

OpenWrt Summit 2016

War stories from working with OpenWrt industries

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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 this presentation is not?

- An in-depth tutorial on how to create the OpenWrt based solutions themselves.



Why choose OpenWrt?

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OpenWrt strengths

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



Working with OpenWrt

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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 problems
 - 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

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



Interdisciplinarity

- 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

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- Why OpenWrt?
- Handling requirements
- Obtaining OpenWrt
- Unfamiliar tasks – Documentation
- Working with images and packages
- Testing and providing support
- Communication with clients
- Team organization (interdisciplinary) and education



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