

Firmní tabulka

# What's new

Průběh registrace v Tělu

## In the Turris world

Malý tutorial

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



# Turris MOX

základně nainstalováno a jsou k dispozici i fonty (viz další  
a iť tato prezentace znovu zpracovat



# Indiegogo campaign

370k USD by 2 721 backers, 150% of requested goal

Maaaany options:

- 7 modules - 4 from start, 3 more during campaign
- two variants of CPU board
- boxed/board only version
- with/without uSD

Everything sent out by the end of June



# MOX Features

- customizable even in retail
- open-source
- automatic updates
- even more extensible than Omnia
- comes with Turris OS 4

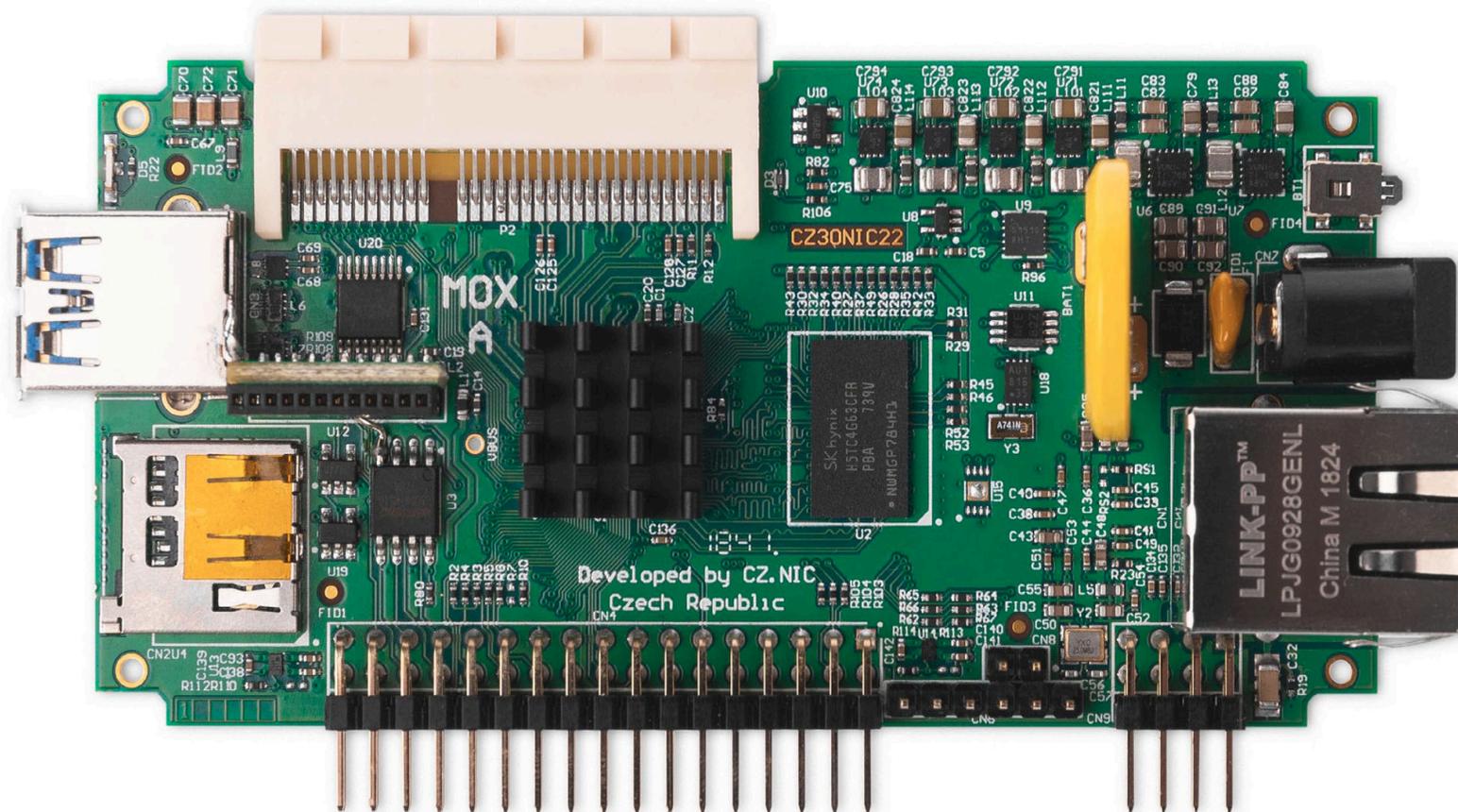


# MOX A

- just a CPU board
- dual core armv8 @ 1 GHz
- 512M/1G RAM
- microSD slot
- 1 GBit Ethernet, one USB3
- PCI-like connector for extensibility
  - own wiring described in documentation

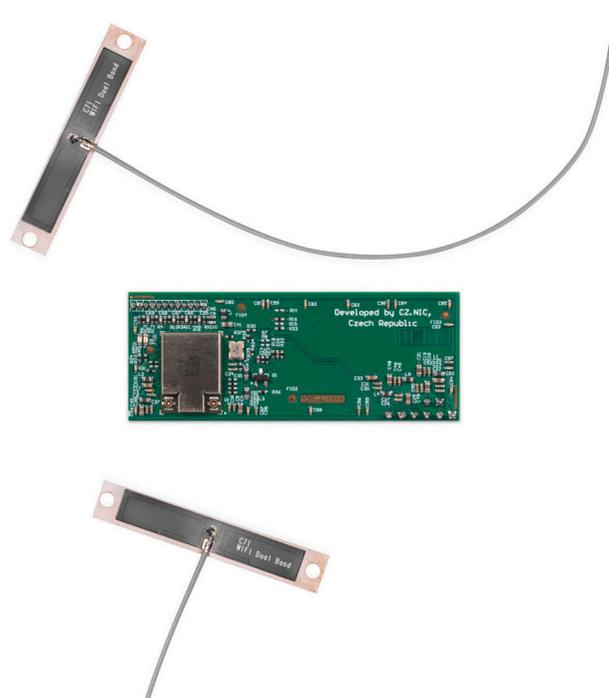


# MOX A - board



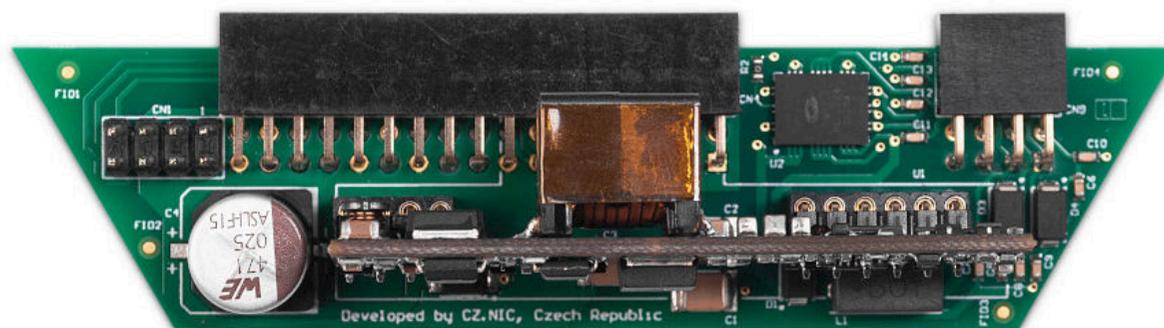
# SDIO WiFi Addon

- 2x2 MIMO dual band card
- Bluetooth 4.1



# PoE Addon

- powering MOX through PoE
- 802.3at and 802.3af compatible



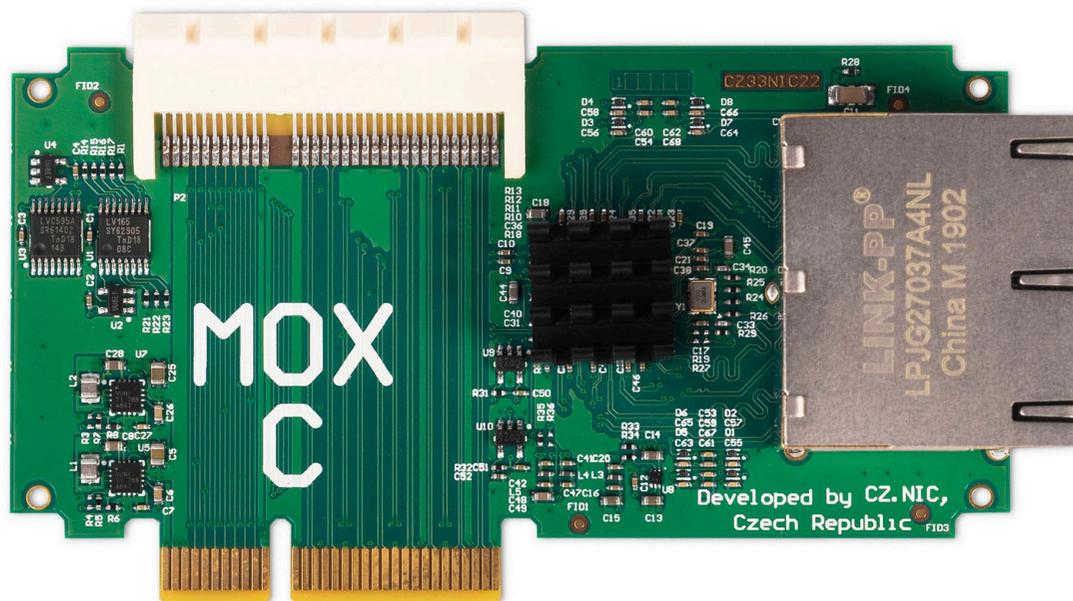
# MOX B & MOX G

- addon with mPCIe (USB also available)
- SIM slot on board
- B terminates PCI bus, G passes it through



# MOX C

- 2.5 Gbit line to CPU
- terminates SGMI bus



# MOX D

- 2.5 GBit SFP module
- terminates SGMI bus



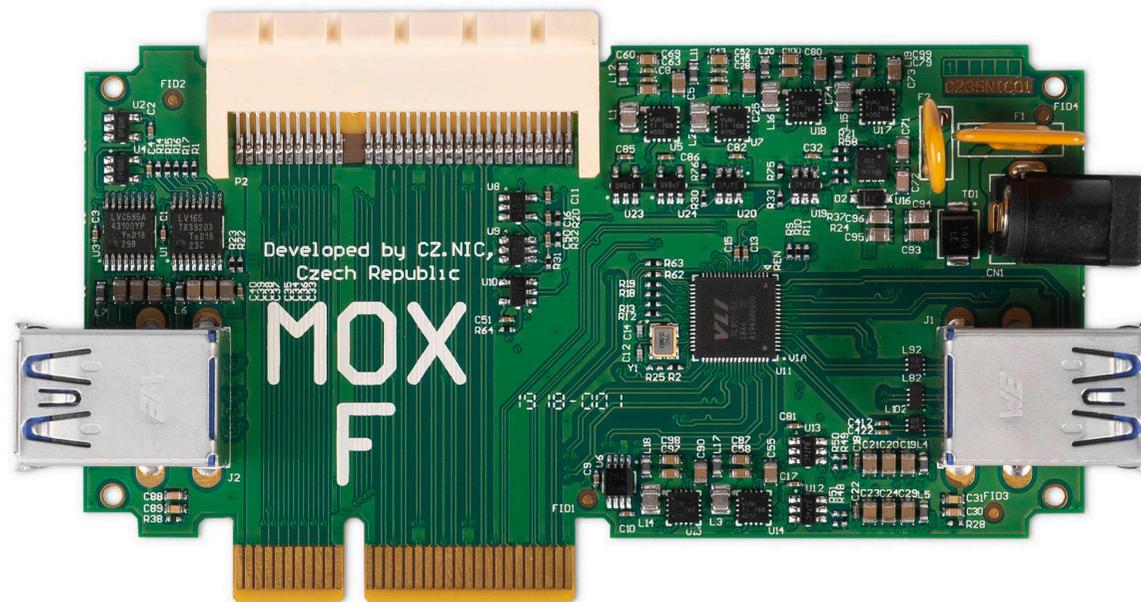
# MOX E

- 2.5 Gbit line to CPU and other modules
- passes through SGMI bus



# MOX F

- PCI attached USB 3 controller
- can be separately powered

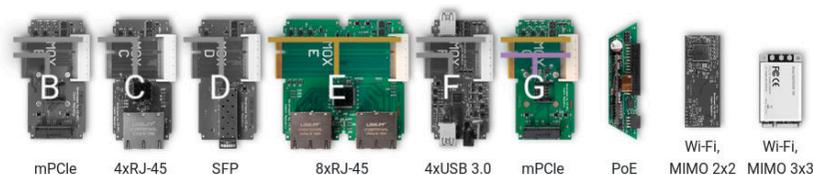


# MOX Configurator

<https://mox-configurator.turris.cz>

## Turris MOX Configurator

Available modules



## Your configuration

[Start](#) [Pocket Wi-Fi](#) [Power Wi-Fi](#) [Classic](#) [M000000X](#)



## Features overview

|        |   |
|--------|---|
| RJ-45  | 5 |
| USB3.0 | 1 |
| Wi-Fi  | 2 |



# Retail

amazon.de  
Discover Prime

Deliver to Czech Republic

Best Sellers Gift Ideas New Releases Today's Deals Vouchers AmazonBasics Gift Cards Customer Service Free Delivery Shopper Toolkit Sell

Hello, Sign In Account & Lists Returns & Orders Discover Prime Shopping Basket

Hidden Gems Sale Shop all deals

## TURRIS

TURRIS > MOX

HOME OMNIA MOX

### Turris MOX

Modular, Open-Source, sicher.

Erstellen Sie Ihr eigenes Netzwerkgerät nach Ihren Wünschen.

MOX-Sets



# Retail items

- individual boxed modules
- sets
  - MOX Start - 1G RAM, MOX A with accessories
  - MOX Pocket Wi-Fi - 512M RAM, MOX A + SDIO Wi-Fi
  - MOX Power Wi-Fi - Pocket Wi-Fi + MOX B + mPCIe Wi-Fi
  - MOX Classic WiFi - Power Wi-Fi + MOX C



# Feedback?

- quite complex for end users
  - novel approach - might take some time
- sparked some business interest
  - companies looking for something smaller
    - IoT gateway
    - other embedded gateways
  - companies looking for something larger
    - Telco looking for a big smart switch



# What about Omnia?

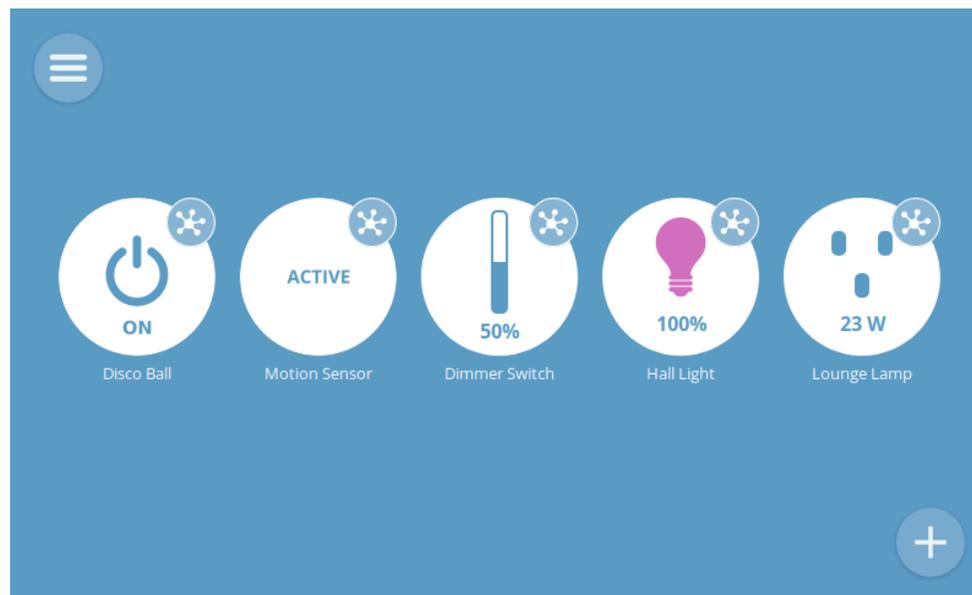


Silver is back...



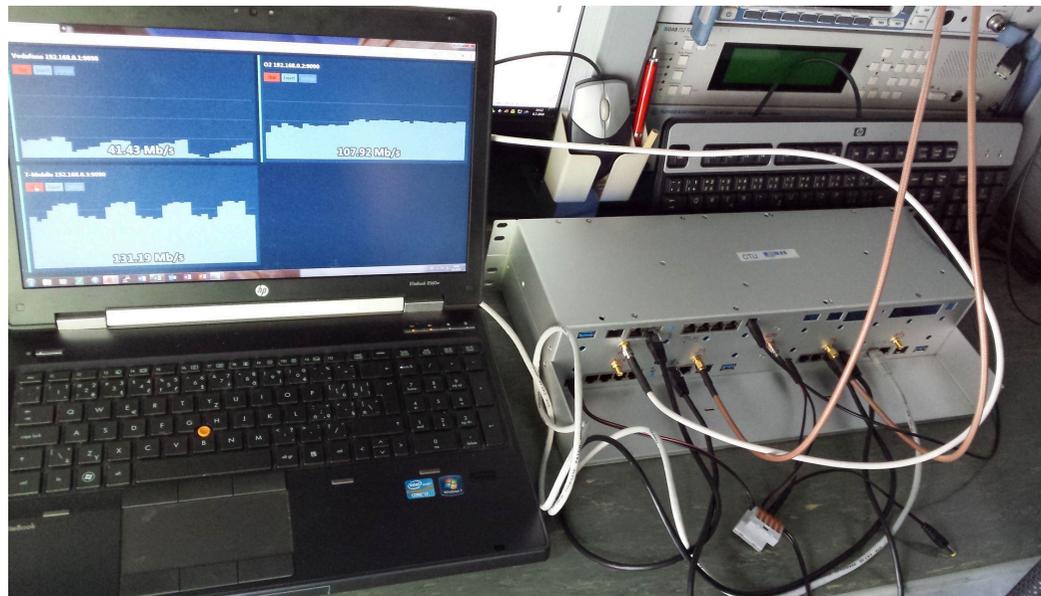
# Omnia as a platform - Mozilla

- custom firmware for Turris Omnia
- focused on securing IoT devices



# Omnia as a platform - CTU

- Czech Telecommunication Office
- Omnia with LTE cards deployed to measure LTE bandwidth
- several cars and trains to measure signal quality



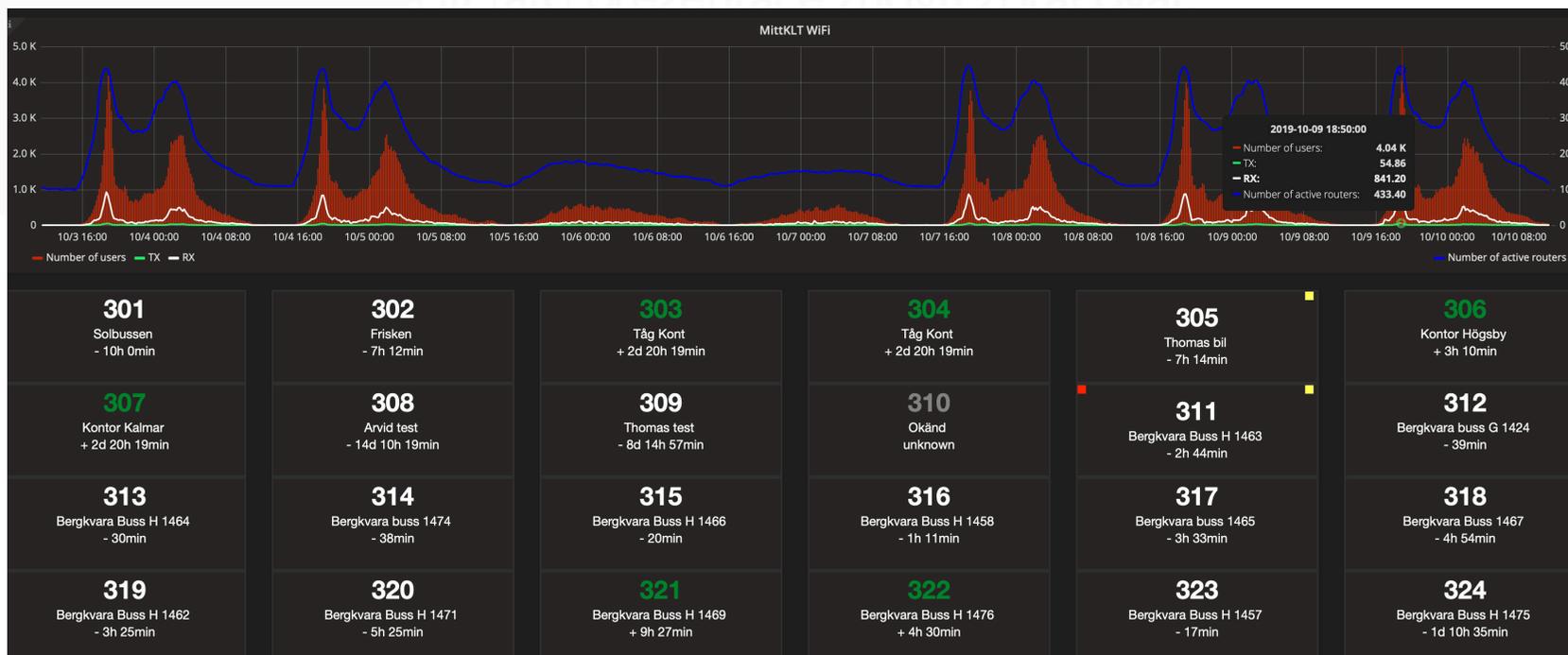
# Omnia as a platform - Kalmar



- about thousand buses, trains and taxis
- providing Wi-Fi onboard
- connectivity for ticketing system
- onboard information display
- location and in vehicle IoT



# Omnia as a platform - Kalmar



- cloud monitored and controlled
- regularly over 4 thousand users on 400 routers
- 841 Mb/s download, 54 Mb/s upload



# Turris OS 4.0

Announced last year

- based on OpenWrt 18.06
- our own feed with our software
- set of patches against OpenWrt
- set of patches against feeds
- much closer cooperation with upstream



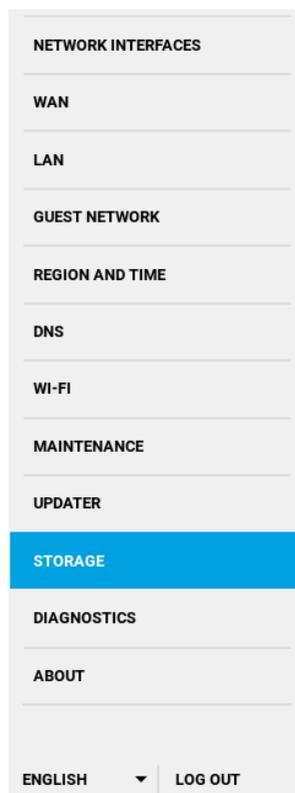
# Turris OS ZOO

- HBS - Here Be Snails - 🐌
  - slow and stable - for normal users
- HBT - Here Be Turtles - 🐢
  - lite faster - testing stuff before release
- HBK - Here Be Kittens - 🐱
  - fast with fangs - fixes development branch
- HBL - Here Be Lions - 🦁
  - fast with big fangs - features development branch
- HBD - Here Be Dragons - 🐉
  - even more dangerous - future development branch
  - currently 5.0 based on 19.07



# Nextcloud integration

- package list
- plugin in Foris
- easy setup



NETWORK INTERFACES

WAN

LAN

GUEST NETWORK

REGION AND TIME

DNS

WI-FI

MAINTENANCE

UPDATER

**STORAGE**

DIAGNOSTICS

ABOUT

ENGLISH ▾ LOG OUT

| Device                              | Description | Filesystem                     | UUID                                       |
|-------------------------------------|-------------|--------------------------------|--|
| <input type="checkbox"/>            | sda         | WD Elements 1078 (931.5 GiB)   |  |
| <input type="checkbox"/>            | sda1        | Size 931.5 GiB                 | ext4 7223e7ab-92da-4ef6-b804-5c275b16ddea  |
| <input type="checkbox"/>            | sdb         | SanDisk' Cruzer Fit (14.7 GiB) |  |
| <input checked="" type="checkbox"/> | sdb1        | srv (14.7 GiB)                 | btrfs 85075369-dace-4d8c-ac39-0c73b51bdd29 |

Changes to this setting will take effect on next reboot!

## Nextcloud

[Format & Set](#)

Nextcloud puts your data at your fingertips, under your control. Store your documents, calendar, contacts and photos on a server at home.

You still need to configure your Nextcloud, please set your admin credentials bellow:

Login:

Password:

[Setup](#)



# ReForis

- Web frontend redesign
- no more Bottle
- Flask + Bootstrap + React
- modern technologies
- easier to understand and extend



# ReForis - screenshot

 **TURRIS**  
reForis version 0.4.4

- Notifications
- Network Settings ▾
- Administration ▾
  - Password
  - Region & Time
  - Notification Settings
  - Reboot
- Package management ▾
- Advanced administration
- About

 2 en Logout

## Notifications

[Dismiss all](#)



October 4, 2019, 8:25:33 AM



- Installed version git-19.276.84187-82b9d61-1.0 of package luci-app-opensvn
- Installed version git-19.276.84187-82b9d61-1.0 of package luci-lib-jsonc
- Installed version git-19.276.84187-82b9d61-1.0 of package luci-lib-ip
- Installed version git-19.2...

[Show more](#)



September 30, 2019, 7:01:13 AM



New device appeared on your network (MAC address , hostname )



# New documentation

- old documentation looked dated
- it was hard to navigate
- hard to distinguish official vs community

Now we have two:

- <https://wiki.turris.cz>
  - old one, will transform to community wiki
- <https://docs.turris.cz>
  - new one, official stuff only



# Thank you

## Links

<https://www.turris.cz>

<https://docs.turris.cz>

<https://mox-configurator.turris.cz>

## Questions?

