

A Near Term Solution for Home IP networking (HIPnet)

[draft-grundemann-homenet-hipnet-01](#)

Chris Grundemann, Chris Donley,
John Brzozowski, Lee Howard, Victor Kuarsingh

Common Principles Guide HIPnet

- Home networks will become more complex, home users will not
- Invoking a god box leads to religious wars
- New protocols bring new problems
- We have enough addresses
- Use IPv6, support IPv4

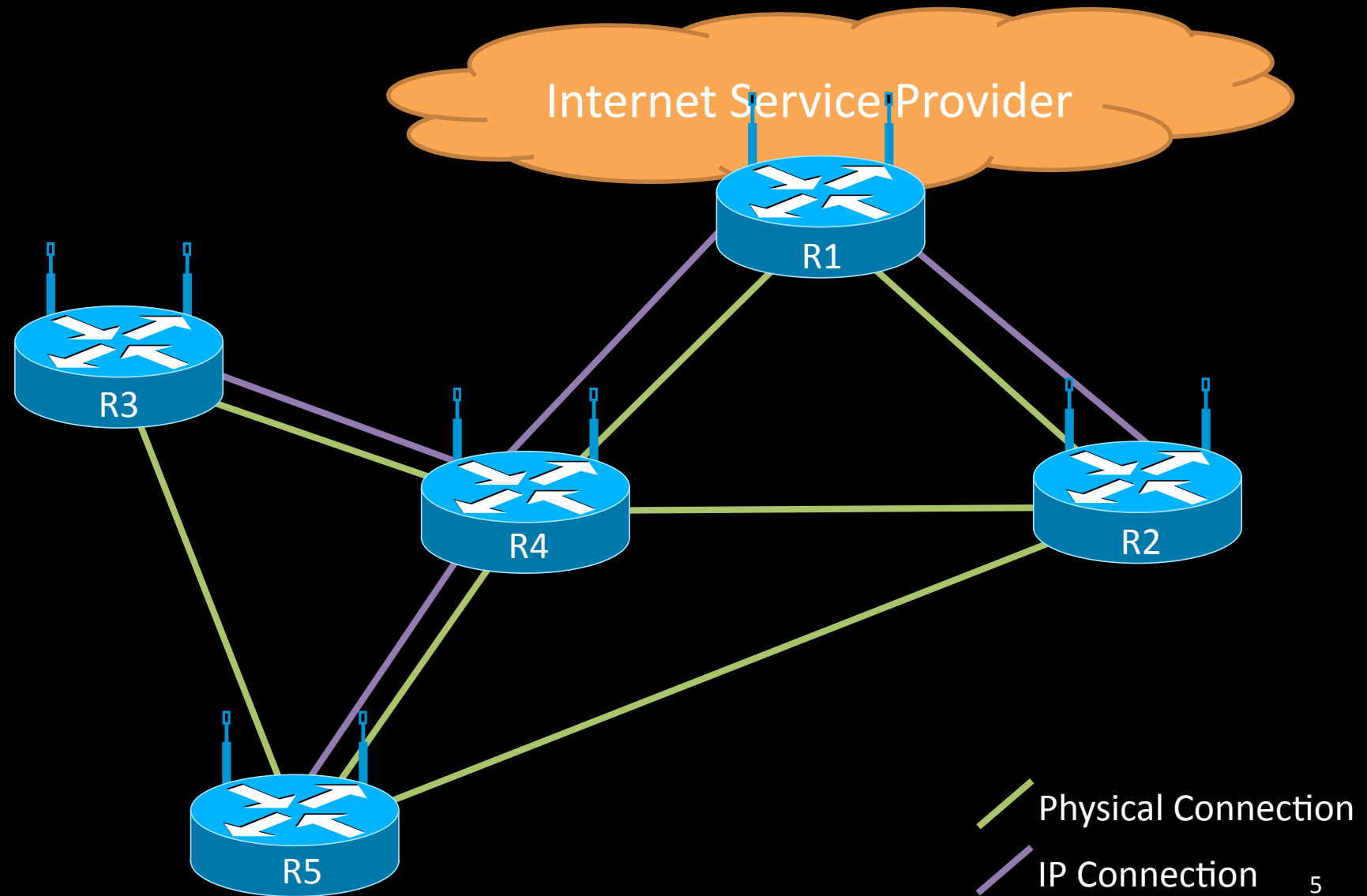
HIPnet Meets Current Needs with Existing Functionality

- IPv6 is being deployed today (thankfully)
- Home networks are growing today
- A solution is needed today (or sooner)
 - Based on RFC 6204/bis
- HIPnet works: running code
 - Built on OpenWRT
 - Updates to DHCP
 - (find me at Bits-N-Bytes tonight)

HIPnet Works with the Homenet Architecture

- Self-Organizing: Directionless Routers
 - No user interaction required for most use cases
- Addressing: Recursive Prefix Delegation
 - Uses existing protocol (DHCP-PD)
- Routing: Hierarchical Routing
 - No routing protocol required
- Bonus: Multiple Address Family Support
 - Uses IPv6 to configure IPv4
- Supports arbitrary topologies, multihoming, security, and service discovery...
 - Meets the principles of [draft-ietf-homenet-arch](#)

HIPnet Creates a Logical Hierarchy from a Physically Arbitrary Network



Questions?

@ChrisGrundemann

chris@chrisgrundemann.com

<http://chrisgrundemann.com>