check hostname IP address mismatches        [PASSED]
DIAG029: Check spatiotemporal big data store requirements [WARNING]

-----
There were 0 failure(s) and 1 warning(s) found:
```

当出现如下信息，说明当前环境满足需求，可安装ArcGIS DataStore。

There were 0 failure(s) and 0 warning(s) found:

## 3.2 安装ArcGIS Data Store

这里利用silent模式进行静默安装。

```
[arcgis@T990 ~]$ cd ArcGISDataStore_Linux/
```

```
[arcgis@T990 ArcGISDataStore_Linux]$ ./Setup -m silent -l Yes
```

```
[arcgis@T990 ~]$ cd ArcGISDataStore_Linux/
[arcgis@T990 ArcGISDataStore_Linux]$ ./Setup -m silent -l Yes
=====
                ArcGIS Data Store 10.8.1 Diagnostic Tool
                Hostname: T990
=====

DIAG000: Check for installation as root                [PASSED]
DIAG001: Check for 64-bit architecture                [PASSED]
DIAG002: Check OS version                            [PASSED]
DIAG003: Check hostname for invalid characters        [PASSED]
DIAG004: Check installed packages                    [PASSED]
DIAG005: Check relational and tile cache data store requirements [PASSED]
```

安装完毕，显示如下信息，说明安装成功。

## WARNINGS:

```
-----  
*** DIAG029: If you will be using spatiotemporal big data store, please  
check the system requirements. One or more spatiotemporal big data  
store requirements were not met:
```

```
1.) The file handle limit is set too low (soft=65535,  
hard=65535). The file handle limit needs to be set to 65536 or  
higher. Add the following lines to /etc/security/limits.conf:
```

```
arcgis soft nofile <file handle limit>  
arcgis hard nofile <file handle limit>
```

```
(To verify: ulimit -Sn -Hn)
```

```
2.) The vm.max_map_count is set too low (65530). The minimum number  
of vm.max_map_count needs to be set to 262144 or higher. To do  
so run:
```

```
# /sbin/sysctl -w vm.max_map_count=<vm.max_map_count>
```

```
3.) The vm.swappiness is set to 30. It needs to be set to 1. To  
do so run:
```

```
# /sbin/sysctl -w vm.swappiness=1
```

```
Note: For changes to /etc/security/limits.conf to take effect, you need  
to log out and log back in again.
```

```
[ArcGIS Data Store 10.8.1 Installation Details]
```

```
UI Mode.....silent
```

```
Agreed to Esri License...yes
```

```
Installation Directory.../home/arcgis/arcgis/datastore
```

```
Starting installation of ArcGIS Data Store 10.8.1...
```

```
...ArcGIS Data Store 10.8.1 installation is complete.
```

```
You will be able to configure ArcGIS Data Store 10.8.1 by navigating to https://  
localhost:2443/arcgis/datastore.
```

Starting installation of ArcGIS Data Store 10.8.1...

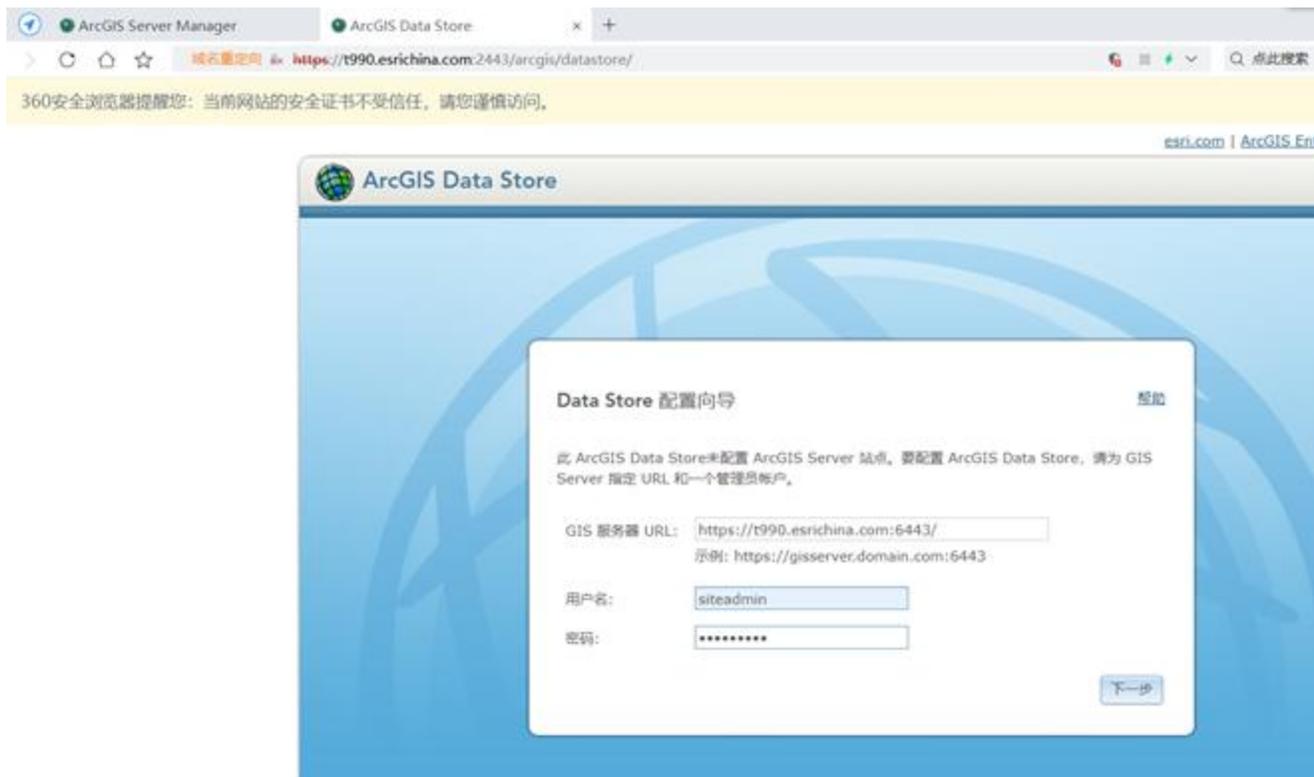
...ArcGIS Data Store 10.8.1 installation is complete.

You will be able to configure ArcGIS Data Store 10.8.1 by navigating to https:// localhost:2443/arcgis  
/datastore.

配置ArcGIS Data Store

在浏览器中输入ArcGIS Data Store的访问地址 https://T990.esrichina.com:2443/arcgis/datastore/ ,开始进行  
ArcGIS Data Store的配置。

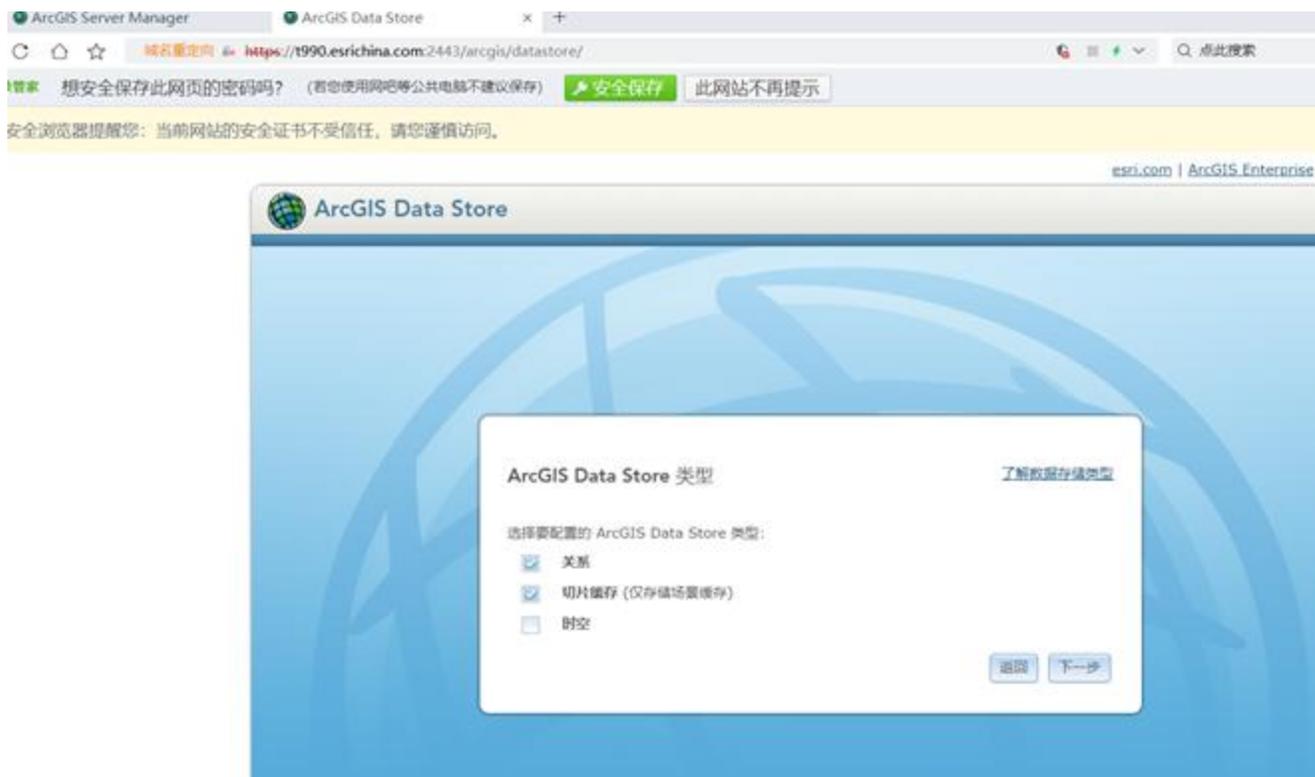
1、 输入步骤2.2.2中的ArcGIS Server 的地址以及步骤2.2.3中设置的ArcGIS for Server主站点管理员账户的用  
户名和密码，点击下一步。

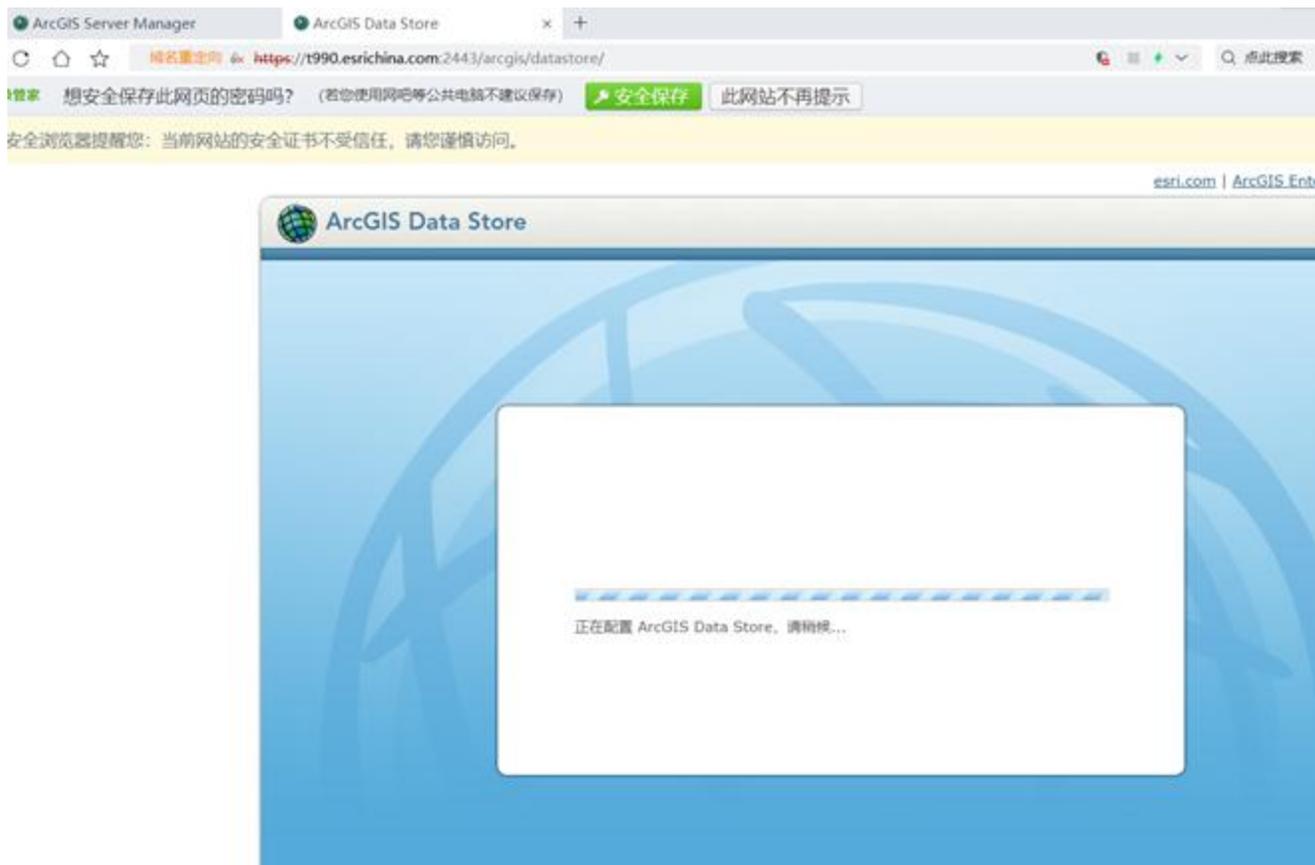


2、设置内容目录的位置，点击下一步。



3、根据需要，选择配置关系型、切片缓存型和时空型的 Data Store，点击下一步，点击完成，直至安装成功。





配置完成:



去server站点验证datastore:



## 4 安装和配置Portal for ArcGIS

### 4.1 诊断环境是否满足Portal for ArcGIS安装要求

运行portaldiag脚本诊断当前环境是否满足 Portal for ArcGIS 的安装要求。

```
[arcgis@T990 ~]$ PortalForArcGIS/portaldiag/portaldiag
```

```
[arcgis@T990 ~]$ is
10.8 apache-tomcat-8.5.35 arcgis_ArcGISDataStore Linux ArcGISServer jdk1.8.0_221 PortalForArcGIS WebAdaptor
[arcgis@T990 ~]$ PortalForArcGIS/portaldiag/portaldiag
Folder location for zh_CN.UTF-8 not found. Defaulting to en_US.utf-8

-----
Portal for ArcGIS 10.8.1 Diagnostic Tool

-----
Hostname: T990

-----
DIAG000: Check for installation as root [PASSED]
DIAG001: Check for 64-bit architecture [PASSED]
DIAG002: Check OS version [PASSED]
DIAG003: Check hostname for invalid characters [PASSED]
DIAG005: Check system limits [PASSED]
DIAG004: Check installed packages [PASSED]
DIAG016: Check Portal for ArcGIS ports [PASSED]
DIAG024: Check localhost resolution [PASSED]
DIAG029: Check file system type [PASSED]
DIAG020: Check hostname IP address mismatches [PASSED]
DIAG026: Check processes of Portal for ArcGIS core services [N/A]
DIAG028: Check data directory [N/A]

-----
There were 0 failure(s) and 0 warning(s) found:

[arcgis@T990 ~]$
```

当出现如下信息，说明当前环境满足需求，可安装Portal for ArcGIS。

There were 0 failure(s) and 0 warning(s) found:

## 4.2 安装Portal for ArcGIS

这里利用console模式进行交互安装。。

```
[arcgis@T990 ~]$ cd PortalForArcGIS/
```

```
[arcgis@T990 PortalForArcGIS]$ ./Setup -m console
```

```
[arcgis@T990 ~]$ cd PortalForArcGIS/
[arcgis@T990 PortalForArcGIS]$ ./Setup -m console
=====
                Portal for ArcGIS 10.8.1 Diagnostic Tool
=====
                Hostname: T990
=====
DIAG000: Check for installation as root                [PASSED]
DIAG001: Check for 64-bit architecture                [PASSED]
DIAG002: Check OS version                             [PASSED]
DIAG003: Check hostname for invalid characters        [PASSED]
DIAG005: Check system limits                         [PASSED]
DIAG004: Check installed packages                    [PASSED]
DIAG016: Check Portal for ArcGIS ports                [PASSED]
DIAG024: Check localhost resolution                  [PASSED]
DIAG029: Check file system type                      [PASSED]
-----
There were 0 failure(s) and 0 warning(s) found:

Enter 'q' to quit or press enter to continue:
```

同样，在这个过程中需要多按几次回车，一点点读完安装须知，之后选择/默认路径安装。

```
arcgis@T990:~/PortalForArcGIS
```

```
8.9.16 Notice. Customer may send notices required under this Agreement to Esri  
at the following address:
```

```
Environmental Systems Research Institute, Inc.  
Attn.: Contracts and Legal Department  
380 New York Street  
Redlands, CA 92373-8100  
USA  
Tel.: 909-793-2853  
Email: LegalNotices@esri.com
```

```
PRESS <ENTER> TO CONTINUE:
```

```
DO YOU ACCEPT THE TERMS OF THIS LICENSE AGREEMENT? (Y/N): Y
```

```
=====  
Choose Install Folder  
-----
```

```
Where would you like to install?
```

```
Default Install Folder: /home/arcgis/arcgis
```

```
ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT  
:
```

```
=====  
Pre-Installation Summary
```

这之后就是等待安装过程完成:

```
=====  
Pre-Installation Summary  
-----
```

```
Please Review the Following Before Continuing:
```

```
Install Folder:  
/home/arcgis/arcgis/portal
```

```
Disk Space Information (for Installation Target):  
Required: 8,550.01 MegaBytes  
Available: 165,383.97 MegaBytes
```

```
PRESS <ENTER> TO CONTINUE:
```

```
=====  
Installing...  
-----
```

```
[=====|=====|=====|=====]  
[-----|-----|-----|-----]
```

记得提前准备好授权文件，在安装过程中需要指定目录，安装完毕，显示如下信息，说明安装成功。

```
=====
Installation Complete
-----

Congratulations. Portal for ArcGIS 10.8.1 has been successfully installed to:

/home/arcgis/arcgis/portal

You will be able to access Portal for ArcGIS 10.8.1 by navigating to
https://localhost:7443/arcgis/home.
```

Congratulations. Portal for ArcGIS 10.8.1 has been successfully installed to:

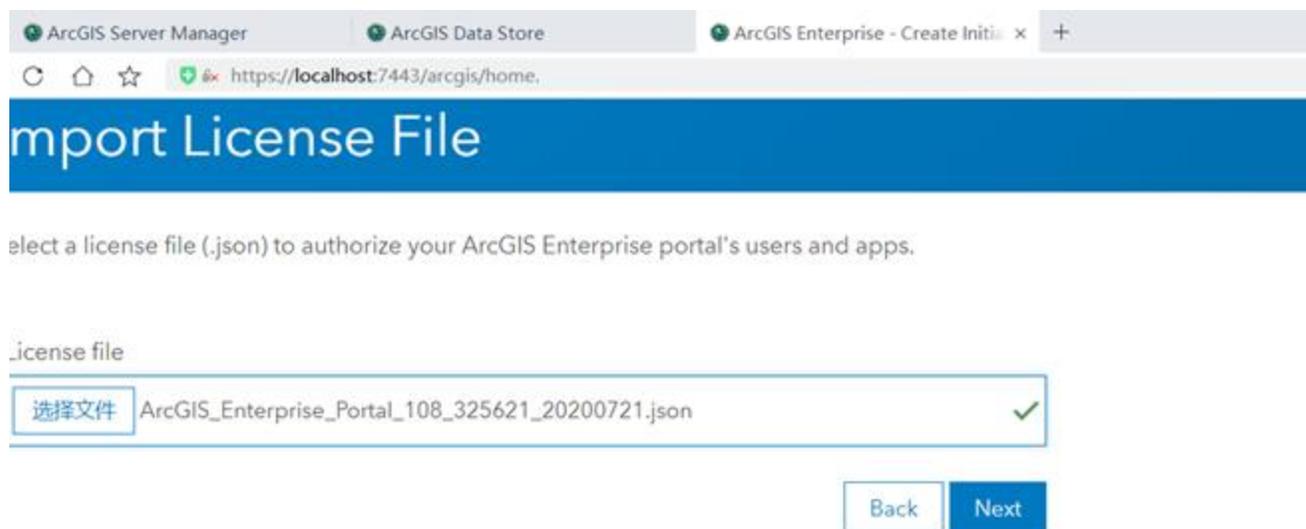
/home/arcgis/arcgis/portal

You will be able to access Portal for ArcGIS 10.8.1 by navigating to

https://localhost:7443/arcgis/home.

## 4.3 配置Portal for ArcGIS

在浏览器中输入Portal for ArcGIS的访问地址https://T990.esrichina.com:7443/arcgis/home/, 开始进行Portal for ArcGIS的配置。



点击创建portal, 并填写各种必要信息, 点击创建, 直到创建完成。

The screenshot shows a web browser window with three tabs: 'ArcGIS Server Manager', 'ArcGIS Data Store', and 'ArcGIS Enterprise - Create Initial Administrator Account'. The address bar shows 'https://localhost:7443/arcgis/home'. A security warning bar is visible with the text '想安全保存此网页的密码吗?' and a '安全保存' button. The main heading is 'Create Initial Administrator Account' in a blue banner.

Create the account that will be used as the initial administrator for your ArcGIS Enterprise portal.

This is a new account that is stored with your ArcGIS Enterprise portal and is not an operating system account. Use this account to sign into your ArcGIS Enterprise portal for the first time.

Username

Password

Confirm password

User type ⓘ

Enter additional information for the initial administrator account you specified on the previous page.

First name

Last name

Email

Confirm email

Security question

Answer

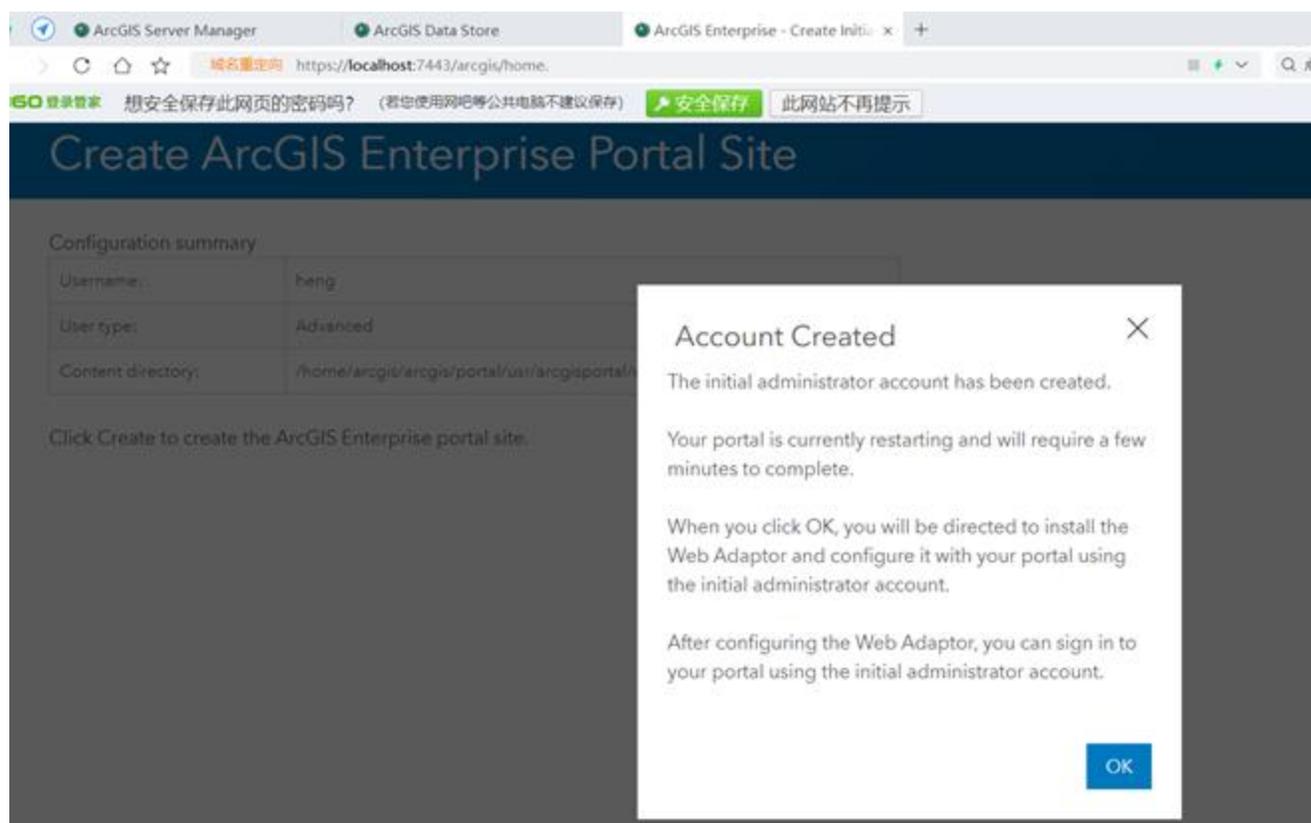
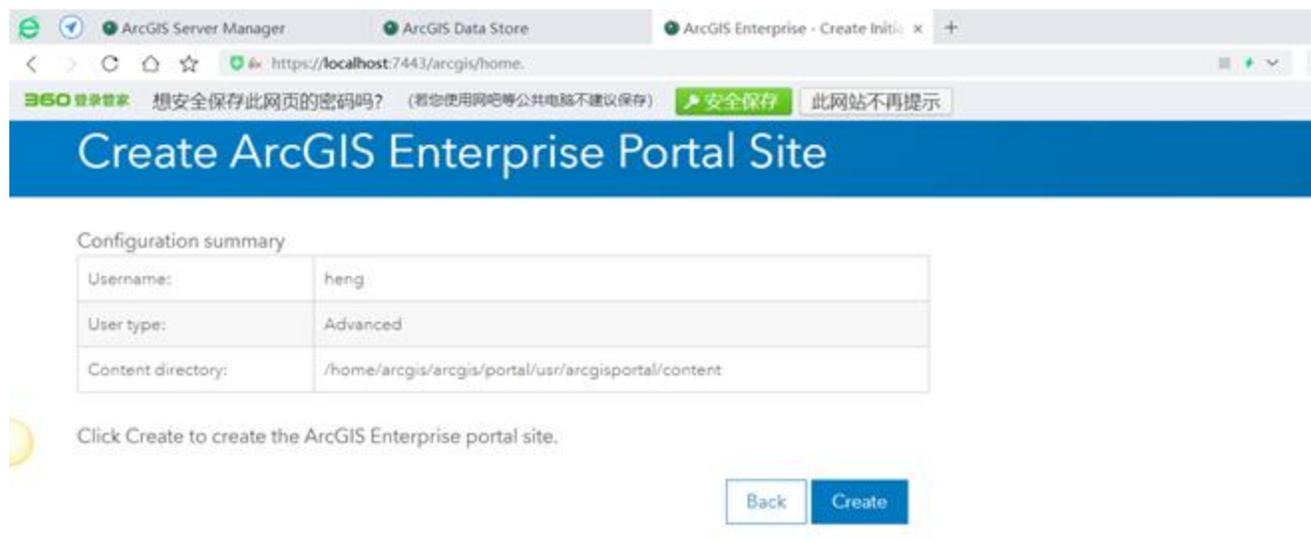
[Back](#) [Next](#)

Enter the content directory where your ArcGIS Enterprise portal will store default and user-generated content.

The content directory location must be accessible from each machine in your ArcGIS Enterprise portal.

Content directory

[Back](#) [Next](#)



## 5 安装和配置ArcGIS Web Adaptor

### 5.1 安装环境准备

#### 5.1.1 安装JDK

### 5.1.1.1 解压JDK

下载JDK Linux版本安装包，推荐版本1.8及以上。

将下载好的安装包拷贝到Linux服务器上，并解压。（当然也可以从Linux下用命令直接下载，这里我是从windows上下载好后拷贝）。命令如下：

```
[root@T990 home]# tar -zxvf jdk-8u201-linux-x64.tar.gz
```

```
[root@T990 home]# mv jdk1.8.0_201/ jdk8
```

#### 5.1.1.2 配置环境变量

1) 编辑/etc/profile文件，配置JDK环境变量，编辑命令如下：

```
[root@T990 home]# vi /etc/profile
```

向文件中写入下列内容：

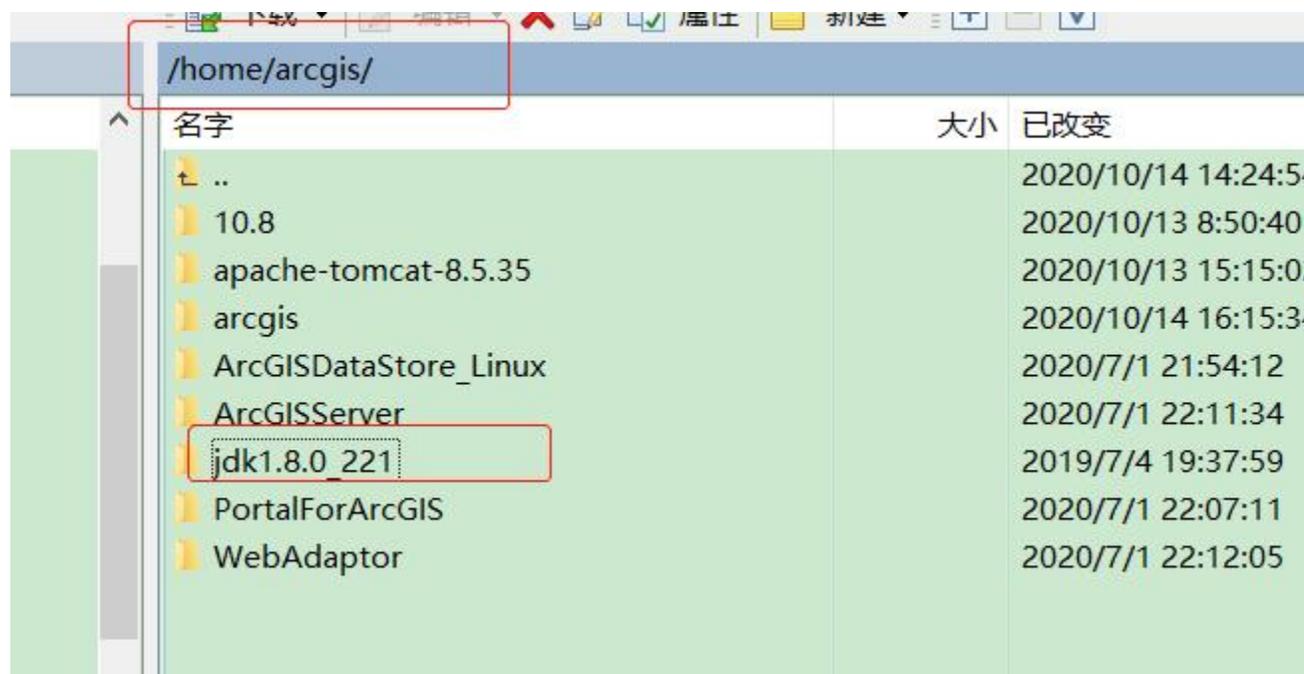
```
JAVA_HOME=/home/jdk8
```

```
CLASSPATH=.:J A V A H O M E / l i b / t o o l s . j a r : J A V A _ H O M E / l i b / t o o l s . j a r : J A V A _ H O M E / l i b
```

```
/ t o o l s . j a r : J A V A _ H O M E / l i b / d t . j a r
```

```
P A T H = J A V A _ H O M E / b i n : J A V A _ H O M E / b i n : J A V A _ H O M E / b i n : P A T H
```

```
e x p o r t J A V A _ H O M E C L A S S P A T H P A T H
```



```
unset i
unset -f pathmunge
c
JAVA_HOME=/home/arcgis/jdk1.8.0_221
CLASSPATH=.:$JAVA_HOME/lib/tools.jar:$JAVA_HOME/lib/dt.jar
PATH=$JAVA_HOME/bin:$PATH
export JAVA_HOME CLASSPATH PATH
-- INSERT --
```

3) 运行 `source /etc/profile`,

```
root@T990 arcgis]# vi /etc/profile
root@T990 arcgis]# source /etc/profile
root@T990 arcgis]#
```

使JDK环境变量配置立即生效。

Tips:

- 1、这里几个JAVA变量与等号和值之间，不能有空格，加入空格，后续JAVA变量配置会不成功。
- 2、用vi命令在/etc/profile文件中添加变量时，该变量将会对Linux下所有用户有效，并且是“永久的”。要让刚才的修改马上生效，需要执行source代码。
- 3、这里大家也可以看到，使用vi命令，代码都是同一个颜色，而之前使用vim命令编辑，代码会分不同颜色显示。这两个命令都是可以的。

#### 5.1.1.3 验证JDK安装是否成功

使用下列命令验证JDK配置是否成功：

```
[root@T990 home]# java -version
```

```
java version "1.8.0_201"
```

```
Java™ SE Runtime Environment (build 1.8.0_201-b09)
```

```
Java HotSpot™ 64-Bit Server VM (build 25.201-b09, mixed mode)
```

```
root@T990 arcgis]# java -version
ava version "1.8.0_221"
ava(TM) SE Runtime Environment (build 1.8.0_221-b11)
ava HotSpot(TM) 64-Bit Server VM (build 25.221-b11, mixed mode)
root@T990 arcgis]#
```

出现上述信息，Java版本是1.8.0\_201，说明JDK环境变量配置成功。

## 5.1.2 创建自签名证书

### 5.1.2.1 创建私钥和证书请求

#### 1 创建私钥和证书请求

在tomcat8目录下创建ssl文件夹，用来存放私钥文件及证书

```
[root@T990 ~]# mkdir /home/tomcat8/ssl
```

```
[root@T990 ~]# openssl req -newkey rsa:2048 -nodes -keyout /home/arcgis/tomcat8/ssl/T990.key -x509  
-days 365 -out /home/arcgis/tomcat8/ssl/T990.crt
```

输入自签名证书创建所需的参数。创建自签名证书时，Common Name输入的是当前机器的完全限定域名即T990.esrichina.com。

```
[root@T990 tomcat8]# openssl req -newkey rsa:2048 -nodes -keyout /home/arcgis/tomcat8/ssl/T990.key -x509 -days 365 -out /home/arcgis/  
tomcat8/ssl/T990.crt  
Generating a 2048 bit RSA private key  
.....+++  
.....+++  
Writing new private key to '/home/arcgis/tomcat8/ssl/T990.key'  
-----  
You are about to be asked to enter information that will be incorporated  
into your certificate request.  
What you are about to enter is what is called a Distinguished Name or a DN.  
There are quite a few fields but you can leave some blank  
For some fields there will be a default value,  
if you enter '.', the field will be left blank.  
-----  
Country Name (2 letter code) [XX]:CN  
State or Province Name (full name) []:Xian  
Locality Name (eg, city) [Default City]:Xian  
Organization Name (eg, company) [Default Company Ltd]:esrichina  
Organizational Unit Name (eg, section) []:esrichina  
Common Name (eg, your name or your server's hostname) []:T990.esrichina.com  
Email Address []:liuh@geoscene.com  
[root@T990 tomcat8]#
```

Country Name (2 letter code) [XX]:CN

State or Province Name (full name) : Xian

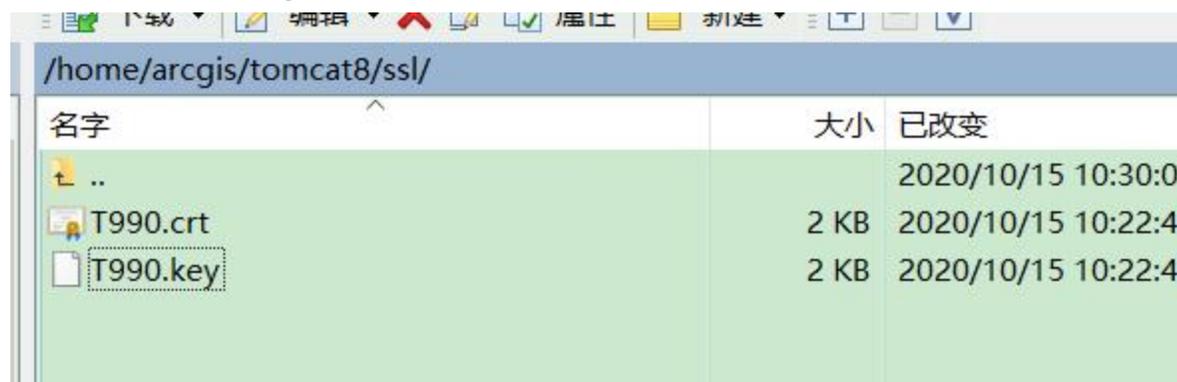
Locality Name (eg, city) [Default City]:Xian

Organization Name (eg, company) [Default Company Ltd]:esrichina

Organizational Unit Name (eg, section) :esrichina

Common Name (eg, your name or your server's hostname) :T990.esrichina.com

Email Address :liuh@geoscene.com



Tips:

1、在这个过程中，第一次执行命令提示上述路径不存在，通过mkdir命令创建ssl文件夹，创建完再执行上述命令就没有报错了。如下：

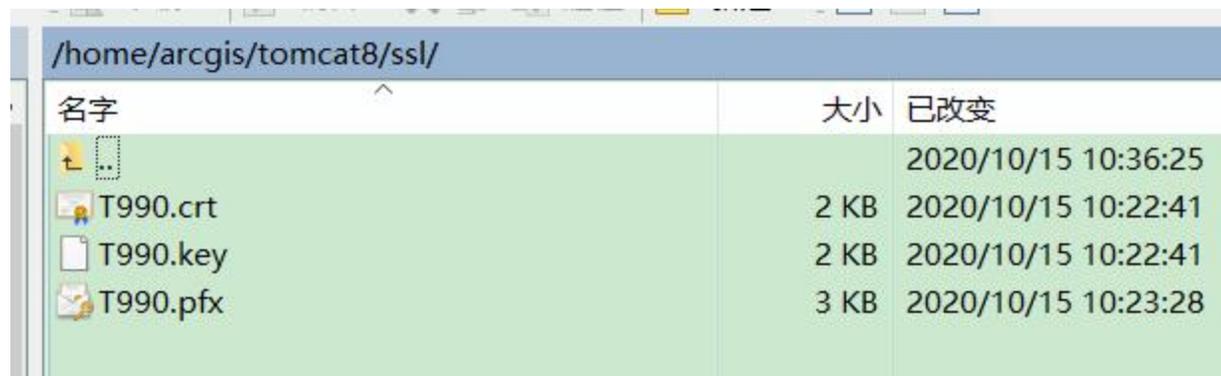
2、记得路径要写到当前目录级别，即如果你处在目录/tomcat8下，则地址要写/tomcat8/ssl/...，不能从/ssl开

始写，会报错。

### 5.1.2.2 创建自签名证书

命令如下：

```
[root@T990 ~]# openssl pkcs12 -inkey /home/arcgis/tomcat8/ssl/T990.key -in /home/arcgis/tomcat8/ssl/T990.crt -export -out /home/arcgis/tomcat8/ssl/T990.pfx
```



Tips:

1、这里按照上面的参数执行时，有提示要设置导出密码，我设置为了arcgis。

2、要使用SHA-256算法进行加密，参见下面命令：

```
openssl req -sha256 -newkey rsa:2048 -nodes -keyout /home/tomcat8/ssl/T990.key -x509 -days 365 -out /home/tomcat8/ssl/T990.crt
```

```
openssl pkcs12 -inkey /home/tomcat8/ssl/T990.key -in /home/tomcat8/ssl/T990.crt -export -out /home/tomcat8/ssl/T990.pfx
```

## 5.1.3 安装Tomcat并启用SSL

### 5.1.3.1 安装Tomcat

帮助中明确，对于ArcGIS 10.6版本来说，Linux系统上支持的Web Server版本，Tomcat只支持7.0.82，8.0.47以及8.5.23这三个版本，因此这里我下载了8.5.23版本。

将下载好的tomcat安装包拷贝到Linux系统的指定位置，并解压，命令如下：

```
[root@T990 home]# tar -zxvf apache-tomcat-8.5.23.tar.gz
```

```
[root@T990 arcgis]# ls
0.8 apache-tomcat-8.5.35 arcgis ArcGISDataStore_Linux ArcGISServer jdk1.8.0_221 PortalForArcGIS WebAdaptor
[root@T990 arcgis]# mkdir tomcat8
[root@T990 arcgis]# ls
0.8 apache-tomcat-8.5.35 arcgis ArcGISDataStore_Linux ArcGISServer jdk1.8.0_221 PortalForArcGIS tomcat8 WebAdaptor
[root@T990 arcgis]#
```

在home目录下新建tomcat8文件夹，将解压缩后的文件移入tomcat8文件夹备用。

```
[root@T990 home]# mv apache-tomcat-8.5.23 tomcat8
```

```
[root@T990 arcgis]# mv apache-tomcat-8.5.35 tomcat8
```

### 1.cp命令

命令: cp dir1/a.doc dir2 表示将dir1下的a.doc文件复制到dir2目录下

cp -r dir1 dir2 表示将dir1及其dir1下所包含的文件复制到dir2下

cp -r dir1/. dir2 表示将dir1下的文件复制到dir2,不包括dir1目录

```
[root@T990 ~]# cp -r /home/arcgis/apache-tomcat-8.5.35/ /home/arcgis/tomcat8  
[root@T990 ~]#
```

### 5.1.3.2 对Tomcat启用ssl

编辑tomcat的server.xml文件, 命令:

```
[root@T990 tomcat8]# vi apache-tomcat-8.5.35/conf/server.xml
```

```
<Service name="Catalina">  
  <!--The connectors can use a shared executor, you can define one or more named  
  thread pools-->  
  <!--  
  <Executor name="tomcatThreadPool" namePrefix="catalina-exec-"  
    maxThreads="150" minSpareThreads="4"/>  
  -->  
  
  <!-- A "Connector" represents an endpoint by which requests are received  
  and responses are returned. Documentation at :  
  Java HTTP Connector: /docs/config/http.html  
  Java AJP Connector: /docs/config/ajp.html  
  APR (HTTP/AJP) Connector: /docs/apr.html  
  Define a non-SSL/TLS HTTP/1.1 Connector on port 8080  
  -->  
  <Connector port="8080" protocol="HTTP/1.1"  
    connectionTimeout="20000"  
    redirectPort="8443" />  
  <!-- A "Connector" using the shared thread pool-->  
  <!--  
  <Connector executor="tomcatThreadPool"  
  -- INSERT --
```

修改为:

root@T990:/home/arcgis/tomcat8/conf

```
<!--The connectors can use a shared executor, you can define one or more named thread pools-->
<!--
<Executor name="tomcatThreadPool" namePrefix="catalina-exec-"
      maxThreads="150" minSpareThreads="4"/>
-->

<!-- A "Connector" represents an endpoint by which requests are received
and responses are returned. Documentation at :
Java HTTP Connector: /docs/config/http.html
Java AJP  Connector: /docs/config/ajp.html
APR (HTTP/AJP) Connector: /docs/apr.html
Define a non-SSL/TLS HTTP/1.1 Connector on port 8080
-->
<Connector port="80" protocol="HTTP/1.1"
           connectionTimeout="20000"
           redirectPort="443" />
<!-- A "Connector" using the shared thread pool-->
<!--
<Connector executor="tomcatThreadPool"
           port="8080" protocol="HTTP/1.1"
           connectionTimeout="20000"
           redirectPort="8443" />
-->
```

```
root@T990:/home/arcgis/tomcat8

Java AJP Connector: /docs/config/ajp.html
APR (HTTP/AJP) Connector: /docs/apr.html
Define a non-SSL/TLS HTTP/1.1 Connector on port 8080
-->
<Connector port="80" protocol="HTTP/1.1"
    connectionTimeout="20000"
    redirectPort="443" />
<!-- A "Connector" using the shared thread pool-->
<!--
<Connector executor="tomcatThreadPool"
    port="8080" protocol="HTTP/1.1"
    connectionTimeout="20000"
    redirectPort="8443" />
-->
<!-- Define a SSL/TLS HTTP/1.1 Connector on port 8443
This connector uses the NIO implementation. The default
SSLImplementation will depend on the presence of the APR/native
library and the useOpenSSL attribute of the
AprLifecycleListener.
Either JSSE or OpenSSL style configuration may be used regardless of
the SSLImplementation selected. JSSE style configuration is used below.
-->
<!--
<Connector port="8443" protocol="org.apache.coyote.http11.Http11NioProtocol"
    maxThreads="150" SSLEnabled="true">
    <SSLHostConfig>
        <Certificate certificateKeystoreFile="conf/localhost-rsa.jks"
            type="RSA" />
    </SSLHostConfig>
</Connector>
-->
<!-- Define a SSL/TLS HTTP/1.1 Connector on port 8443 with HTTP/2
-- INSERT --
```

修改为:

```
root@T990:/home/arcgis/tomcat8/conf

<!--
<Connector executor="tomcatThreadPool"
    port="8080" protocol="HTTP/1.1"
    connectionTimeout="20000"
    redirectPort="8443" />
-->
<!-- Define a SSL/TLS HTTP/1.1 Connector on port 8443
This connector uses the NIO implementation. The default
SSLImplementation will depend on the presence of the APR/native
library and the useOpenSSL attribute of the
AprLifecycleListener.
Either JSSE or OpenSSL style configuration may be used regardless of
the SSLImplementation selected. JSSE style configuration is used below.
-->
<!--
<Connector port="443" protocol="org.apache.coyote.http11.Http11NioProtocol"
    maxThreads="150" SSLEnabled="true" scheme="https" secure="true"
    clientAuth="false" sslProtocol="TLS" keystoreFile="/home/arcgis/tomcat8/ssl/T990.pfx" keystoreType="pkcs12" keystorePass="heng14706">
    <SSLHostConfig>
        <Certificate certificateKeystoreFile="/home/arcgis/tomcat8/ssl/T990.pfx"
            certificateKeystorePassword="heng14706"
            certificateKeystoreType="pkcs12" />
    </SSLHostConfig>
</Connector>
-->
```

1. 将8080端口号修改为80, (红框1部分);
2. 取消端口号8443对应的connector的注释, 将8443端口修改为443并启用ssl (红框2部分)。

Tips:

1、tomcat的版本不同，这里配置文件的内容也会有所不同，我查到网上8.0.32及其它版本的修改方式都跟8.5.23不同，因此请确认好Tomcat的版本后再按照版本对应的格式修改，如下图是8.0.32的改法：

2、这里的certificateKeystoreFile和certificateKeystorePassword参数都是我们在5.1.2.2步骤中自行创建的，请指定正确的位置和密码，否则也不会成功。

### 5.1.3.3 验证tomcat是否成功

运行startup.sh启动tomcat。

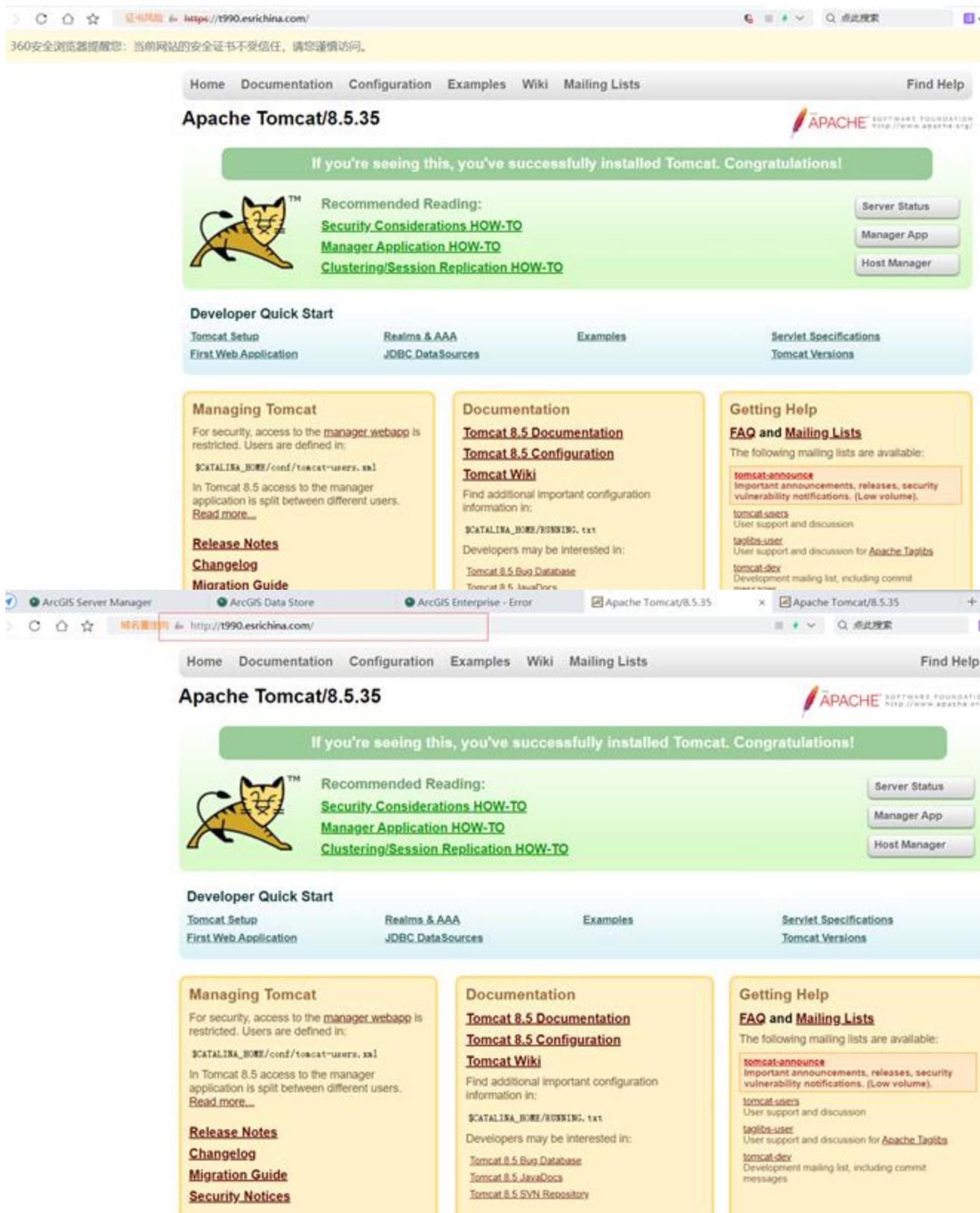
```
[root@T990 home]# cd tomcat8/bin/
```

```
[root@T990 bin]# ./startup.sh
```

```
[root@T990 tomcat8]# cd bin/
[root@T990 bin]# ls
bootstrap.jar      commons-daemon.jar      daemon.sh           setclasspath.sh     startup.sh          tool-wrapper.sh
catalina.bat      commons-daemon-native.tar.gz  digest.bat         shutdown.bat        tomcat-juli.jar    version.bat
catalina.sh       configtest.bat          digest.sh          shutdown.sh         tomcat-native.tar.gz  version.sh
catalina-tasks.xml  configtest.sh          setclasspath.bat  startup.bat         tool-wrapper.bat
[root@T990 bin]# ./startup.sh
Using CATALINA_BASE:   /home/arcgis/tomcat8
Using CATALINA_HOME:   /home/arcgis/tomcat8
Using CATALINA_TMPDIR: /home/arcgis/tomcat8/temp
Using JRE_HOME:        /home/arcgis/jdk1.8.0_221
Using CLASSPATH:       /home/arcgis/tomcat8/bin/bootstrap.jar:/home/arcgis/tomcat8/bin/tomcat-juli.jar
Tomcat started.
[root@T990 bin]# cd ../
```

在浏览器中输入地址，出现以下页面时说明tomcat启动成功。

<http://t990.esrichina.com/>和<https://t990.esrichina.com/>都可以正常访问的话，那么就证明我们的tomcat配置成功了；



## 5.2 安装ArcGIS Web Adaptor

先切换回arcgis用户，导航到WebAdaptor，这里以静默方式安装ArcGIS Web Adaptor，命令如下：

```
[arcgis@T990 ~]$ ./Setup -m silent -l Yes
```

```
[root@T990 WebAdaptor]# ls
Documentation  Install.htm  Setup  WebAdaptor
[root@T990 WebAdaptor]# su arcgis
[arcgis@T990 WebAdaptor]$ ./Setup -m silent -l Yes
[ArcGIS Web Adaptor (Java Platform) 10.8.1 Installation Details]
UI Mode.....silent
Agreed to Esri License...yes
Installation Directory.../home/arcgis/webadaptor10.8.1

Starting installation of ArcGIS Web Adaptor (Java Platform) 10.8.1...
```

看到如下信息，说明Web Adaptor安装成功：

```
[root@T990 WebAdaptor]# ls
Documentation  Install.htm  Setup  WebAdaptor
[root@T990 WebAdaptor]# su arcgis
[arcgis@T990 WebAdaptor]$ ./Setup -m silent -l Yes
[ArcGIS Web Adaptor (Java Platform) 10.8.1 Installation Details]
UI Mode.....silent
Agreed to Esri License...yes
Installation Directory.../home/arcgis/webadaptor10.8.1

Starting installation of ArcGIS Web Adaptor (Java Platform) 10.8.1...
...ArcGIS Web Adaptor (Java Platform) 10.8.1 installation is complete.
[arcgis@T990 WebAdaptor]$
```

...ArcGIS Web Adaptor (Java Platform) 10.8.1 installation is complete.

## 5.3 部署Web Adaptor到Tomcat下

依次部署名为portal和server的Web Adaptor应用到tomcat下，用于实现对Portal for ArcGIS和ArcGIS for Server的配置。

命令如下：

```
[root@T990 home]# cp /home/arcgis/webadaptor10.8.1/java/arcgis.war /home/arcgis/tomcat8/webapps/portal.war
```

```
[root@T990 home]# cp /home/arcgis/webadaptor10.8.1/java/arcgis.war /home/arcgis/tomcat8/webapps/server.war
```

```
[arcgis@T990 WebAdaptor]$ cp /home/arcgis/webadaptor10.8.1/java/arcgis.war /home/arcgis/tomcat8/webapps/portal.war
cp: failed to access "/home/arcgis/tomcat8/webapps/portal.war": 权限不够
[arcgis@T990 WebAdaptor]$ su root
密码:
[root@T990 WebAdaptor]# cp /home/arcgis/webadaptor10.8.1/java/arcgis.war /home/arcgis/tomcat8/webapps/portal.war
[root@T990 WebAdaptor]# cp /home/arcgis/webadaptor10.8.1/java/arcgis.war /home/arcgis/tomcat8/webapps/server.war
[root@T990 WebAdaptor]#
```

## 5.4 配置ArcGIS Web Adaptor

接下来需要为Portal for ArcGIS和Server分别配置ArcGIS Web Adaptor。当通过浏览器对Portal for ArcGIS和ArcGIS for Server配置Web Adaptor时，要求必须在Web Adaptor所在的机器上。因此，当从非Web Adaptor所在机器的其他客户端配置Web Adaptor时，需要以命令行的形式。

## 5.4.1 为Portal配置Web Adaptor

为Portal for ArcGIS配置名为portal的Web Adaptor，命令如下：

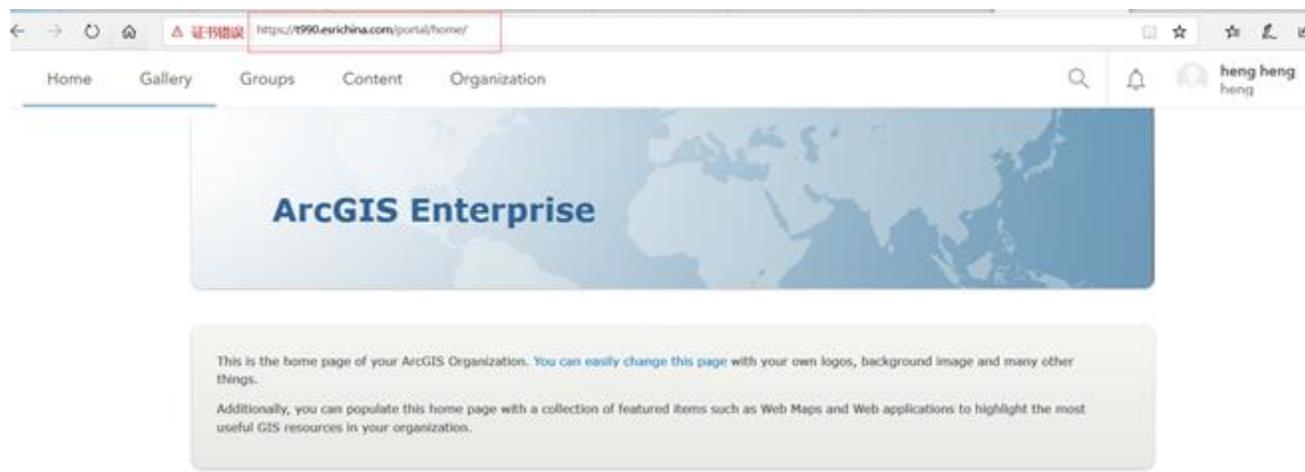
```
[arcgis@T990 ~]$ cd webadaptor10.8.1/java/tools/
```

```
[arcgis@T990 tools]$ ./configurewebadaptor.sh -m portal -w https://T990.esrichina.com/portal
```

```
/webadaptor -g https://T990.esrichina.com:7443 -u admin -p heng14706
```

```
[arcgis@T990 tools]$ ./configurewebadaptor.sh -m portal -w https://T990.esrichina.com/portal/webadaptor -g https://T990.esrichina.com:7443 -u admin -p heng14706
无法为门户配置 Web Adaptor。请确保门户计算机正在运行，并确保所指定的帐户具有对门户的管理权限。
Error: Please check the input parameters
[arcgis@T990 tools]$ su root
密码:
[root@T990 tools]# ./configurewebadaptor.sh -m portal -w https://T990.esrichina.com/portal/webadaptor -g https://T990.esrichina.com:7443 -u admin -p heng14706
无法为门户配置 Web Adaptor。请确保门户计算机正在运行，并确保所指定的帐户具有对门户的管理权限。
Error: Please check the input parameters
[root@T990 tools]# ./configurewebadaptor.sh -m portal -w https://T990.esrichina.com/portal/webadaptor -g https://T990.esrichina.com:7443 -u heng -p heng14706
Successfully Registered.
[root@T990 tools]#
```

返回\*\* Successfully Registered.\*\*说明配置成功，即可通过webadaptor访问Portal for ArcGIS。



## 5.4.2 为Server配置Web Adaptor

为ArcGIS Server配置名为Server的ArcGIS Web Adaptor，命令如下：

```
[arcgis@T990 tools]$ ./configurewebadaptor.sh -m server -w https:// T990.esrichina.com/server
```

```
/webadaptor -g https://T990.esrichina.com:6443 -u siteadmin -p siteadmin -a true
```

```
[root@T990 tools]# ./configurewebadaptor.sh -m server -w https://T990.esrichina.com/server/webadaptor -g https://T990.esrichina.com:6443 -u siteadmin -p siteadmin -a true
Successfully Registered.
[root@T990 tools]#
```

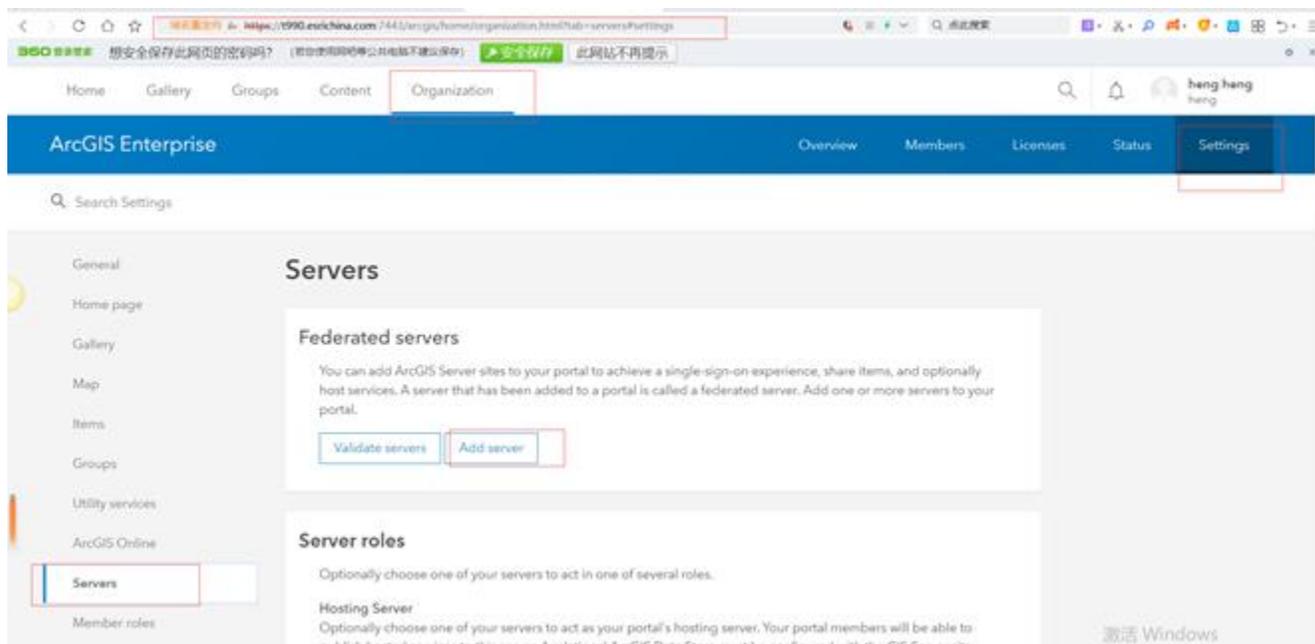
返回\*\* Successfully Registered.\*\*说明配置成功，即可通过webadaptor访问ArcGIS for Server了。



## 6 为Portal和Server配置联合托管

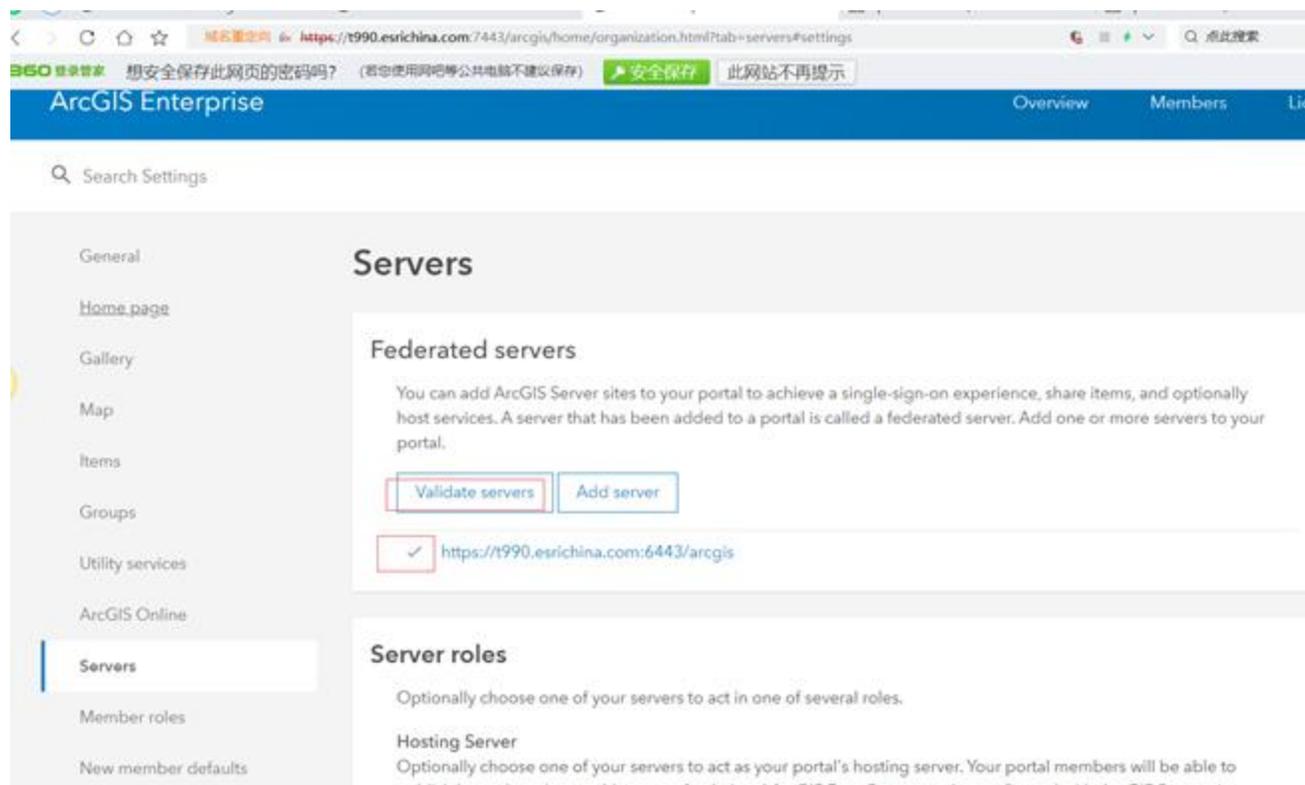
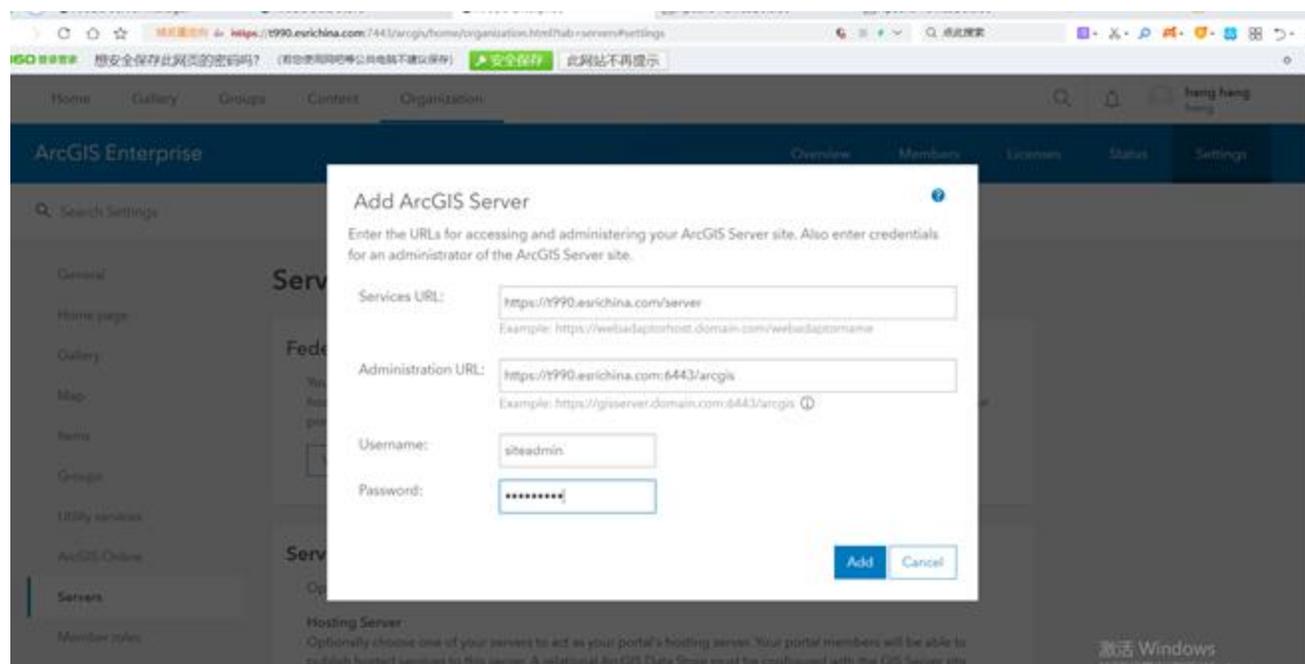
接下来的步骤大家应该很熟悉了，而且都是在浏览器中可视化的进行，这里不赘述，简单描述过程如下：

- 1、在浏览器中输入Portal地址并登录 Portal for ArcGIS；
- 2、依次点击My Organization->EDIT SETTINGS->Servers，然后点击 ADD SERVER。

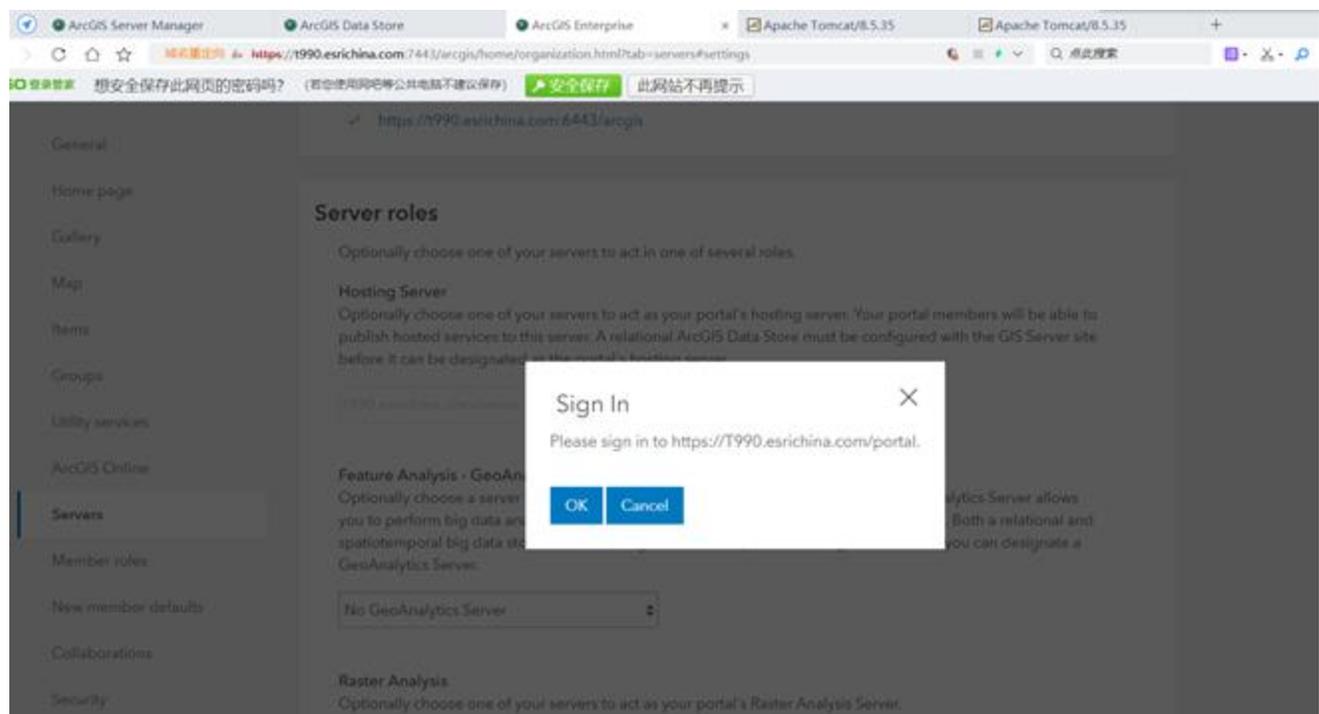
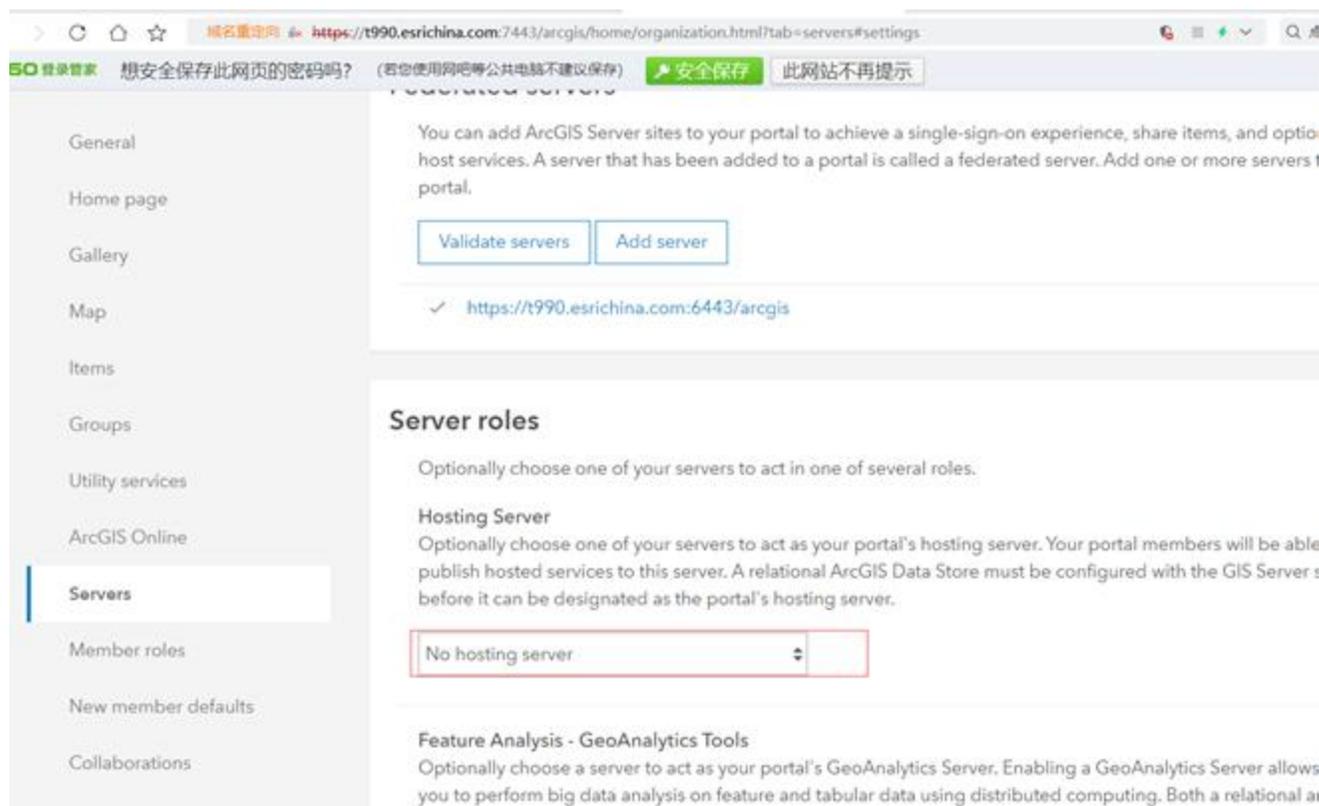


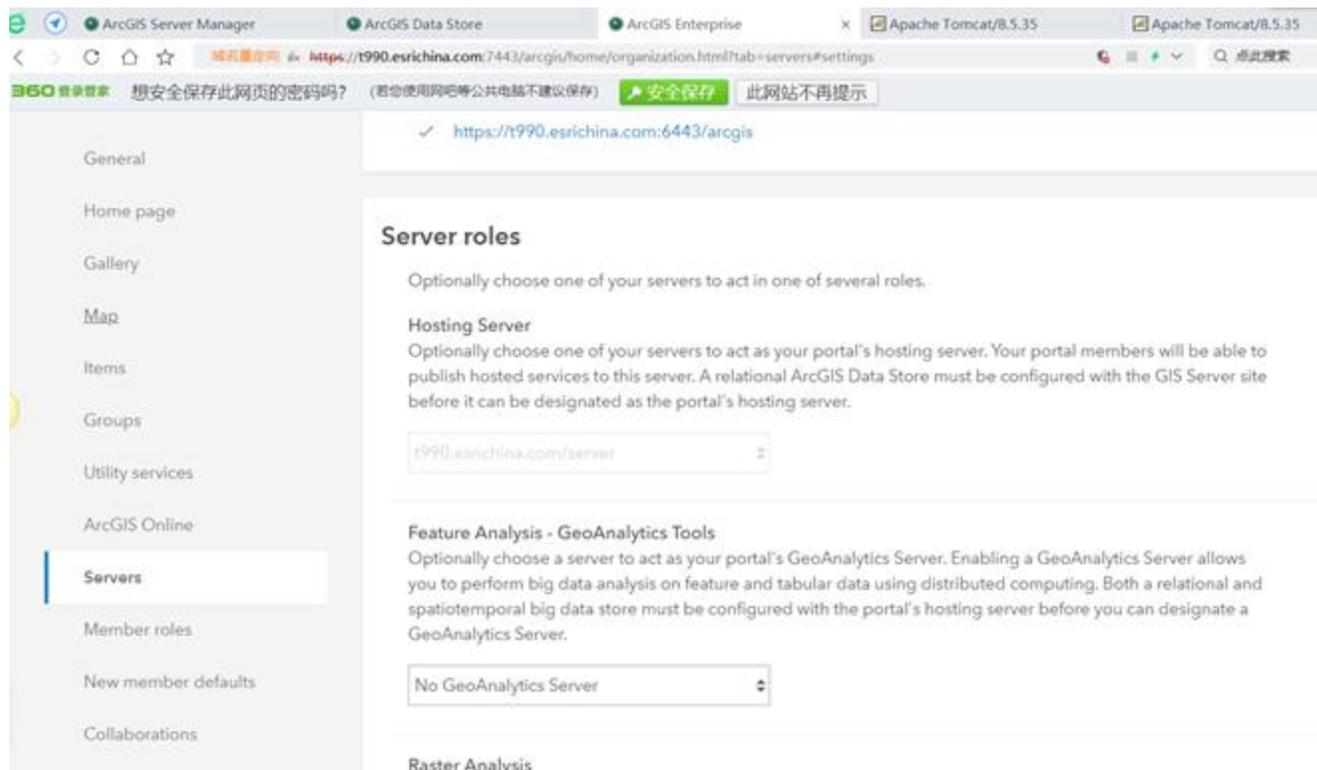
- 3、在弹出的Add ArcGIS Server对话框上设置Services URL、Administration URL，和主站点管理员账户的用

用户名和密码，点击ADD。



4、在Hosting Server选中联合的Server，即T990.esrichina.com/server，点击保存完成配置。





关于为什么需要server和portal进行联合托管，参考：

ArcGIS Enterprise托管服务/托管服务器/托管数据库之“托管”理解 ([https://blog.csdn.net/weixin\\_40625478/article/details/107181658](https://blog.csdn.net/weixin_40625478/article/details/107181658))

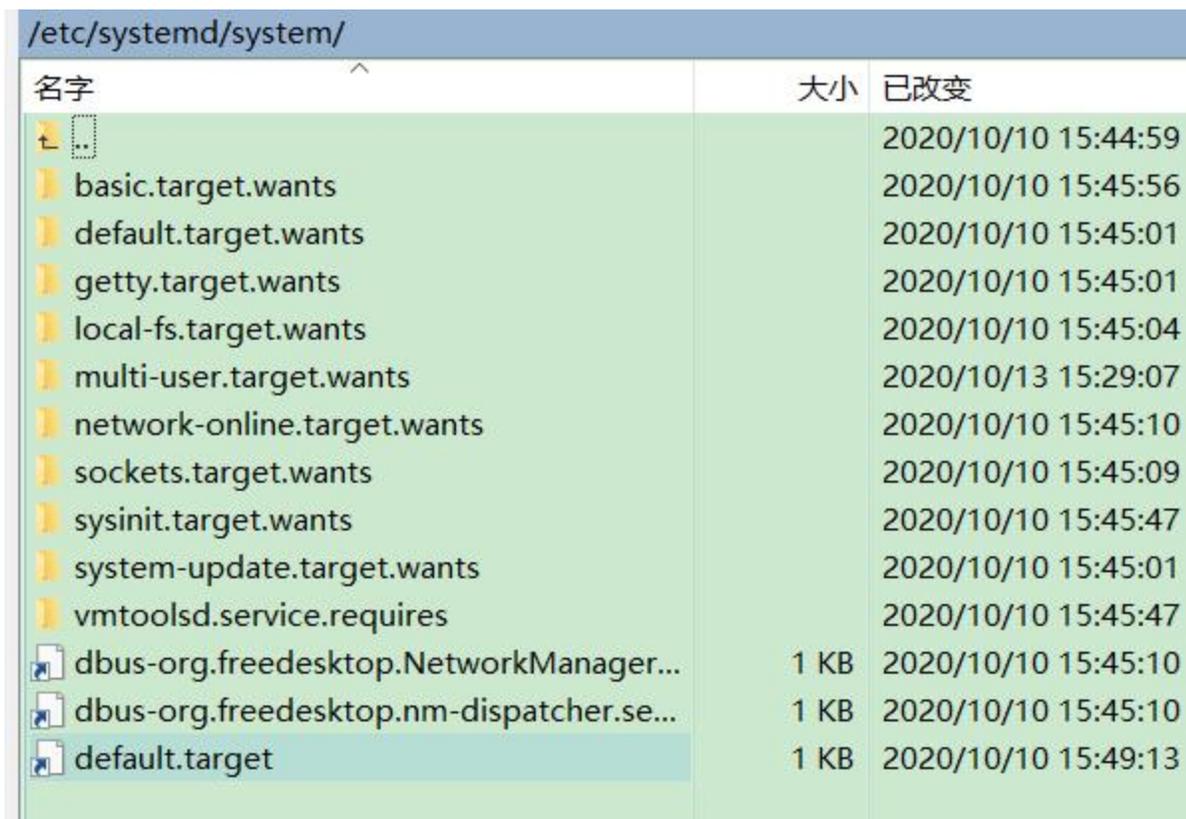
## 7 在Linux上设置开机自启动

### 7.1 server的开机自启动

① 切换至root账户下，将 <ArcGIS Server 安装目录>/framework/etc/scripts/arcgisserver.service 单元文件复制到 /etc/systemd/system。将 /etc/systemd/system/arcgisserver.service 的文件权限从 700 更改为 600

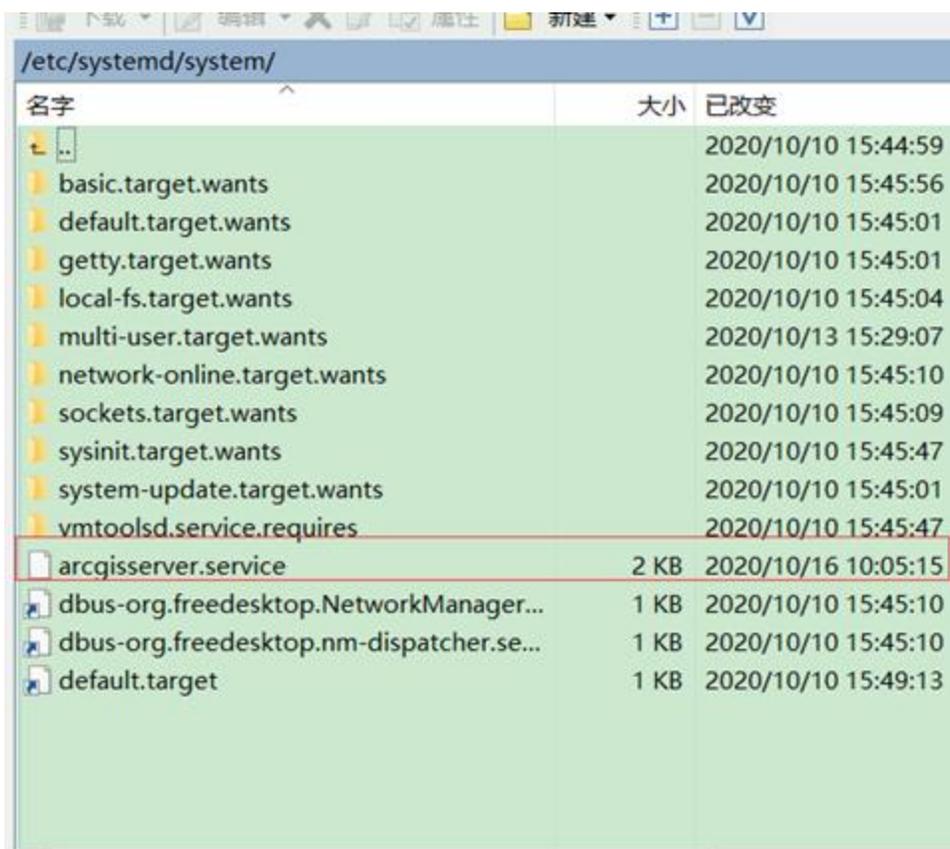
```
[root@T990 ~]# cp /home/arcgis/arcgis/server/framework/etc/scripts/arcgisserver.service /etc/systemd/system
```





名字	大小	已改变
..		2020/10/10 15:44:59
basic.target.wants		2020/10/10 15:45:56
default.target.wants		2020/10/10 15:45:01
getty.target.wants		2020/10/10 15:45:01
local-fs.target.wants		2020/10/10 15:45:04
multi-user.target.wants		2020/10/13 15:29:07
network-online.target.wants		2020/10/10 15:45:10
sockets.target.wants		2020/10/10 15:45:09
sysinit.target.wants		2020/10/10 15:45:47
system-update.target.wants		2020/10/10 15:45:01
vmtoolsd.service.requires		2020/10/10 15:45:47
dbus-org.freedesktop.NetworkManager...	1 KB	2020/10/10 15:45:10
dbus-org.freedesktop.nm-dispatcher.se...	1 KB	2020/10/10 15:45:10
default.target	1 KB	2020/10/10 15:49:13

刷新下:



名字	大小	已改变
..		2020/10/10 15:44:59
basic.target.wants		2020/10/10 15:45:56
default.target.wants		2020/10/10 15:45:01
getty.target.wants		2020/10/10 15:45:01
local-fs.target.wants		2020/10/10 15:45:04
multi-user.target.wants		2020/10/13 15:29:07
network-online.target.wants		2020/10/10 15:45:10
sockets.target.wants		2020/10/10 15:45:09
sysinit.target.wants		2020/10/10 15:45:47
system-update.target.wants		2020/10/10 15:45:01
vmtoolsd.service.requires		2020/10/10 15:45:47
arcgisservice.service	2 KB	2020/10/16 10:05:15
dbus-org.freedesktop.NetworkManager...	1 KB	2020/10/10 15:45:10
dbus-org.freedesktop.nm-dispatcher.se...	1 KB	2020/10/10 15:45:10
default.target	1 KB	2020/10/10 15:49:13

```
[root@T990 ~]# chmod 600 /etc/systemd/system/arcgisservice.service
```

```
[root@T990 ~]# cp /home/arcgis/arcgis/server/framework/etc/scripts/arcgisserver.service /etc/systemd/system
[root@T990 ~]# chmod 600 /etc/systemd/system/arcgisserver.service
[root@T990 ~]#
```

② 仍然以root的身份运行# systemctl enable arcgisserver.service命令，以在 /etc/systemd/system/multi-user.target.wants 中自动创建链接

```
[root@T990 ~]# systemctl enable arcgisserver.service
Created symlink from /etc/systemd/system/multi-user.target.wants/arcgisserver.service to /etc/systemd/system/arcgisserver.service.
[root@T990 ~]#
```

③ 验证 systemd 服务是否配置正确，请重新启动服务后检查其状态。

```
systemctl stop arcgisserver.service
systemctl start arcgisserver.service
systemctl status arcgisserver.service
```

④ 重新启动操作系统，然后验证 ArcGIS Server 是否正确重启。

```
[root@T990 ~]# systemctl stop arcgisserver.service
[root@T990 ~]# systemctl start arcgisserver.service
[root@T990 ~]# systemctl status arcgisserver.service
● arcgisserver.service - ArcGIS Server Service
   Loaded: loaded (/etc/systemd/system/arcgisserver.service; enabled; vendor preset: disabled)
   Active: inactive (dead) since 五 2020-10-16 10:08:28 CST; 2s ago
     Process: 15674 ExecStop=/home/arcgis/arcgis/server/stopserver.sh (code=exited, status=0/SUCCESS)
     Process: 15465 ExecStart=/home/arcgis/arcgis/server/startserver.sh (code=exited, status=0/SUCCESS)
10月 16 10:08:13 T990 startserver.sh[15465]: Hostname change detected, updating properties...
10月 16 10:08:13 T990 startserver.sh[15465]: mv: 在"/home/arcgis/.ESRI.properties.T990." ..文件
10月 16 10:08:13 T990 startserver.sh[15465]: Try 'mv --help' for more information.
10月 16 10:08:13 T990 startserver.sh[15465]: sed: 无法读取 /home/arcgis/arcgis/server/.Se...目录
10月 16 10:08:13 T990 startserver.sh[15465]: sed: 无法读取 /home/arcgis/arcgis/server/.Se...目录
10月 16 10:08:13 T990 startserver.sh[15465]: *** Notice: There are still server processes...un
10月 16 10:08:13 T990 startserver.sh[15465]: stopserver.sh to kill these processes and ru...n.
10月 16 10:08:27 T990 stopserver.sh[15674]: Attempting to stop ArcGIS Server...
10月 16 10:08:27 T990 stopserver.sh[15674]: [ OK ]
10月 16 10:08:28 T990 systemd[1]: Started ArcGIS Server Service.
Hint: Some lines were ellipsized, use -l to show in full.
```

这时候我去验证我自己的server/manage界面，是无法打开的：

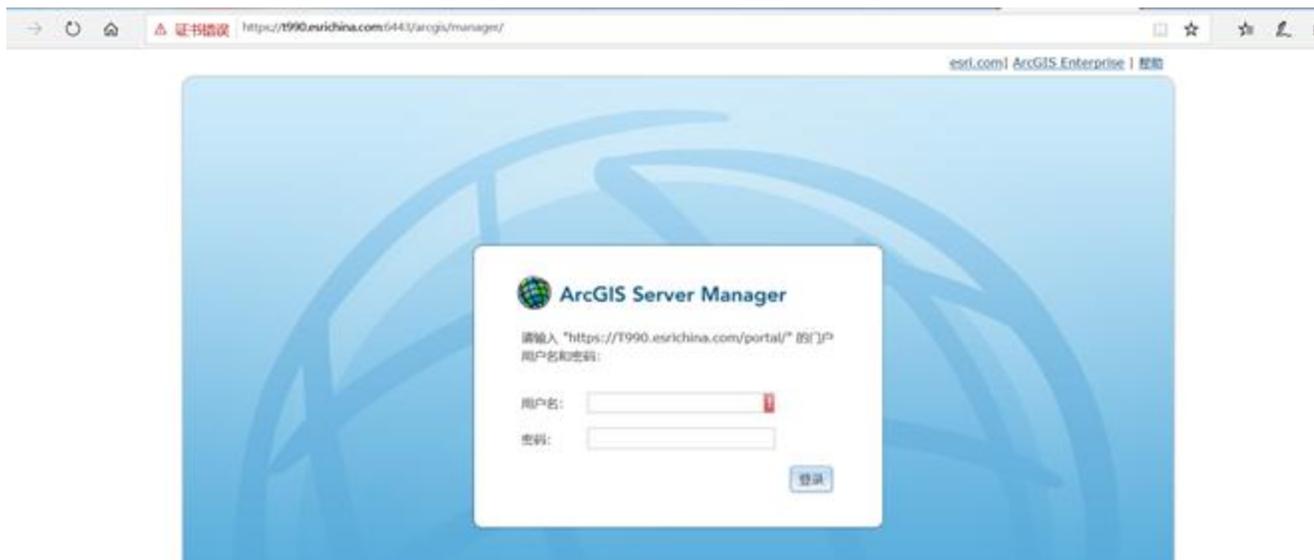


那么我们重启linux系统试试：使用reboot命令，在重新查询下server的状态：

```
root@T990:~#
-5850 /home/arcgis/arcgis/server/framework/runtime/jre/bin/java -...
-5953 rmid -log /home/arcgis/arcgis/server/framework/runtime/jre/...
-5994 /home/arcgis/arcgis/server/bin/wine/bin/wineserver
-6004 C:\windows\system32\services.exe
-6010 C:\windows\system32\winedevice.exe
-6020 C:\windows\system32\winedevice.exe
-6060 C:\windows\system32\explorer.exe /desktop
-6100 C:\windows\system32\wineconsole.exe
-6121 /home/arcgis/arcgis/server/framework/runtime/jre/bin/java -...
-6133 cmd
-6337 /home/arcgis/arcgis/server/framework/runtime/ArcGIS/bin/arc...
-6352 /home/arcgis/arcgis/server/framework/runtime/ArcGIS/bin/arc...
-6368 /home/arcgis/arcgis/server/framework/runtime/ArcGIS/bin/arc...
-6497 /home/arcgis/arcgis/server/bin/arc soc -XX:-UsePerfData -XX:...
-6499 /home/arcgis/arcgis/server/framework/runtime/ArcGIS/bin/arc...
-6500 /home/arcgis/arcgis/server/framework/runtime/ArcGIS/bin/arc...
-6620 /home/arcgis/arcgis/server/framework/runtime/ArcGIS/bin/arc...
-6665 /home/arcgis/arcgis/server/bin/arc soc -XX:-UsePerfData -XX:...
-6673 /home/arcgis/arcgis/server/framework/runtime/ArcGIS/bin/arc...
-6779 /home/arcgis/arcgis/server/framework/runtime/ArcGIS/bin/arc...
-6791 /home/arcgis/arcgis/server/framework/runtime/ArcGIS/bin/arc...

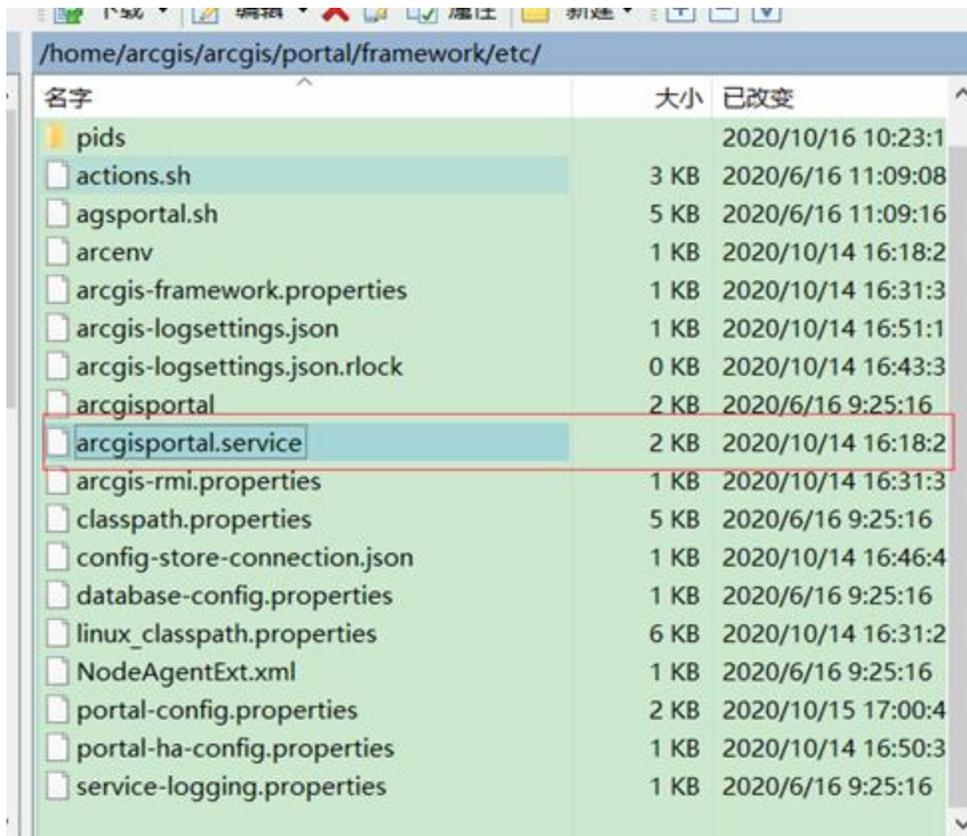
0月 16 10:25:02 T990.esrichina.com startserver.sh[5098]: sed: 无法读取 /hom_录
0月 16 10:25:02 T990.esrichina.com startserver.sh[5098]: sed: 无法读取 /hom_录
0月 16 10:25:02 T990.esrichina.com startserver.sh[5098]: ERROR: ld.so: obje...
0月 16 10:25:02 T990.esrichina.com startserver.sh[5098]: ERROR: ld.so: obje...
0月 16 10:23:56 T990.esrichina.com startserver.sh[5098]: [ OK ]
0月 16 10:23:56 T990.esrichina.com systemd[1]: Started ArcGIS Server Service.
hint: Some lines were ellipsized, use -l to show in full.
root@T990 ~]#
```

打开server/manager即显示正常：



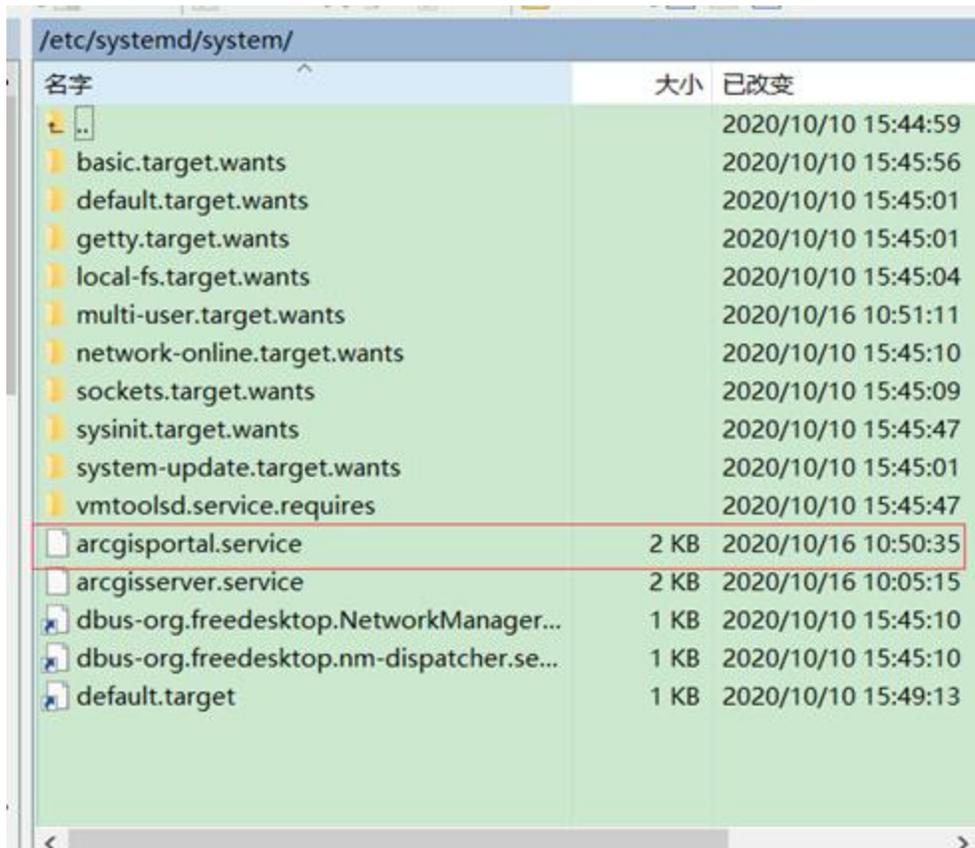
## 7.2 portal的开机自启动

① 切换至root账户下，将 <Portal for ArcGIS 安装目录>/framework/etc/arcgisportal.service 单元文件复制到 /etc/systemd/system..



文件复制完成后，请确认 /etc/systemd/system/arcgisportal.service 已将其文件权限设置为 600

```
[root@T990 ~]# cp /home/arcgis/arcgis/portal/framework/etc / arcgisportal.service /etc/systemd/system
```



```
[root@T990 ~]# chmod 600 /etc/systemd/system/arcgisportal.service
```

```
[root@T990 ~]# cp /home/arcgis/arcgis/portal/framework/etc/arcgisportal.service /etc/systemd/system
[root@T990 ~]# chmod 600 /etc/systemd/system/arcgisportal.service
[root@T990 ~]#
```

② 仍然以root用户的身份运行命令# systemctl enable arcgisportal.service，以在 /etc/systemd/system /multi-user.target.wants 中自动创建链接：

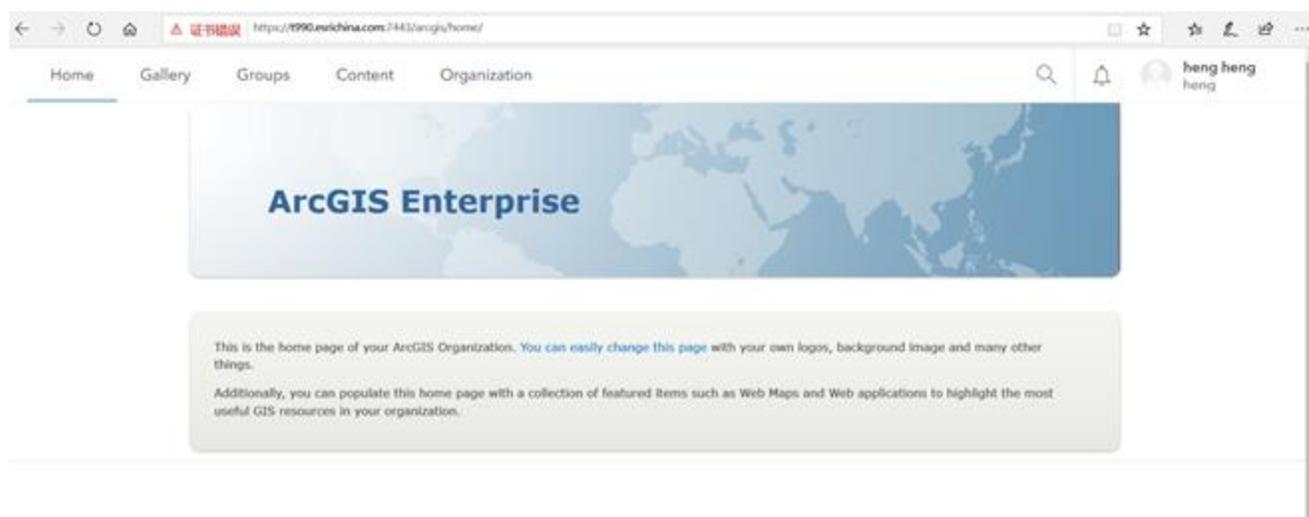
```
[root@T990 ~]# systemctl enable arcgisportal.service
Created symlink from /etc/systemd/system/multi-user.target.wants/arcgisportal.service to /etc/systemd/system/arcgisportal.service.
[root@T990 ~]#
```

③ 验证 systemd 服务是否配置正确，请重新启动服务后检查其状态。

```
systemctl stop arcgisportal.service
systemctl start arcgisportal.service
systemctl status arcgisportal.service
```

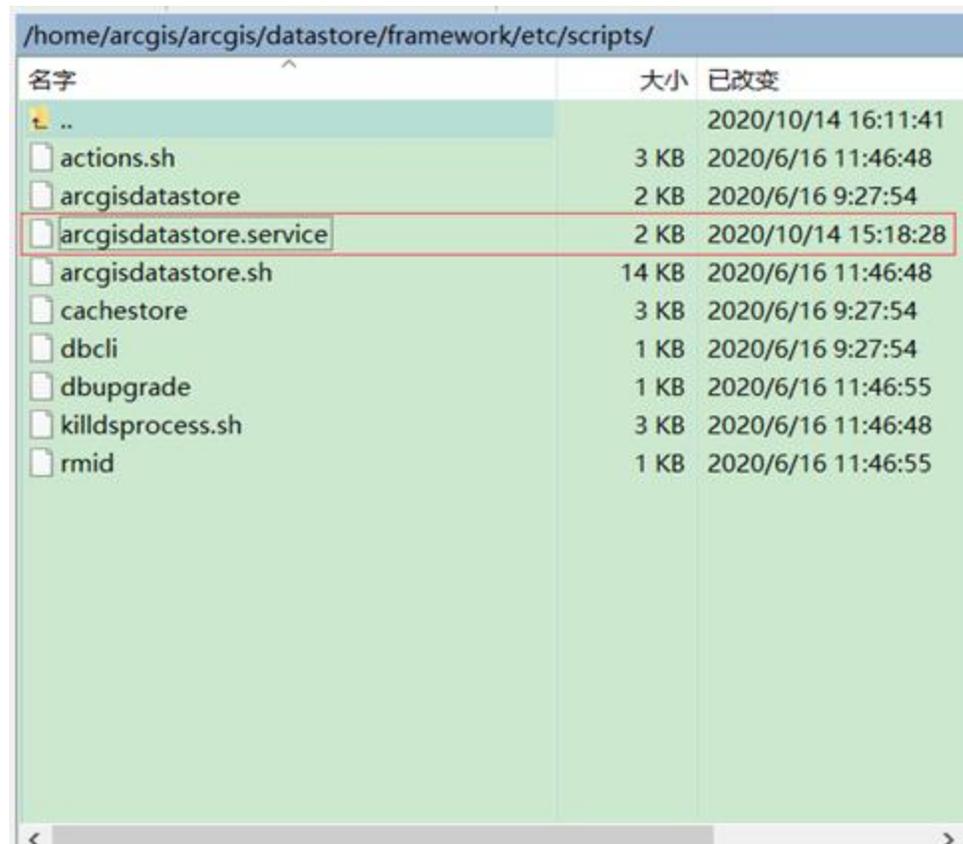
```
[root@T990 ~]# systemctl stop arcgisportal.service
[root@T990 ~]# systemctl start arcgisportal.service
[root@T990 ~]# systemctl status arcgisportal.service
arcgisportal.service - Portal for ArcGIS Service
Loaded: loaded (/etc/systemd/system/arcgisportal.service; enabled; vendor preset: disabled)
Active: active (running) since 五 2020-10-16 10:51:51 CST; 1s ago
Process: 8152 ExecStart=/home/arcgis/arcgis/portal/startportal.sh (code=exited, status=0/SUCCESS)
CGroup: /system.slice/arcgisportal.service
└─@175 /home/arcgis/arcgis/portal/framework/runtime/jre/bin/java -DARCGIS_PORTAL_NODEAGENT=true -classpath /home/arcgis/arcgis/portal/framew...
10月 16 10:51:46 T990.esrichina.com systemd[1]: Starting Portal for ArcGIS Service...
10月 16 10:51:51 T990.esrichina.com systemd[1]: Started Portal for ArcGIS Service.
[root@T990 ~]#
```

④ 重新启动操作系统，然后验证 ArcGIS Portal是否正确重启。

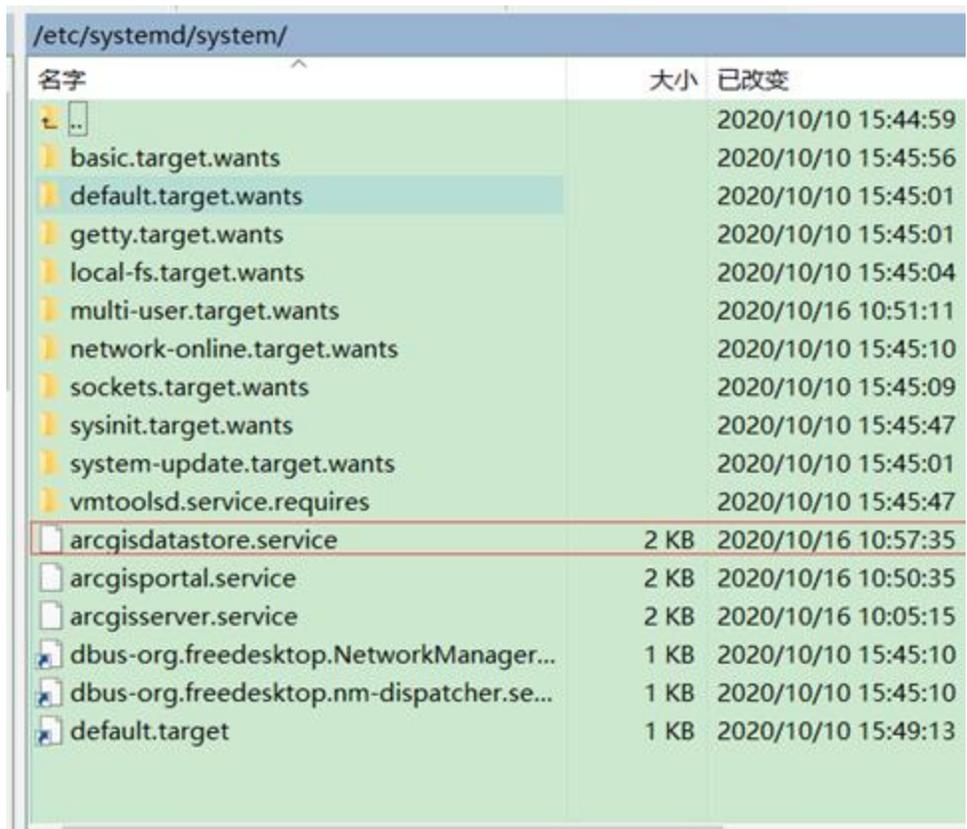


## 7.3 datastore的开机自启动

① 切换至root账户下，将 <ArcGIS Data Store 安装目录>/framework/etc/scripts/arcgisdatastore.service 复制到 /etc/systemd/system。将 /etc/systemd/system/arcgisdatastore.service 的权限从 700 更新为 600。



```
[root@T990 ~]# cp /home/arcgis/arcgis/datastore/framework/etc/scripts/arcgisdatastore.service /etc/systemd/system
```



名字	大小	已改变
..		2020/10/10 15:44:59
basic.target.wants		2020/10/10 15:45:56
default.target.wants		2020/10/10 15:45:01
getty.target.wants		2020/10/10 15:45:01
local-fs.target.wants		2020/10/10 15:45:04
multi-user.target.wants		2020/10/16 10:51:11
network-online.target.wants		2020/10/10 15:45:10
sockets.target.wants		2020/10/10 15:45:09
sysinit.target.wants		2020/10/10 15:45:47
system-update.target.wants		2020/10/10 15:45:01
vmtoolsd.service.requires		2020/10/10 15:45:47
arcgisdatastore.service	2 KB	2020/10/16 10:57:35
arcgisportal.service	2 KB	2020/10/16 10:50:35
arcgisserver.service	2 KB	2020/10/16 10:05:15
dbus-org.freedesktop.NetworkManager...	1 KB	2020/10/10 15:45:10
dbus-org.freedesktop.nm-dispatcher.se...	1 KB	2020/10/10 15:45:10
default.target	1 KB	2020/10/10 15:49:13

```
[root@T990 ~]# chmod 600 /etc/systemd/system/arcgisdatastore.service
```

```
[root@T990 ~]# cp /home/arcgis/arcgis/datastore/framework/etc/scripts/arcgisdatastore.service /etc/systemd/system
[root@T990 ~]# chmod 600 /etc/systemd/system/arcgisdatastore.service
[root@T990 ~]#
```

② 仍然以root的身份运行# systemctl enable arcgisdatastore.service命令，以在 /etc/systemd/system /multi-user.target.wants 中自动创建链接

```
[root@T990 ~]# systemctl enable arcgisdatastore.service
created symlink from /etc/systemd/system/multi-user.target.wants/arcgisdatastore.service to /etc/systemd/system/arcgisdatastore.service.
[root@T990 ~]#
```

③ 验证 systemd 服务是否配置正确，请重新启动服务后检查其状态。

```
$ systemctl stop arcgisdatastore.service
```

```
$ systemctl start arcgisdatastore.service
```

```
$ systemctl status arcgisdatastore.service
```

```

[root@T990 ~]# systemctl stop arcgisdatastore.service
[root@T990 ~]# systemctl start arcgisdatastore.service
[root@T990 ~]# systemctl status arcgisdatastore.service
● arcgisdatastore.service - ArcGIS Data Store Service
   Loaded: loaded (/etc/systemd/system/arcgisdatastore.service; enabled; vendor preset: disabled)
   Active: active (running) since 五 2020-10-16 10:59:10 CST; 12s ago
     Process: 9132 ExecStart=/home/arcgis/arcgis/datastore/startdatastore.sh (code=exited, status=0/SUCCESS)
    Main PID: 9132
   CGroup: /system.slice/arcgisdatastore.service
           └─9168 /home/arcgis/arcgis/datastore/framework/runtime/jre/bin/java -cp /home/arcgis/arcgis/datastore/framework/lib/arcgis-nodeagent.jar:/hom...
           └─9234 /home/arcgis/arcgis/datastore/framework/runtime/couchdb/bin/./erts-9.3/bin/beam.smp -K true -A 16 -bd -- -root /home/arcgis/arcgis/da...
           └─9245 /home/arcgis/arcgis/datastore/framework/runtime/couchdb/bin/./erts-9.3/bin/epmd -daemon
           └─9264 erl_child_setup 65535
           └─9295 sh -s diskup
           └─9297 /home/arcgis/arcgis/datastore/framework/runtime/couchdb/bin/./lib/os_mon-2.4.4/priv/bin/memsup
           └─9298 /home/arcgis/arcgis/datastore/framework/runtime/couchdb/bin/./lib/os_mon-2.4.4/priv/bin/cpu_sup
           └─9358 /home/arcgis/arcgis/datastore/framework/runtime/postgresql/bin/postgres -D /home/arcgis/arcgis/datastore/usr/arcgisdatastore/pgdata -p 5876...
           └─9361 postgres: logger process
           └─9364 postgres: checkpointer process
           └─9365 postgres: writer process
           └─9366 postgres: wal writer process
           └─9367 postgres: autovacuum launcher process
           └─9368 postgres: archiver process
           └─9369 postgres: stats collector process
           └─9370 postgres: bgworker: logical replication launcher
           └─9380 postgres: adm 5mh8a dsadminsdb 127.0.0.1(47086) idle
           └─9410 /home/arcgis/arcgis/datastore/framework/runtime/jre/bin/java -Dnop -Djava.util.logging.manager=org.apache.juli.ClassLoaderLogManager -...

10月 16 10:59:10 T990.esrichina.com systemd[1]: Starting ArcGIS Data Store Service...
10月 16 10:59:10 T990.esrichina.com startdatastore.sh[9132]: Attempting to start ArcGIS Data Store...
10月 16 10:59:10 T990.esrichina.com systemd[1]: Started ArcGIS Data Store Service.
[root@T990 ~]#

```

④ 重新启动操作系统，然后验证ArcGIS Data Store是否正确重启。

## 8 常见问题及解决办法

### 8.1 正确命令莫名报错

问题描述：

在安装过程中，有些命令正确，但执行时会莫名报错。

```

[root@T990 tools]# cd ArcGISServer
bash: cd: ArcGISServer: 没有那个文件或目录
[root@T990 tools]# ls
arcgis-common.jar  arcgis-wareg.jar  configurewebadaptor.sh
[root@T990 tools]# cd ../
[root@T990 java]# ls
arcgis.war          init_webadaptor.sh  uninstall_WebAdaptor
clientaccesspolicy.xml  License             WebAdaptorHelp
crossdomain.xml     Support
init_webadaptor.csh  tools
[root@T990 java]# cd ../
[root@T990 webadaptor10.8.1]# cd ../
[root@T990 arcgis]# ls
10.8          ArcGISDataStore_Linux  PortalForArcGIS  webadaptor10.8.1
apache-tomcat-8.5.35  ArcGISServer          tomcat8
arcgis        jdk1.8.0_221         WebAdaptor
[root@T990 arcgis]#

```

原因：

在安装Server、Portal等过程中，使用了arcgis用户来安装，但有些命令需要在root账户下执行，arcgis用户权限不够，因此会莫名报一些错误。

解决办法：

使用“su - 用户名”命令切换到有权限的用户上即可解决。如图：

也是可以切换到root用户之后顺利执行的。

## 8.2 查看服务是否启动

问题描述：

在一次重启机器之后，Server、Portal for ArcGIS等突然不能访问了。

原因：

Server、Portal、Data Store等默认安装好后没有注册为服务，只能通过进程方式查看，使用top -u arcgis命令看进程，除非注册为服务，那就可以通过systemctl查看。

可通过命令在开机自动启动里注册为服务。

解决方法：

使用下列top命令查看Server等服务是否启动，没启动的话使用命令启动。

```
[arcgis@T990 tools]$ exit
```

```
logout
```

```
[root@T990 ~]# netstat -anp | grep 7443
```

```
[root@T990 ~]# netstat -anp | grep 7080
```

```
[arcgis@T990 ~]$ top -u arcgis
```

```
[arcgis@T990 ~]$ ls -al
```

```
[arcgis@T990 ~]$ arcgis/server/startserver.sh
```

```
Attempting to start ArcGIS Server...
```

```
[ OK ]
```

```
[arcgis@T990 ~]$ arcgis/portal/startportal.sh
```

```
Starting Portal for ArcGIS...
```

```
[ OK ]
```

```
[arcgis@T990 ~]$ top -u arcgis
```

## 8.3 忘了文件放哪儿

问题描述：

Linux中有些命令经常采用默认路径，如解压、安装等，解压后忘记了默认路径在哪里，或者忘记文件放哪里了。

解决办法：

请使用命令find查找，如下：