北 京 林 业 大 学

2017 学年—2018 学年第 二 学期 Linux 应用实验报告书

专　　业：计 算 机 科 学 与 技 术（创 新 实 验 班）

班　　级：计创 16

姓　　名：陈楠　　学　　号：161002107

实验地点：计算中心 N09　　任课教师：李群

实验题目：Linux 网络服务器配置

实验环境：Linux 操作系统

实验目的、实现内容、实验结果及结论分析等：

一．实验目的：

1. 掌握 Bind DNS 服务配置过程，熟悉 Bind DNS 服务配置文件；

2. 掌握 Apache 服务器配置过程，熟悉 httpd 服务配置文件；

3. 掌握 vsftpd FTP 服务的配置，熟悉 vsftp 服务配置文件。

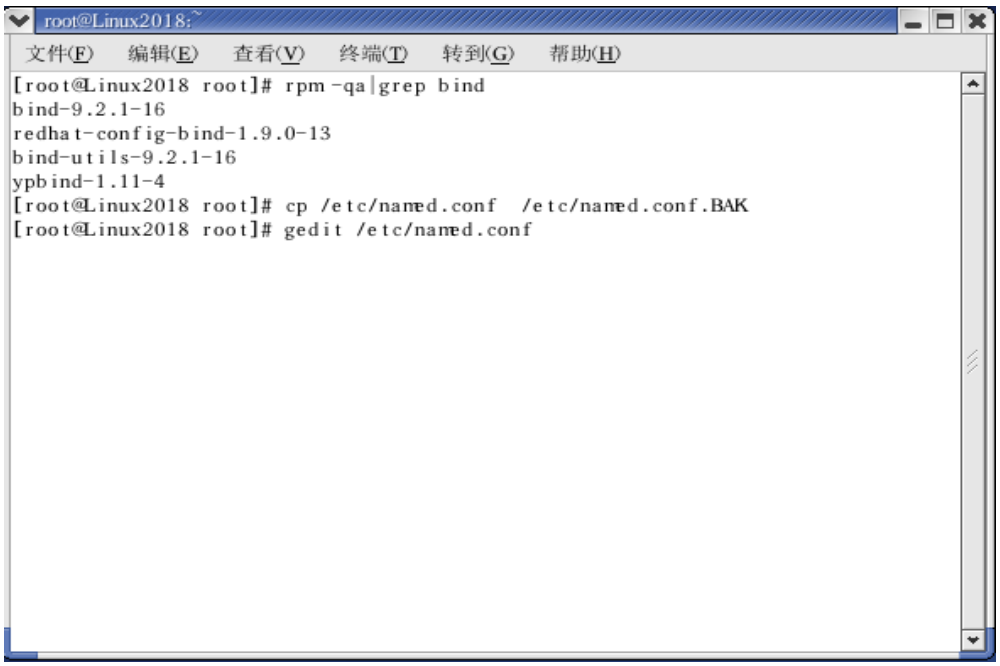
二．实验内容：

1. DNS 服务器的配置

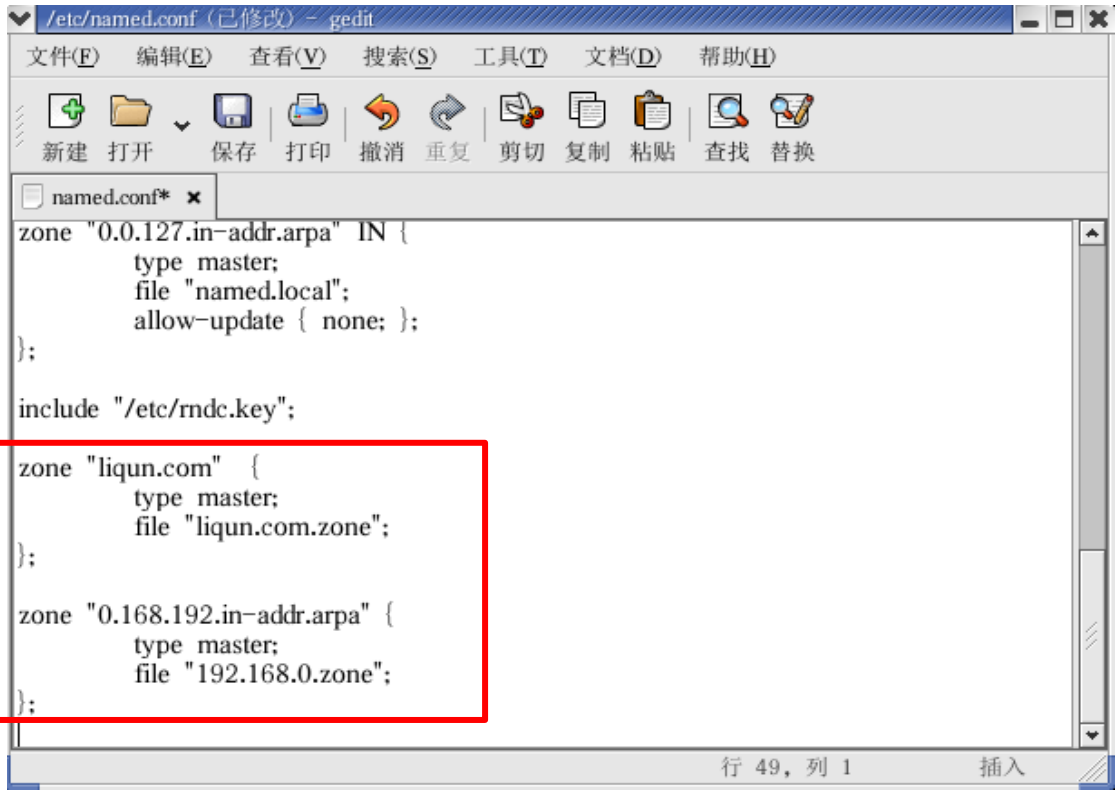
(1) 查询 BIND 软件；

(2) 备份 DNS 服务器配置文件；

(3) 用编辑器打开配置文件 named.conf；

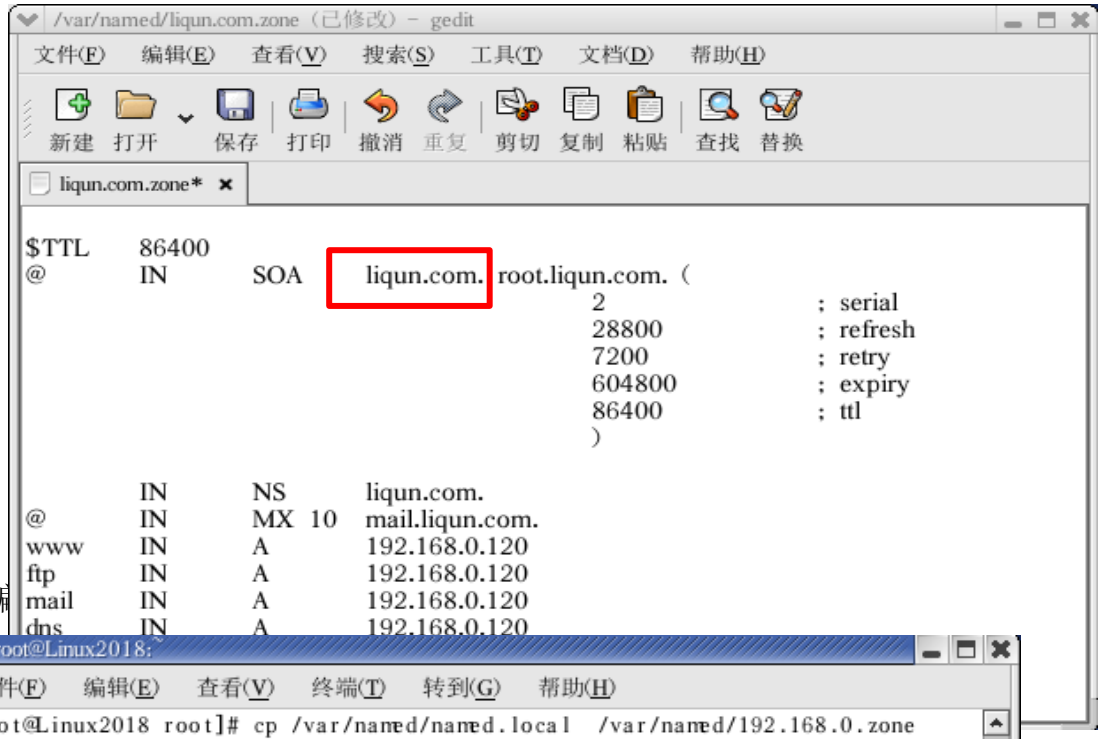


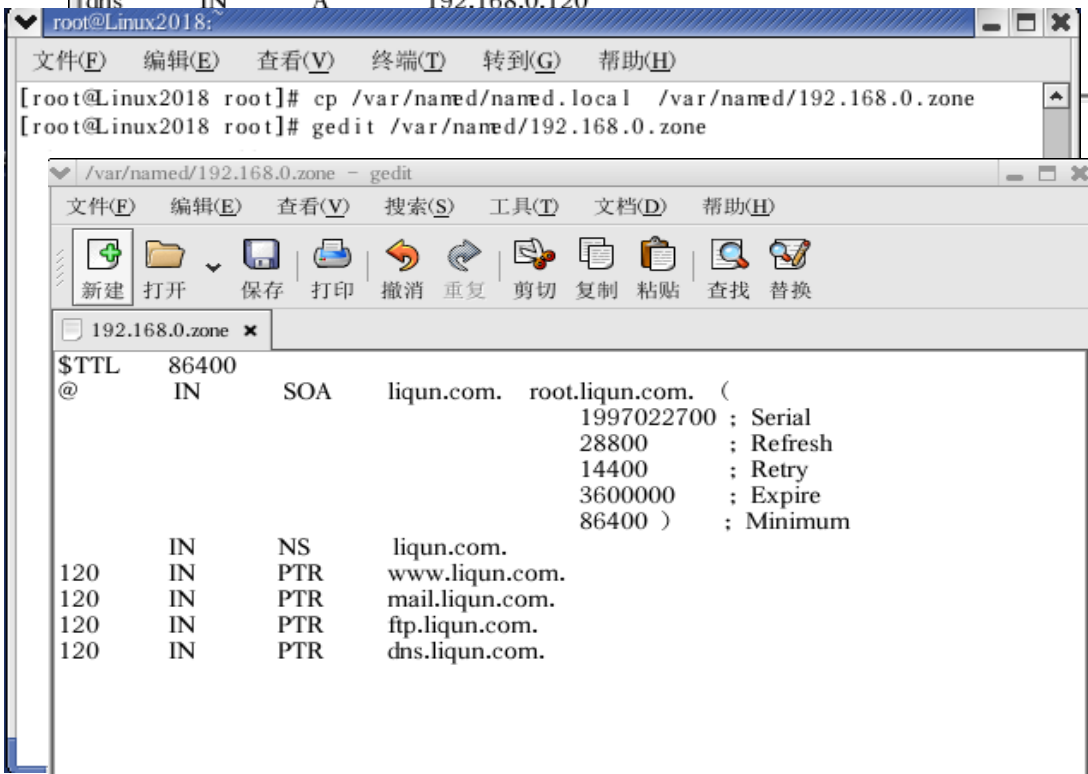
(4) 在 named.conf 文件中添加正向区域和反向区域；



(5) 编辑正向解析文件 liqun.com.zone;

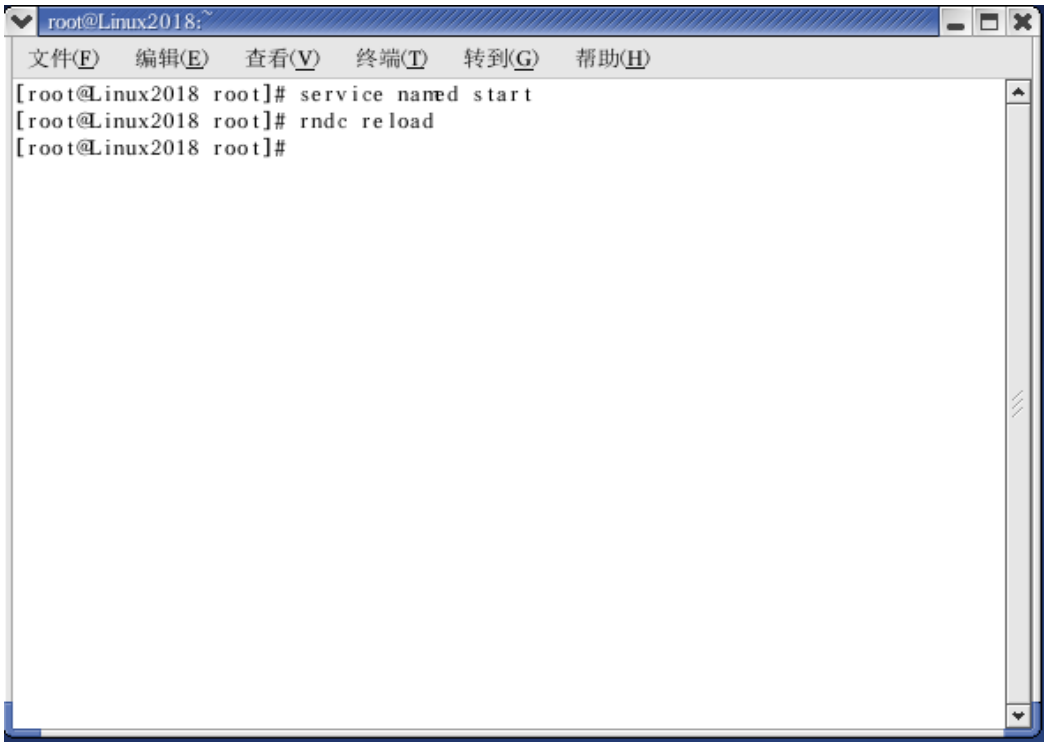
(6) 编


/var/named/liqun.com.zone（已修改） – gedit
文件(F) 编辑(E) 查看(V) 搜索(S) 工具(T) 文档(D) 帮助(H)
新建 打开 保存 打印 撤消 重复 剪切 复制 粘贴 查找 替换
liqun.com.zone*
$TTL 86400
@ IN SOA liqun.com. root.liqun.com. (
2 ; serial
28800 ; refresh
7200 ; retry
604800 ; expiry
86400 ; ttl
)
IN NS liqun.com.
@ IN MX 10 mail.liqun.com.
www IN A 192.168.0.120
ftp IN A 192.168.0.120
mail IN A 192.168.0.120
dns IN A 192.168.0.120

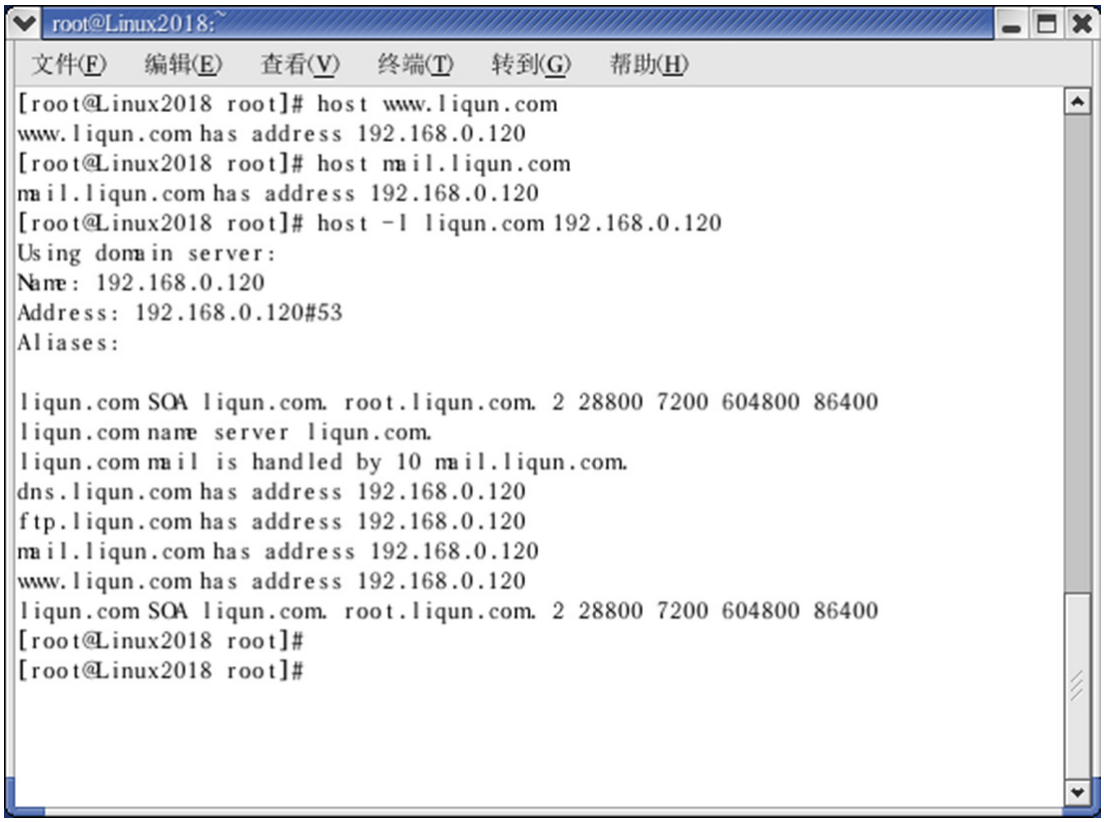

root@Linux2018:
文件(F) 编辑(E) 查看(V) 终端(T) 转到(G) 帮助(H)
[root@Linux2018 root]# cp /var/named/named.local /var/named/192.168.0.zone
[root@Linux2018 root]# gedit /var/named/192.168.0.zone

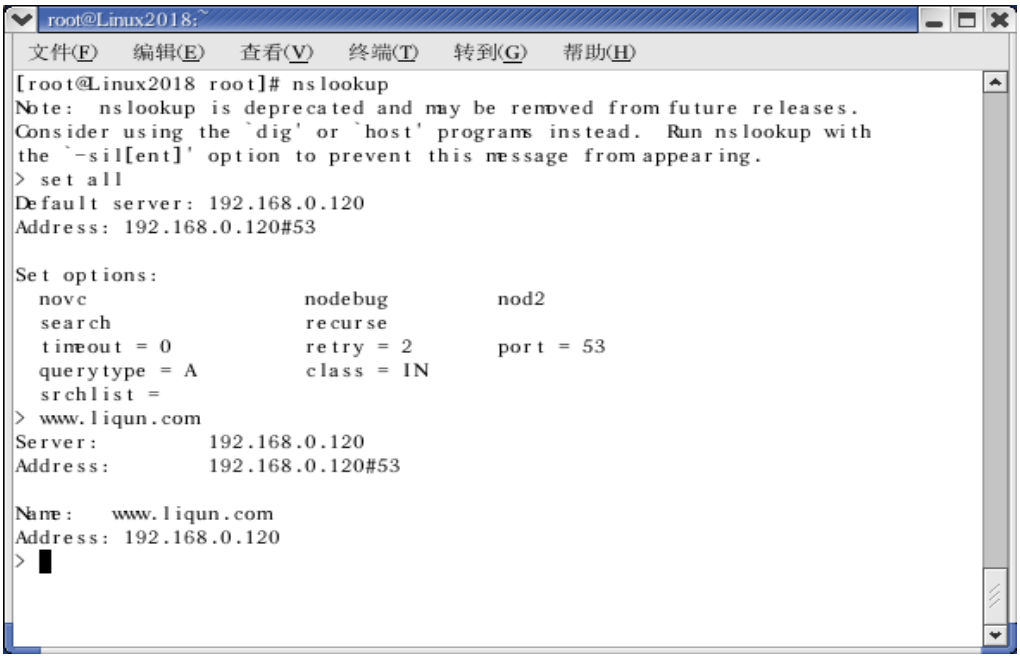
(7)

/var/named/192.168.0.zone – gedit
文件(F) 编辑(E) 查看(V) 搜索(S) 工具(T) 文档(D) 帮助(H)
新建 打开 保存 打印 撤消 重复 剪切 复制 粘贴 查找 替换
192.168.0.zone
$TTL 86400
@ IN SOA liqun.com. root.liqun.com. (
1997022700 ; Serial
28800 ; Refresh
14400 ; Retry
3600000 ; Expire
86400) ; Minimum
IN NS liqun.com.
120 IN PTR www.liqun.com.
120 IN PTR mail.liqun.com.
120 IN PTR ftp.liqun.com.
120 IN PTR dns.liqun.com.

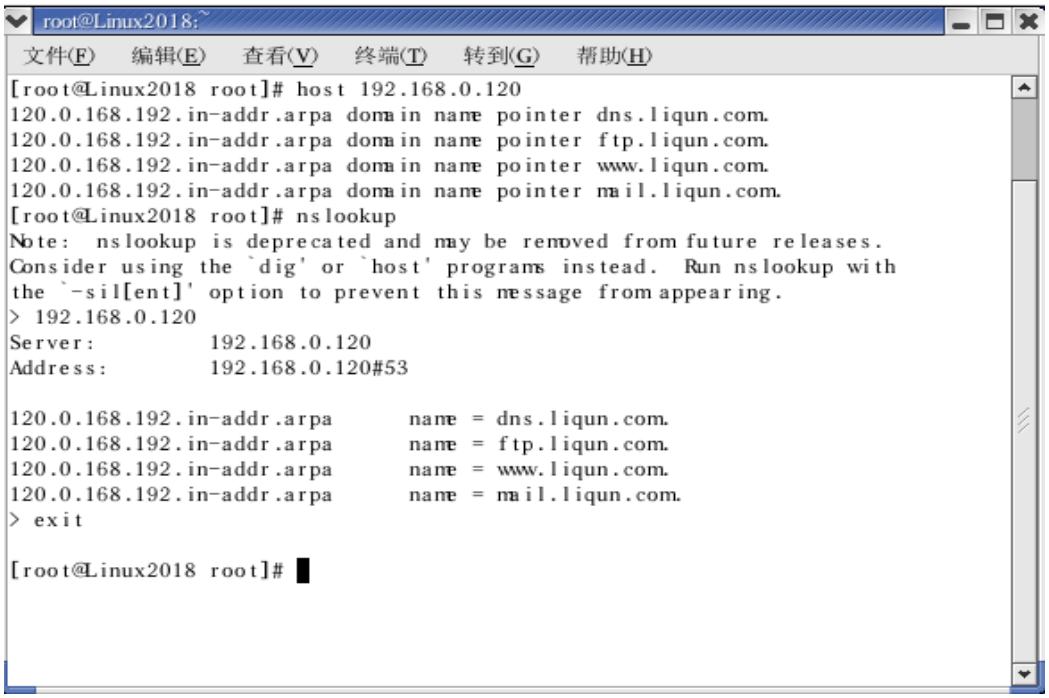


(8) 对 DNS 服务器进行测试;





(9) 对反向区域进行测试;



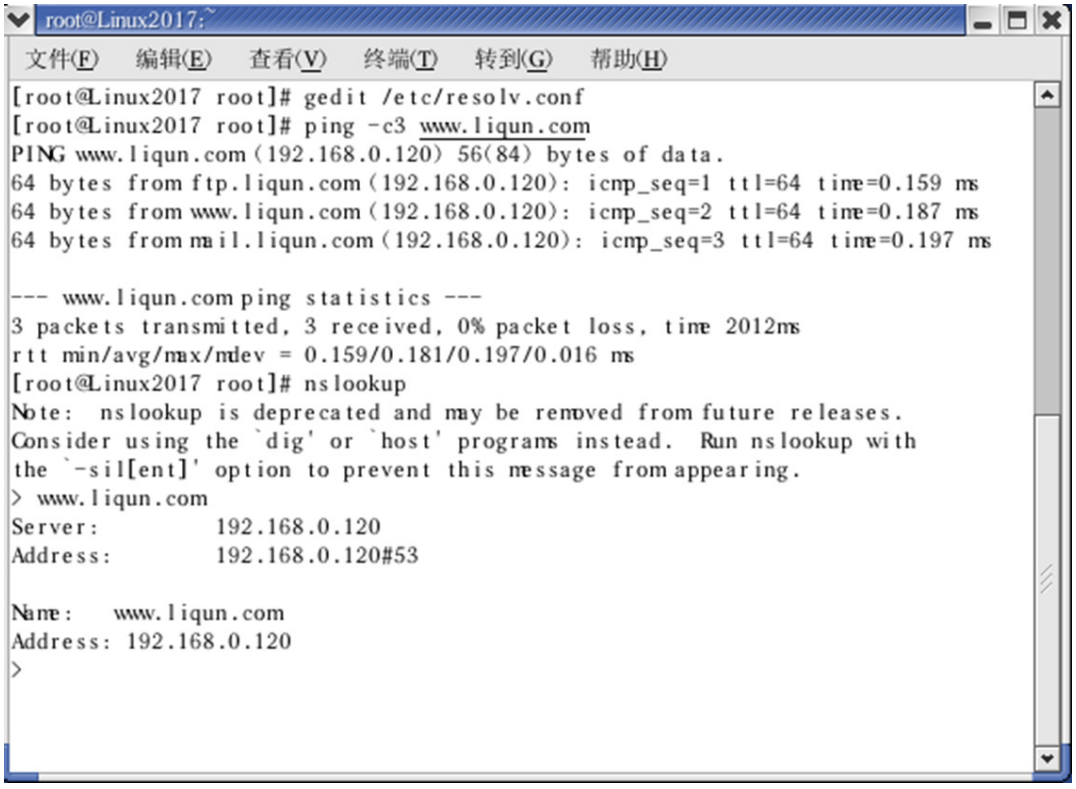
(10) 在 Linux 客户机上进行测试。

Linux 客户机：

在/etc/resolv.conf 里加入 2 行内容：

nameserver 192.168.0.120

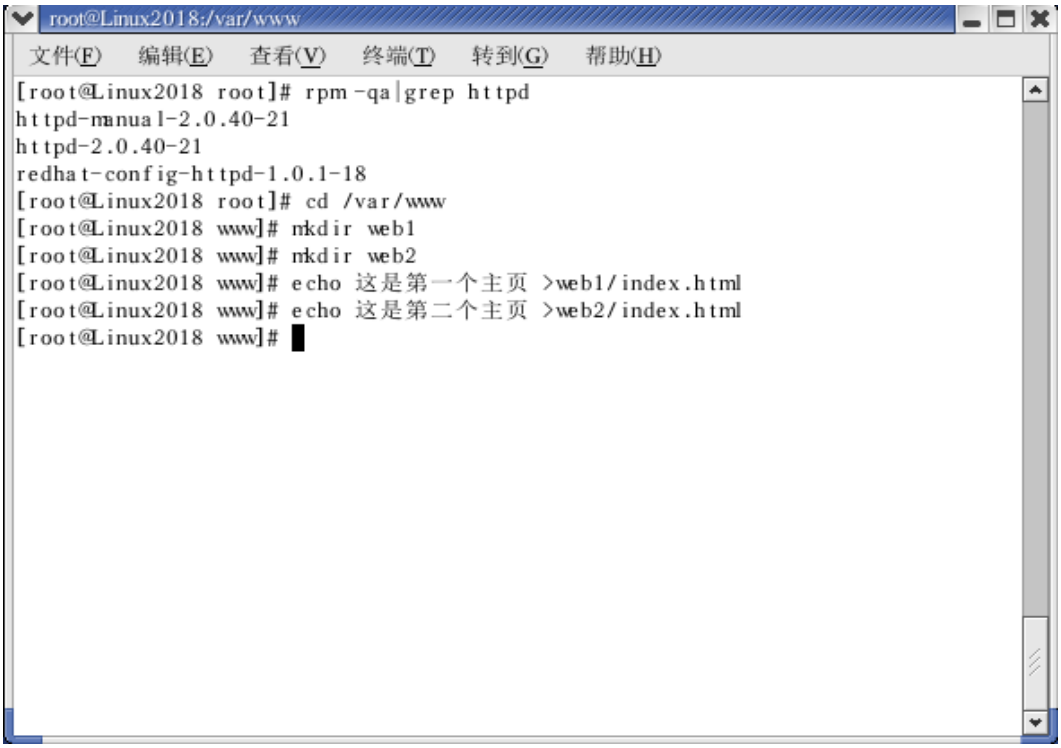
domain liqun.com



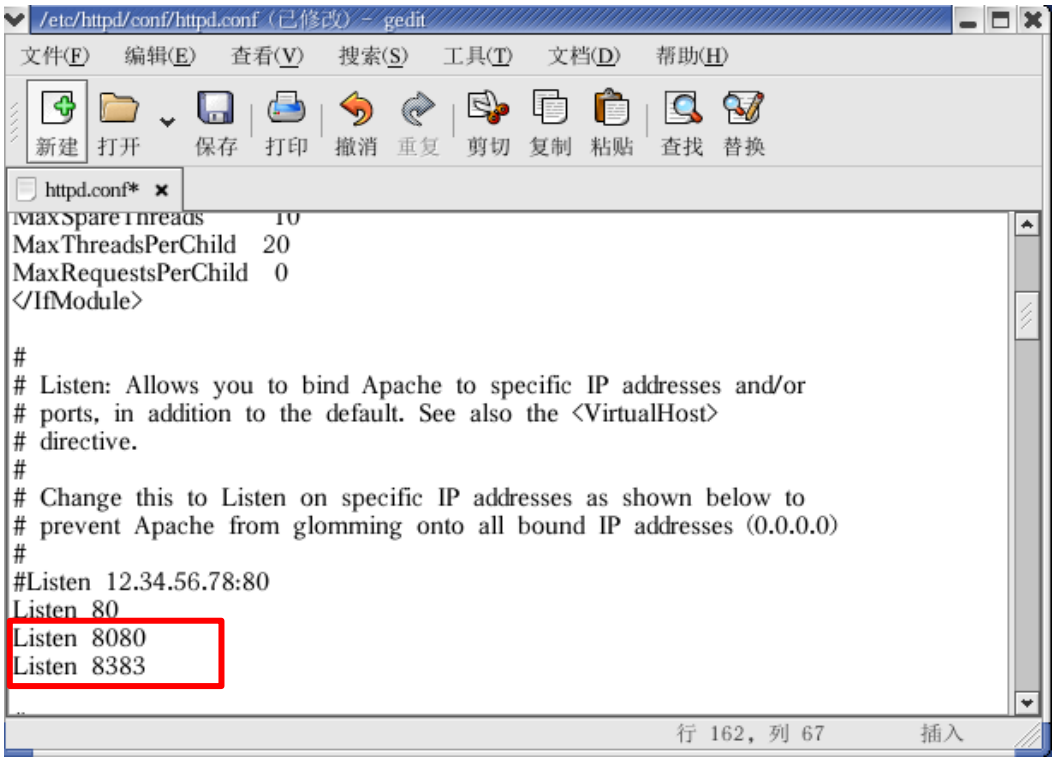
2. WWW 服务器的配置

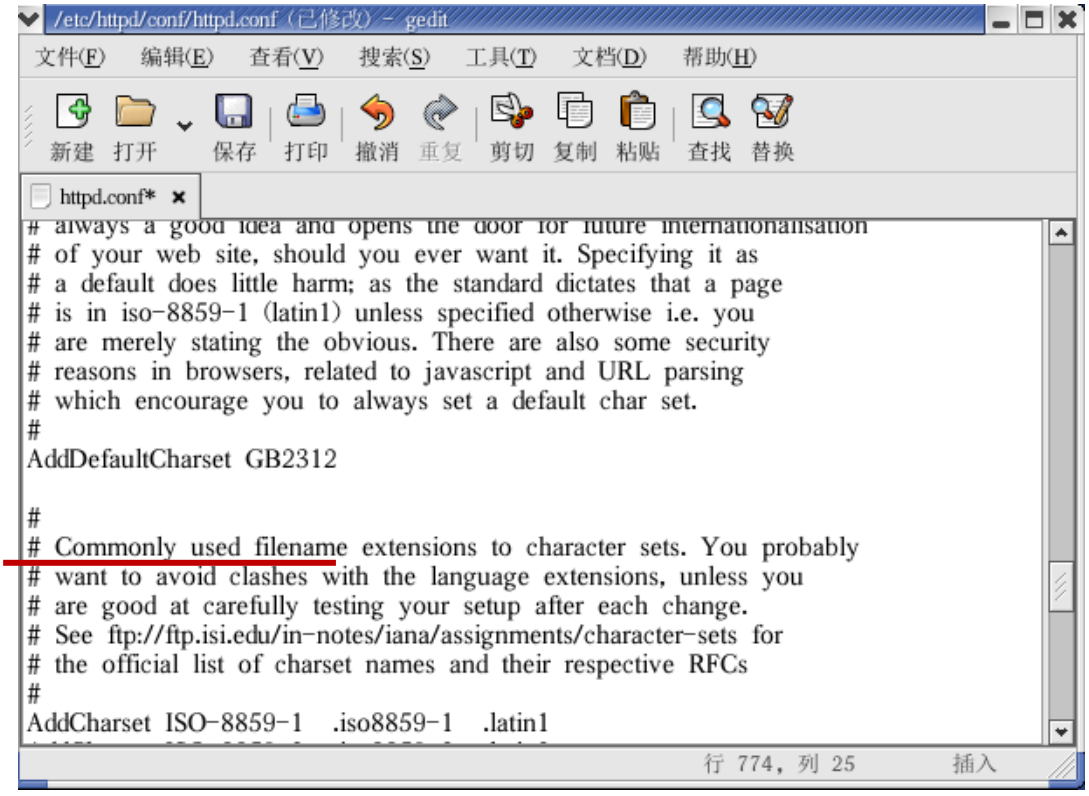
(1) 测试 Apache 软件是否安装；

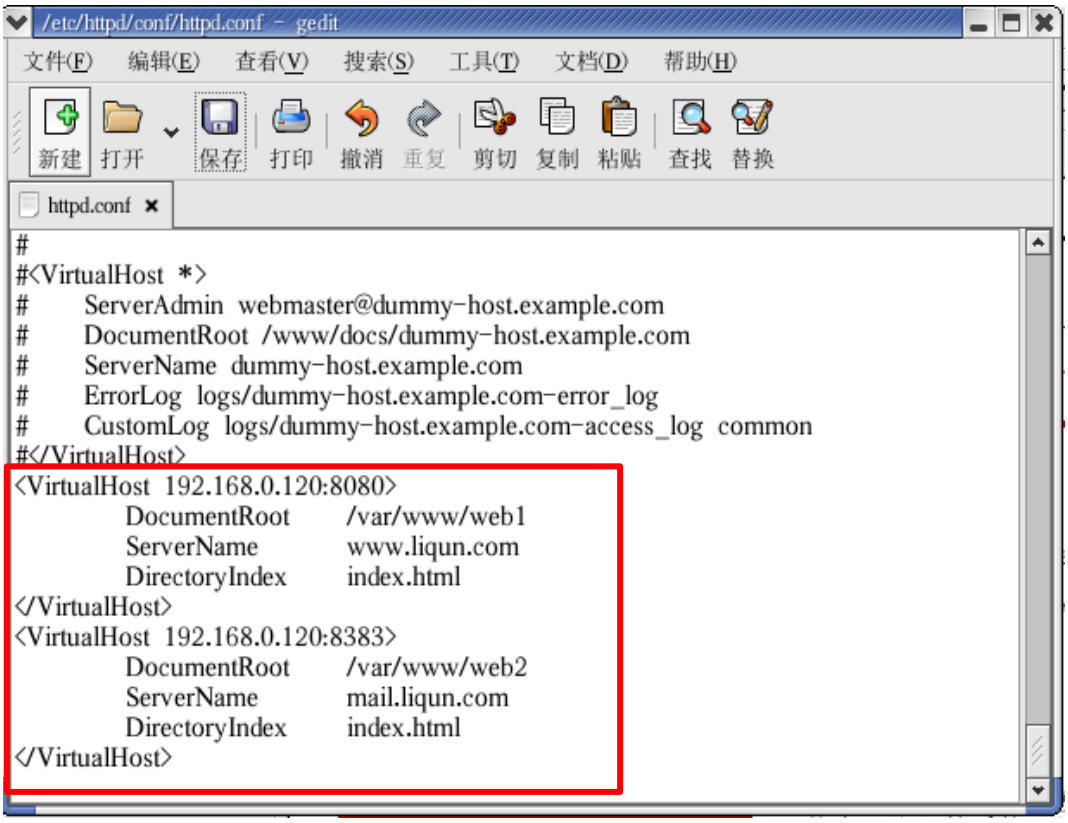
(2) 建立文件夹及网页主页文件；



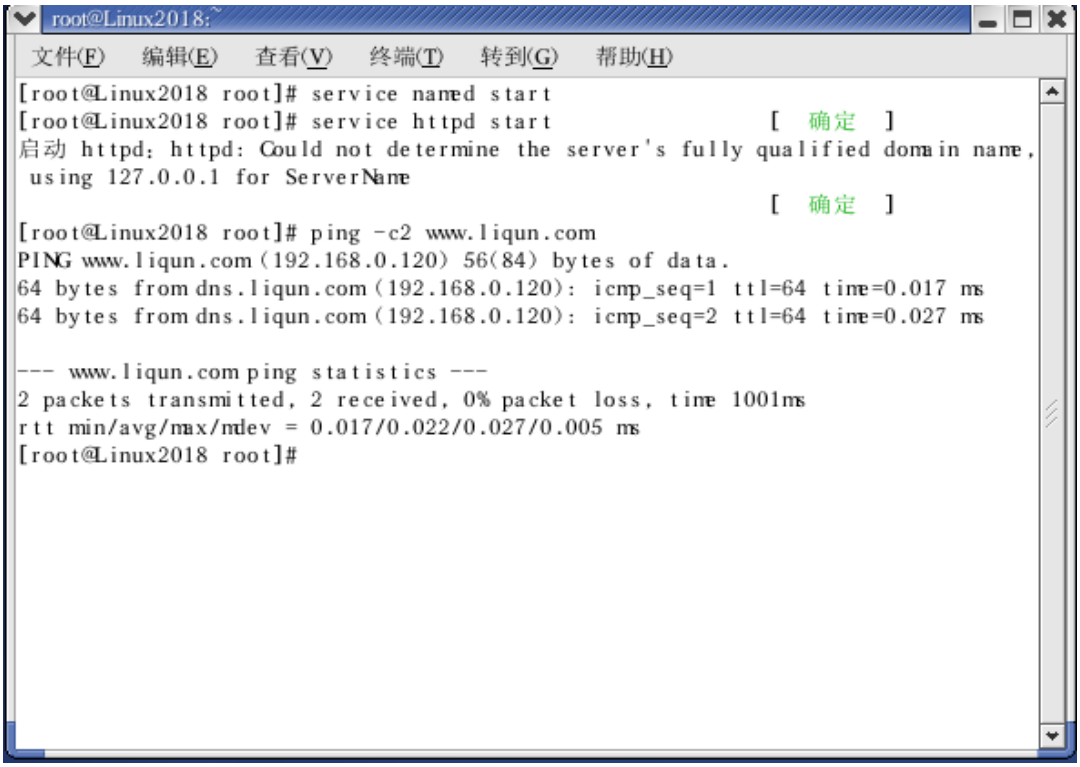
（3）修改配置文件/etc/httpd/conf/httpd.conf


/etc/httpd/conf/httpd.conf (已修改) - gedit
文件(F) 编辑(E) 查看(V) 搜索(S) 工具(T) 文档(D) 帮助(H)
新建 打开 保存 打印 撤消 重复 剪切 复制 粘贴 查找 替换
httpd.conf*
MaxSpareThreads 10
MaxThreadsPerChild 20
MaxRequestsPerChild 0
</IfModule>
#
Listen: Allows you to bind Apache to specific IP addresses and/or
ports, in addition to the default. See also the <VirtualHost>
directive.
#
Change this to Listen on specific IP addresses as shown below to
prevent Apache from glomming onto all bound IP addresses (0.0.0.0)
#
#Listen 12.34.56.78:80
Listen 80
Listen 8080
Listen 8383
行 162, 列 67 插入

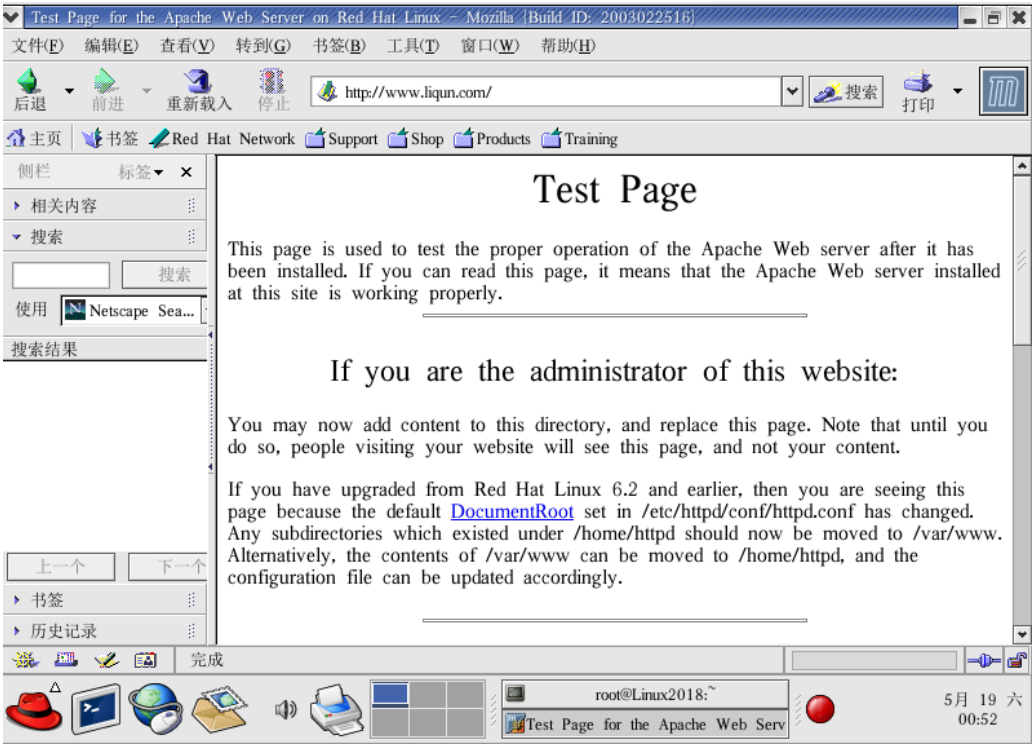

/etc/httpd/conf/httpd.conf (已修改) - gedit
文件(F) 编辑(E) 查看(V) 搜索(S) 工具(T) 文档(D) 帮助(H)
新建 打开 保存 打印 撤消 重复 剪切 复制 粘贴 查找 替换
httpd.conf*
always a good idea and opens the door for future internationalisation
of your web site, should you ever want it. Specifying it as
a default does little harm; as the standard dictates that a page
is in iso-8859-1 (latin1) unless specified otherwise i.e. you
are merely stating the obvious. There are also some security
reasons in browsers, related to javascript and URL parsing
which encourage you to always set a default char set.
#
AddDefaultCharset GB2312
#
Commonly used filename extensions to character sets. You probably
want to avoid clashes with the language extensions, unless you
are good at carefully testing your setup after each change.
See ftp://ftp.isi.edu/in-notes/iana/assignments/character-sets for
the official list of charset names and their respective RFCs
#
AddCharset ISO-8859-1 .iso8859-1 .latin1
行 774, 列 25 插入



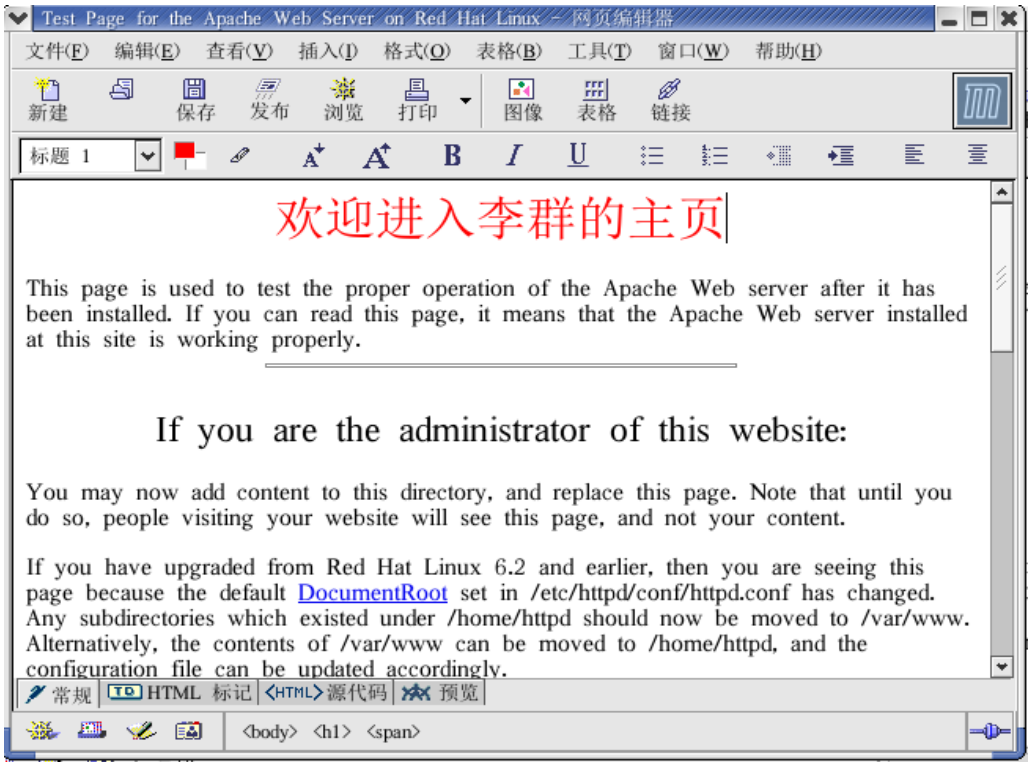
（4）启动 DNS 和 Apache 服务；



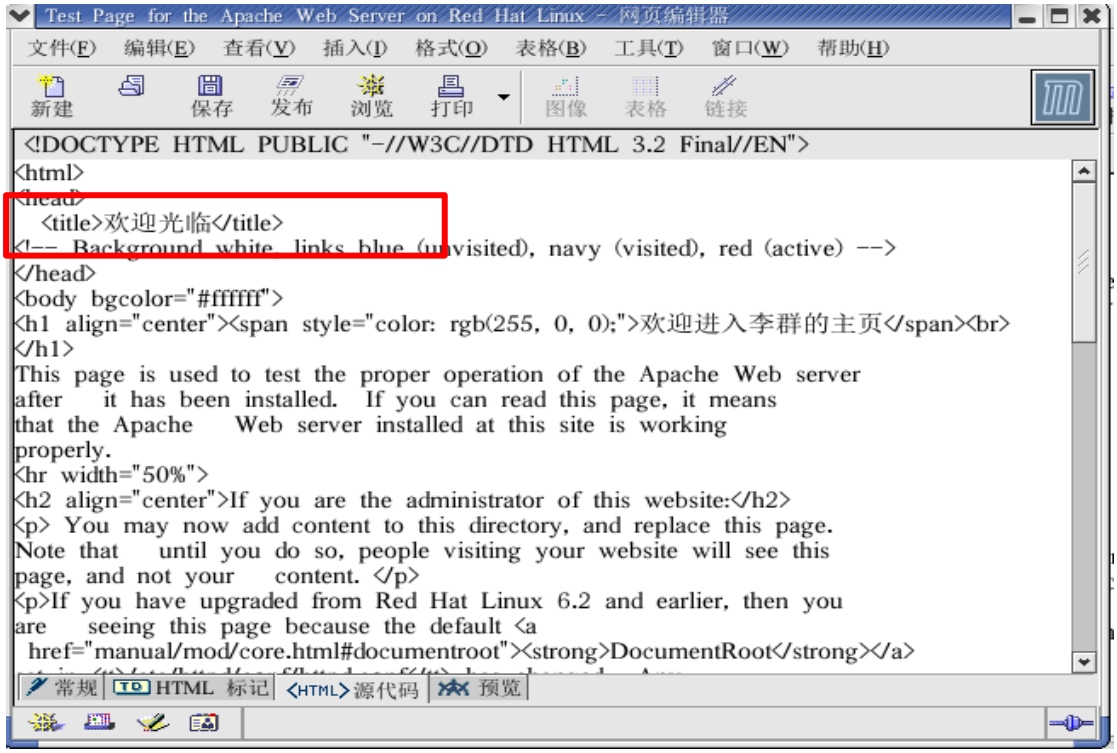
（5）浏览网页（默认情况）；



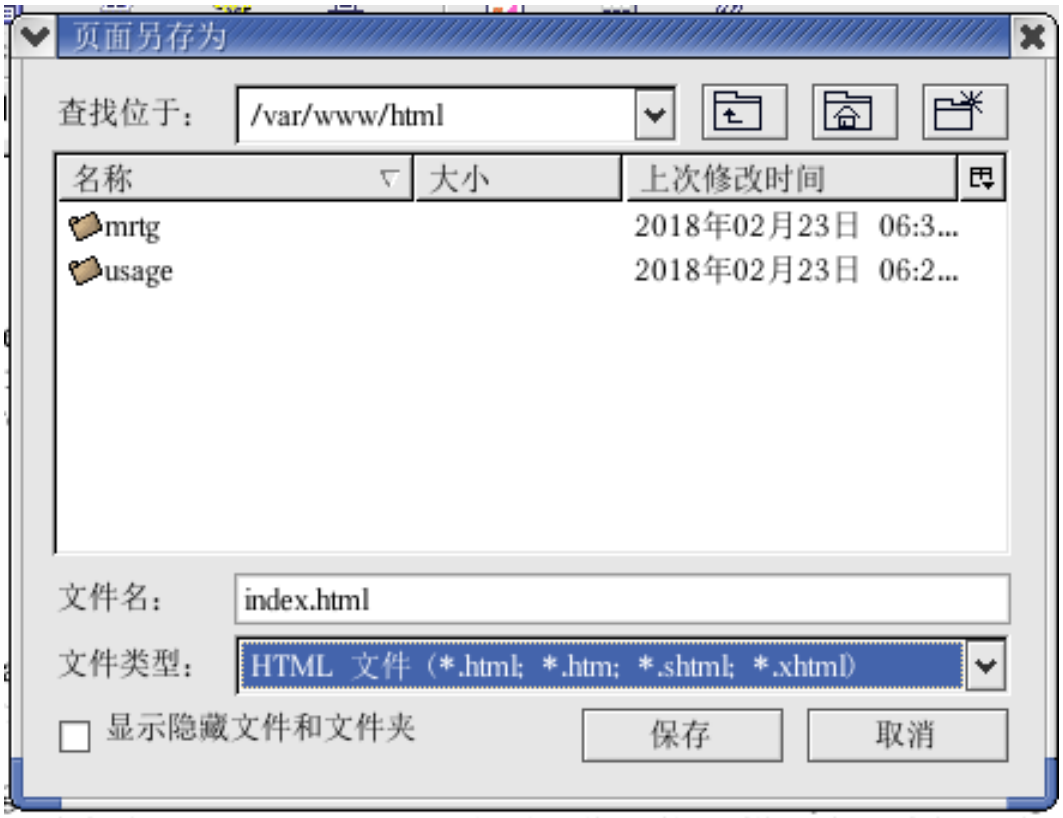
（6）修改网页(文件->编辑页面)；



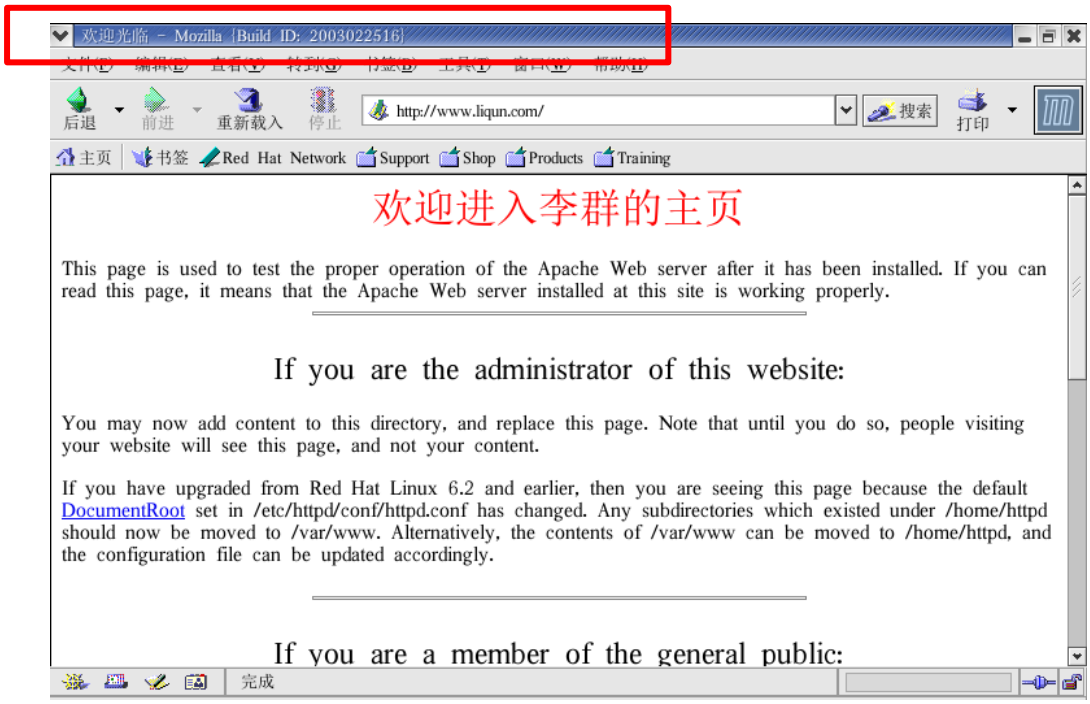
（7）添加主页<title>中的内容（查看->HTML 源代码）；



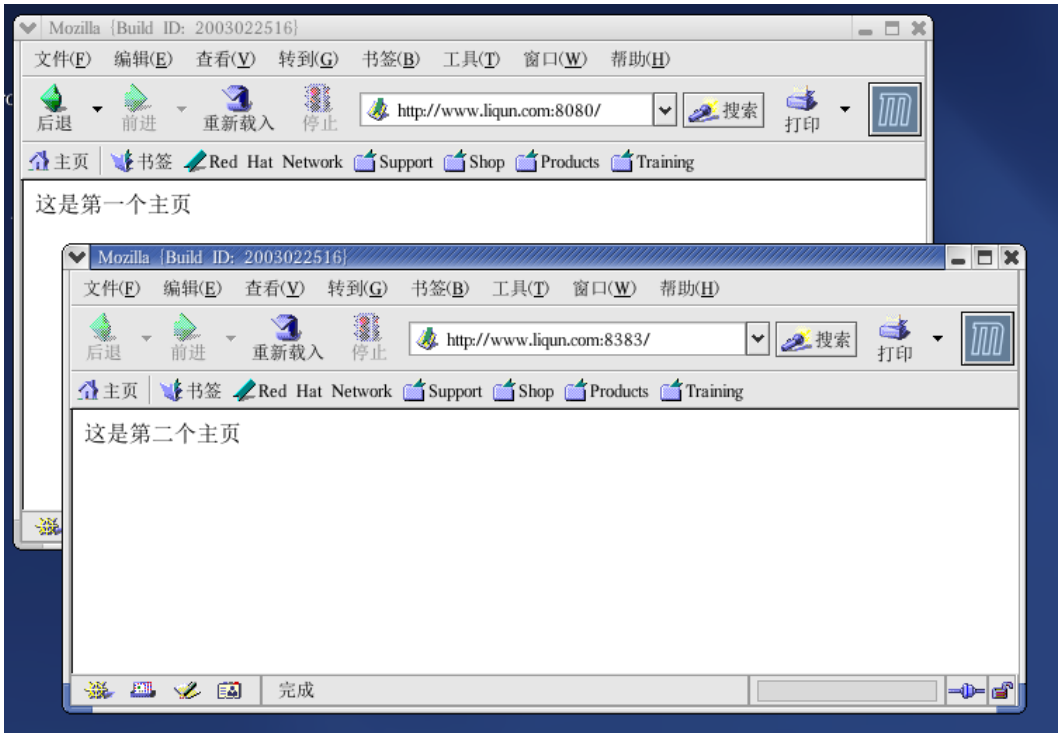
（8）保存修改后的网页（文件->另存为）；



（9）重新载入网页；



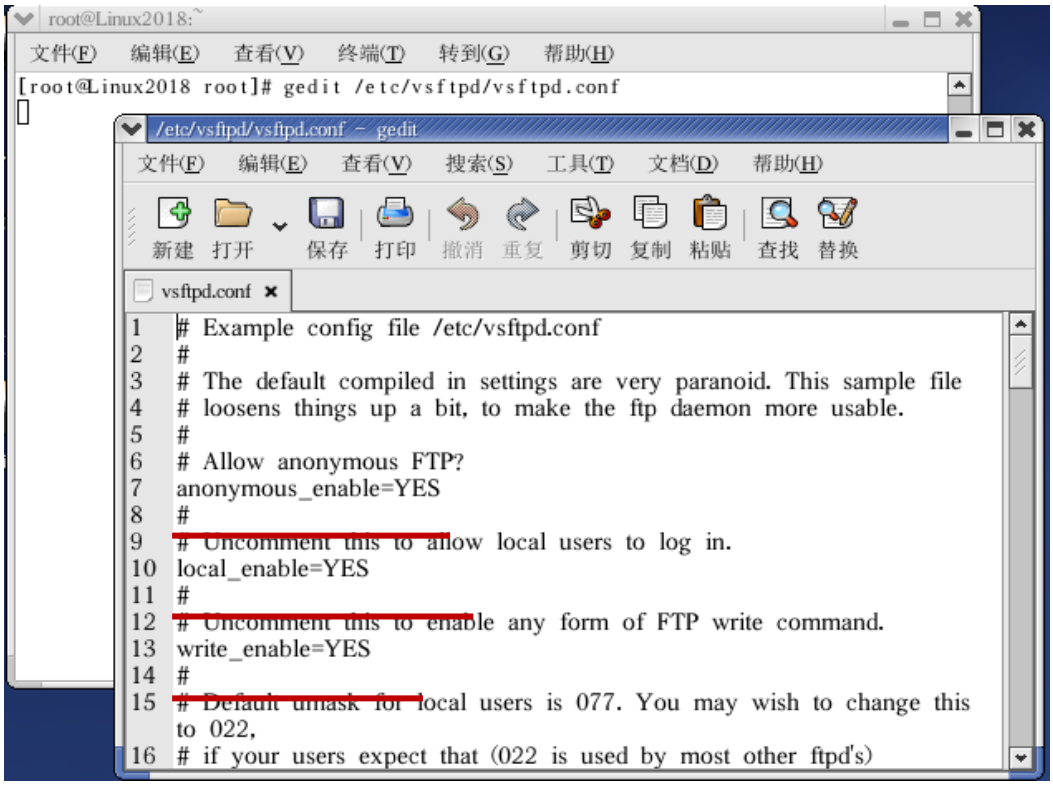
（10）使用虚拟主机浏览。



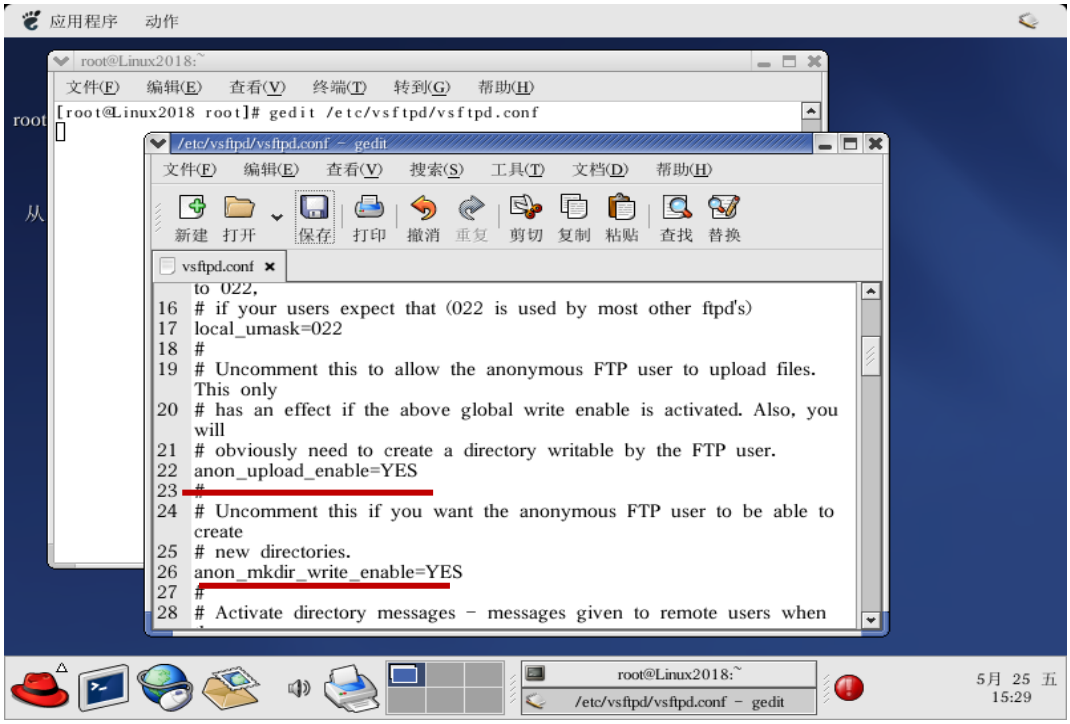
3.配置 FTP 服务器

（1）Vsftpd 软件的查询。

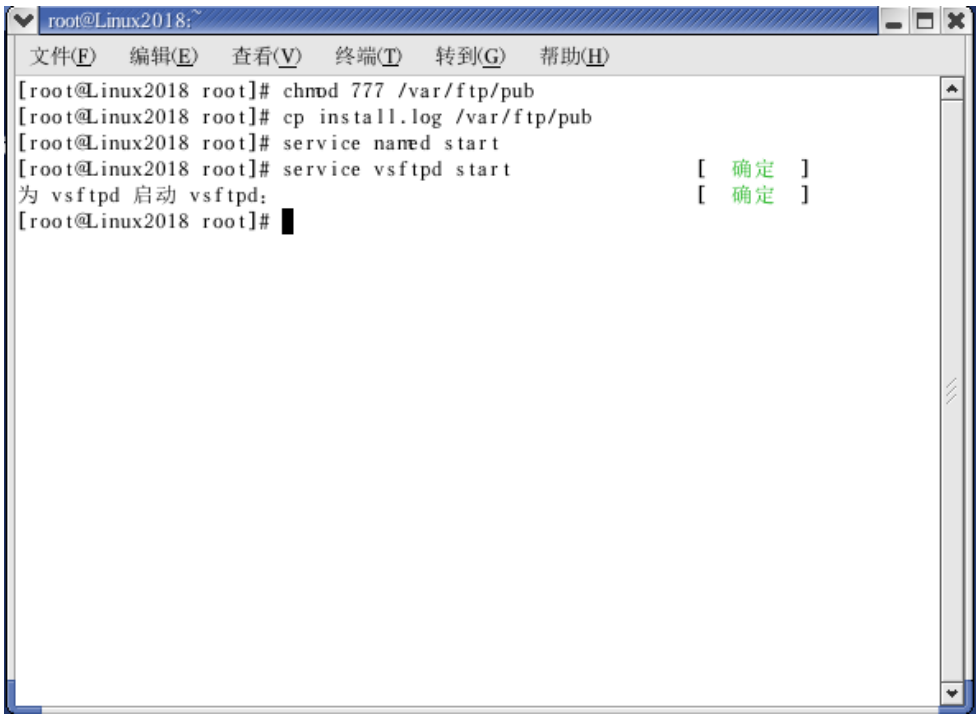
（2）用编辑器打开配置文件 vsftpd.conf



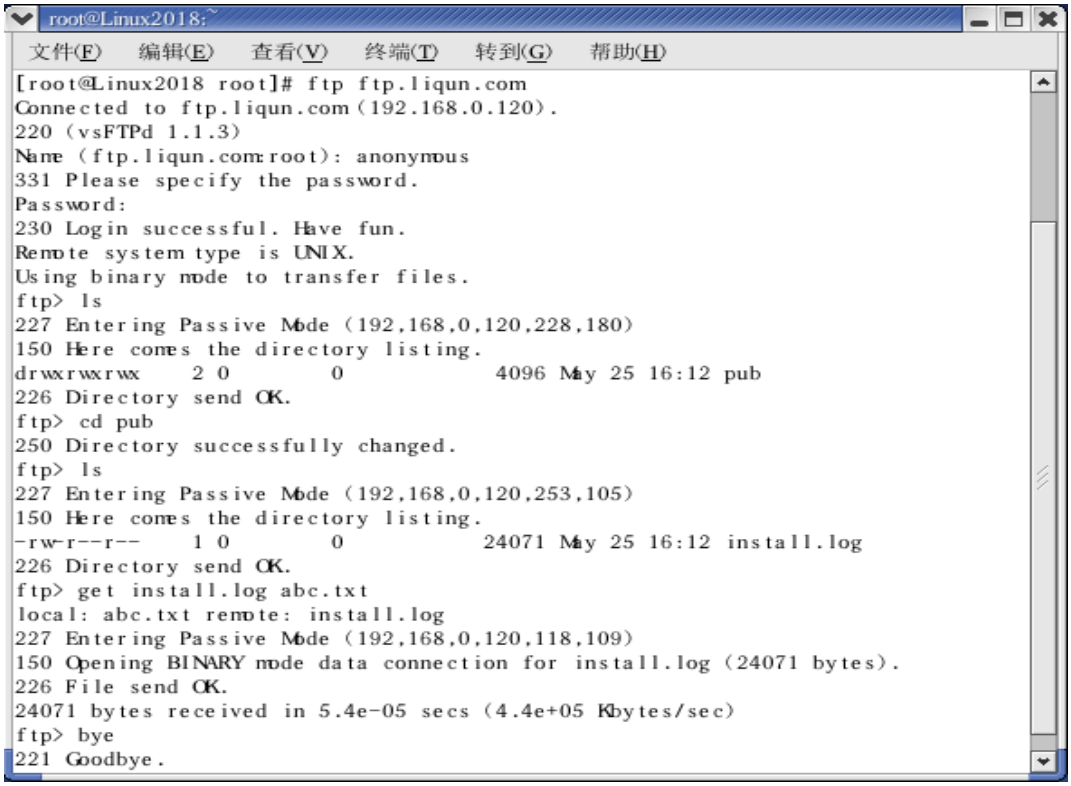
（3）修改配置文件；



（4）设置默认共享目录的权限；

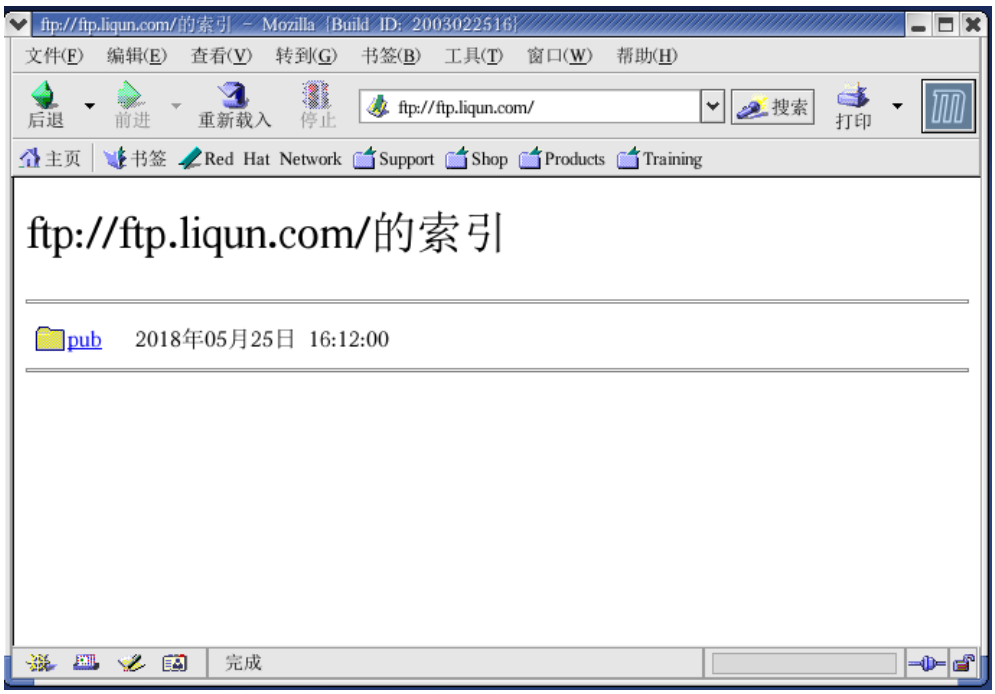


（5）测试 VSFTP 服务器；



（6）查看 root 文件夹下的文件；

（7）用浏览器进入 FTP 服务器；

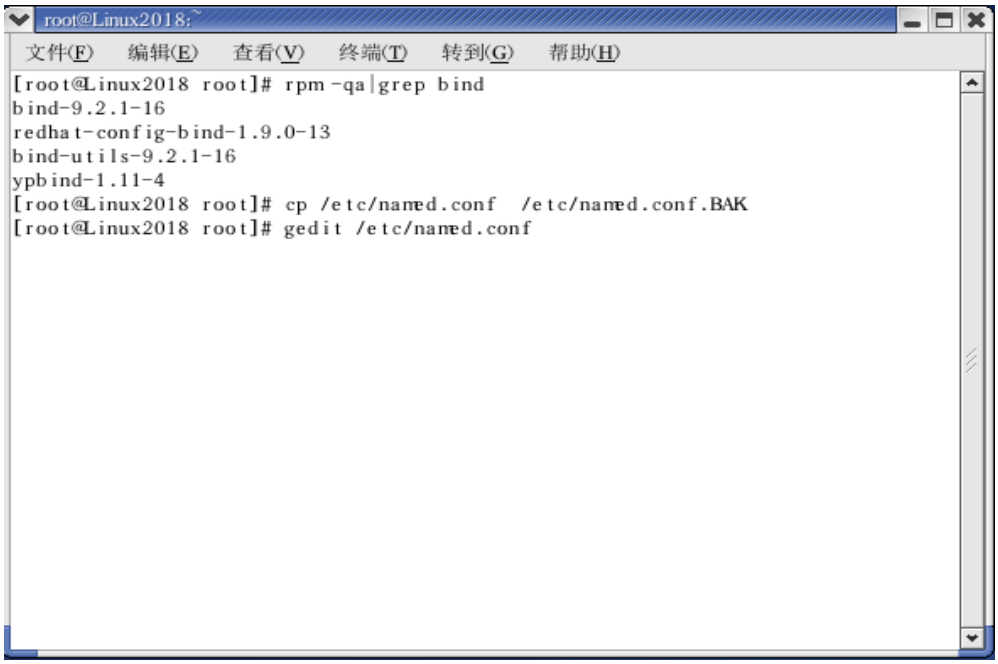


三．实验结果：

1. DNS 服务器的配置

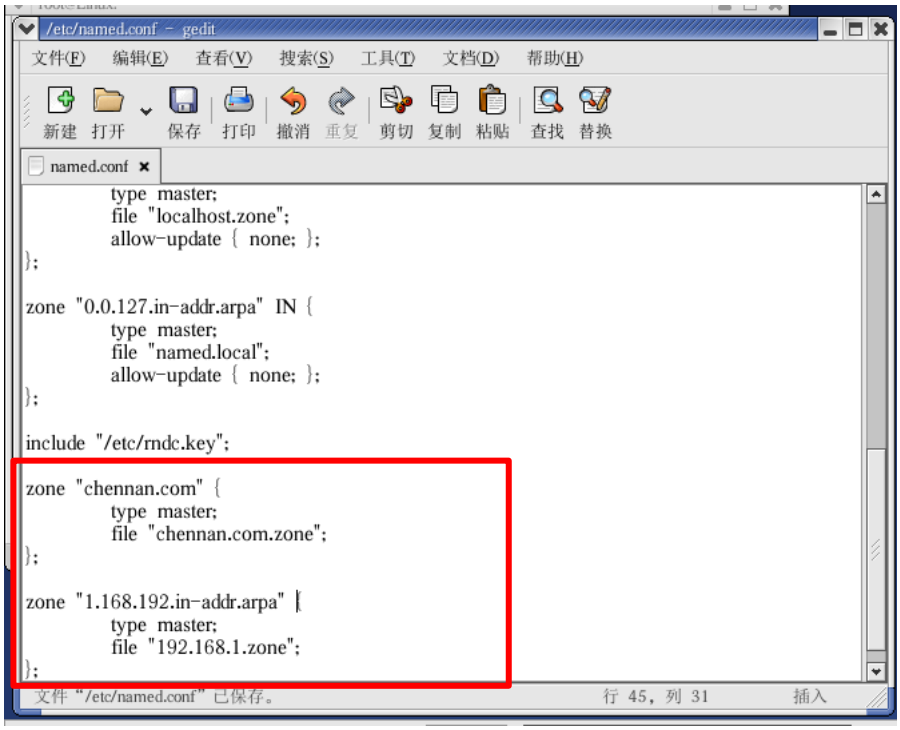
(1) 查询 BIND 软件；

(2) 备份 DNS 服务器配置文件；

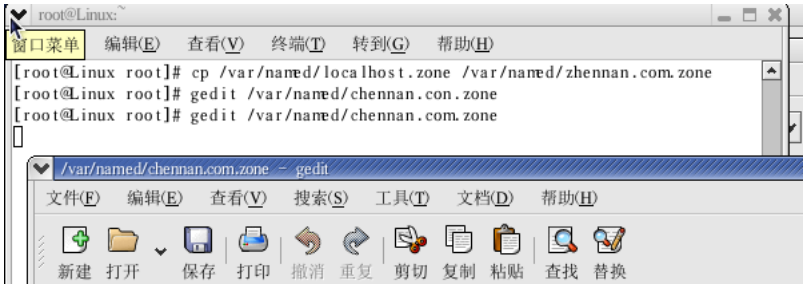


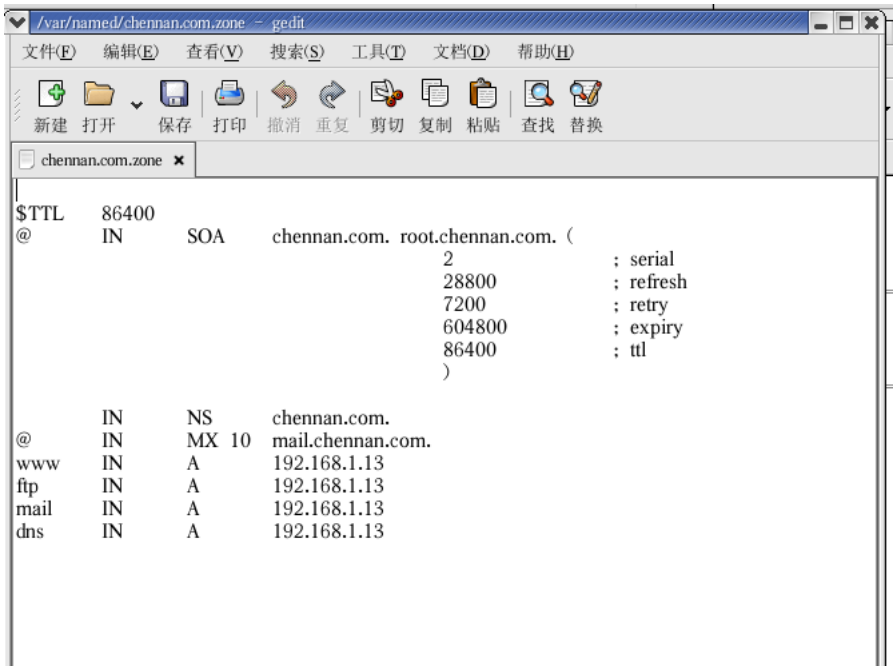
(3) 用编辑器打开配置文件 named.conf；

(4) 在 named.conf 文件中添加正向区域和反向区域；

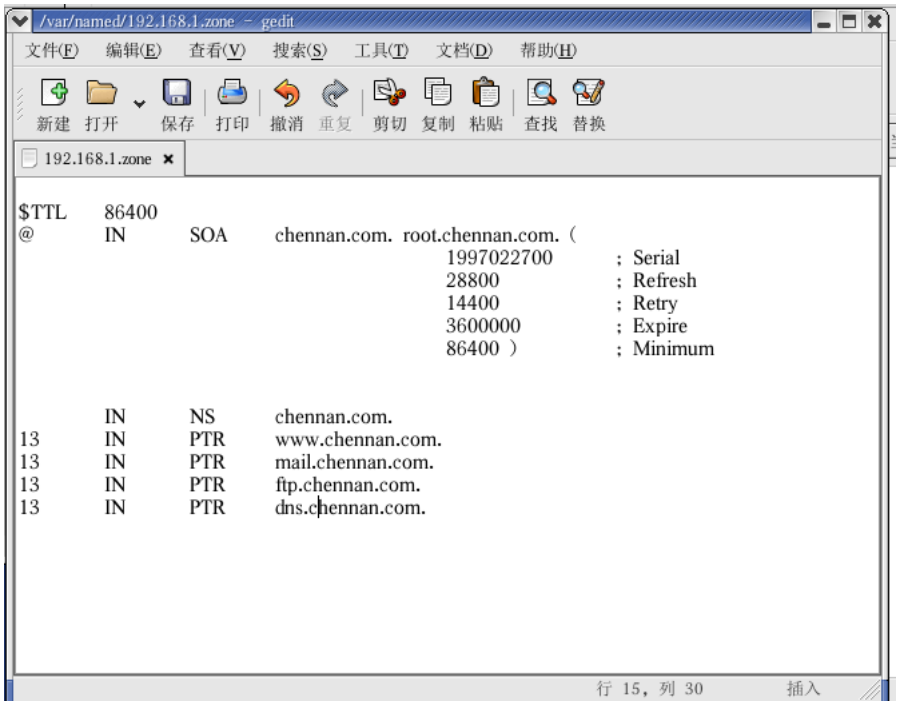


(5) 编辑正向解析文件 chennan.com.zone;

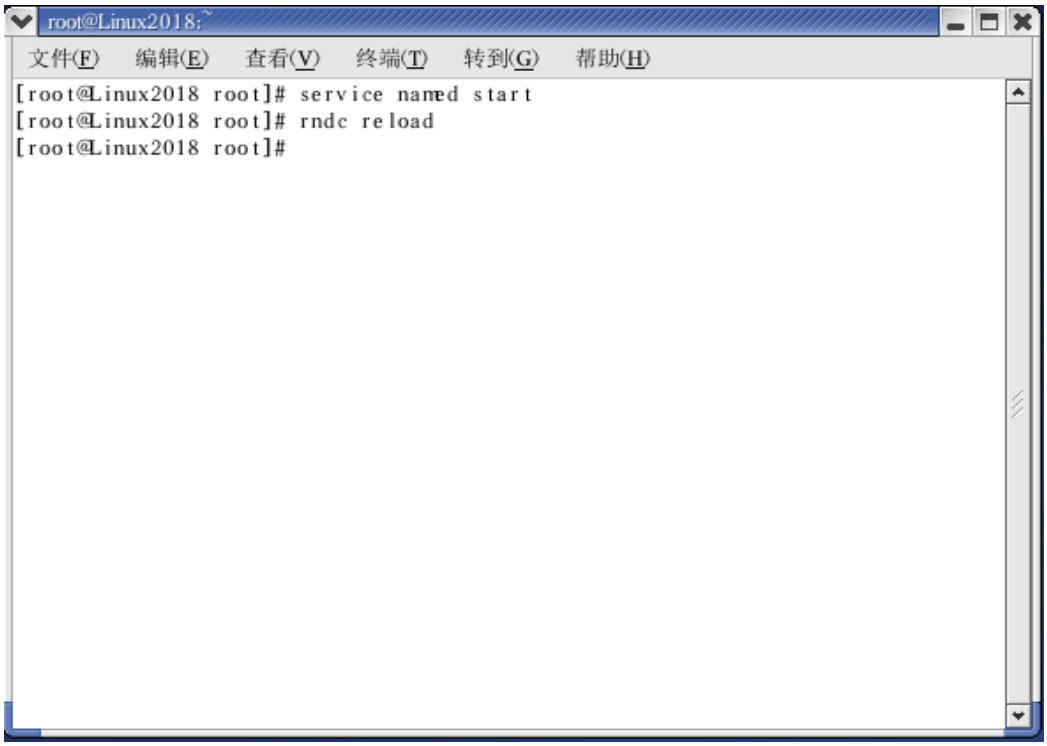




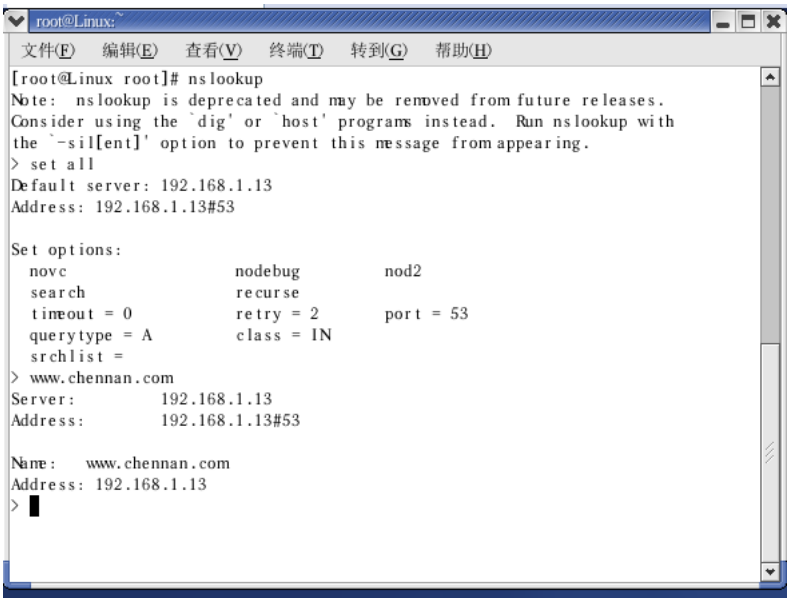
(6) 编辑反向解析文件 192.168.1.zone;


/var/named/192.168.1.zone - gedit
文件(F) 编辑(E) 查看(V) 搜索(S) 工具(T) 文档(D) 帮助(H)
新建 打开 保存 打印 撤消 重复 剪切 复制 粘贴 查找 替换
192.168.1.zone
$TTL 86400
@ IN SOA chennan.com. root.chennan.com. (
1997022700 ; Serial
28800 ; Refresh
14400 ; Retry
3600000 ; Expire
86400) ; Minimum
IN NS chennan.com.
13 IN PTR www.chennan.com.
13 IN PTR mail.chennan.com.
13 IN PTR ftp.chennan.com.
13 IN PTR dns.chennan.com.
行 15，列 30
插入

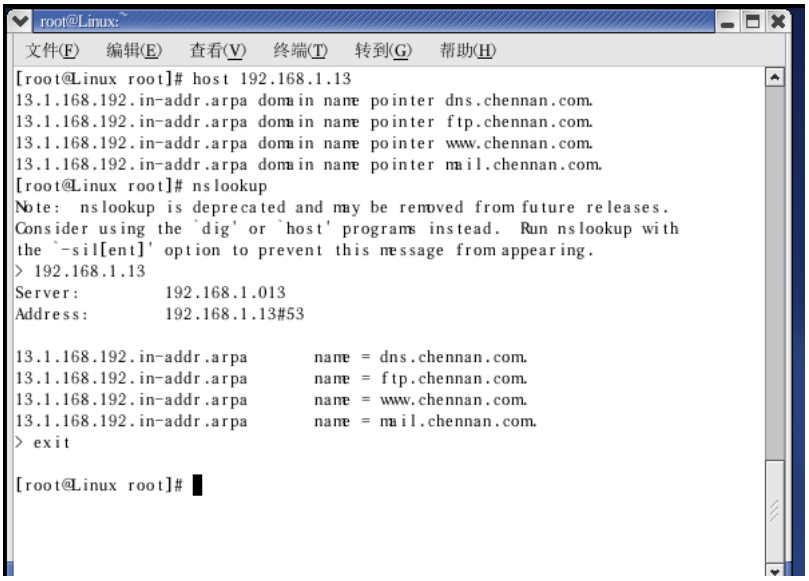
(7) 启动 DNS 服务;



(8) 对 DNS 服务器进行测试;



(9) 对反向区域进行测试;



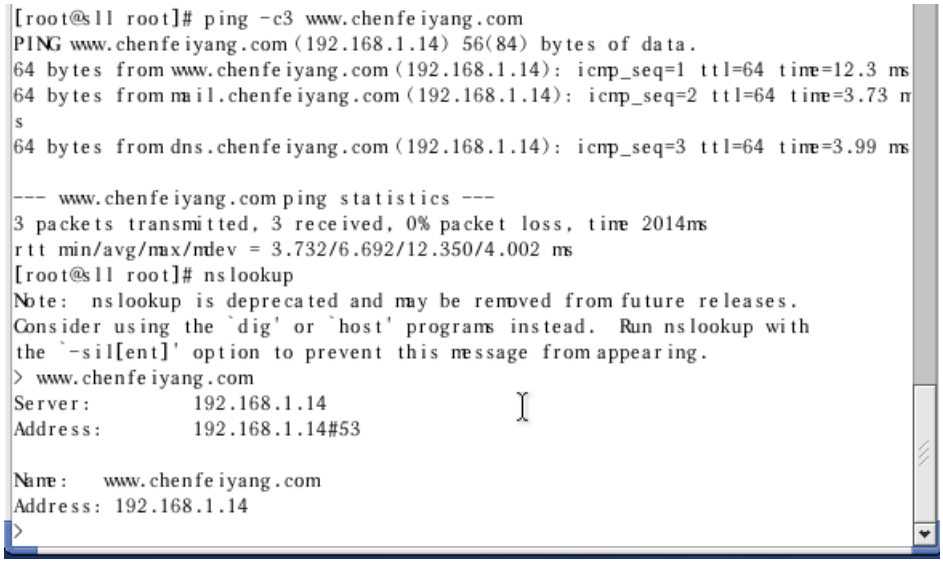
(10) 在 Linux 客户机上进行测试。

Linux 客户机：

在/etc/resolv.conf 里加入 2 行内容：

nameserver 192.168.1.14

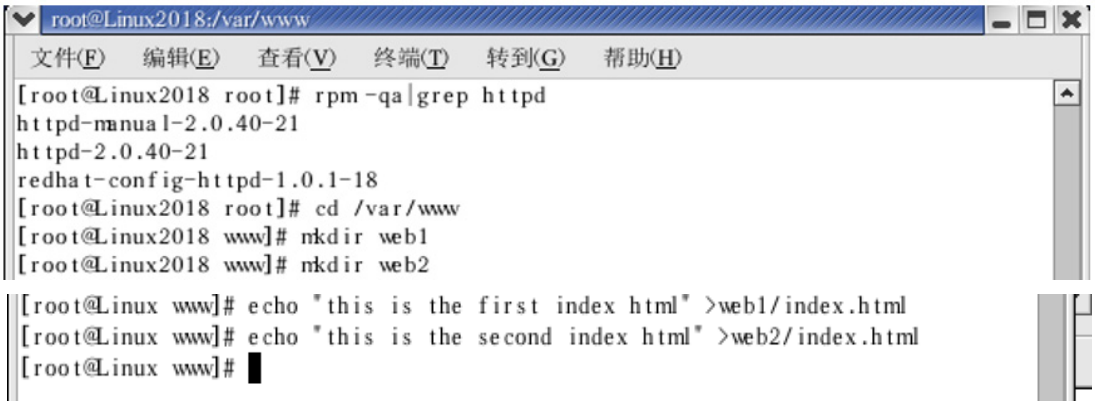
domain chenfeiyang.com



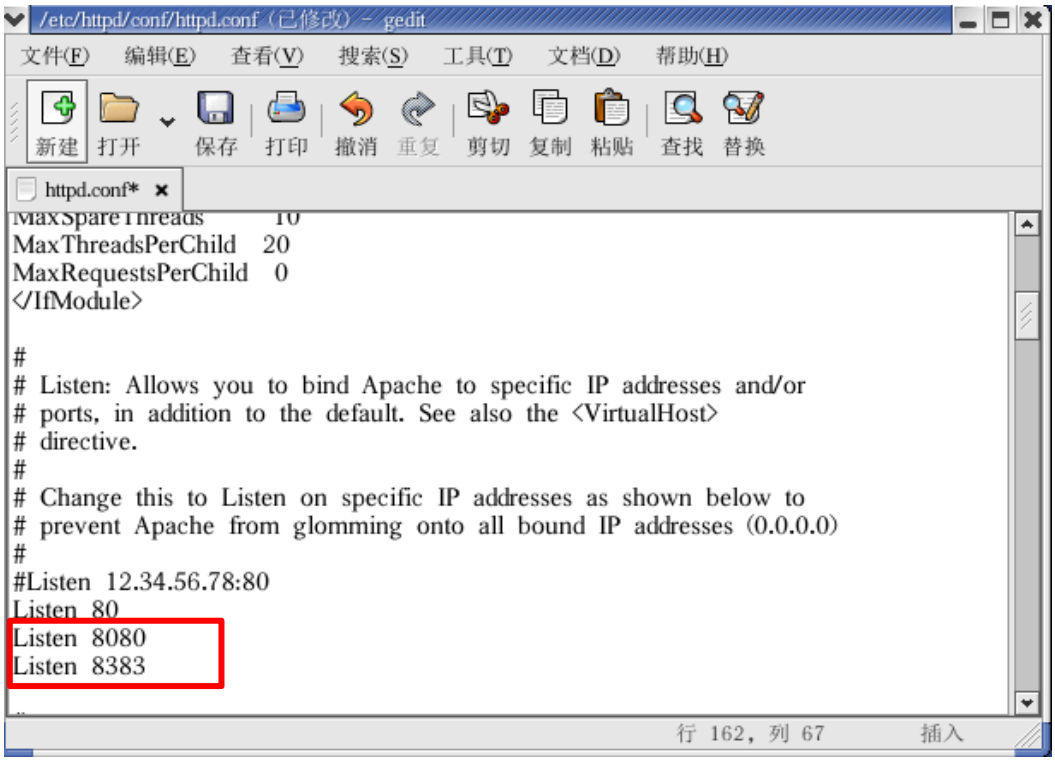
2. WWW 服务器的配置

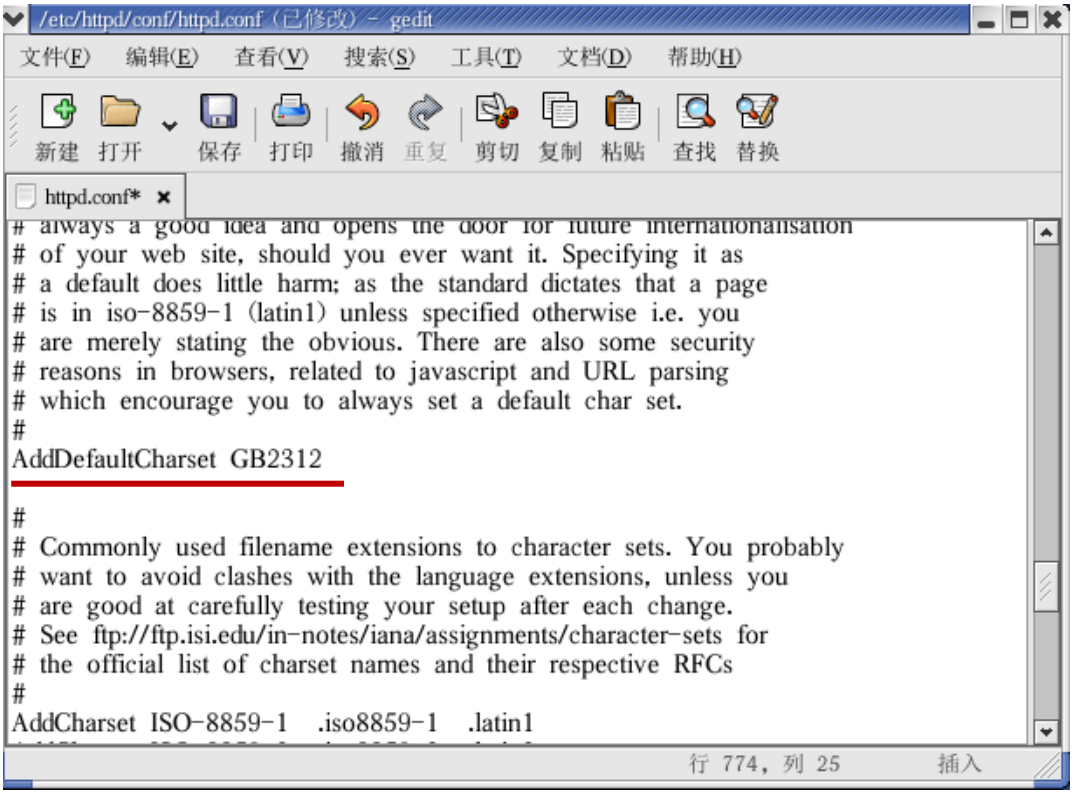
(1) 测试 Apache 软件是否安装；

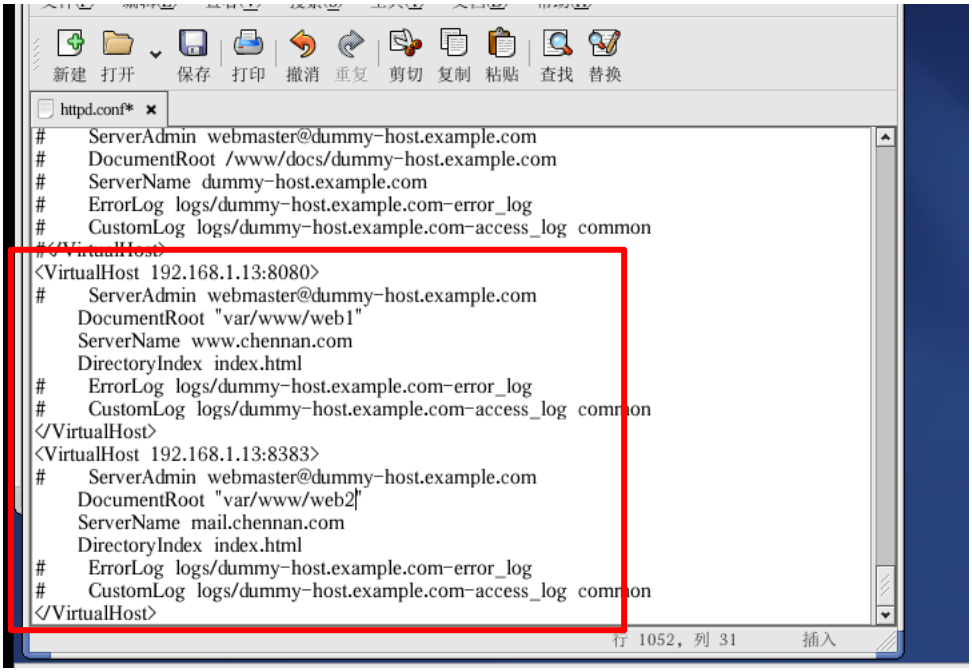
(2) 建立文件夹及网页主页文件；



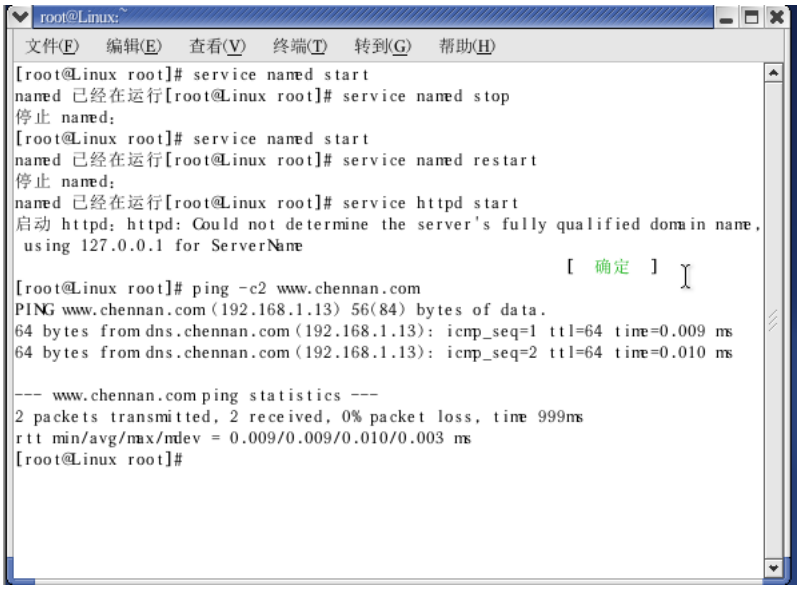
（3）修改配置文件/etc/httpd/conf/httpd.conf


/etc/httpd/conf/httpd.conf (已修改) - gedit
文件(F) 编辑(E) 查看(V) 搜索(S) 工具(T) 文档(D) 帮助(H)
新建 打开 保存 打印 撤消 重复 剪切 复制 粘贴 查找 替换
httpd.conf*
MaxSpareThreads 10
MaxThreadsPerChild 20
MaxRequestsPerChild 0
</IfModule>
#
Listen: Allows you to bind Apache to specific IP addresses and/or
ports, in addition to the default. See also the <VirtualHost>
directive.
#
Change this to Listen on specific IP addresses as shown below to
prevent Apache from glomming onto all bound IP addresses (0.0.0.0)
#
#Listen 12.34.56.78:80
Listen 80
Listen 8080
Listen 8383
行 162, 列 67 插入

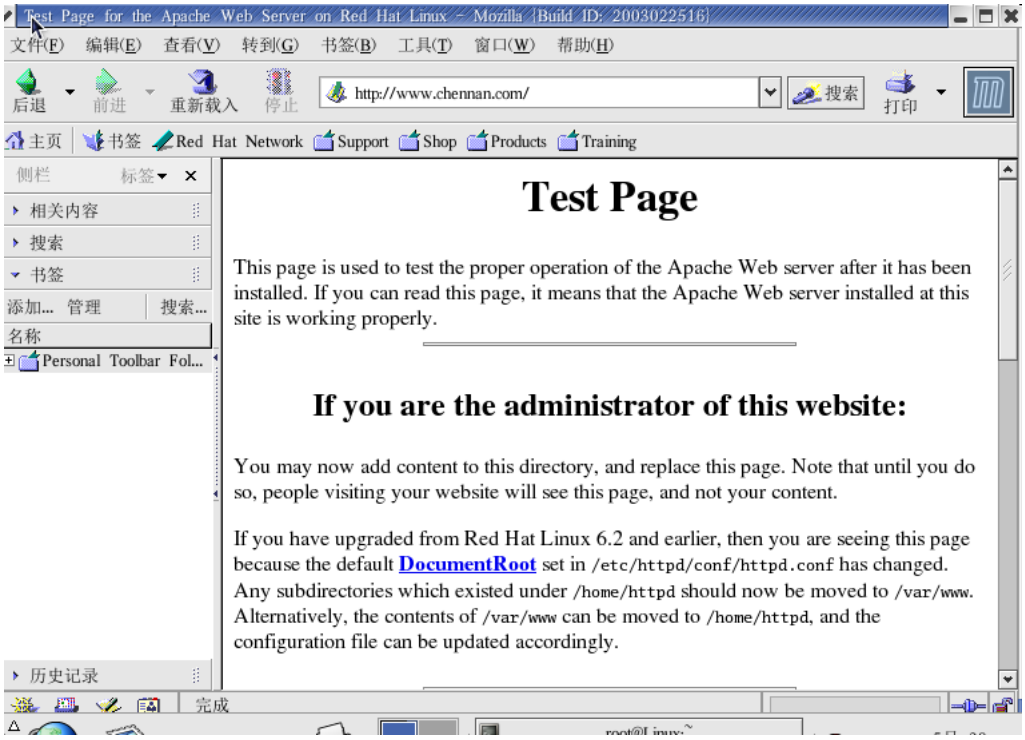

/etc/httpd/conf/httpd.conf (已修改) - gedit
文件(F) 编辑(E) 查看(V) 搜索(S) 工具(T) 文档(D) 帮助(H)
新建 打开 保存 打印 撤消 重复 剪切 复制 粘贴 查找 替换
httpd.conf*
always a good idea and opens the door for future internationalisation
of your web site, should you ever want it. Specifying it as
a default does little harm; as the standard dictates that a page
is in iso-8859-1 (latin1) unless specified otherwise i.e. you
are merely stating the obvious. There are also some security
reasons in browsers, related to javascript and URL parsing
which encourage you to always set a default char set.
#
AddDefaultCharset GB2312
#
Commonly used filename extensions to character sets. You probably
want to avoid clashes with the language extensions, unless you
are good at carefully testing your setup after each change.
See ftp://ftp.isi.edu/in-notes/iana/assignments/character-sets for
the official list of charset names and their respective RFCs
#
AddCharset ISO-8859-1 .iso8859-1 .latin1
行 774, 列 25 插入



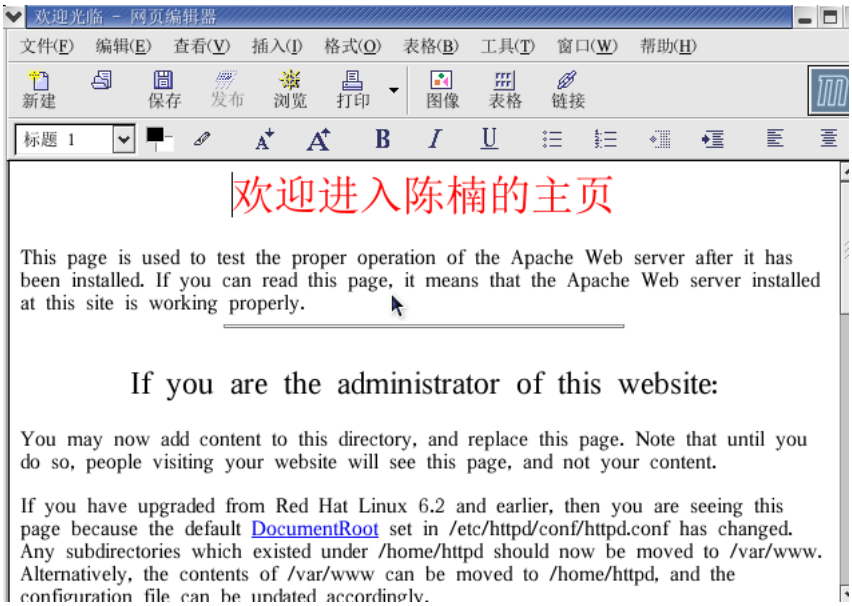
（4）启动 DNS 和 Apache 服务；



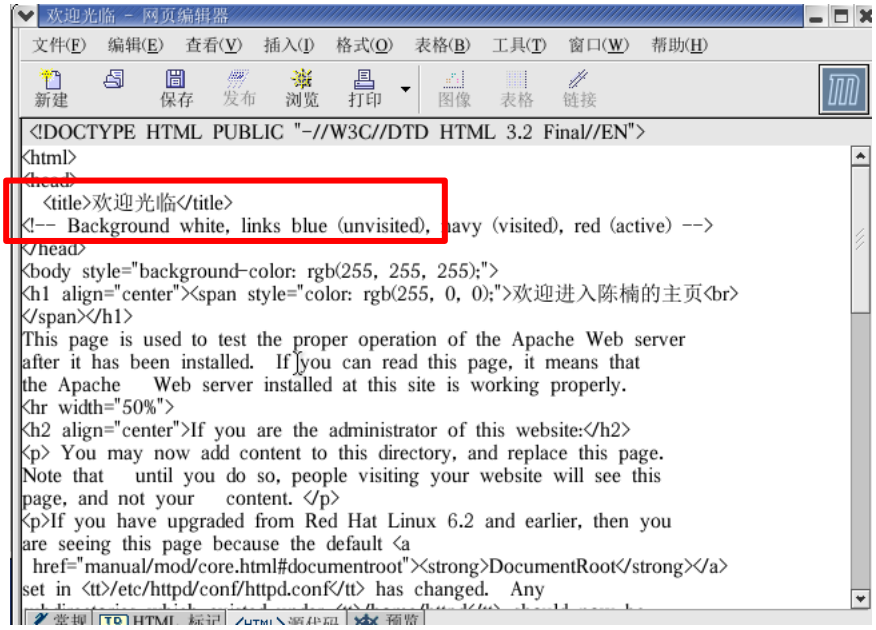
（5）浏览网页（默认情况）；



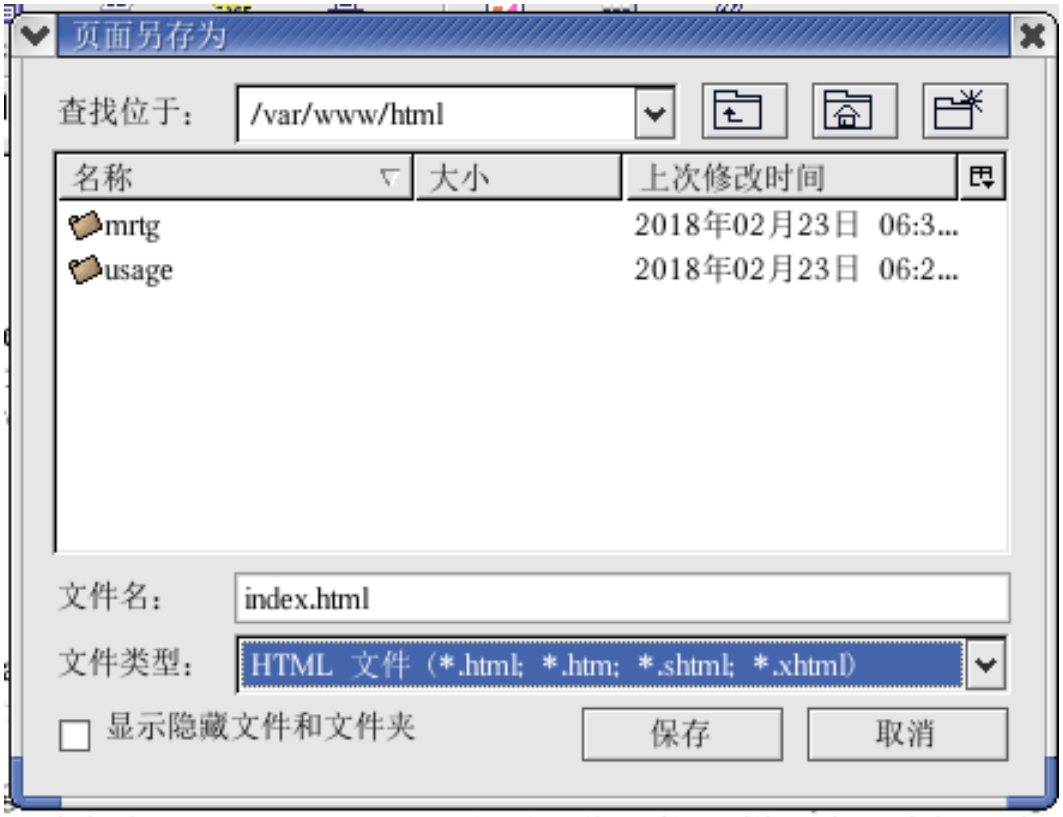
（6）修改网页(文件->编辑页面)；



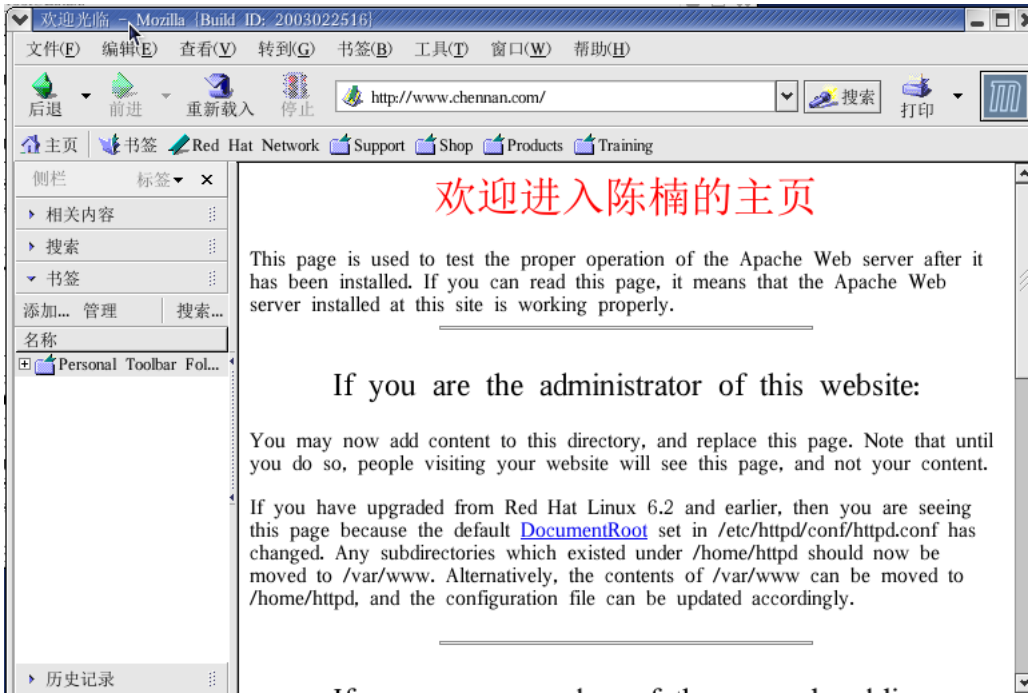
（7）添加主页<title>中的内容（查看->HTML 源代码）；



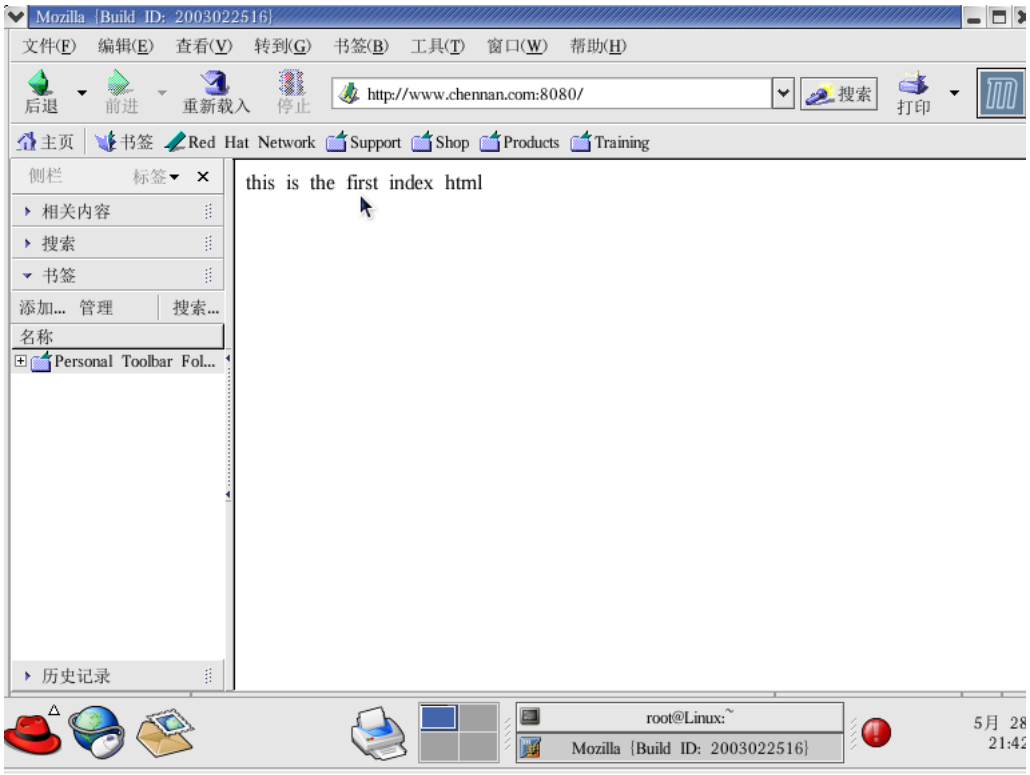
（8）保存修改后的网页（文件->另存为）；

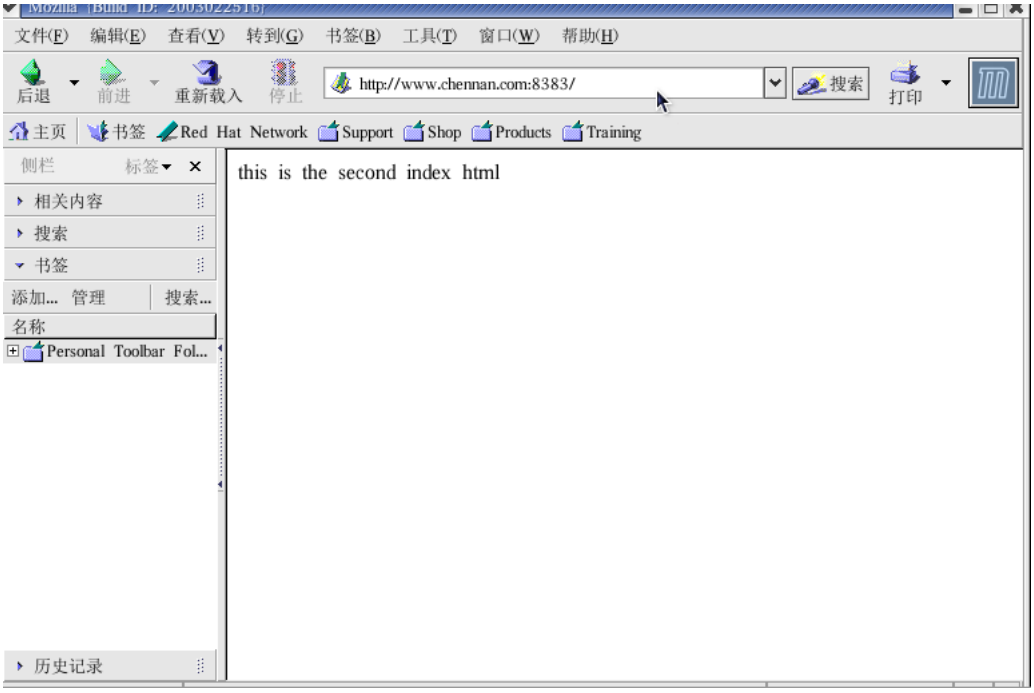


（9）重新载入网页；


欢迎光临 - Mozilla {Build ID: 2003022516}
文件(F) 编辑(E) 查看(V) 转到(G) 书签(B) 工具(T) 窗口(W) 帮助(H)
后退 前进 重新载入 停止
http://www.chennan.com/
搜索 打印
主页 书签 Red Hat Network Support Shop Products Training
侧栏 标签
相关内容
搜索
书签
添加... 管理 搜索...
名称
Personal Toolbar Fol...
历史记录
欢迎进入陈楠的主页
This page is used to test the proper operation of the Apache Web server after it has been installed. If you can read this page, it means that the Apache Web server installed at this site is working properly.
If you are the administrator of this website:
You may now add content to this directory, and replace this page. Note that until you do so, people visiting your website will see this page, and not your content.
If you have upgraded from Red Hat Linux 6.2 and earlier, then you are seeing this page because the default DocumentRoot set in /etc/httpd/conf/httpd.conf has changed. Any subdirectories which existed under /home/httpd should now be moved to /var/www. Alternatively, the contents of /var/www can be moved to /home/httpd, and the configuration file can be updated accordingly.

（10）使用虚拟主机浏览。

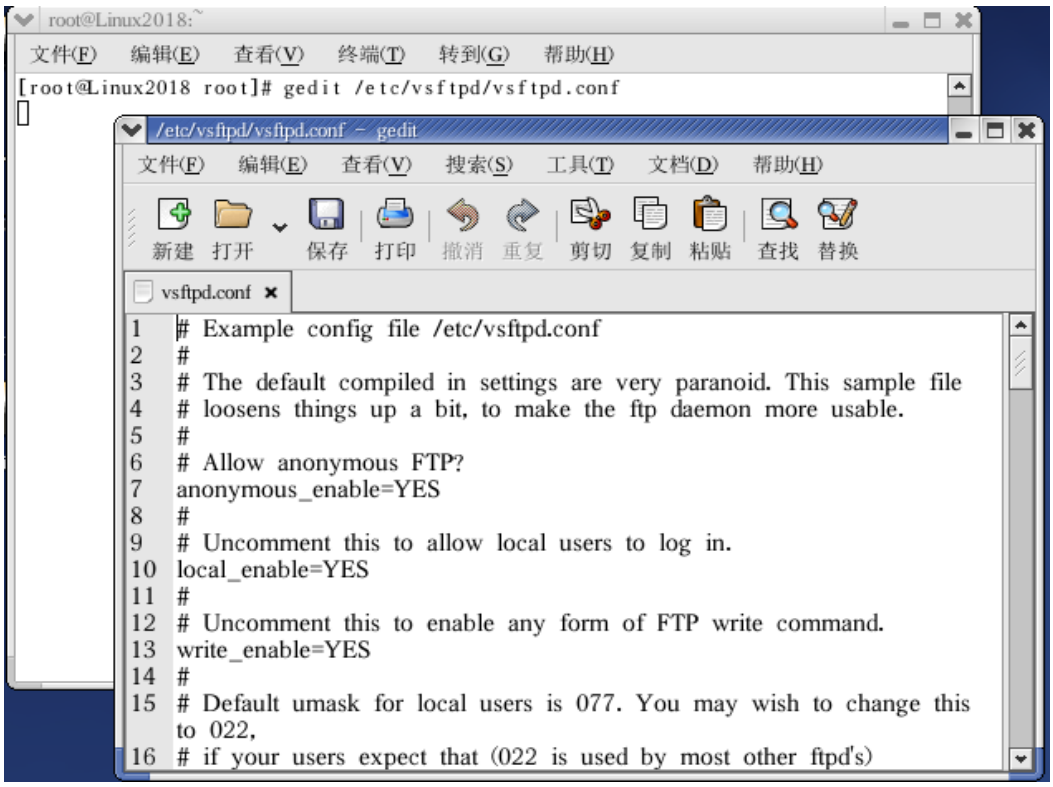

Mozilla {Build ID: 2003022516}
文件(F) 编辑(E) 查看(V) 转到(G) 书签(B) 工具(T) 窗口(W) 帮助(H)
后退 前进 重新载入 停止
http://www.chennan.com:8080/
搜索 打印
主页 书签 Red Hat Network Support Shop Products Training
侧栏 标签
相关内容
搜索
书签
添加... 管理 搜索...
名称
Personal Toolbar Fol...
历史记录
this is the first index html
root@Linux:~
Mozilla {Build ID: 2003022516}
5月 28
21:42



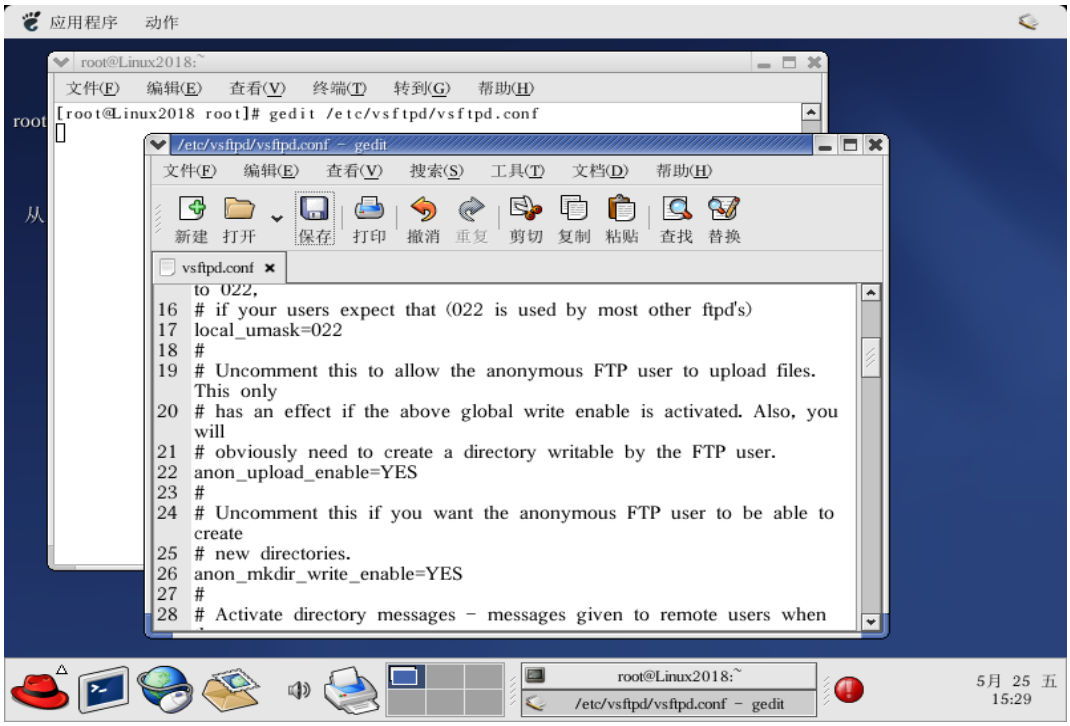
3.配置 FTP 服务器

（1）Vsftpd 软件的查询。

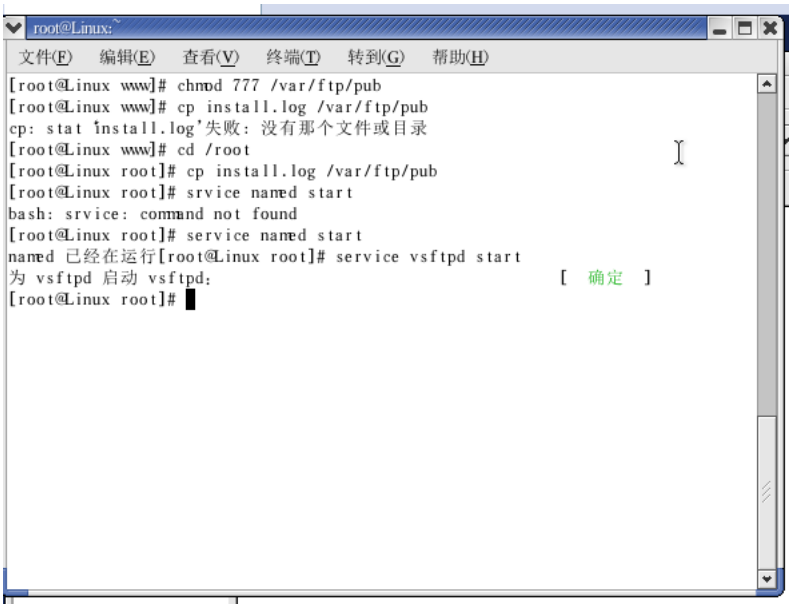
（2）用编辑器打开配置文件 vsftpd.conf



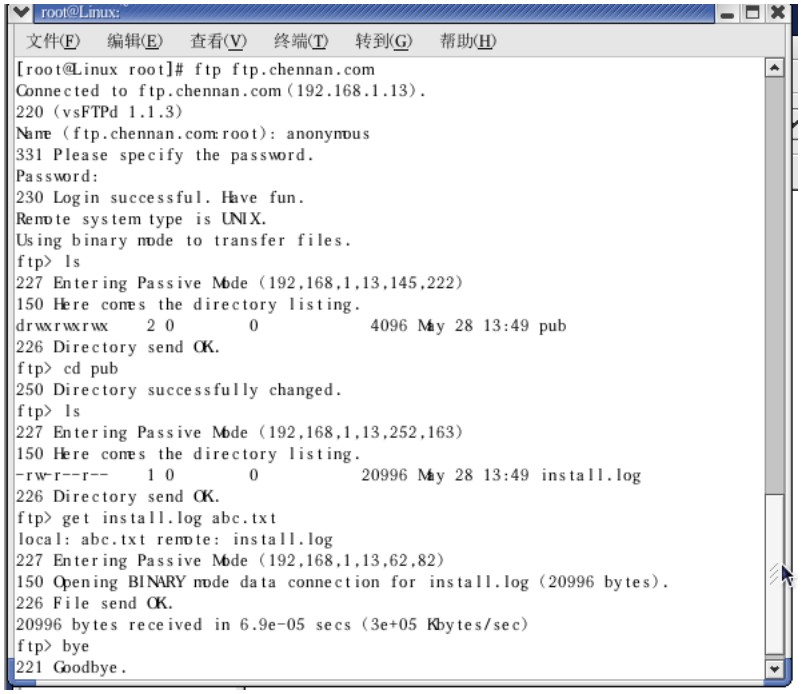
（3）修改配置文件；



（4）设置默认共享目录的权限；

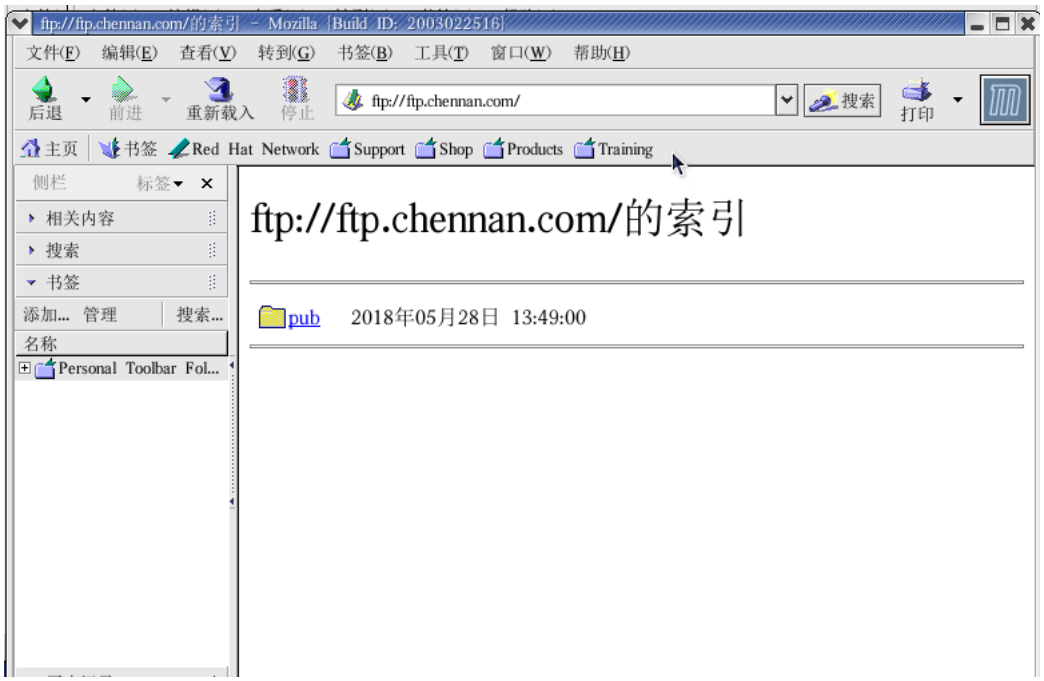


（5）测试 VSFTP 服务器；



（6）查看 root 文件夹下的文件；

（7）用浏览器进入 FTP 服务器；



四．结论分析：

通过本次 Linux 网络服务器配置实验，我对 Linux 下的网络服务器配置有了更加深入地理解。掌握了 Bind DNS 服务配置过程，并且熟悉了 Bind DNS 服务配置文件；掌握了 Apache 服务器配置过程，并且熟悉了 httpd 服务配置文件；掌握了 vsftpd FTP 服务的配置，并且熟悉了 vsftp 服务配置文件。

在本次实验中，我认为认真与仔细是最重要的，实验的各个步骤老师都有仔细地讲解过，所以难度不是阻碍实验成功完成的最大难题，不认真、不仔细才是。在实验过程中，要配置很多文件，很可能因为少打一个字符比如曾经强调过的 chennan.com. 中最后面的'. '，就导致实验无法成功，并且这种问题在后面的检

查中还很难发现，所以我认为，仔细与认真是这项实验中最应该注意的地方。

完成实验并不是唯一的目的，在实验中学到知识也是，要想更好的掌握 Linux 网络服务器配置的相关内容，还需要我们在课下更加努力的学习。