

Configuring Virtual Servers in Apache

LPIC-2: Linux Engineer (202-450)

Objectives:

At the end of this episode, I will be able to:

1. Describe the purpose and function of virtual hosts in Apache.
2. Configure virtual hosts using unique DNS names or IP addresses.

Additional resources used during the episode can be obtained using the download link on the overview episode.

- Virtual servers
 - Web sites are a collection of web pages
 - In Apache, a website is a virtual server
 - Allows one Apache node to host multiple sites
 - Called "Virtual Hosts" in the configuration
- Uniquely identifying sites
 - DNS name
 - Typically subdomains
 - prod.lab.itpro.tv
 - dev.lab.itpro.tv
 - sales.lab.itpro.tv
 - IP Address
 - One NIC can host many IPs
 - Apache can bond sites to IPs
 - Port number
 - Browsers default to 80/443
 - Sites can operate on any port
 - Less ideal
 - Requires users to type in port
 - https://lab.itpro.tv:8080
- Defining a virtual host
 1. Create a virtual site
 - `sudoedit /etc/apache2/sites-available/lab.itpro.tv.conf`
 2. Set the required components
 - `<VirtualHost *:80>`
 - `ServerName lab.itpro.tv`
 - `ServerAlias www.lab.itpro.tv`
 - `DocumentRoot "/var/www/html/lab.itpro.tv"`
 - `</VirtualHost>`
 3. Activate the site
 - `sudo a2ensite lab.itpro.tv.conf`
 4. Create the directory
 - `sudo mkdir /var/www/html/lab.itpro.tv/`
 5. Check the config
 - `apachectl configtest`
- Virtual servers with unique DNS names

- Continue creating virtual hosts like above
 - Specify an alternate `ServerName` each time
- Virtual servers with unique IPs
 1. Create a virtual site
 - `sudoedit /etc/apache2/sites-available/dev.itpro.tv.conf`
 2. Set the required components
 - `<VirtualHost 10.0.222.52:80>`
 - `ServerName dev.itpro.tv`
 - `ServerAlias www.dev.itpro.tv`
 - `DocumentRoot "/var/www/html/dev.itpro.tv"`
 - `</VirtualHost>`
 3. Activate the site
 - `sudo a2ensite dev.itpro.tv.conf`
 4. Create the directory
 - `sudo mkdir /var/www/html/dev.itpro.tv/`
 5. Check the config
 - `apachectl configtest`