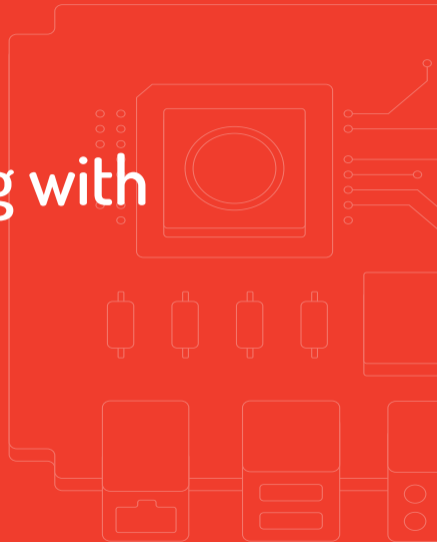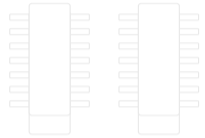# War stories from working with OpenWrt industries
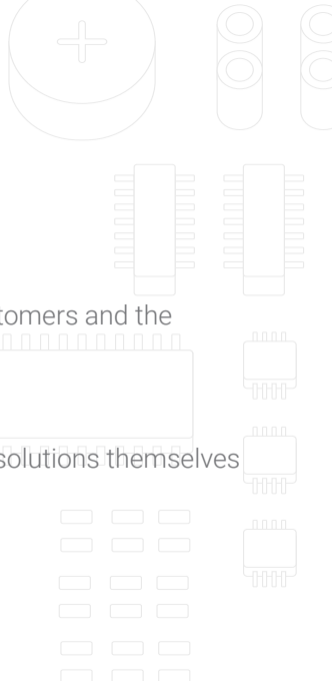
Davor Popović

.sartura.

About me

- Linux enthusiast
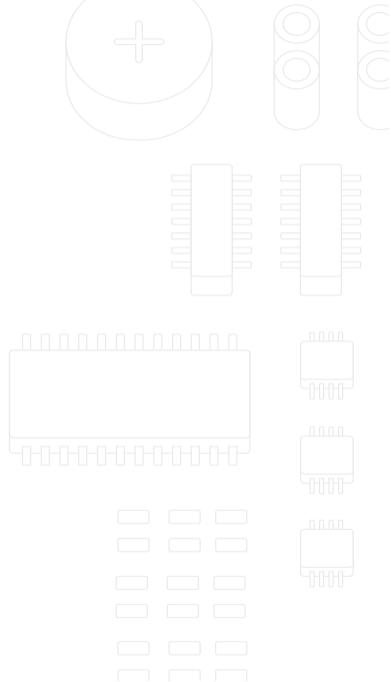- Developer
- Sartura

About this presentation

- What is this presentation?
  - An overview of creating OpenWrt-based solutions for customers and the advantages and issues throughout our work
- What is this presentation?
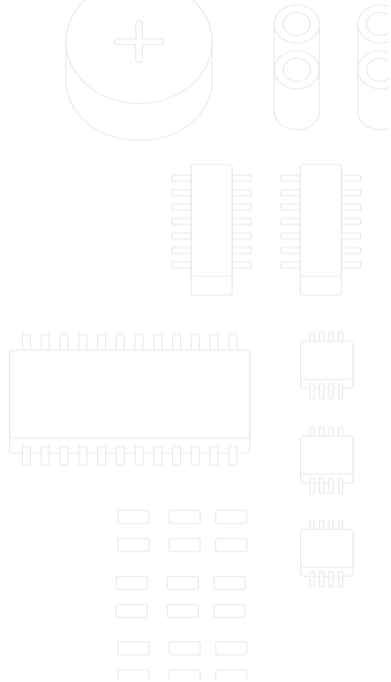 - An in-depth tutorial on how to create the OpenWrt-based solutions themselves

Why choose OpenWrt?

- Free Linux distribution
- Easily modified and configured
- Reliable
- Community supported
- Offers impressive package support

Working with OpenWrt – Starting phase

- Requirements
- Differences among them
- Reasonable, detailed requirements
  - Less misunderstandings
  - Start working immediately
- Obtaining OpenWrt

Working with documentation

- Documentation
  - **Pros**:
    - Centralized knowledge base in form of Wiki and Forum
  - **Cons**:
    - Sometimes not up to date
    - Sometimes not detailed enough
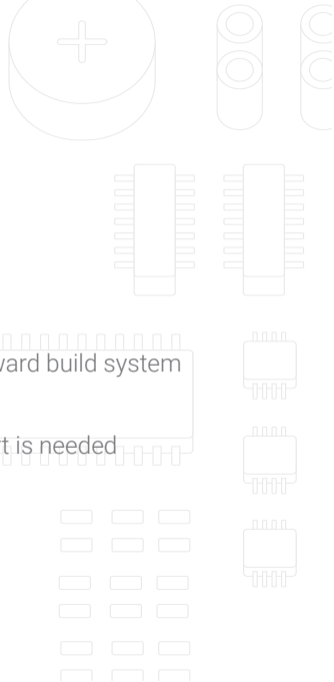   - Sometimes certain subjects are completely missing

Working with images

- After research – creating images for testing
  - **Pros**:
    - Prebuilt images available, easily configurable, straightforward build system
  - **Cons**:
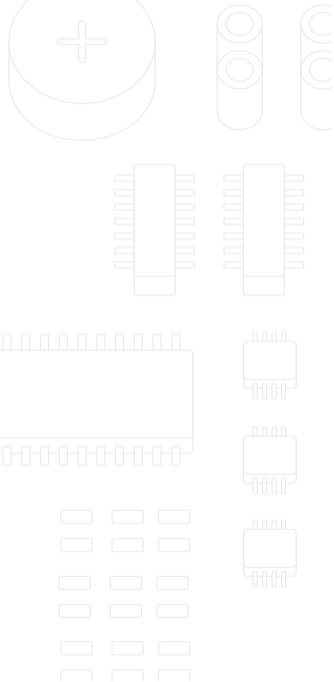   - More official documentation on adding new board support is needed

Working with packages

- Client requirements – custom packages or package sets
    - Often not mainline supported – how do we solve this?
- Packages:
    - **Pros**:
        - Very impressive support, easy make system
    - **Cons**:
        - Sometimes maintainers neglect their packages

Working with proprietary software

- Dealing with proprietary software in OpenWrt
  - Development setback
  - **Pros**:
    - Should be reliable?
  - **Cons**:
    - Little or no luck in investigating problem
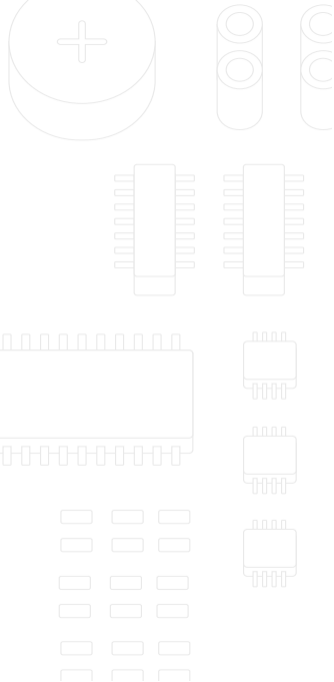   - No freedom

Testing and providing support

- After the solution is ready – providing support and testing
  - Testing version often brings up more client requirements
  - OpenWrt offers flexibility and various tools for easier development
- Support for the final product:
  - **Pros**:
    - Easily maintainable
  - **Cons**:
    - Very customer-specific

Communicating with clients

- o Establish sharing principles
- o Use every means available/necessary to make it easier
  - · Version control system (Git)
  - · Sharing prebuilt images
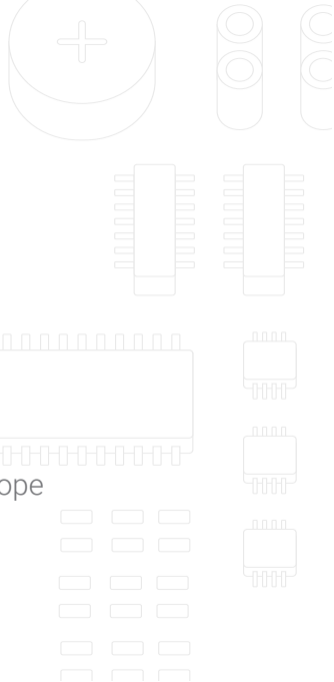 - · Bug reporter or discussion forum

Inderdisciplinarity

- Solutions require experts from different areas:
  - Development
  - DevOps
  - Testers, supporters
  - Team managers
- Organize your team properly depending on the project scope

Handling projects at Sartura

- Communication
- Detailed requirement talks
- Team organization
- Developing, testing, deploying
- Debugging
- Education

Summary

- Why OpenWrt?

- Handling requirements, obtaining OpenWrt

- Unfamiliar tasks - Documentation

- Working with images and packages

- Testing and providing support

- Communication with clients

- Team organization (interdisciplinarity) and education

War stories from working with OpenWrt industries

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