Automatic updates
On the Turris routers

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Why updates?

- Security fixes

- New features & new bugs

- Network analysis

Design goals

- Upgrade/downgrade of packages

- Addition and removal of packages

- Major version upgrates

- Preservation of configuration

- Recovery from power loss during upgrades

Existing „solutions"

- opkg upgrade

  - No downgrades

  - No addition/removal of packages

  - Suicidal tendencies

- Dpkg, rpm, emerge…

  - Heavyweight

  - Interactive use

  - No addition/removal of packages

History

- ~~Nice, neat, short, elegant~~ shell script

- Wrapper around opkg

  - Includes bugs and „features" of opkg

- Dependency computation on the server

- Huge amount of workarounds

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Updater-ng

- A fresh start

- C & lua hybrid

- Works with ordinary OpenWRT repositories

- Doesn't use opkg (but works with the same DB)

  - Ability to move files between packages

  - Collision checks

 - „Transactions" with multiple packages

Updater-ng configuration

- Little lua scripts (local & remote)

- Higher flexibility (loops, conditions, …)

- Requests describe target system

- Ability to augment deps, reorder, hooks…

- Resolution of conflicting requests

3rd party use

- Inside Omnia & Turris
  - Asking for additional packages
  - Adding own repositories
- Other devices
  - New top-level config
  - Different set of certificates
  - Integrate (cron, notifications, …)
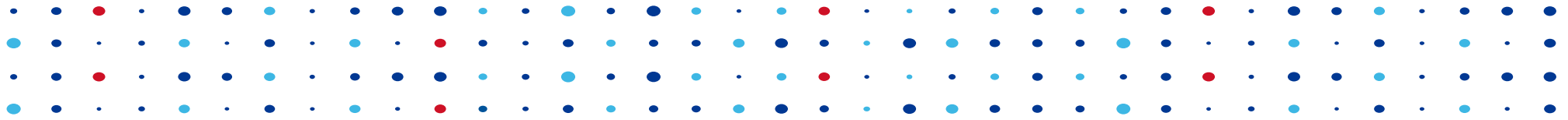
Thank You

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