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Running A MyDNS Name Server On OpenBSD (MySQL/PHP + MyDNS + MyDNSConfig)

This tutorial shows how to run a MyDNS name server on an OpenBSD server. It covers the installation of MySQL, PHP, MyDNS, and MyDNSConfig, the web frontend for the MyDNS name server.

What you need:

- Apache (default installed), but we need to run this as unjailed.
- PHP / MySQL / gcc compiler

I'm not going to tell you how to install openBSD. The downside is that you have to run Apache unjailed to be able to run the MyDNS web front end. Personally, for some of the stuff that I have done the only way I got it to work was by running it unjailed.

To set up openBSD google for a howto; there are 100's of them out there.

Once installed, log in as root.

http://www.openbsd.org/ftp.html:: find a LOCAL FTP / http mirror to download to speed up the downloads and check first to see if they got the OpenBSD version you're running listed on their mirror.

```
export PKG_PATH=ftp://192.168.1.101/pub/OpenBSD/4.2/packages/i386


pkg_add -v wget-1.10.2p0.tgz jed-0.99.16-no_x11.tgz phpMyAdmin-2.10.1.tgz mysql-server-5.0.45.tgz gcc-4.2.20070307p2.tgz
```

Copy and paste this area into your putty window:

```
cp /usr/local/share/examples/php5/php.ini-recommended /var/www/conf/php.ini
```

```
mkdir /var/www/tmp

chown -R www:www /var/www/tmp

chmod -R 0770 /var/www/tmp


/usr/local/sbin/phpxs -s

/usr/local/sbin/phpxs -a gd

/usr/local/sbin/phpxs -a mbstring

/usr/local/sbin/phpxs -a mcrypt


/usr/local/sbin/phpxs -a mysql


mysql_install_db

mysqld_safe&


sleep 2


/usr/local/bin/mysqladmin -u root password zcworld
```

Time to clean out the default stuff that comes in the htdocs directory:

```
mv /var/www/htdocs/* /tmp
```

On the next reboot the tmp folder will be auto-cleaned. So if you're doing something in there like making backups of files and leave them in the /tmpfolder: BAD MOVE!

Let's edit the httpd.conf and add in the php lines:

```
jed /var/www/conf/httpd.conf
```

Let's find the DirectoryIndex and add `index.php index.htm`, and then find the `AddType application/x-httpd-php .php` line and uncomment it. Save the file and exit.

Ok, now we got an empty htdocs folder. Let's fire up Apache first and then move the phpMyAdmin over, so we can set up my account for MyDNS:

```
httpd -u
```

```
mv /var/www/phpMyAdmin/ /var/www/htdocs/
```

And let's edit the `config.inc.php` file in the phpMyadmin folder so we can use it:

```
jed /var/www/htdocs/phpMyAdmin/config.inc.php
```

Find line 18:

```
$cfg['blowfish_secret'] = ''
```

Just add something in the middle of the two ''. Then save and exit the file.

Open up your web browser and go to `http://<IP>/phpMyAdmin`. Then log in with your MySQL password , e.g. root / zcworld.

In the `Create new database` box type in "mydns" then click on create. Copy and paste this into the box and click go:

```
CREATE TABLE `rr` (
  `id` int(10) unsigned NOT NULL auto_increment,
  `sys_userid` int(11) NOT NULL,
  `sys_groupid` int(11) NOT NULL,
  `sys_perm_user` varchar(5) NOT NULL,
  `sys_perm_group` varchar(5) NOT NULL,
```

```
  `sys_perm_other` varchar(5) NOT NULL,
  `zone` int(10) unsigned NOT NULL,
  `name` char(64) NOT NULL,
  `type` enum('A','AAAA','CNAME','HINFO','MX','NAPTR','NS','PTR','RP','SRV','TXT') default NULL,
  `data` char(128) NOT NULL,
  `aux` int(10) unsigned NOT NULL,
  `ttl` int(10) unsigned NOT NULL default '86400',
  PRIMARY KEY  (`id`),
  UNIQUE KEY `rr` (`zone`,`name`,`type`,`data`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=1 ;


-- --------------------------------------------------------


CREATE TABLE `soa` (
  `id` int(10) unsigned NOT NULL auto_increment,
  `sys_userid` int(11) NOT NULL,
  `sys_groupid` int(11) NOT NULL,
  `sys_perm_user` varchar(5) NOT NULL,
  `sys_perm_group` varchar(5) NOT NULL,
  `sys_perm_other` varchar(5) NOT NULL,
  `origin` char(255) NOT NULL,
  `ns` char(255) NOT NULL,
  `mbox` char(255) NOT NULL,
  `serial` int(10) unsigned NOT NULL default '1',
  `refresh` int(10) unsigned NOT NULL default '28800',
  `retry` int(10) unsigned NOT NULL default '7200',
  `expire` int(10) unsigned NOT NULL default '604800',
  `minimum` int(10) unsigned NOT NULL default '86400',
  `ttl` int(10) unsigned NOT NULL default '86400',
  `active` enum('Y','N') NOT NULL,
  `xfer` char(255) NOT NULL,
  PRIMARY KEY  (`id`),
  UNIQUE KEY `origin` (`origin`),
```

```
  KEY `active` (`active`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=1 ;


-- --------------------------------------------------------


CREATE TABLE `sys_datalog` (
  `datalog_id` bigint(20) NOT NULL auto_increment,
  `dbtable` varchar(255) NOT NULL default '',
  `dbidx` varchar(255) NOT NULL default '',
  `action` char(1) NOT NULL default '',
  `tstamp` bigint(20) NOT NULL default '0',
  `user` varchar(255) NOT NULL default '',
  `data` text NOT NULL,
  PRIMARY KEY  (`datalog_id`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=1 ;


-- --------------------------------------------------------


CREATE TABLE `sys_dbsync` (
  `id` bigint(20) NOT NULL auto_increment,
  `jobname` varchar(255) NOT NULL default '',
  `sync_interval_minutes` int(11) NOT NULL default '0',
  `db_type` varchar(255) NOT NULL default '',
  `db_host` varchar(255) NOT NULL default '',
  `db_name` varchar(255) NOT NULL default '',
  `db_username` varchar(255) NOT NULL default '',
  `db_password` varchar(255) NOT NULL default '',
  `db_tables` varchar(255) NOT NULL default 'admin,forms',
  `empty_datalog` int(11) NOT NULL default '0',
  `sync_datalog_external` int(11) NOT NULL default '0',
  `active` int(11) NOT NULL default '1',
  `last_datalog_id` bigint(20) NOT NULL default '0',
  PRIMARY KEY  (`id`),
```

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```
  KEY `last_datalog_id` (`last_datalog_id`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=1 ;


-- --------------------------------------------------------


CREATE TABLE `sys_filesync` (
  `id` bigint(20) NOT NULL auto_increment,
  `jobname` varchar(255) NOT NULL default '',
  `sync_interval_minutes` int(11) NOT NULL default '0',
  `ftp_host` varchar(255) NOT NULL default '',
  `ftp_path` varchar(255) NOT NULL default '',
  `ftp_username` varchar(255) NOT NULL default '',
  `ftp_password` varchar(255) NOT NULL default '',
  `local_path` varchar(255) NOT NULL default '',
  `wput_options` varchar(255) NOT NULL default '--timestamping --reupload --dont-continue',
  `active` int(11) NOT NULL default '1',
  PRIMARY KEY  (`id`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO_INCREMENT=1 ;


-- --------------------------------------------------------


CREATE TABLE `sys_group` (
  `groupid` int(11) NOT NULL auto_increment,
  `name` varchar(255) NOT NULL default '',
  `description` text NOT NULL,
  PRIMARY KEY  (`groupid`)
) ENGINE=MyISAM  DEFAULT CHARSET=latin1 AUTO_INCREMENT=3 ;
--
-- Daten fÃƒÂ¼r Tabelle `sys_group`
--
INSERT INTO `sys_group` (`groupid`, `name`, `description`) VALUES
(1, 'admin', 'Administrators group'),
(2, 'user', 'Users Group');
```

```
-- --------------------------------------------------------

CREATE TABLE `sys_user` (
  `userid` int(11) NOT NULL auto_increment,
  `sys_userid` int(11) NOT NULL default '0',
  `sys_groupid` int(11) NOT NULL default '0',
  `sys_perm_user` varchar(5) NOT NULL default '',
  `sys_perm_group` varchar(5) NOT NULL default '',
  `sys_perm_other` varchar(5) NOT NULL default '',
  `username` varchar(100) NOT NULL default '',
  `passwort` varchar(100) NOT NULL default '',
  `modules` varchar(255) NOT NULL default '',
  `startmodule` varchar(255) NOT NULL default '',
  `app_theme` varchar(100) NOT NULL default 'default',
  `typ` varchar(20) NOT NULL default 'user',
  `active` tinyint(4) NOT NULL default '1',
  `name` varchar(100) NOT NULL default '',
  `vorname` varchar(100) NOT NULL default '',
  `unternehmen` varchar(100) NOT NULL default '',
  `strasse` varchar(100) NOT NULL default '',
  `ort` varchar(100) NOT NULL default '',
  `plz` varchar(10) NOT NULL default '',
  `land` varchar(50) NOT NULL default '',
  `email` varchar(100) NOT NULL default '',
  `url` varchar(255) NOT NULL default '',
  `telefon` varchar(100) NOT NULL default '',
  `fax` varchar(100) NOT NULL default '',
  `language` varchar(10) NOT NULL default 'de',
  `groups` varchar(255) NOT NULL default '',
  `default_group` int(11) NOT NULL default '0',
  PRIMARY KEY  (`userid`)
) ENGINE=MyISAM  DEFAULT CHARSET=latin1 AUTO_INCREMENT=2 ;
```

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```
-- ------------------------------------------------------

INSERT INTO `sys_user` (`userid`, `sys_userid`, `sys_groupid`, `sys_perm_user`, `sys_perm_group`, `sys_perm_other`, `username`, `passwort`,
`modules`, `startmodule`, `app_theme`, `typ`, `active`, `name`, `vorname`, `unternehmen`, `strasse`, `ort`, `plz`, `land`, `email`, `url`,
`telefon`, `fax`, `language`, `groups`, `default_group`) VALUES
(1, 1, 0, 'riud', 'riud', '', 'admin', '21232f297a57a5a743894a0e4a801fc3', 'admin,dns', 'dns', 'grey', 'admin', 1, '', 'Administrator', '', '',
'', '', '', '', '', '', '', 'en', '1,2', 0);
```

Then click on `Server: localhost`, then `Privileges -> add a new user`.

Username "mydns"
  Password "Woot-igotmydns"
  Retype "Woot-igotmydns"

Then click on ok.

Then find half way down "Database-specific privileges" and pick from the list"mydns". Then click on check all, then ok. That gives the mydns user access rights to the mydns database.

Back to your putty window:

```
cd /root

mkdir build

cd build

wget http://mydns.bboy.net/download/mydns-1.1.0.tar.gz
```

```
tar -zxf mydns-1.1.0.tar.gz

cd mydns-1.1.0

./configure

make

make install

make conf
```

Please note that you might get an error during the make / compiling of it, but it's all good. While the system compiles the code for the MyDNS service, let's get the MyDNSConfig web front end set up:

Open up a second putty window and log in as root; then:

```
cd /var/www/

wget http://prdownloads.sourceforge.net/mydnsconfig/MyDNSConfig-1.1.0.tar.gz?download

tar -zxf MyDNSConfig-1.1.0.tar.gz

mv MyDNSConfig-1.1.0/interface htdocs/mydns
```

Time to edit the MyDNSConfig frontend:

```
jed /var/www/htdocs/mydns/lib/config.inc.php
```

Find line 36:

`$conf["rootpath"]`

Put in `/var/www/htdocs/mydns`.

Line 51:

The username / password for MySQL.

In your web browser go to `http://<IP>/mydns/`. You will know if you got it to work because you get a login box.

Default username / password: `admin/admin`

Last step to do before your MyDNS is online and ready for to be use:

You got the backend half set up; now you have to tell MyDNS to look at mydns database with the username / password we set up for it to make it work.

```
jed /etc/mydns.conf
```

Edit the following lines:

11 username: `mydns`
 12 password: `Woot-igotmydns`
34 log: `/var/log/mydns`

Save the file and then issue:

```
mydns -b
```

to run MyDNS as a background service.

To start it on boot we add this to the */etc/rc.local* file:

```
jed /etc/rc.local
```

```
echo -n 'mysql'
/usr/local/bin/mysqld_safe &
sleep 2

echo -n 'starting mydns'
/usr/local/sbin/mydns -b
```

PLEASE NOTE: DO NOT LEAVE THE SQL ADMIN OR THE MYDNS ADMIN PAGES IN THE ROOT DOCUMENT FOLDER. BEST TO MAKE A VHOST AND PUT THEM IN THERE SO YOU LOCK DOWN THE ACCESS TO THEM VIA IP ADDDRESS OF YOUR OWN PC SO YOU CAN HAVE CONTROL ONLY.

To use your MyDNS server in Windows, go to *Control Panel - Network Connections - Local Area Connection -> Properties -> TCP/IP -> Properties.*

Use the following DNS server addresses:

Preferred DNS Server: IP of your MyDNS box
Alternate DNS Server: put your ISP's DNS server address Here, so your Internet works, when you're not looking for your private DNS server.

Then go to *Start -> Run -> cmd* and run:

```
ipconfig /flushdns
```

 In the MyDNSConfig frontend, log in and add a domain. Then try to dig it:

```
dig @localhost yourdomain.com
```