

prepared by Shiba Ratna Tamrakar

Lab on HTTP and HTTPS

1. IP base web Hosting

Conditions:

Ips are needed seperately for each web site

DNS configuration for the site

To create a web site www.cba.com and www.eample.com

step 1

```
#vi /etc/httpd/conf/httpd.conf
```

```
Listen 80
```

```
<VirtualHost 172.16.0.2>
```

```
    ServerName www.cba.com
```

```
    DocumentRoot    /var/www/cba
```

```
</VirtualHost>
```

```
<VirtualHost 172.16.0.2>
```

```
    ServerName www.example.com
```

```
    DocumentRoot    /var/www/example
```

```
</VirtualHost>
```

step 2

create filse index.htm in the directories /var/www/cba and /var/www/exaple

step 3

```
#service httpd start
```

step 4

viewing web site

```
#links http://www.cba.com
```

Note: dns server should be pointed to the dns which knows www.cba.com, in our case, dns server is 172.16.0.1

2. Name based DNS

Single IP is used to host multiple websites

NameVirtualHost ipaddr is required.

```
#vi /etc/httpd/httpd.conf
```

```
NamedVirtualHost 172.16.0.1
```

```
<VirtualHost 172.16.0.2>
```

```
    ServerName www.cba.com
```

```
    DocumentRoot    /var/www/cba
```

```
</VirtualHost>
```

```
<VirtualHost 172.16.0.2>
```

```
    ServerName www.cba.com
```

```
    DocumentRoot    /var/www/cba
```

```
</VirtualHost>
```

```
#service httpd restart
```

```
#links http://www.example.com
```

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3. http authentication

step 1

```
#vi httpd.conf
<VirtualHost 172.16.0.2>
    ServerName www.cba.com
    DocumentRoot /var/www/cba
    <Directory /var/www/cba/personal>
        AllowOverride authconfig
    </Directory>
</VirtualHost>
```

step 2

Create .htaccess file in /var/www/cba/personal

```
#vi /var/www/cba/personal
AuthName Private site
AuthType Basic
AuthUserFile /etc/httpd/conf/cbapasswd
require valid-user
```

Note for selected user use:

```
require user user1 user2 ..
```

step 3

create user cba and shiba for authentication

```
#htpasswd -c /etc/httpd/conf/cbapasswd shiba
#htpasswd /etc/httpd/conf/cbapasswd cba
```

step 4

for security

```
chgrp apache /etc/httpd/conf/cbapasswd
chmod g+r /etc/httpd/conf/cbapasswd
```

step 5

```
#service httpd restart
```

Implementing Security Restriction

```
#vi httpd.conf
<VirtualHost 172.16.0.2>
    ServerName www.cba.com
    DocumentRoot /var/www/cba
    <Directory /var/www/cba/personal>
        Order allow, deny
        allow from 172.16.0/16
        deny from 172.16..14
    </Directory>
</VirtualHost>
```

Note:

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Order allow, deny

allow explicitly specified host den everyone else
the host in both allow and deny list will be denied

Order deny, allow

deny explicitly specified host den everyone else
the host in both allow and deny list will be allowed

Secure Site with SSL

step 1

```
#vi /etc/httpd/conf.d/ssl.conf
listen 443
<VirtualHost 172.16.0.2>
    ServerName www.cba.com
    DocumentRoot /var/www/cba
    SSLEngine On
    SSLCertificate File /etc/httpd/conf/ssl.crt/server.crt
    SSLCertificateKeyFile /etc/httpd/conf/ssl.key/server.key
</VirtualHost>
```

step 2

create certificate file

```
#cd /etc/httpd/conf/ssl.crt
#mv server.crt serber.crt.bkp
#cd /etc/httpd/conf/ssl.key
#mv server.key erver.key.bkp
#cd /etc/httpd/conf
#make testcert
```

step 3

To store password

```
#mv ssl.key/server.key ssl.key/server.key.in
#openssl dsa -in ssl.key/server.key.in -out ssl.key/server.key
```

SQUID

```
#vi /etc/squid/squid.conf
.....
acl mynet src 172.16.0.0/16
acl myhost src 172.16.0.1
acl prohibited dstdomain .games.com
```

```
http_access deny myhost
http_access allow mynet
http_access deny prohibited
```