# NextKellerCloud

HomeServer mit c't Bauvorschlag und/oder A20-OLinuXino-LIME2

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# Ziel: Cloud-Server in den eigenen 4 Wänden

#### Warum?

- Unabhängigkeit/Autonomie
- Privatsphäre/Datenschutz
- Flexibilität
- SmartHome
- ... und vieles mehr ...

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# Hacking Fun! Goiles System!

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# c't Bauvorschlag



- PC mainboard
- Celeron Prozessor
- 4GB RAM

- passive Kühlung
- PICO PSU + 20V Netzteil

• SSD + HD



### Olimex A20-OLinuXino-LIME2 SOC





- A20-OLinuXino-LIME2OpenHardware!
- Allwinner A20/T2 dual core Cortex-A7, 1GHz
- 1GB DDR3 RAM

- 4GB oder 16GB eMMC Flash Memory Option
- $\bullet \; \mathsf{SATA} \to \mathsf{SSD}$
- 1000MBit Ethernet

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# Software<sup>1</sup> (Auswahl)

- Debian GNU/Linux stable: Stretch, in Zukunft Buster
- Apache2, Letsencrypt (python-certbot-apache)
- Nextcloud (c't Server: in systemd-container)
- Monitoring: Munin
- c't Server Power Optimierung:
  - systemd service/timer at boot: powertop --auto-tune
  - ▶ /etc/hdparm.conf: ... spindown\_time = 6 für /dev/sdb
- DynDNS: https://www.ddnss.de

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  - /etc/hdparm.conf: ... spindown\_time = 6 für /dev/sdb
- DynDNS: https://www.ddnss.de

Problem: Letsencrypt Rate Limit mit CLOUDBOX.ddnss.de-Adresse.

Lösung über DNS Eintrag:

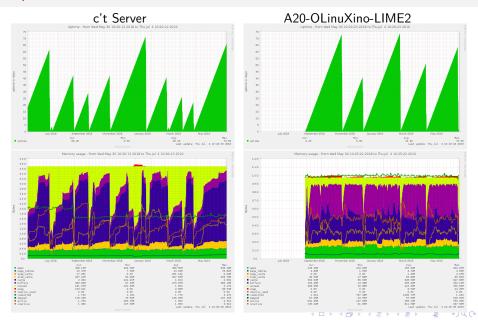
```
CLOUDBOX.YOUR.DOMAIN.... CNAME CLOUDBOX.ddnss.de.
```

Zertifikat dann für CLOUDBOX.YOUR.DOMAIN

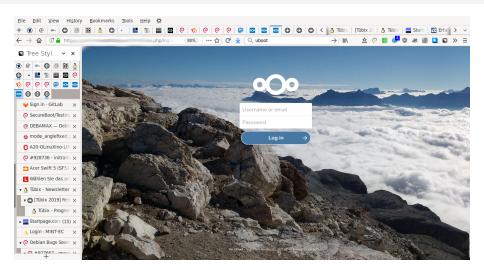
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<sup>&</sup>lt;sup>1</sup>Mehr Details: https://salsa.debian.org/andi/debian-lan-ansible > 2 990

### Uptime und RAM

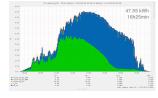


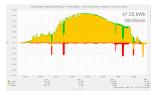
#### Nextcloud - NoCloud



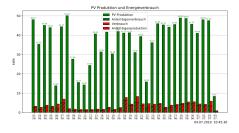
### **PV-Anlage Monitoring**

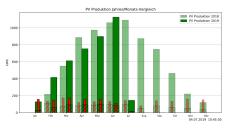
Daten über Web-Interface Wechselrichter und USB-Sensor Stromzähler, Darstellung mit Munin und python (matplotlib):







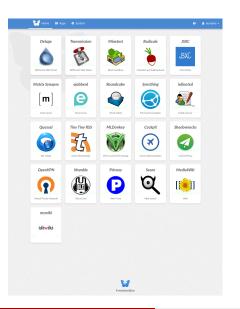




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### Quelle zur Inspiration: https://freedombox.org





#### Be a FreedomBox Pioneer

In partnership with the FreedomBox Foundation, Olimex is selling FreedomBox home servers for 682 each. The FreedomBox home servers come with our software pre-installed, a backup battery in case of power outage, and everything else you need to get started.

The Pioneer edition FreedomBox Home Server is the first commercially available version of FreedomBox. Be a pioneer and order today.



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### Always remember:



There is NO CLOUD, just other people's computers

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Danke für die Aufmerksamkeit.

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