

Chime Apache Reverse Proxy Configuration for Web Client

Using reverse proxy allows **only Chime Web Client** to be accessible outside of corporate DMZ.

Steps are as follows:

1. Download Apache Reverse Proxy Server
2. Install Apache Reverse Proxy Server
3. Configure Apache Reverse Proxy Server

Download Apache Reverse Proxy Server

Download Microsoft Visual C++ 2015 Redistributable (Apache Reverse Proxy Server prerequisite) from:
<https://www.microsoft.com/en-us/download/details.aspx?id=51682>

Download Apache Reverse Proxy Server from:

For Windows – 64 bit

<https://www.apachelounge.com/download/VC14/binaries/httpd-2.4.20-win64-VC14.zip>

For Windows – 32 bit

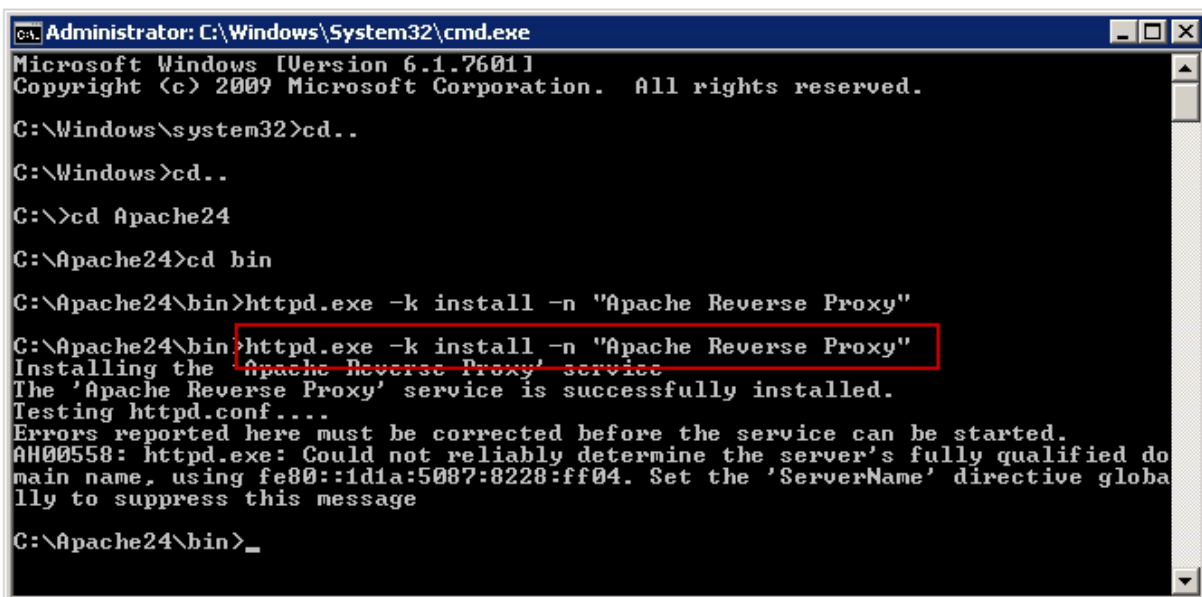
<https://www.apachelounge.com/download/VC14/binaries/httpd-2.4.20-win32-VC14.zip>

For more details refer: <https://www.apachelounge.com/download/>

Install Apache Reverse Proxy Server

Steps are as follows:

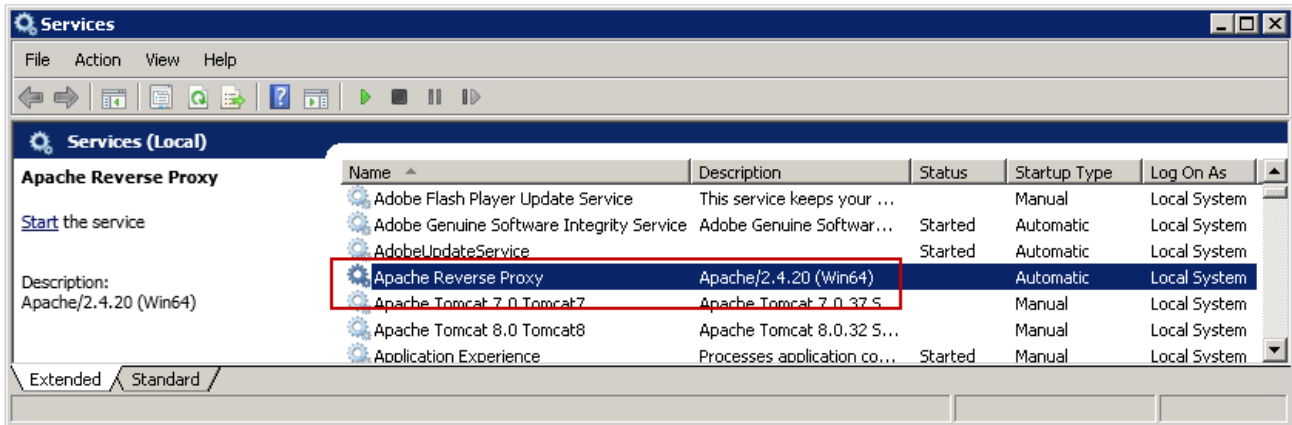
1. Install Microsoft Visual C++ 2015 Redistributable
2. Unzip **httpd-2.4.20-winXX-VC14.zip** to a local system folder, for example: C:\Apache2.4
3. Start **command prompt** with **Administrative privileges**
4. Navigate to <Apache_Reverse_Proxy_Install_Folder>\bin folder
5. Issue the following command to register Apache Reverse Proxy Server as a Windows Service:
6. **httpd.exe -k install -n "Apache Reverse Proxy"**



```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

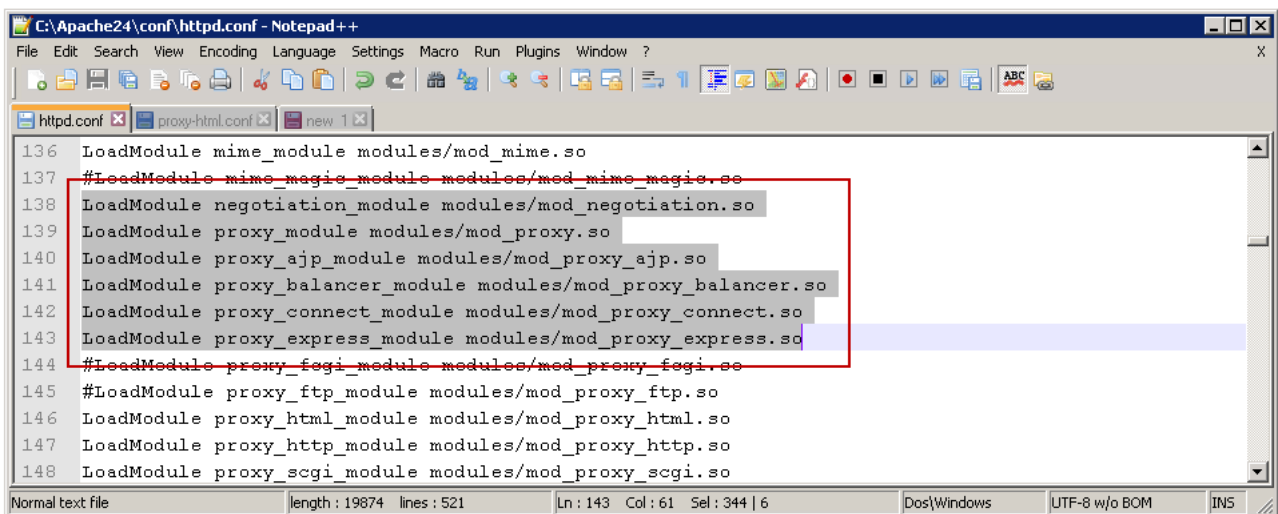
C:\Windows\system32>cd..
C:\Windows>cd..
C:\>cd Apache24
C:\Apache24>cd bin
C:\Apache24\bin>httpd.exe -k install -n "Apache Reverse Proxy"
C:\Apache24\bin>httpd.exe -k install -n "Apache Reverse Proxy"
Installing the 'Apache Reverse Proxy' service
The 'Apache Reverse Proxy' service is successfully installed.
Testing httpd.conf...
Errors reported here must be corrected before the service can be started.
AH00558: httpd.exe: Could not reliably determine the server's fully qualified do
main name, using fe80::1d1a:5087:8228:ff04. Set the 'ServerName' directive globa
lly to suppress this message

C:\Apache24\bin>_
```



Configure Apache Reverse Proxy Server

1. Navigate to <Apache_Reverse_Proxy_Install_Folder>\conf folder
2. Edit **httpd.conf** file
3. In **httpd.conf** enable the following extensions by removing the initial # character and save the file:
 - a. LoadModule proxy_module modules/mod_proxy.so
 - b. LoadModule proxy_ajp_module modules/mod_proxy_ajp.so
 - c. LoadModule proxy_balancer_module modules/mod_proxy_balancer.so
 - d. LoadModule proxy_connect_module modules/mod_proxy_connect.so
 - e. LoadModule proxy_express_module modules/mod_proxy_express.so
 - f. LoadModule proxy_html_module modules/mod_proxy_html.so
 - g. LoadModule proxy_http_module modules/mod_proxy_http.so
 - h. LoadModule proxy_scgi_module modules/mod_proxy_scgi.so
 - i. LoadModule proxy_wstunnel_module modules/mod_proxy_wstunnel.so
 - j. LoadModule slotmem_shm_module modules/mod_slotmem_shm.so
 - k. LoadModule xml2enc_module modules/mod_xml2enc.so



4. Navigate to <Apache_Reverse_Proxy_Install_Folder>\conf\extra folder
5. Edit **proxy-html.conf** file
6. At the end of **proxy-html.conf** file, add the following reverse proxy rules and save it:

```
<Location /Chime/Content>
ProxyPreserveHost On
ProxyPass http://<Chime\_Server\_FQDN>/Chime/Content
ProxyPassReverse http://<Chime\_Server\_FQDN>/Chime/Content
</Location>

<Location /Chime/signalr>
ProxyPreserveHost On
ProxyPass http://<Chime\_Server\_FQDN>/Chime/signalr
ProxyPassReverse http://<Chime\_Server\_FQDN>/Chime/signalr
</Location>

<Location /Chime/webclient>
ProxyPreserveHost On
ProxyPass http://<Chime\_Server\_FQDN>/Chime/webclient
ProxyPassReverse http://<Chime\_Server\_FQDN>/Chime/webclient
</Location>

<Location /Chime/Utility>
ProxyPreserveHost On
ProxyPass http://<Chime\_Server\_FQDN>/Chime/Utility
ProxyPassReverse http://<Chime\_Server\_FQDN>/Chime/Utility
</Location>

<Location /Chime/Session>
ProxyPreserveHost On
ProxyPass http://<Chime\_Server\_FQDN>/Chime/Session
ProxyPassReverse http://<Chime\_Server\_FQDN>/Chime/Session
</Location>

<Location /chime/Utility>
ProxyPreserveHost On
ProxyPass http://<Chime\_Server\_FQDN>/chime/Utility
ProxyPassReverse http://<Chime\_Server\_FQDN>/chime/Utility
</Location>
```

Replace **<Chime_Server_FQDN>** with your Chime server fully qualified domain name or IP address.

7. Start Apache Reverse Proxy service
8. Web Client should now be accessible using the URL:
http://<Reverse_Proxy_Server_FQDN>/Chime/webclient?id=<Queue_ID>

For example: <http://192.168.1.135/Chime/webclient?id=2>