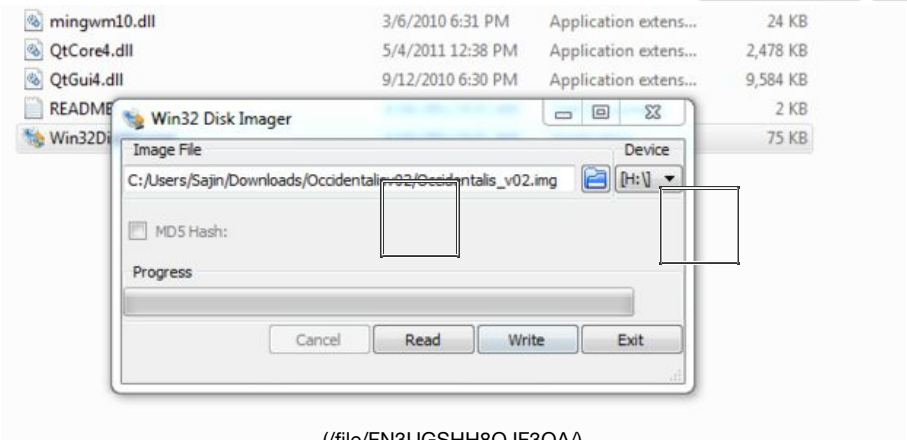
Host your website on Raspberry pi by

sajingeo (/member/sajingeo/) in raspberry-pi (/tag/type-id/category-technology/channel-raspberry-pi/)



Raspberry pi is a low cost development board by the raspberry foundation,for this tutorial i am using the distro provided by adafruit that can be found at http://learn.adafruit.com/adafruit-raspberry-pi-educational-linux-distro/occidentalis-v0-dot-2 (http://learn.adafruit.com/adafruit-raspberry-pi-educational-linux-distro/occidentalis-v0-dot-2) all you need to do is download the image and use WIN32 disk (https://launchpad.net/win32-image-writer/+download) to burn the image on to the SD card. This tutorial is very different from rest and focuses on hosting a site from raspberry pi and make it accessible ONLINE (from anywhere in the world).

Step 1: Connect via SSH

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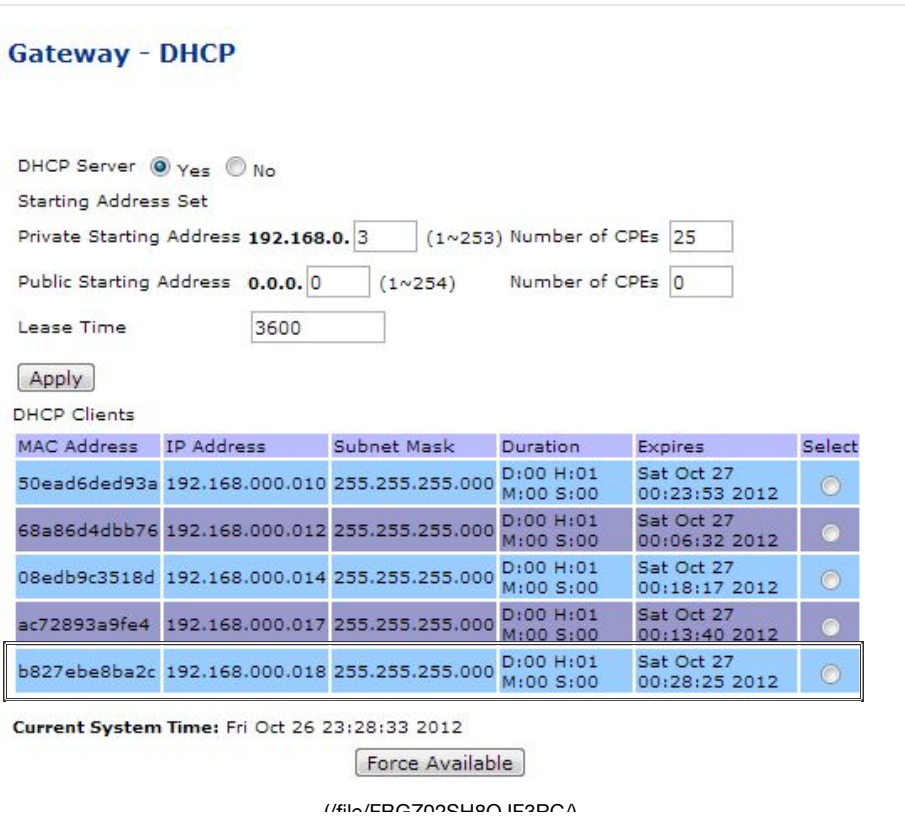
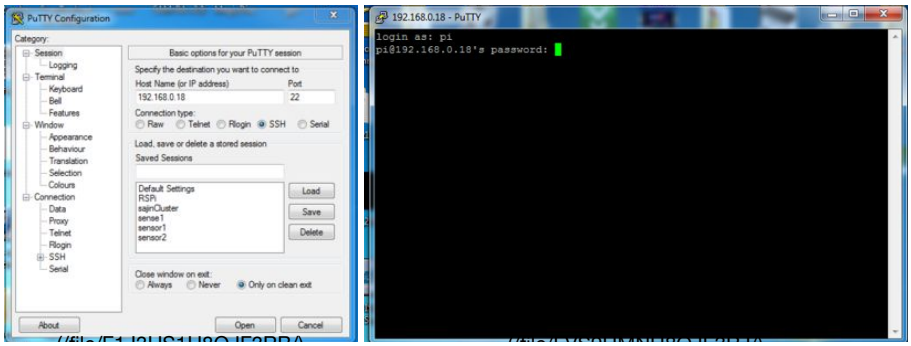
sajingeo (/member/sajingeo/)
Mycrobonics (http://www.mycrobonics.com)
(/member/sajingeo/) Follow 111

Bio: DIY, electronics...and loves getting creative...

More by sajingeo:





Now connect your raspberry pi to home router using a Ethernet cable. the ada-fruit image comes with SSH enabled so you can connect via SSH immediately.

now you should try to open a SSH session via putty to raspberrypi.local or the speccific IP address(if you have ur HDMI connected it should be there on you screen, or go to ur router config page(usually 192.168.0.1) and check for raspberry pi under DHCP). you can log in to the raspberry pi with user name :pi and password :raspberry.

Step 2: Setting up you rasberry pi

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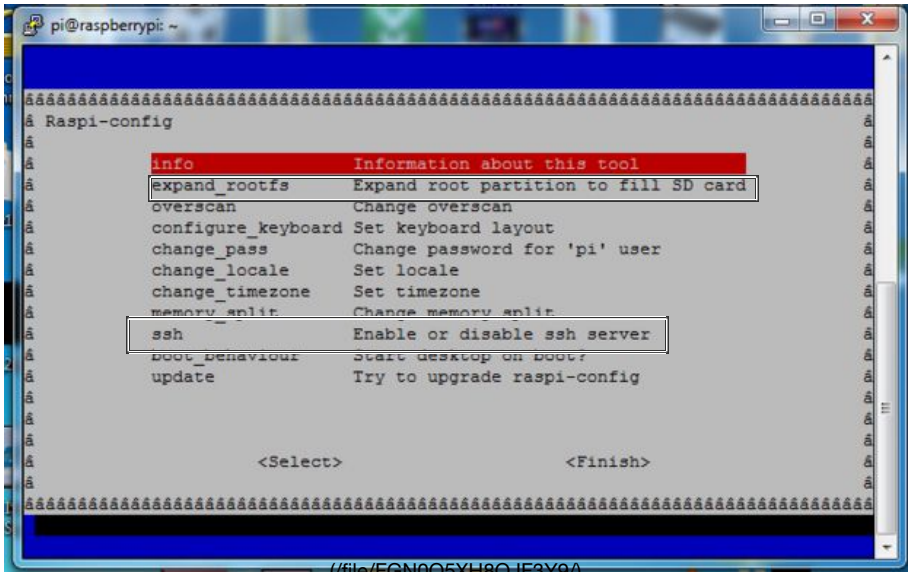
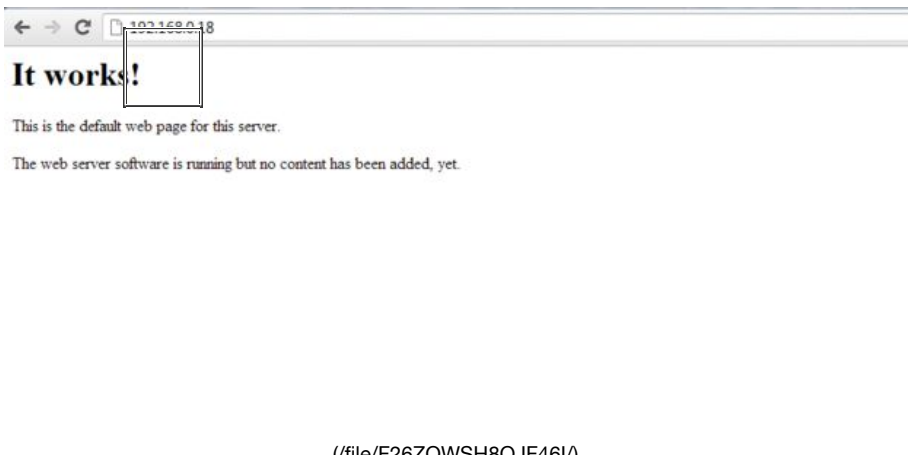


once you have a new installation there are a few things you should do to get things going, that includes expanding your root file system to fit the entire memory card and changing the user name and pasword. executing
sudo raspi-config
will take to to the config page where you can configure your PI.

Step 3: Installing your server



Now you have to install a server on the raspberry pi, the easiest is the Apache Server (Lighttpd also works if you are looking for something lighter) run the following commands to install Apache, PHP5, PHP5 mod for apache and MYSQL(if you are planning to use a CMS or a database.

sudo apt-get update

sudo apt-get install apache2 php5 libapache2-mod-php5

now you should allow overrides by editing the 000-default file, you can do that using the following comands..

sudo nano /etc/apache2/sites-enabled/000-default

now edit the following lines

change "**AllowOverride None**" -to "**AllowOverride ALL**".

now execute

sudo service apache2 restart

to restart apache witht your new settings

now your site should be up and running u can go to /var/ and change the permissions on www, making it writable.

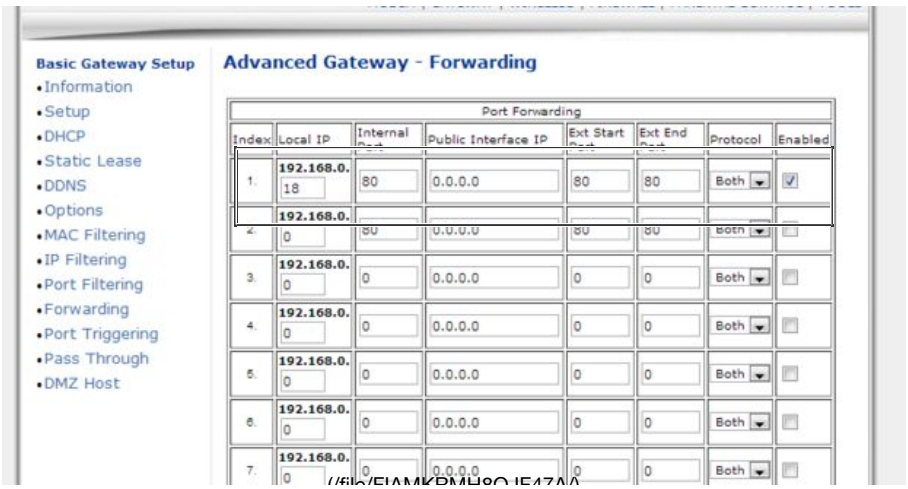
cd /var/
sudo chmod 777 /www

this will enable you to login using WINSCP (http://winscp.net/eng/index.php) and upload HTML pages to your new site. open the browser on your PC and point to 192.168.xx.xx (ip address of you raspberry pi) to view the default page.

You can also install and SQL server using the following comands, with a **PHP** and **SQL** running on your server u can have a CMs like Drupal running on it.

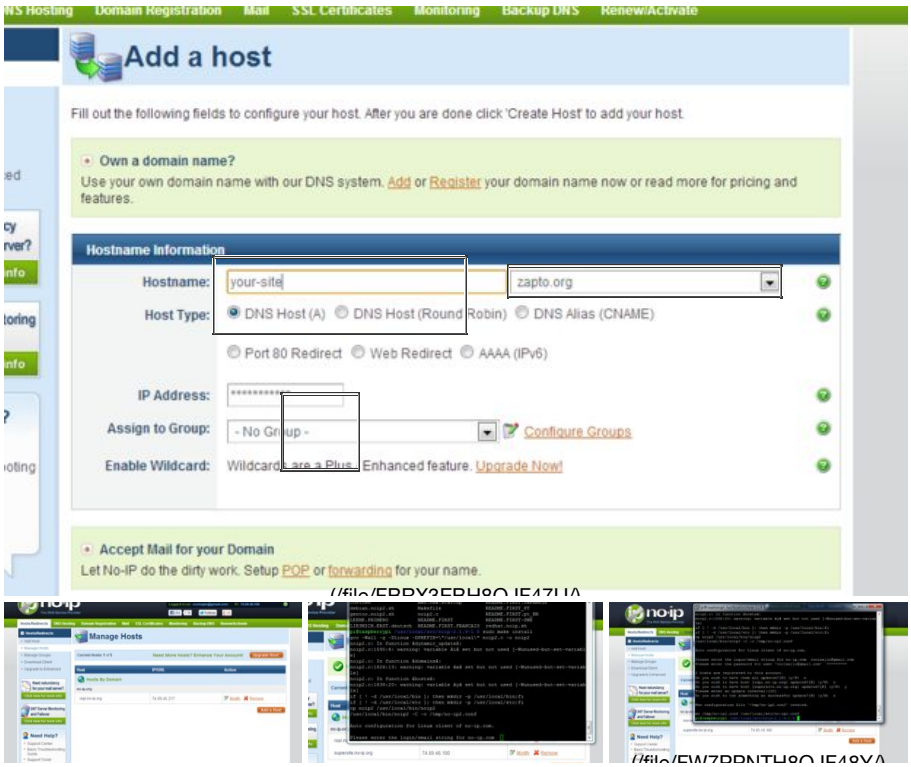
sudo apt-get install mysql-server mysql-client php5-mysql

Step 4: Setup up PORT triggers



Now you should have your server running, go to raspberrypi.local or the ip address from your browser on your PC and you should see the default apache page.
This means your server is up and running.
Now the problem is there is no way to access this website from the internet (like if your friend in Mexico wants to see the site :-( ).
so go back to your router config page and set the port triger as shown in the picture below. this tells the router if there is someone trying to send an HTTP request via port 80 forward the traffic to the raspberry pi. This make the raspberry pi accessible from the internet.

Step 5: have your domain name



Now you have a website that can be accessed from online, but most of you (like me) dont have a static IP (its too expensive), which means every 1day or so , your ISP might change your ipaddress(gateway) so you cant always type in the ipaddress and expect to see your website, so solve this we use a no-ip service that gets installed on the raspberry pi. This service runs on the raspberry pi and tells the no-ip server what your IP address is. No-IP gives you a domain name that will point to your last updated IP, all you have to do in make a free account at s (http://www.no-ip.com/)et and regiter you hostname it will look like (rspi.no-ip.org) you could also go for a premium domain name.
once that is done, type in the following commands to install the service....

cd /usr/local/src/

sudo wget http://www.no-ip.com/client/linux/noip-duc-linux.tar.gz

tar xf noip-duc-linux.tar.gz

sudo rm noip-duc-linux.tar.gz

cd noip-2.1.9-1/

sudo make install

after the install is finished, it will automatically start the configuration, enter the username and password of the no-ip.org to finish the installation.

now you have your server set up successfully now all you have to do is make sure it runs every time you start the raspberry pi. there a couple of ways to do this, this i feel is the most easy one.

cd /etc/
sudo nano rc.local

add the following line , in the rc.local file to make noip service run during startup
sudo noip2

ctrl-x to close the file and save the file.

now reboot the PI by the following comand

sudo reboot

Step 6: Visit you website

after setting up the no-ip service, you should be able to access the website hosted on your raspberry pi using the domain name you chose. You can test if the noip service is running by the following command.

sudo noip2 -S

if you see an valid PID, it means you have the service now running.... upload a few pages and hav fun!!

AkangB (/member/AkangB) 2 months ago Reply

ok

Flag

JbT5 (/member/JbT5) made it!

2 months ago Reply

Hey,

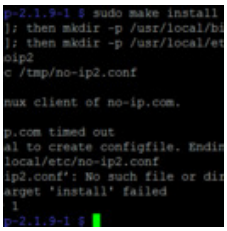
I got a problem when I am doing the installation by writing "sudo make install". I got this error :

"if [! -d /usr/local/bin]; then mkdir -p /usr/local/bin;fi
if [! -d /usr/local/etc]; then mkdir -p /usr/local/etc;fi
cp noip2 /usr/local/bin/noip2
/usr/local/bin/noip2 -C -c /tmp/no-ip2.conf

Auto configuration for Linux client of no-ip.com.

Connect to dynupdate.no-ip.com timed out
Network must be operational to create configfile. Ending!
mv /tmp/no-ip2.conf /usr/local/etc/no-ip2.conf
mv: cannot stat ‘/tmp/no-ip2.conf’: No such file or directory
Makefile:28: recipe for target 'install' failed
make: *** [install] Error 1"

Can someone tell what is the source of my problem ? Thanks



(https://cdn.instructables.com/FJ5/YQSR/IVO45MPE/FJ5YQSRIVO45MPE.LARGE.jpg)

Flag

SP40 (/member/SP40)

4 months ago Reply

I have my personal domain, that purchased from goDaddy.... So how to use it to online/host site on Pi ?

Flag

Henkd11 (/member/Henkd11) ▸ SP40 (/member/SP40)

3 months ago Reply

From the goDaddy website:

"Simply sign in to your GoDaddy account and click on the **Manage** button next to **Domains**. Click **Manage Connection** or **Add Website** under the domain you want to forward and select or enter the new destination. Change it as often as you like – the whole process only takes about two minutes."

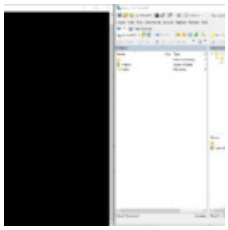
Flag

MuBoks Stuff (/member/MuBoks Stuff) made it!

4 months ago Reply

Woo hoo i did it thanks allot man was really fun and a good project to do with my old raspberry pi 1 b

My site: http://mubooksstuff.ddns.net/



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BenV3 (/member/BenV3) 6 months ago Reply

As of July 2016 the below line is not correct as the file 000-default does not exist. I find a file called 000-default.conf but inside this file there is no text that looks anything like the "AllowOverride" etc... can someone please tell me if this step is still required? If I do not edit this, does this prohibit me from setting up my website?

now you should allow overrides by editing the 000-default file, you can do that using the following comands..
sudo nano /etc/apache2/sites-enabled/000-default

now edit the following lines
change "AllowOverride None" -to "AllowOverride ALL"

Flag

josh-bacon (/member/josh-bacon) a year ago Reply

Just out of curiousity, is burning the image onto the SD card easily reversible if you no longer want to run a server off your RPI?

Flag

DerP2 (/member/DerP2) ▸ josh-bacon (/member/josh-bacon) Reply

10 months ago

Yes of course! You only have to erase the memory (with something like PartitionWizard) and you can reuse the sd card

Flag

sajingeo (/member/sajingeo) (author) 2 years ago Reply

when you are trying to access your website from the internet, check you internet IP address using google "what is my ip"(after you have setup port forwarding). you lan ip four computer is different from your WAN ip address of your router. To access your website make sure you enter the wan IP.

Flag

lcole1 (/member/lcole1) ▸ sajingeo (/member/sajingeo) 10 months ago Reply

What you are saying is incorrect. If your WAN is something like 199.165.x.x, and your router is different, like 172.16.x.x, then chances are you are on your ISP's private subnet. There is no way to have a stable website this way. While your ISP may have their port 80 open on the 199.165.x.x IP, what you are actually doing is having a 'house party' on that IP, and hoping that no one else is hosting on that IP within the subnet. If another person does the same thing on your ISP's public IP number, both sites go down and chances are, your ISP blocks port 80 for everyone. It takes a tunnel to make this stable, and only the ISP could provide the tunnel you need. If your 'what is my IP' google search gives you a different IP than your router's external side, then you are on your ISP's private subnet. You are 'walled in', and cannot host (unless your ISP offers this 'extra feature', most-likely for a charge).

Flag

sajingeo (/member/sajingeo) (author) ▸ lcole1 (/member/lcole1) Reply

10 months ago

Yes, if someone uses the direct IP address to access the website and there is another user hosting at port 80 yes you will no longer see your website. That is why step 5 explains how to setup up no-ip so that you can map a domain name to dynamically changing IP address. the no-ip dns servers takes care of keeping track of you wan ip and routing the traffic to the correct ip address.

Flag

lcole1 (/member/lcole1) 10 months ago Reply

Before the start of this explanation, the contributor should have mentioned that if you are on a subnet of your ISP, you cannot do this. To set up a Pi as a NAS Webserver on your router, you MUST have a public IP (you can check this by searching 'What is my IP' from Google, and if it does not match what your router tells you its IP is, then you are on a subnet (a private one) operated by your ISP, most likely with port-blocking in place to prevent two-way tunnels from being established). Check your IP, check against your router's external IP, and only if they are the same will this work. A hint that you are on a private subnet is if your router says it is at 172.16.x.x (a reserved private subnet sequence) or 192.168.x.x (another private reserved subnet sequence), you are basically 'walled in' and can't serve. Then, it's a provider or nothing (like GoDaddy).

Flag

luoX (/member/luoX) 11 months ago Reply

does this tutorial work for pi weezy OS?

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PixelE (/member/PixelE) a year ago Reply

This is the great article i really appreciate your post.

http://goo.gl/JdRxlC

Flag

PixelE (/member/PixelE) a year ago Reply

This is the great article i really appreciate your post.

http://goo.gl/JdRxlC

Flag

jspobuk (/member/jspobuk) a year ago Reply

Thanks for the tutorial! Before I try this out, do you NEED to be able to port forward to host a website with Pi? I have an application where the only internet connection is using a cellular hotspot, and try as I might, I cannot port forward.

Flag

sajingeo (/member/sajingeo) (author) ▸ jspobuk (/member/jspobuk) Reply

a year ago

Most hotspot modems also have NAT or port forwarding. the problem is the Pi get a local IP address and the modem / hotspot get another public ip address. now the modem need to know when traffic comes on port 80 forward this to the Pi (local ip address). The modem will discard the packets if it does not now where to send the requests to (when you browser sends a request to the public ip address).

https://www.youtube.com/watch?v=O7CuFIM4V54

Flag

jspobuk (/member/jspobuk) ▸ sajingeo (/member/sajingeo) a year ago Reply

Thanks for the quick response and informative video. My issue is that when I use this device:

https://www.att.com/devices/netgear/unite.html#sku...
(https://www.att.com/devices/netgear/unite.html#sku=undefined)

I can setup port forwarding on the device, but there appears to be another router on the ISP side that I cannot control. Any suggestions?

Flag

robbya4 (/member/robbya4) a year ago Reply

Thank's for tutorial :)

Flag

SeAN15 (/member/SeAN15) 2 years ago Reply

So does this mean I can use my raspberry pi to have my web page online using my domain? I have a domain www.theridgeprogram.com/ (http://www.theridgeprogram.com,) so could I have my raspberry pi as the server instead of the paid web hosting, so everyone can see it?

Flag

DevB1 (/member/DevB1) ▸ SeAN15 (/member/SeAN15) 2 years ago Reply

Yes, technically you should be able to do exactly that. Beware though that depending on the traffic your site receives, your pi and network connection may be overwhelmed. I found this fairy easy to do. Followed the steps given at

http://projpi.com/diy-home-projects-with-a-raspber... (http://projpi.com/diy-home-projects-with-a-raspberry-pi/pi-web-server/)

Flag

SeAN15 (/member/SeAN15) ▸ DevB1 (/member/DevB1) 2 years ago Reply

Thanks!

Flag

abel87 (/member/abel87) 2 years ago Reply

Nice!!!

Flag

JessicaH5 (/member/JessicaH5) 2 years ago Reply

some packages, such as lighttpd and giving your Raspberry Pi a static IP address.

Flag

Pathfinder216 (/member/Pathfinder216) 2 years ago Reply

I'm having problems transferring html files. I got all the way through restarting apache (after changing AllowOverride None to AllowOverride ALL). When I tried the "sudo chmod 777 /www" command (after changing the directory to /var/), however, it gave me the response "chmod: cannot access '/www': No such file or directory." I installed WinSCP and found the www folder and I confirmed that the default site displays properly. When I try to transfer files it says "Permission denied."

Does anyone know what's wrong and/or how to fix it?

Flag

Pathfinder216 (/member/Pathfinder216) ▸ Pathfinder216 (/member/Pathfinder216) 2 years ago Reply

Okay, obviously I'm new at this. I solved my problem by dropping the forward slash in front of "www".

Flag

sajingeo (/member/sajingeo) (author) 2 years ago Reply

you can also check if your website is up and running by going opening midori browser on raspberry pi and typing in "localhost"

Flag

sajingeo (/member/sajingeo) (author) 2 years ago Reply

if you have the no-ip service on you router you can skip step

sudo wget http://www.no-ip.com/client/linux/noip-duc-linux.tar.gz

tar xf noip-duc-linux.tar.gz

sudo rm noip-duc-linux.tar.gz

cd noip-2.1.9-1/

sudo make install

Flag

sajingeo (/member/sajingeo) (author) 2 years ago Reply

Hi, yes you should he storing the index.html in /var/www/ . Some routers have no-ip service that you can enable from your router admin page. also make sure you have edited apache config file to allow all IP, but default the server might only allow you local lan to access the website

Flag

NicolasT (/member/NicolasT) 2 years ago Reply

Hi! Thanks for the tutorial, but I am still running into a few hurdles. I followed every step. Just to make sure, I am supposed to upload my index.html file to /var/www right? I do have a PID running, but if I try to go to my website, it only shows "400 bad request". Do you think you could help me?

Flag

maximilianmitchel (/member/maximilianmitchel) ▸ NicolasT (/member/NicolasT) 2 years ago Reply

Yeah I have exactly the same issue!

Flag

NicolasT (/member/NicolasT) ▸ maximilianmitchel (/member/maximilianmitchel) 2 years ago Reply

Hey, did you ever fix your problem? I am giving another go at this, and although I can access everything locally with no problem, I can't see to put it online.

Flag

maximilianmitchel (/member/maximilianmitchel) ▸ NicolasT (/member/NicolasT) 2 years ago Reply

I ended up doing a different thing. Where I set up no ip on my router and then set up port forwarding (also on my router) in conjuction with my RP. Let me know if you need help. I also tried using pagekite but that can get quite expensive depending on traffic. Even

though I would definitely recommend it if I was creating a test server or something... But I am using my server as a backup site which obviously uses a lot of traffic... Hope that helps...

Flag

NicolasT (/member/NicolasT) ▸ maximilianmitchel (/member/maximilianmitchel)

2 years ago Reply

I know how to do port forwarding and stuff (I think!), but I don't understand when you say you set up noip on your router. Can you explain that part?

Flag

ron.fechtner (/member/ron.fechtner) 2 years ago Reply

Hey! Nice and easy to follow tutorial!
But even tho I double checked every step, I still cant reach my content.

Calling the Pi's Local IP through an other device's browser displays the index.html in the /var/www folder properly, but using either the global ip or the no-ip.org domain results in a network timeout error.

- noip2 process is running (pid, current global ip and noip-domain is shown)

- 000-defaults file is edited ("None" to "ALL" - also checked "All")

- No-IP Website show pi's currend global IP and No-IP Domain aligned

- Port-Forward for Ports 80 and 21 for the Pi's local IP are enabled

Any further advice?!
Thanks in advance
Best regards and keep up the intuitive tutorials

Flag

ron.fechtner (/member/ron.fechtner) ▸ ron.fechtner (/member/ron.fechtner)

2 years ago Reply

Running Raspian tho...

Flag

maximilianmitchel (/member/maximilianmitchel) ▸ ron.fechtner (/member/ron.fechtner) 2 years ago Reply

I am having the same problem I have gone through another tutorial too: http://forum.xda-developers.com/showthread.php?t=2019600 which uses PageKite rather than No-ip but pagekite is really expensive! Please let me know if you find a solution!

Flag

maximilianmitchel (/member/maximilianmitchel) ▸ maximilianmitchel (/member/maximilianmitchel) 2 years ago Reply

Do you think it may be to do with port forwarding?

Flag

ron.fechtner (/member/ron.fechtner) ▸ maximilianmitchel (/member/maximilianmitchel) 2 years ago Reply

Jup I contacted my IPS.. It's because im using global IPv6 adresses with Dual-Stack Lite. Therefore my devices do not get a global IPv4 adress to enable Port Forwarding... They offered me to activate the IPv4 (real Dual-Stack) for an additioal monthly fee...

Isn't there any way to achieve the same goal with IPv6 enabled on the Raspberry?! (Except Portmapping expensive services)

Flag

NicolasT (/member/NicolasT) ▸ ron.fechtner (/member/ron.fechtner) Reply

2 years ago

Hey! I was wondering if you solved your problem? I think I am in the same situation. I can access my website on my local network but not on the internet...

Flag

joaquin.pereira (/member/joaquin.pereira) 2 years ago Reply

Excellent tutorial! Now i would like to get some security to prevent some hacking activity. Where i can find some info about this? I thinks is installing SSL or something like that. Do u know any info about this? Thanks!

Flag

Doug Paradis (/member/Doug Paradis) 4 years ago Reply

This is a very clear, complete, and easy to understand tutorial. Excellent work!

Flag

rahulr25 (/member/rahulr25) ▸ Doug Paradis (/member/Doug Paradis) Reply

2 years ago

Hey can u plz send me that tutorial? Am not able to get it.

e-mail : rahulr25@gmail.com

Flag

sajingeo (/member/sajingeo) (author) ▸ Doug Paradis (/member/Doug Paradis)

3 years ago Reply

thank you...

Flag

lspacek (/member/lspacek) ▸ Doug Paradis (/member/Doug Paradis) Reply

3 years ago

Hi all, now I start Raspberry Pi collocation in heart of Europe, more info find here: http://raspberry-hosting.com/ (http://raspberry-hosting.com/) Enjoy !

Flag

cheesecurd1899 (/member/cheesecurd1899) 3 years ago Reply

Would there be anyway for me to use a domain name that I have already bought on GoDaddy?

Flag

sajingeo (/member/sajingeo) (author) ▸ cheesecurd1899 (/member/cheesecurd1899)

3 years ago Reply

Yes you should be able to do it, by editing your CNAME from your control panel and setting it to your HOME IP / no-ip domain name

Flag

rtdubbs (/member/rtdubbs) ▸ sajingeo (/member/sajingeo) 2 years ago Reply

you’re referring to GoDaddy's admin area (or any other provider), correct?

Flag

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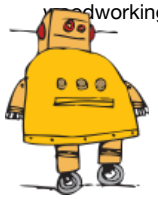

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