

## Reverse Proxy (RP) setup

Setting up a reverse proxy in a website is both easy and a suggested part of larger websites. A proxy:

- Provides additional protection between the requestor and the production server(s).
- Allows distribution of load across multiple servers.
- Allows you to host content on different types of servers while appearing like a single site. For instance, we use this to front Apache, Oracle UCM, and IIS server content.
- Provides “security through obscurity” by not showing that you’re running all these different types of servers being the proxy.
- Provides the ability to cache locally for static content.
- Redirects requests for large downloads to an Akamai or Limelight style service.

We use Apache running on Redhat Linux 5. This is mainly for simplicity and cost. Hardware can be relatively low end for most RPs. We use a Supermicro 1U chassis’s with SATA drives and a single CPU. Here’s my favorite vendor for these:

<http://www.asaservers.com/showpages.asp?pid=1214>

Here’s all that required. Setup the Apache Service on the RP to listen at 10.10.10.1 and port 80. The real web server is located at 10.10.20.1. To proxy all requests into service: [www.foo.com](http://www.foo.com), you have this stanza. The two lines in bold actually do the Proxy request. If you want to capture incoming IP addresses in the destination server’s log, also have the “ProxyPreserveHost On” line.

```
<VirtualHost 10.10.10.1:80>
  ServerAdmin spkhelpdesk@foo.com
  DocumentRoot /var/www/html/foo
  ServerName www.foo.com
  ServerAlias foo.com
  ServerAlias index.foo.com

  ProxyPreserveHost On
  ProxyPass / http://10.10.20.1/
  ProxyPassReverse / http://10.10.20.1/
</VirtualHost>
```

Here’s a more complex example where you’re directing some content off to different places. In this case, we have 4 proxy pairs.

We still have the original proxy. We added a /files/ proxy to forward any request to:

[www.foo.com/files/](http://www.foo.com/files/)

to the server cacheserver. The requestor has no idea that this is a different server. They believe the content is coming directly from the 10.10.10.1 host. If the client asks for any of these, the request is relayed to the cacheserver.

[www.foo.com/files/sam.jpg](http://www.foo.com/files/sam.jpg)



www.spkaa.com  
Ph: 888-310-4540

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SPK and Associates  
900 E Hamilton Ave, Ste. 100  
Campbell, CA 95008

[www.foo.com/files/mike.pdf](http://www.foo.com/files/mike.pdf)

We're also proxying a new site under /newsite.

The last one shows you can also proxy to a subdirectory on the destination server. I don't typically do this but it shows it's possible. If a request is made to :

[www.foo.com/site2/tom-file.txt](http://www.foo.com/site2/tom-file.txt)

This gets proxied to the server:

Server2:/bar/

```
<VirtualHost 10.10.10.1:80>
  ServerAdmin spkadm1@foo.com
  DocumentRoot /var/www/html/foo
  ServerName www.foo.com
  ServerAlias foo.com
  ServerAlias index.foo.com

  ProxyPreserveHost On

  ProxyPass / http://10.10.20.1/
  ProxyPassReverse / http://10.10.20.1/

  ProxyPass /files/ http://cacheserver/
  ProxyPassReverse /files/ http://cacheserver/

  ProxyPass /newsite/ http://newserver/
  ProxyPassReverse /newsite/ http://newserver/

  ProxyPass /site2/ http://server2/bar/
  ProxyPassReverse /site2/ http://server2/bar/

</VirtualHost>
```