Open CPE Foundation

Business powered by open source
We started from ...
Despite having their routers at the center of domestic networking

New challenges require adaptation, ...

but router stacks cannot deliver.
Stop cycles of redone work & one-off investments

Collaborate and develop a platform approach
Product view
An open source reference implementation that evolves with ISP requirements

Enterprise features
- DSL, PON & Cable
- Wi-Fi Alliance EasyMesh
- Cross-device coordination
- Device management clients

Carrier-grade security
- Software hardening (eg. static code analysis)
- Reflash & side-loading protection (eg. Software signing)
- Quality Assurance & Testing (eg. independent certification)
- Monthly Security releases

Community Projects & contributions
- Core services & routing
- Modularization & packages
- Toolchain & image configuration

Not-for-profit, independent & community driven
(Not limited to particular chipset vendor, hardware manufacturer or ISP)

Implement RFQ features once and reuse across vendors
(Keep features in private feed or upstream to prplWrt or even OpenWrt)

Much faster detection and correction of security flaws
(Upstream managed security patches and updates)

Continuous roadmap & feature development
(Development priorities are set by members and contributors)

Resource pooling
(Members are encouraged to contribute non-differentiating features to enhance the overall stability of the stack)

Lower development cost for external innovation
(ISP partners can develop solutions based on open source stack without need for NRE and access to ISP technology)
Implementation

- Product changes (SKU specific additions, packages and changes)
  - Extensions and features needed for specific consumer product
  - Software vendor specific packages and extensions
  - Eg. access technology requirements, LAN management
  - Eg. drivers and base patches
  - Eg. package versions and additions not yet accepted or ready for upstream

- Vendor changes (company or customer specific additions, packages and changes)

- Category changes (Device type specific patches and packages)

- Target changes (Board specific drivers, patches and extensions)

- Base changes (patches, packages and extensions)

- Community baseline

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Open source community relationship
Prpl is trying to bridge between business and open source software development

Corporate teams

Contribute raw work

Cycle to improve coding style and formats as needed
Projects + contributors

Try to upstream

Upstream
Now

- OpenWrt enhancements
- Requirements consolidation
- ISP CPE-focused features
- SDK and tools
- Chipset Integration
- Quality Assurance & Testing
Thank you

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