



Starting Your Homelab

SciaticNerd.com

@SciaticNerd

Disclaimer: There are other and likely better ways to do all this. This is just what's working so far





Always Out Of Space?

Are we though?



iPhone Not Backed Up

It's been 12 weeks since the last backup for this iPhone (charlalberts@icloud.com). Backups happen when this iPhone is connected to power, locked, and on Wi-Fi or mobile data.

[Backup Settings](#)

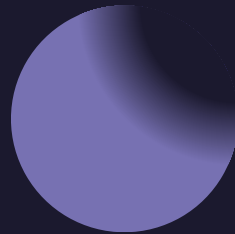
[OK](#)

iPhone Backup Failed

Your last iPhone backup could not be saved in iCloud because you don't have enough storage. Add or manage storage to keep your iPhone backed up.

[Add Storage](#)

Doesn't matter which BigCo we talk about



Your storage is 99% full

14.99 GB Used

15 GB

You've used 14.99 GB of the 15 GB of storage that's available in your Google Account. Once it's full, you won't be able to:

-  Send and receive emails on your Gmail account
-  Upload new files to Google Drive
-  Edit or create new files using Google Docs, Sheets, Slides, Drawings, Forms, and Jamboard
-  Back up new photos and videos to Google Photos

Get more storage now with a Google One membership.
Plans start at A\$2.49 a month.

[Get more storage](#)

Not ready to get more storage?

[Delete files to free up space.](#)





The Real Reason

Just a way to get more invested



CURRENT PLAN

50GB

\$0.99 per month

Renews 07/13/19



CHOOSE UPGRADE

200GB

\$2.99 per month

Can be shared with your family

2TB

\$9.99 per month

Can be shared with your family

Downgrade Options



You Know the rule

“IF YOU
AREN'T
PAYING FOR A
PRODUCT,
YOU ARE THE
PRODUCT.”

- <https://www.security.org/resources/data-tech-companies-have-on-you/>

The Data Big Tech Companies Have On You

✓ All of our content is written by humans, not robots. [Learn More](#)



Aliza Vigderman, Senior Editor



Gabe Turner, Chief Editor



Last Updated Sep 17, 2024

Be honest: Do you really make the effort to read privacy policies of companies and websites you deal with? Most people don't, and we can't blame them. Privacy policies are long and they contain legal jargon that would make anyone without a legal background scratch their heads. But the simple fact is that a company's privacy policy should matter to us as it contains information on what data of ours is being collected, how it's protected, and how it's shared.

The [Security.org team](#) led by our Chief Editor Gabe Turner – a former attorney for the New York State Department of Financial Services – reviewed the privacy policies of some of the top tech companies today including Facebook, X (Twitter), Amazon, Apple, and Google to find out the data big tech companies have on you. The results might surprise you.



THIS is what
I'm talking
about



Step 1 of 2

Make room for your memories

Backup your photos to OneDrive so you have enough space to store all your memorable moments.

Our free 5GB plan can store up to 1,500 photos. 100GB of storage is enough to hold up to 30,000 photos.

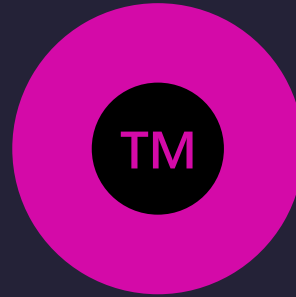
Get more storage

Next

Self-Hosting Considerations



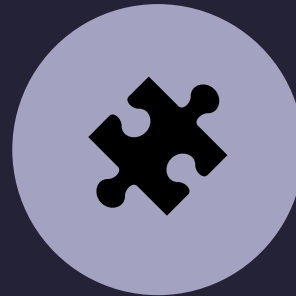
Cost of Options



Use Cases



Considerations and
Risks



Stages: Building
Things Out

Use Cases



Photo management



Document management



Planning



Organizing



Note taking



Media stuff



Event Management

Get A Free Password Manager Account

Bitwarden

Dashlane

LastPass

NordPass

Proton Pass

RoboForm

KeePass

Things to Consider

Cost of Options

Use Cases

Risks

Stages: Building Things Out

Stages of the Build



Machine



Drive



Network



VPN



Virtualization



Platform

Stages: Building Things Out

Establish Email	Email: Create an ID to work from
Make boot media	Media: Pi Imager tool and external media Secure the connection / split DNS
Install / Updates	Free domain vs Paid and DNS Wildcard Let's Encrypt Certificate
VPN Connection	ComsosCloud vs. CasaOS
Domain Stuff	

Recommended Accounts

For this demo

- Password Manager
- New Email
- Email >> Tailscale
- GitHub >> DuckDNS
- GitHub >> LetsEncrypt



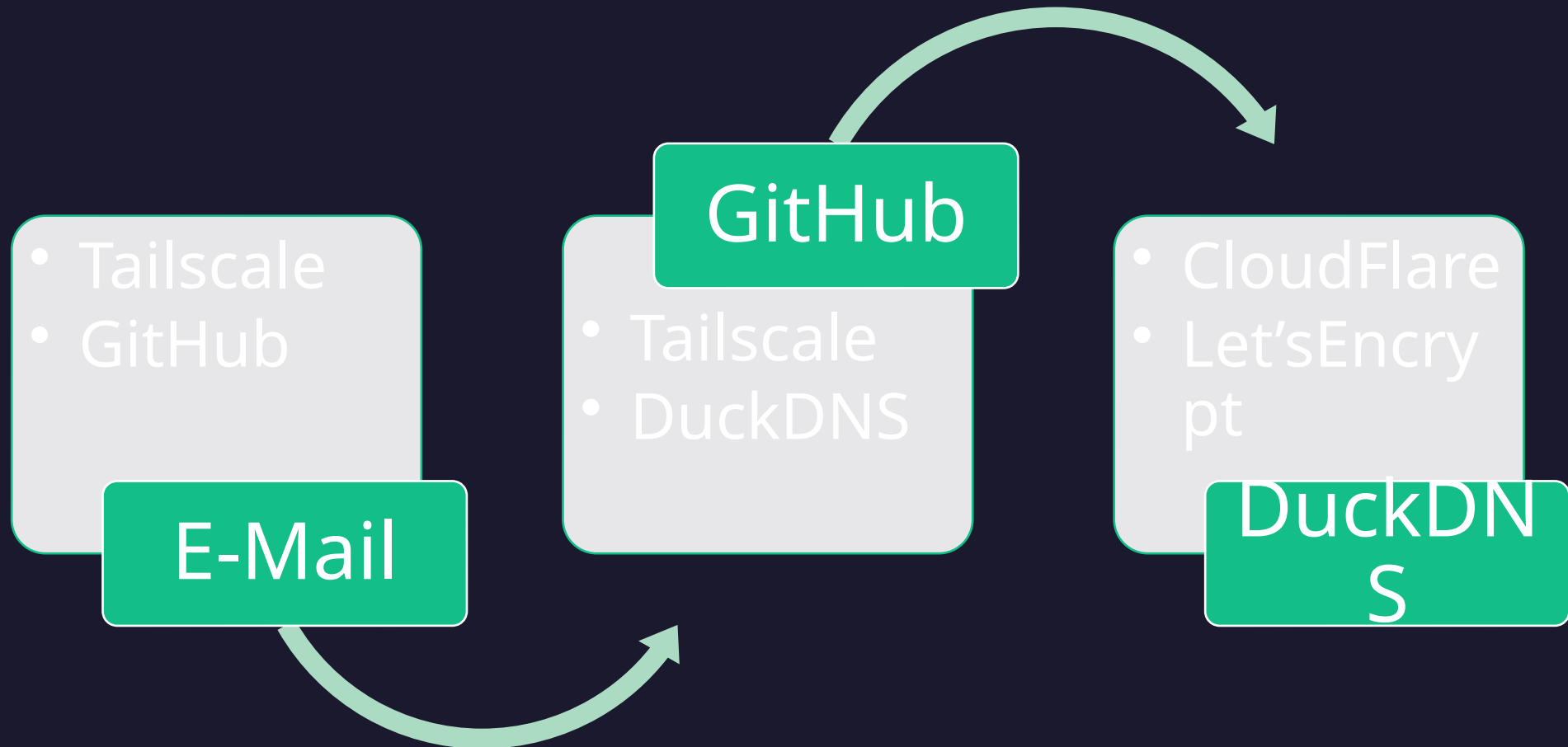
Accounts for Tailscale Login



A NEW Email Address to use
as an Identity Provider

- Apple
- Google
- Microsoft
- Okta
- OneLogin
- OIDC

Stages: Accounts for other Accounts



Stages: Establishing Trust and AuthN

Identity

Email

AuthN

Domain

DuckDNS

Domain Validation

Private

Wireguard: Tailscale

Wildcard LE Certificate

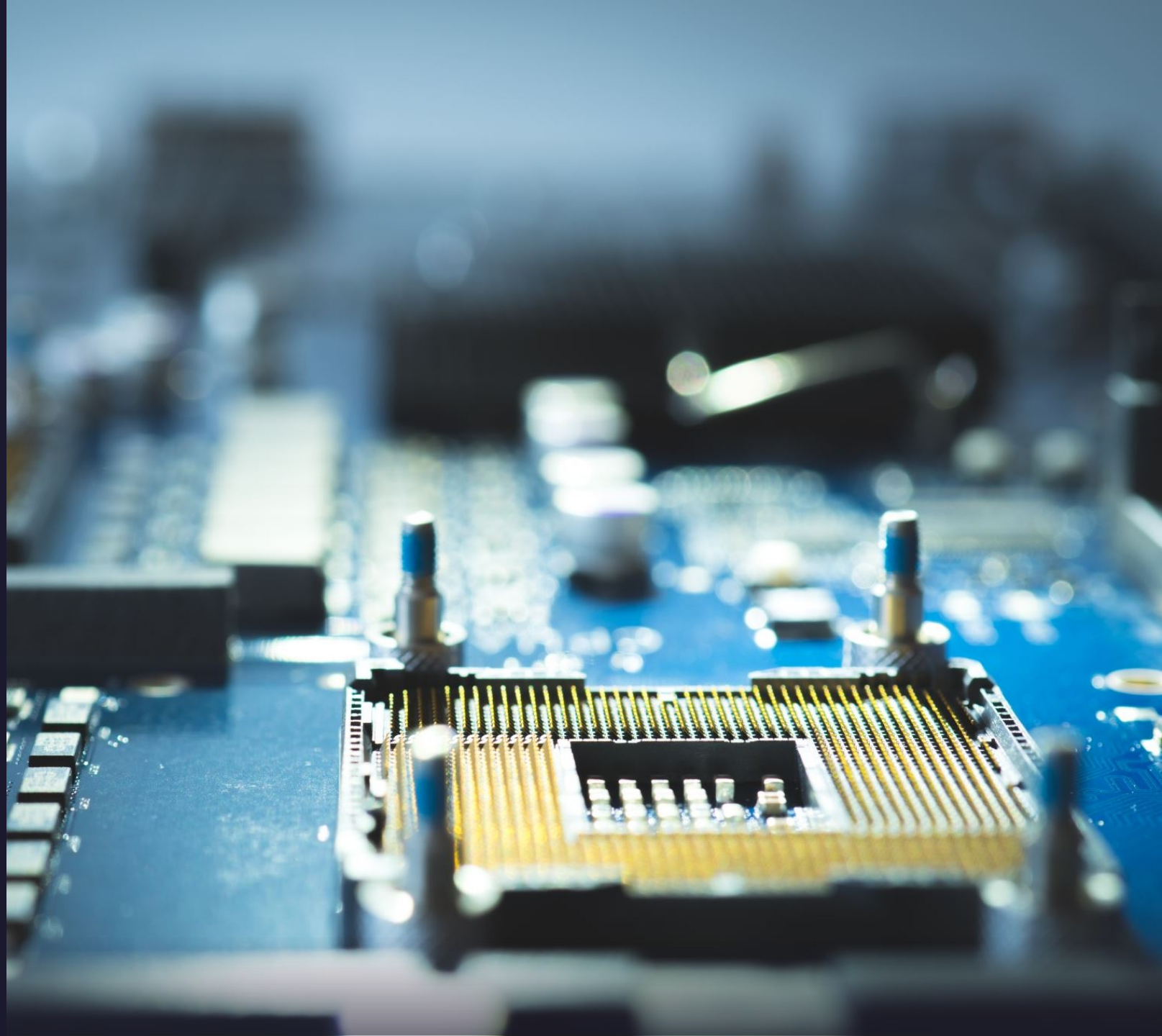
Secure

Subdomains

Reverse Proxy

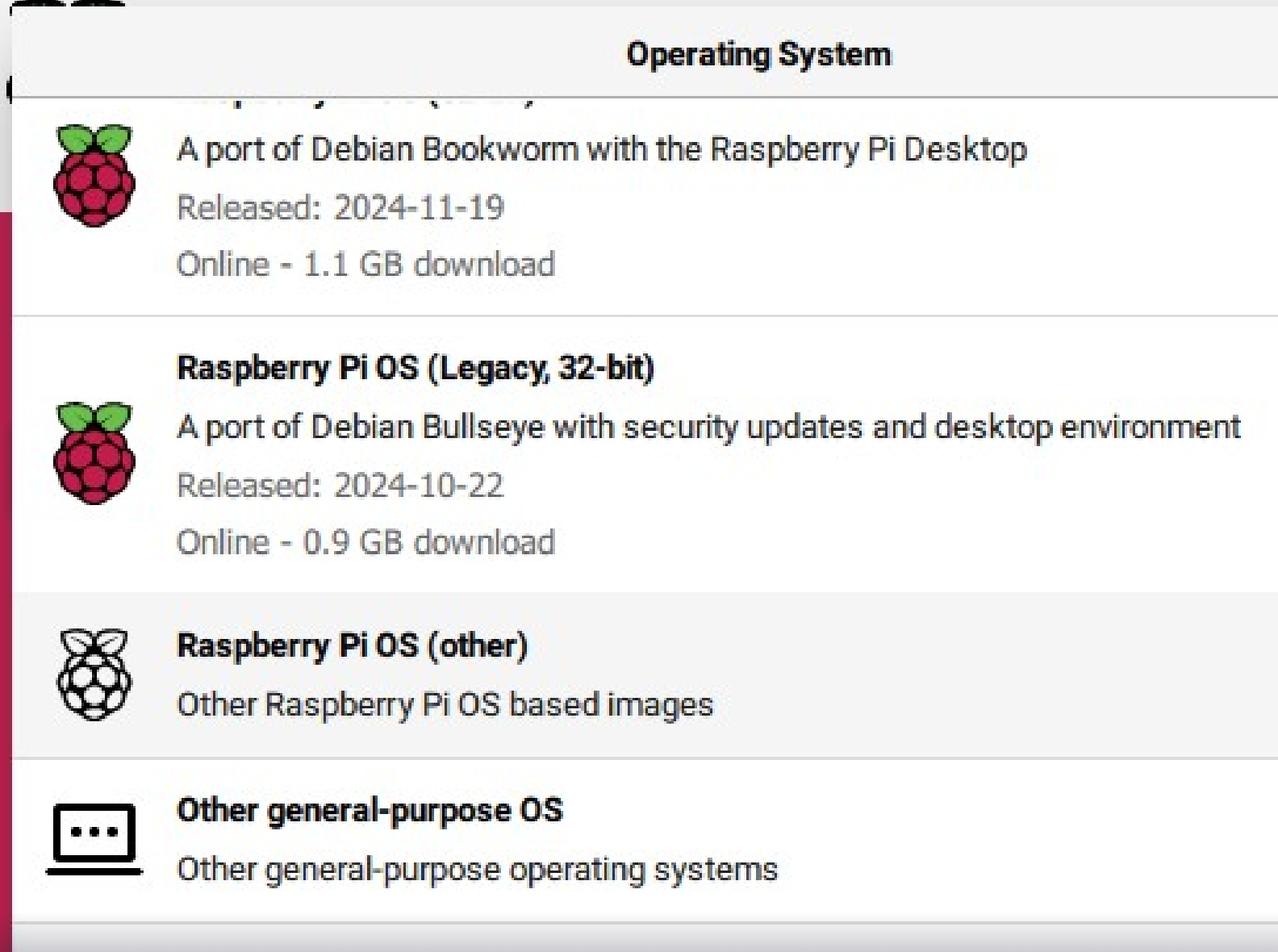
Stages: Your Build

- Pi3 + powered external drive
- Pi4 + NVME
- Old PC
- Cloud VPS



Stages: Pi Prep

- Choose your type of Pi
- Select Choose OS
- Raspberry Pi OS (Other)



Stages: Pi Prep Cont'd

- Select Raspberry Pi OS Lite (64-bit)
- Goal: Headless
- Choose your storage
 - Powered HDD
 - NVME in a case
- Select Next

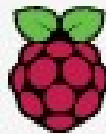
Raspberry Pi Imager v1.8.5

Operating System



Back

Go back to main menu

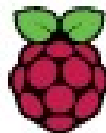


Raspberry Pi OS Lite (64-bit)

A port of Debian Bookworm with no desktop environment (Compatible with Raspberry Pi 3/4/400/5)

Released: 2024-11-19

Online - 0.4 GB download



Raspberry Pi OS Full (64-bit)

A port of Debian Bookworm with desktop environment and recommended applications

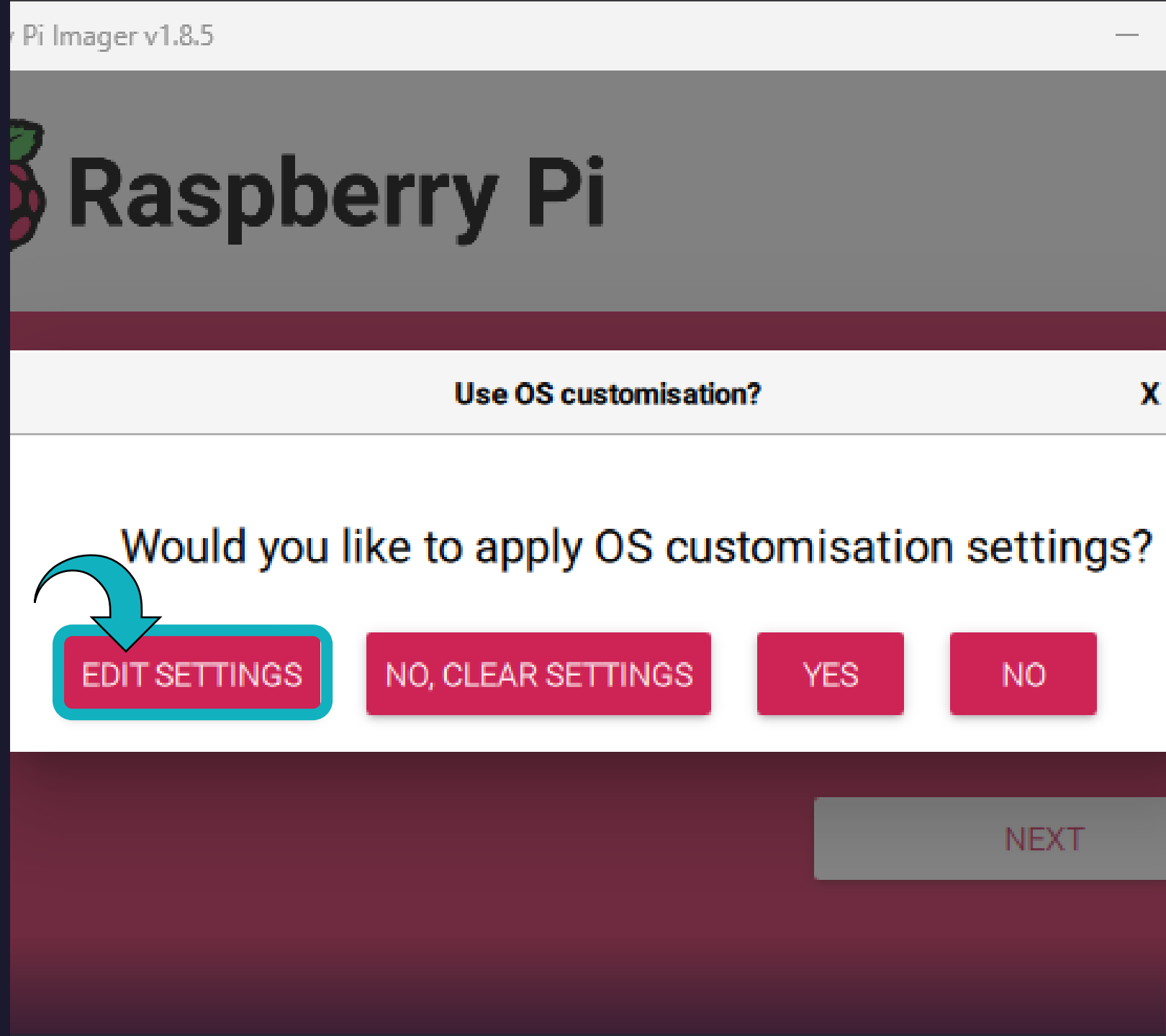
Released: 2024-11-19

Online - 2.9 GB download

Raspberry Pi OS Lite (32-bit)

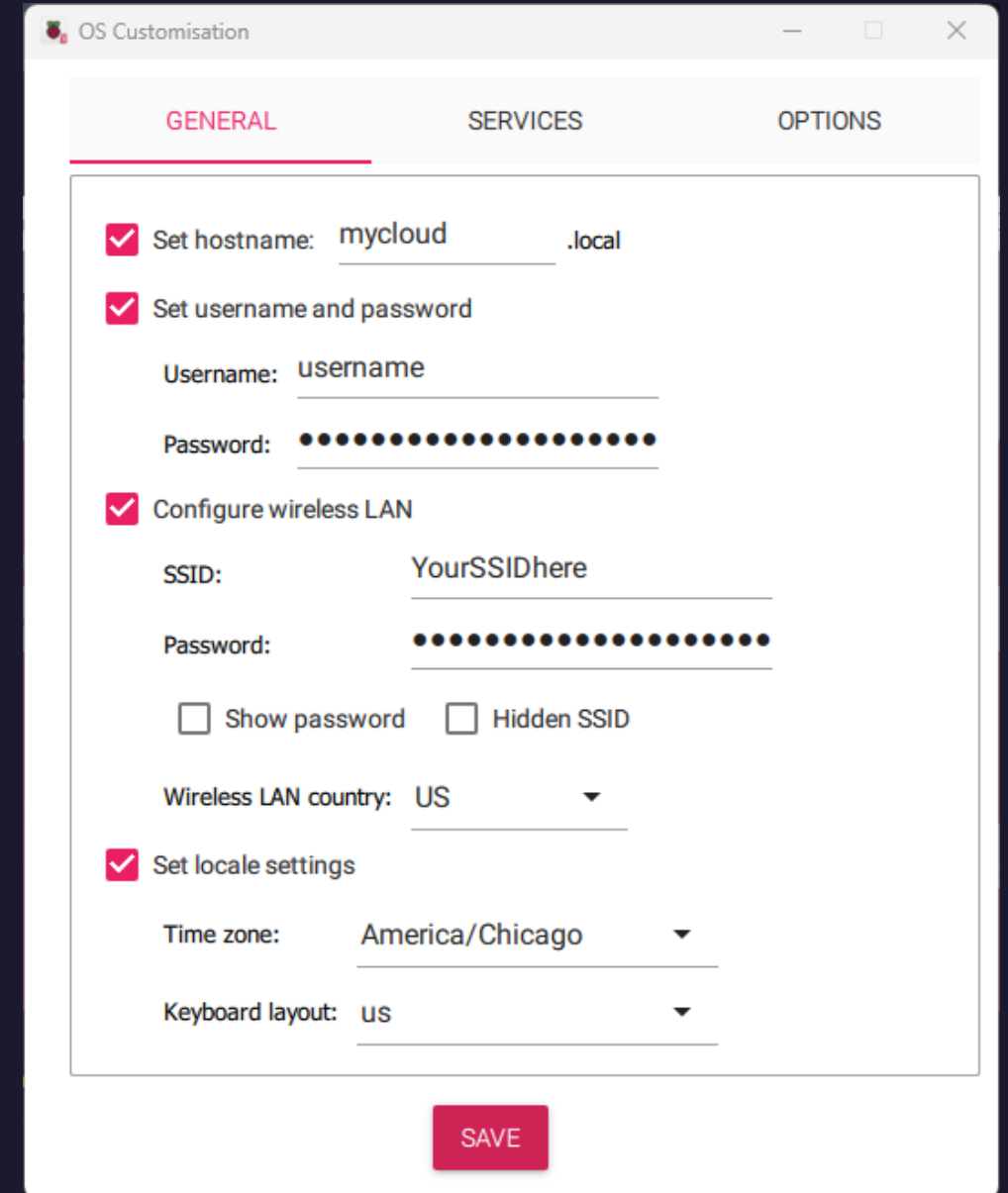
Stages: More Pi Prep

- After clicking Next
- Click Edit to prep settings



Stages: More Pi Prep

- Set your desired hostname
- Login details
- Wi-Fi Details, Country, Timezone
- Make sure SSH is set up on the Services tab
- Click Save
- Now click YES to write the changes to media



OS Customisation

GENERAL SERVICES OPTIONS

☒ Set hostname: mycloud .local

☒ Set username and password

Username: username

Password: ●●●●●●●●●●●●●●●●

☒ Configure wireless LAN

SSID: YourSSIDhere

Password: ●●●●●●●●●●●●●●●●

☐ Show password ☐ Hidden SSID

Wireless LAN country: US ▼

☒ Set locale settings

Time zone: America/Chicago ▼

Keyboard layout: us ▼

SAVE

Stages: More Pi Prep

<https://support.google.com/mail/answer/56256?hl=en>

- Set your desired hostname
- Login details
- Wi-Fi Details, Country, Timezone
- Make sure SSH is set up on the Services tab
- Click Save
- Now click YES to write the changes to media

Extra Display Tip

- Need a spare monitor?
- HDMI capture device
- Use camera app
 - Windows: Camera
 - Mac: PhotoBooth
 - OBS: Video Capture device

amazon.com/Audio-Express-AXHDCAP-Broadcasting-Conference/dp/B0C2MDTY8P?dib=eyJ2IjoiaWMSJ9.aUkutdthPmeeu1YSE4LI_Hjy1eMB-JV177Ctr1B0ki6vs0LxUmvv8TCs

business Deliver to BSidesSATX San Antonio 78249 All hdmi capture usb

Get the app Black-Owned Businesses Buy Again Today's Deals Top Categories Add Users Business Savings Gift Cards IT Supplies Savings For You

Laptops Desktops Monitors Tablets Computer Accessories

Back to results



AXHDCAP 4K HDMI Video Capture Card, Cam Link Camera Audio Capture Adapter HDMI to USB 2.0 Record Capture Device for Streaming, Live Broadcasting, Video Conferencing, Teaching, Gaming

Brand: Audio Express

4.2 ★★★★★ 438 ratings | Search this page

Amazon's Choice for "hdmi video capture"

1K+ bought in past month

Typical price: \$9.98 Details

Business Price \$9.48

FREE Returns

You Save: \$0.50 (5%)

Pay \$9.48 \$0.00; Get a \$100 Amazon Gift Card instantly upon approval for the Amazon Business Card. Terms apply. Learn more

Brand	Audio Express
Hardware Interface	HDMI, USB 2.0
Video Capture Resolution	1080p
Operating System	macOS (macOS 10.13 High Sierra and later), Android (for device support), Windows (Windows 10 and later), Linux (various distributions)
Recommended Uses For Product	Streaming, Image Capture, Video Recording, Webcam, Gaming, Live Gaming, Streaming Live, Image Recording

About this item

- [Enhanced 4K-1080P Video Capture Experience] Capture the Magic: Elevate your video recording experience with our upgraded anti-static 1080P Video Capture Card. Immerse yourself in stunning 4K video recordings, dynamic gaming live streams, and professional conference recordings. The card supports HDMI input at 4K 60FPS and USB output for capturing in 1080P, complete with rich audio capture. Enjoy crystal-clear video recordings, dynamic gaming live streams, and professional conference recordings. Note: HDMI resolution: Max input can be 3840x2160@30Hz. (Video output resolution: Max output can be 1080P@60Hz.)

Extra Display Tip

- See machine's display
- Requires separate keyboard
- Easier if you can SSH
- Allows correction if remote not working

```
Linux raspberrypi 6.6.74+rpt-rpi-v8 #1 SMP PREEMPT Debia
```

```
The programs included with the Debian GNU/Linux system a  
the exact distribution terms for each program are descr  
individual files in /usr/share/doc/*/copyright.
```

```
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to  
permitted by applicable law.
```

```
Last login: Sat Feb 22 12:34:42 2025 from 100.111.176.10
```

```
username@raspberrypi:~ $ █
```

Standard first Debian Steps

- Same either direct or over SSH
- Now we get to the waiting
- What if you can't get connected??
- Networking issues can be a thing

```
name@raspberrypi:~ $ sudo apt update
1 http://deb.debian.org/debian bookworm InRelease
2 http://deb.debian.org/debian-security bookworm InRelease
3 http://deb.debian.org/debian bookworm/main amd64 Packages
4 http://deb.debian.org/debian bookworm/main arm64 Packages
5 https://download.docker.com/linux/debian bookworm InRelease
6 https://pkgs.tailscale.com/stable/debian bookworm InRelease
[Working]
```

```
name@raspberrypi:~ $ sudo apt upgrade -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
Following packages will be upgraded:
  openssh-sftp-server rpi-eeprom ssh
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
Need to get 87.2 MB of archives.
After this operation, 18.4 MB of additional disk space will be used.
[Connecting to debian.map.fastlydns.net] [Connecting to download.docker.c
```

```
$ sudo apt upgrade -y
```

Manual Network config: broken out

```
username@raspberrypi:~ $ sudo nmcli connection
NAME                                UUID                                TYPE    DEVICE
Wired connection 1                 72dfa1f6-c28b-3f07-a0d1-2a8897fb41cd ethernet eth0
```

- \$ sudo nmcli connection
- Use the name shown in the list

```
username@raspberrypi:~ $ sudo nmcli connection modify "Wired connection 1" ipv4.method manual ipv4.address
yours.will.go.here/24 ipv4.gateway yours.will.go.here ipv4.dns yours.or.theirs.here
```

- \$ sudo nmcli connection modify
- Ipv4.method
- Ipv4.address
- Ipv4.gateway
- Ipv4.dns
- Manual (Choose an address outside DHCP range)
- 192.168.1.10/24 or similar
- 192.168.1.1 or what your home router says
- 8.8.8.8 or 1.1.1.1 or your own if you have one

What is Tailscale?

Tailscale is a virtual private network (VPN) that lets you securely connect devices and services across networks. It uses the open-source WireGuard protocol to create encrypted connections



Tailscale Installation

<https://tailscale.com/kb/1174/install-debian-bookworm>

Install Tailscale on Debian Bookworm

Packages are available for x86 and ARM CPUs, in both 32-bit and 64-bit variants.

- 1 Add Tailscale's package signing key and repository:

```
curl -fsSL https://pkgs.tailscale.com/stable/debian/bookworm.noarmor.gpg | sudo tee /usr/share/keyrings/tailscale-keyring.gpg >/dev/null  
curl -fsSL https://pkgs.tailscale.com/stable/debian/bookworm.tailscale-keyring.list | sudo tee /usr/share/keyrings/tailscale-keyring.list
```

- 2 Install Tailscale:

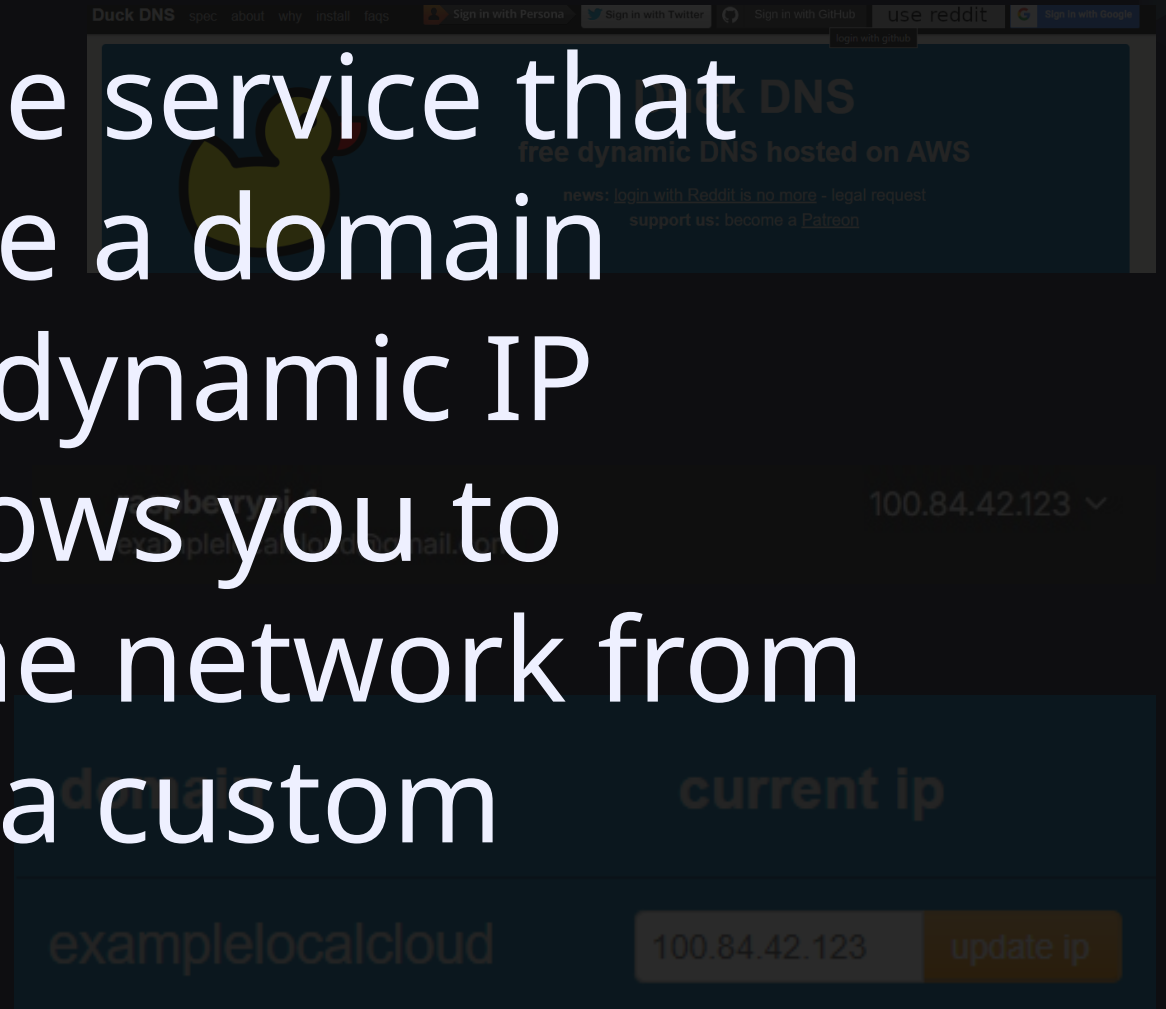
```
sudo apt-get update  
sudo apt-get install tailscale
```

- 3 Connect your machine to your Tailscale network and authenticate in your browser:

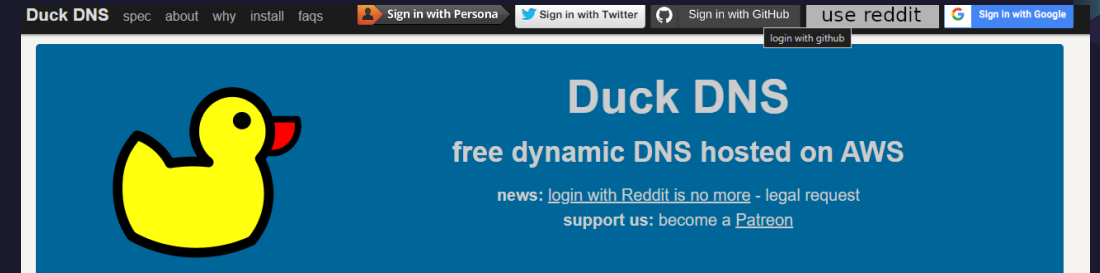
```
sudo tailscale up
```

Get a Domain: DuckDNS.org

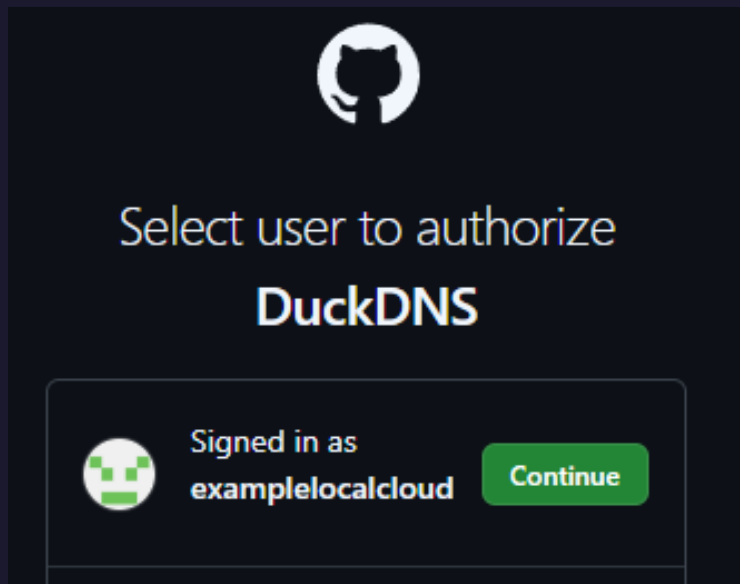
DuckDNS is a free service that lets you associate a domain name with your dynamic IP address. This allows you to access your home network from anywhere using a custom domain name.



Get a Domain: DuckDNS.org



domain	current ip
examplelocalcloud	100.84.42.123 <button>update ip</button>



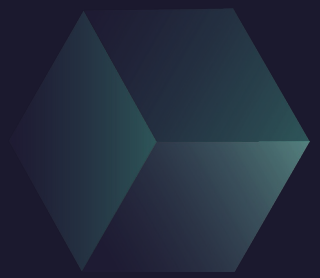
Filters

11 machines

MACHINE	ADDRESSES ⓘ	VERSION	LAST SEEN
ipad-pro-11-gen-1 examplelocalcloud@gmail.com	100.80.174.36 ▾	1.80.2 iOS 18.3.1	● Feb 19
iphone-15-pro examplelocalcloud@gmail.com	100.110.193.81 ▾	1.80.2 iOS 18.3.1	● Feb 18
npm examplelocalcloud@gmail.com	100.116.65.12 ▾	1.80.0 Linux 6.6.74+rpt-rpi-v8	● Feb 11
raspberrypi examplelocalcloud@gmail.com	100.117.63.117 ▾	⬆ 1.80.0 Linux 6.6.74+rpt-rpi-v8	● Feb 13
raspberrypi-1 examplelocalcloud@gmail.com	100.84.42.123 ▾	1.80.2 Linux 6.6.74+rpt-rpi-v8	● Connected
raspberrypi-2 examplelocalcloud@gmail.com	100.69.91.122 ▾	1.80.2 Linux 6.6.74+rpt-rpi-v8	● Connected

Tailscale: Setting Split DNS

- <https://tailscale.com/learn/why-split-dns#do-i-need-split-dns>
- Do I need split DNS?
- It depends. Sometimes split DNS is used because it allows you to update the DNS records for internal-facing services faster than if you used the DNS servers for the public internet.



Nameservers

Set the nameservers used by devices on your network to resolve DNS queries.
[Learn more ↗](#)

tail28453b.ts.net

↗ MagicDNS

100.100.100.100

🔒

🌐 examplelocalcloud.duckdns.org

🔗 Split DNS

Cloudflare Public DNS

1.1.1.1 and 3 more > ...

Google Public DNS

8.8.8.8 and 3 more > ...



What is Docker?

- Containers – gerrymandered computing resources
- Like VMs – They persist bit of computing
- They can be networked together
- They're risky and need persistent storage
- IT MAKES THIS WORK, THAT WHAT IT IS

Install Docker

- <https://docs.docker.com/engine/install/debian/>
- Set up Docker's APT Repository
- Install the latest version
- Prove things work Hello World!
- Now, you're even MOAR dangerous
- It's time for your platform!

```
# Add Docker's official GPG key:
sudo apt-get update
sudo apt-get install ca-certificates curl
sudo install -m 0755 -d /etc/apt/keyrings
sudo curl -fsSL https://download.docker.com/linux/debian/gpg -o /etc/apt/keyrings/docker.asc
sudo chmod a+r /etc/apt/keyrings/docker.asc

# Add the repository to Apt sources:
echo \
  "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.asc] https://download.do
  $(. /etc/os-release && echo "$VERSION_CODENAME") stable" | \
  sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
sudo apt-get update
```

CosmosCloud or CasaOS?

Choose your platform

(There really are tons more options, but this is where I've found wins lately)



Installing CosmosCloud

```
curl -fsSL https://cosmos-cloud.io/get.sh | sudo -E  
bash -s
```



What the install looks like

Exciting, right?

Alternate guide to consider

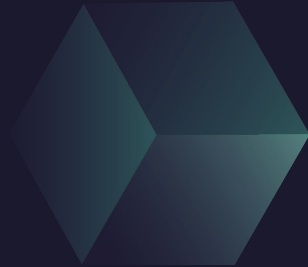
<https://guides.engels.zip/>



```
engels74@vps-44bb38:~$ docker run -d --network host --privileged --name cosmos-server -h cosmos-server --restart=always -v /var/run/docker.sock:/var/run/docker.sock -v /:/mnt/host -v /var/lib/cosmos:/config azukaar/cosmos-server:latest
Unable to find image 'azukaar/cosmos-server:latest' locally
latest: Pulling from azukaar/cosmos-server
7bb465c29149: Pull complete
85749295ae7e: Pull complete
fbef3788c773: Pull complete
9d7933bc555a: Pull complete
390daf106c11: Pull complete
1dd320e3180f: Extracting      83MB/83.77MB
6aa940f3c11b: Download complete
5966ee4bbb64: Download complete
```

Once installed

Time to configure things



```
[+] Installation complete!  
[+] Cosmos should be available at:  
[+]  
  
[+] 

Setup URL Available

  
[+] http://setup-cosmos.local  
[+] - or -  
[+] http://localhost  
[+] - or -  
[+] http://{your-server-ip}  
[+]
```



Set up Cosmos

- Connect to the Tailscale IP
- Check the Clean Install option
- Click Next

Welcome! 🇺🇸❤️

 First of all, thanks a lot for trying out Cosmos! And Welcome to the setup wizard. This wizard will guide you through the setup of Cosmos. It will take about 2-3 minutes and you will be ready to go.

☒ Clean install (remove any existing config files)

[? Link To Documentation](#)

< Back

Start >

Cosmos: Docker

Docker (step 1/4)

② Cosmos is using docker to run applications. It is optional, but Cosmos will run in reverse-proxy-only mode if it cannot connect to Docker.



Docker is installed and running.



< Back

Next >

Cosmos: Database

② Cosmos is using a MongoDB database to store all the data. It is optional, but Authentication as well as the UI will not work without a database.

❗ Database is not connected!

Select your choice

Automatically create a secure database (recommended) ▼

Connect



< Back

Next >

Cosmos: Database build

alling Database...

wInstall: Create DB

arting creation of new service...

lling image arm64v8/mongo:4.4.18

4.18 Pulling from arm64v8/mongo

cf24b16239 Downloading [=====>

] 7.248MB/27

7e79a59399 Download complete

54d1916136 Download complete

47f0e899b2 Download complete

5a8963db2b Download complete

df4c6bb7f3 Waiting

edbe4572bc Waiting

3c4b8fb39b Waiting

55c7bd702c Pulling fs layer

< Back

Next >

Cosmos Database Connected

Database (step 2/4)

② Cosmos is using a MongoDB database to store all the data. It is optional, but Authentication as well as the UI will not work without a database.



Database is connected.



< Back

Next >

Cosmos: HTTPS

HTTPS (step 3/4)

 It is recommended to use Let's Encrypt to automatically provide HTTPS Certificates. This requires a valid domain name pointing to this server. If you don't have one,

you can select "Generate self-signed certificate" in the dropdown.

If you enable HTTPS, it will be effective after the next restart.



Cosmos supports local domains. Meaning you can use cosmos.local as the domain to access your server! But before using it check that it works for you by accessing this page with `http://setup-cosmos.local`. If it does not, you can check the doc and the logs for any clues as to why.

Hostname (How would you like to access Cosmos?)

cosmos.local



You seem to be using an IP address or local domain.
You can only use plain HTTP or self-signed certificates (use self-signed if you know what you are doing, as it causes issues with some apps, especially on IOS).

Select your HTTP(S) mode

Locally self-sign certificates

☐

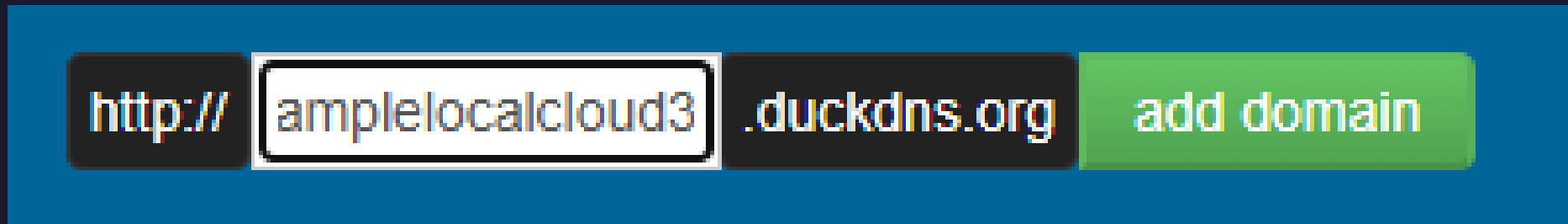
Allow insecure access via local IP 

Update

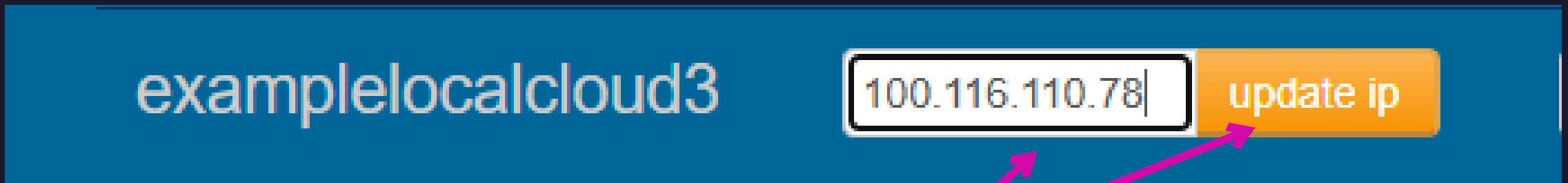
Remember
DuckDNS?



Create a new Domain entry



A screenshot of the DuckDNS website interface. It features a blue header bar. Below the header, there is a form with four input fields: a dark grey field containing 'http://', a white field with a black border containing 'amplelocalcloud3', a dark grey field containing '.duckdns.org', and a green button labeled 'add domain'.



A screenshot of the DuckDNS website interface. It features a blue header bar. Below the header, there is a form with three input fields: a blue field containing 'examplelocalcloud3', a white field with a black border containing '100.116.110.78', and an orange button labeled 'update ip'.

Tailscale IP address of the machine running
Cosmos

Add SplitDNS entries in Tailscale

Add nameserver

×

Nameserver
Use this IPv4 or IPv6 address to resolve names.

Restrict to domain Split DNS ☒
This name server will only be used for some domains.

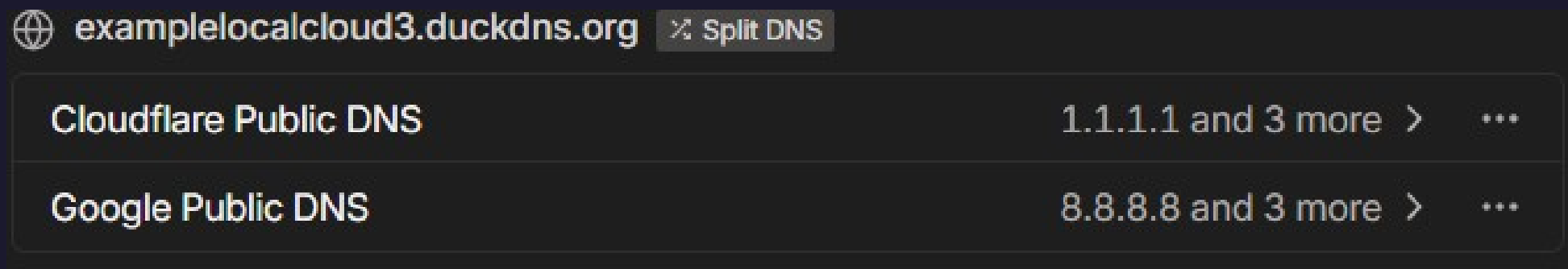
Domain

Only single-label or fully-qualified queries matching this suffix should use the nameserver.

Cancel

Save

Tailscale: New SplitDNS Entries



Remember: This is to help the Internet's Phonebook (DNS) see our new name more quickly. Why? So we don't have to wait as long to get a certificate!

Why do we want a TLS Certificate for our home server if we're connected over a Private Network connection secured with Wireguard??

Why Even MOAR Security! Encrypted connection, secure handshakes, Unlimited Figgy Pudding. Lots of reasons.

Back to the Cosmos Setup: HTTPS

- We're going to update things with the domain name we just established

Hostname (How would you like to access Cosmos?)

cosmos.local



You seem to be using an IP address or local domain.

You can only use plain HTTP or self-signed certificates (use self-signed if you know what you are doing, as it causes issues with some apps, especially on IOS).

Select your HTTP(S) mode

Locally self-sign certificates

Cosmos HTTPS: Let's Encrypt Part 1

- Put the domain we just created in DuckDNS into the Hostname box
- Change the HTTPS mode to Automatically Generate using Let's Encrypt



Time to configure how we get the cert!

Hostname (How would you like to access Cosmos?)

examplelocalcloud3.duckdns.org



You seem to be using a domain name.

Let's Encrypt can automatically generate a certificate for you.

Select your HTTP(S) mode

Automatically generate certificates using Let's Encrypt... ▼

Cosmos HTTPS: Let's Encrypt Part 2

- Put the Email address from earlier in the Let's Encrypt Email blank
- Select DuckDNS from the DNS Provider dropdown
- The email address will be used to help prove your ownership of the domain
- Next is granting Let's Encrypt access to DuckDNS to perform it's Challenge to prove we own the domain

Let's Encrypt Email

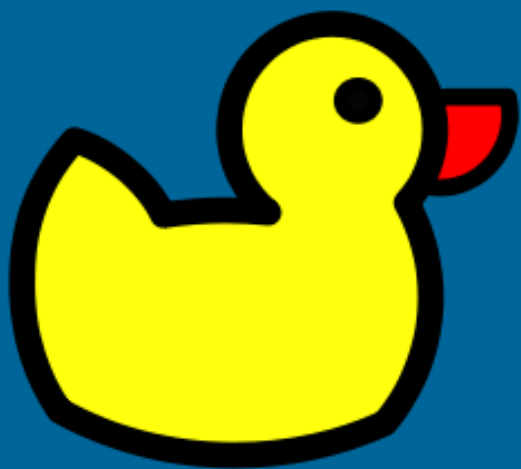
examplelocalcloud@gmail.com



You have enabled the DNS challenge. Make sure you have set the environment variables for your DNS provider. You can enable it now, but make sure you have set up your API tokens accordingly before attempting to access Cosmos after this installer. See doc here: <https://go-acme.github.io/lego/dns/>

Pick a DNS provider (if you are using a DNS Challenge, othe...

duckdns



Duck DNS

account YourEmailHere @github
type free
token Copy the token and paste into
token generated 2 weeks ago
created date 11 Feb 2025, 00:35:17

Cosmos HTTPS: Let's Encrypt Part 3

- Make sure you're logged into DuckDNS, because it logs out after a while
- Copy the string to the right of Token
- This is your account's custom token that will allow Cosmos to talk to the Let's Encrypt system
- Let's Encrypt needs to prove we own the domain so it trusts us enough to issue signed certificates to our server.

Cosmos HTTPS: Let's Encrypt Part 4

- Expand the DNS Challenge Setup section on the Cosmos HTTPS setup page
- Scroll down to the DuckDNS_Token blank and paste in the token
- Check the Wildcard cert box
- NOW LEARN THE FOLLY OF DNS
- If the IP Address next to the checkmark is NOT your Tailscale IP address: WAIT

DUCKDNS_TOKEN:

Paste your DuckDNS token here



This hostname is pointing to **136.50.116.200**, check that it is your server IP!



Use Wildcard Certificate for
*.examplelocalcloud3.duckdns.org



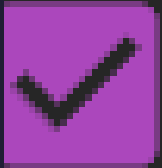
Allow insecure access via local IP 

Update

Cosmos HTTPS: Let's Encrypt Day 98763.2

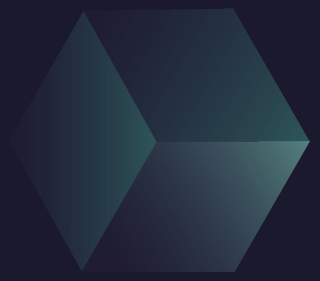


This hostname is pointing to **100.116.110.78**, check that it is your server IP!



Use Wildcard Certificate for
***.examplelocalcloud3.duckdns.org**

Cosmos Admin Account



Admin Account (step 4/4)

❓ Create a local admin account to manage your server. Email is optional and used for notifications and password recovery.

Nickname

buddy

Email

examplelocalcloud@gmail.com

Password

 Poor

Confirm Password

Password

Create

< Back

Next >

Cosmos Setup: Apply and Restart



Finish 🎉

Well done! You have successfully installed Cosmos. You can now login to your server using the admin account you created. If you have changed the hostname, don't forget to use that URL to access your server after the restart. If you have are running into issues, check the logs for any error messages and edit the file in the /config folder. If you still don't manage, please join our [Discord server](#) and we'll be happy to help!

< Back

Apply And Restart >

Don't Be Surprised



This site can't be reached

examplelocalcloud3.duckdns.org refused to connect.

Try:

- Checking the connection
- Checking the proxy and the firewall

ERR_CONNECTION_REFUSED

Reload

Be Patient



Lots of variables



System specs



Drive Speed

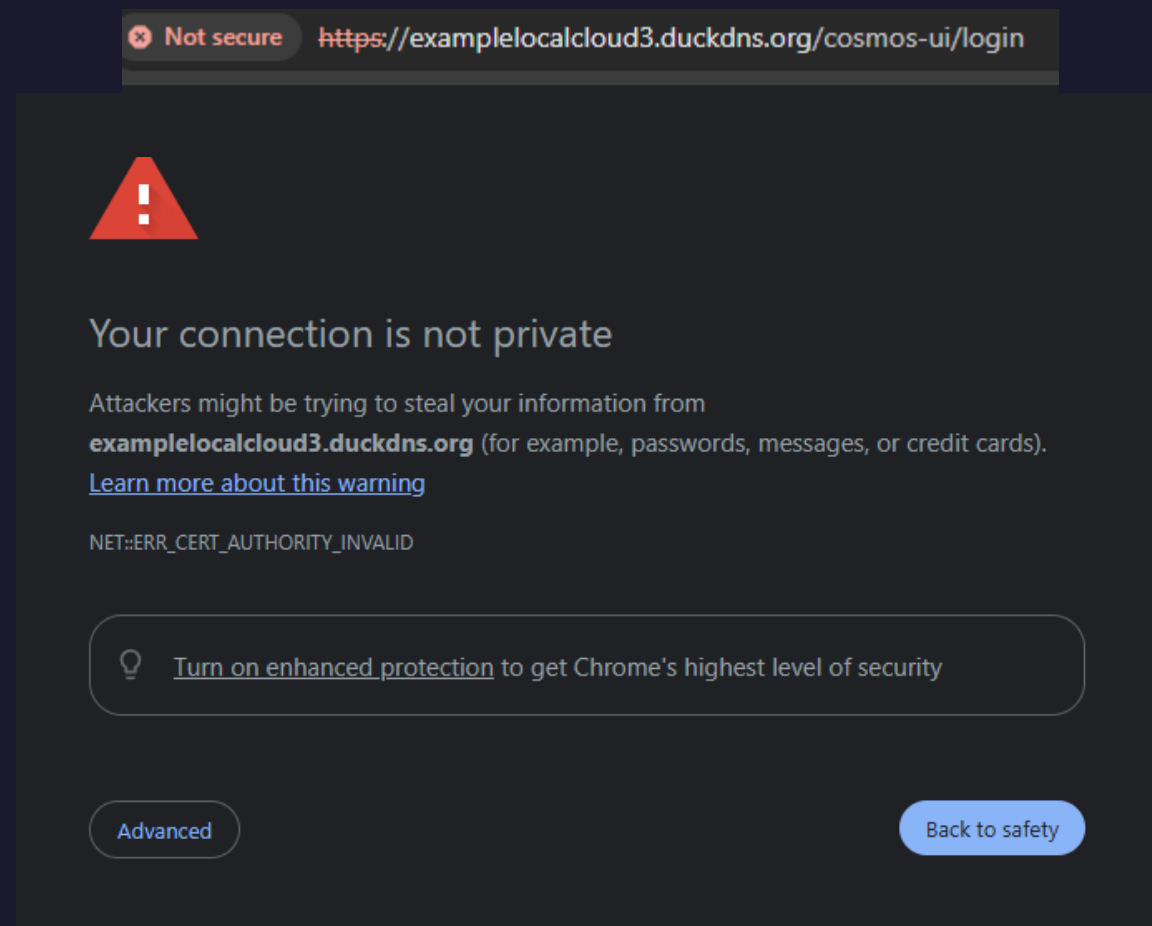


Blood sacrifice



Jobu?

Now try again





Try http, then the IP address

\$ sudo systemctl status CosmosCloud

If listening on port 80 – Might not have gotten the cert.

Restart the service – it will try again

\$ sudo systemctl restart CosmosCloud

```
status CosmosCloud
d service
ystem/CosmosCloud.service; enabled; vendor preset: enabled)
Thu 2025-02-27 00:11:10 CST; 7min ago
```

```
oud.service
/cosmos/start.sh
```

```
sh[55265]:
```

```
sh[55265]: 2025/02/27 00:18:03 [ERROR] Couldn't get TLS cert
sh[55265]: 2025/02/27 00:18:03 [INFO] Initialising HTTP(S)
sh[55265]: 2025/02/27 00:18:03 [INFO] Starting in /opt/cosm
sh[55265]: 2025/02/27 00:18:03 [INFO] TLS certificates do n
sh[55265]: 2025/02/27 00:18:03 [INFO] [SocketProxy] Initial
sh[55265]: 2025/02/27 00:18:03 [INFO] [mDNS] Publishing rou
sh[55265]: 2025/02/27 00:18:03 [INFO] [mDNS] Publishing the
sh[55265]: 2025/02/27 00:18:03 [INFO] [mDNS] No .local doma
sh[55265]: 2025/02/27 00:18:03 [INFO] Listening to HTTP on
```

This is why you restart: DNS is Evil

```
user@user-desktop:~$ sudo systemctl status CosmosCloud
● CosmosCloud.service - Cosmos Cloud service
   Loaded: loaded (/etc/systemd/system/CosmosCloud.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2025-02-27 00:24:38 CST; 7s ago
     Main PID: 55458 (start.sh)
        Tasks: 12 (limit: 18827)
       Memory: 30.1M
          CGroup: /system.slice/CosmosCloud.service
                  └─55458 /bin/bash /opt/cosmos/start.sh
                    └─55467 ./cosmos

Feb 27 00:24:40 user-desktop start.sh[55467]: 2025/02/27 00:24:40 [ERROR] Metrics - Error fetching Disk he
Feb 27 00:24:40 user-desktop start.sh[55467]: 2025/02/27 00:24:40 [INFO] acme: Registering account for exa
Feb 27 00:24:40 user-desktop start.sh[55467]: 2025/02/27 00:24:40 [INFO] [*examplelocalcloud3.duckdns.org]
Feb 27 00:24:40 user-desktop start.sh[55467]: 2025/02/27 00:24:40 [INFO] [*examplelocalcloud3.duckdns.org]
Feb 27 00:24:40 user-desktop start.sh[55467]: 2025/02/27 00:24:40 [INFO] [examplelocalcloud3.duckdns.org]
Feb 27 00:24:40 user-desktop start.sh[55467]: 2025/02/27 00:24:40 [INFO] [*examplelocalcloud3.duckdns.org]
Feb 27 00:24:40 user-desktop start.sh[55467]: 2025/02/27 00:24:40 [INFO] [examplelocalcloud3.duckdns.org]
Feb 27 00:24:40 user-desktop start.sh[55467]: 2025/02/27 00:24:40 [INFO] [examplelocalcloud3.duckdns.org]
Feb 27 00:24:40 user-desktop start.sh[55467]: 2025/02/27 00:24:40 [INFO] [examplelocalcloud3.duckdns.org]
Feb 27 00:24:40 user-desktop start.sh[55467]: 2025/02/27 00:24:40 [INFO] [*examplelocalcloud3.duckdns.org]
lines 1-20/20 (END)
```

DON'T YOU DARE GIVE UP

- That's just what it wants.
- You can do this!
- Show it no fear
- Just the other side of that horizon... is another horizon



If a kid who used to
think this duck was
scary can pull this
off, you can too!



Your reward for perseveranc e

Login

Nickname

buddy



Password

.....



This server does not allow password reset.

Login

Say it with me:

IT WAS DNS

A large purple circle and a smaller purple cone-like shape are located in the bottom right corner of the image.

Now What? Go get some amazing applications!

Cosmos Resources

- <https://github.com/azukaar/awesome-cosmos-cloud>
- <https://cosmos-cloud.io/doc/1%20index/#install-cosmos-as-a-docker-container>
- <https://guides.engels.zip/>

Self-Hosted App Resources

- <https://github.com/awesome-selfhosted/awesome-selfhosted>
- <https://github.com/1CrazyMoney/awesome-selfhosted-saas>
- <https://selfh.st/apps/>
- <https://www.composerize.com/> - Format any docker command into a compose and back again



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