Configuring Nginx based, Reverse Proxy for OWA

Notes before we begin

About Nginx:

Nginx (pronounced as "engine X") is a lightweight, high performance web server/reverse proxy and e-mail (IMAP/POP3) proxy created by Igor Sysoev for large Russian web company Rambler and kindly provided by open-source community. This server can be used as standalone HTTP-server and as Reverse Proxy server before some Apache or another “big” server like Microsoft IIS to reduce load to backend server by many concurrent HTTP-sessions. As standalone web server, Nginx can easily handle huge http-load on static files (images, html-pages, etc). You can find more about Nginx in the official English Wiki (http://wiki.nginx.org)

If you want to know what is reverse proxy, then read the introduction of my first article.

Prerequisites

You will need Debian Linux installed. In this guide I’m using a clean install of Debian 5.0 (lenny).
You will need SSL Certificate in order this guide to work for you. You may also use a self signed certificate, but it is recommended to use trusted certificate in production environment. Read this article for more info.
You must run all commands in this guide with root privileges.
Make sure you have updated your packages repository, and upgraded to latest packages. In Debian type:

```
# apt-get update
# apt-get upgrade
# apt-get dist-upgrade
```

For easier understanding I will use an example names for Exchange and Internet Domain Name for OWA:
Exchange Server: **exchange.local**
OWA Internet address: **owa.planetit.ws**
You will need to replace them to you real names.

This guide may also work on other Debian based distributions, like Ubuntu, Xandros, Mint, or Nexenta Core (an OpenSolaris based distribution with Debian package base).

Install Nginx, it's easy on Debian

```
# apt-get install nginx
```

Create directories for certificates:

```
# mkdir /etc/nginx/ssl.crt
# mkdir /etc/nginx/ssl.key
```

Make sure to:
-Copy your certificate file to: `/etc/nginx/ssl.crt/`
-Copy your certificate key file to: `/etc/nginx/ssl.key/`

Configure Nginx for OWA

Edit virtual host file for Nginx, this is the main configuration for our OWA reverse proxy:

```
# vi /etc/nginx/sites-available/owa
```

Paste the following configuration to the virtual host file, remember to replace example names with real names:

```
server {
        listen       80;
        server_name owa.planeit.ws;


        # Redirect any HTTP request to HTTPS
        rewrite ^(.*) https://owa.planetit.ws $1 permanent;

        error_log  /var/log/nginx/owa-error.log;
        access_log /var/log/nginx/owa-access.log;
}

server {
        listen       443;
        server_name owa.planeit.ws;

        # Redirect from "/" to "/owa" by default
        rewrite ^/$ https://owa.planetit.ws/owa permanent;


        # Enable SSL
        ssl                     on;
        ssl_certificate         /etc/nginx/ssl.crt/owa-planetit-ws.crt;
        ssl_certificate_key     /etc/nginx/ssl.key/owa-planetit-ws.key;
        ssl_session_timeout     5m;

        # Set global proxy settings
        proxy_read_timeout      360;

        proxy_pass_header       Date;
        proxy_pass_header       Server;

        proxy_set_header        Host $host;
        proxy_set_header        X-Real-IP $remote_addr;
        proxy_set_header        X-Forwarded-For $proxy_add_x_forwarded_for;

        location /owa      { proxy_pass https://exchange.local/owa; }
        location /Microsoft-Server-ActiveSync { proxy_pass https://exchange.local/Microsoft-Server-ActiveSync; }

        error_log /var/log/nginx/owa-ssl-error.log;
        access_log /var/log/nginx/owa-ssl-access.log;
}
```

I will not go through each of the configuration in this file, it is beyond this guide, in shortly this configuration tells Nginx forward all requests that come from “http://owa.planetit.ws” to Exchange server “exchange.local”. Also it is automatically redirects the entry requests from HTTP to HTTPS and from root “/” to “/owa”. Also all ActiveSync proxying were enabled in this configuration file. As a note, the above configuration works only with Exchange 2007 OWA. If you want it to work with Exchange 2003 OWA then:

Find:

```
        location /owa      { proxy_pass https://exchange.local/owa; }
```

Replace with:

```
        location /exchange { proxy_pass https://exchange.local/exchange; }
        location /exchweb  { proxy_pass https://exchange.local/exchweb; }
        location /public   { proxy_pass https://exchange.local/public; }
```

After saving this file, you will need to enable this site:

```
# cd /etc/nginx/sites-enabled
# ln – s /etc/nginx/sites-available/owa owa
```

If you cannot resolve internal LAN Domain Names, then add a local Exchange name to “/etc/hosts” file:

```
# echo 192.168.0.16 exchange.local exchange >> /etc/hosts
```

Then, restart Nginx:

```
# invoke-rc.d nginx restart
```

Source: http://www.planetit.ws