

CER ID Option

draft-donley-dhc-cer-id-option-04

Chris Donley, Michael Kloberdans

CableLabs

John Brzozowski

Comcast

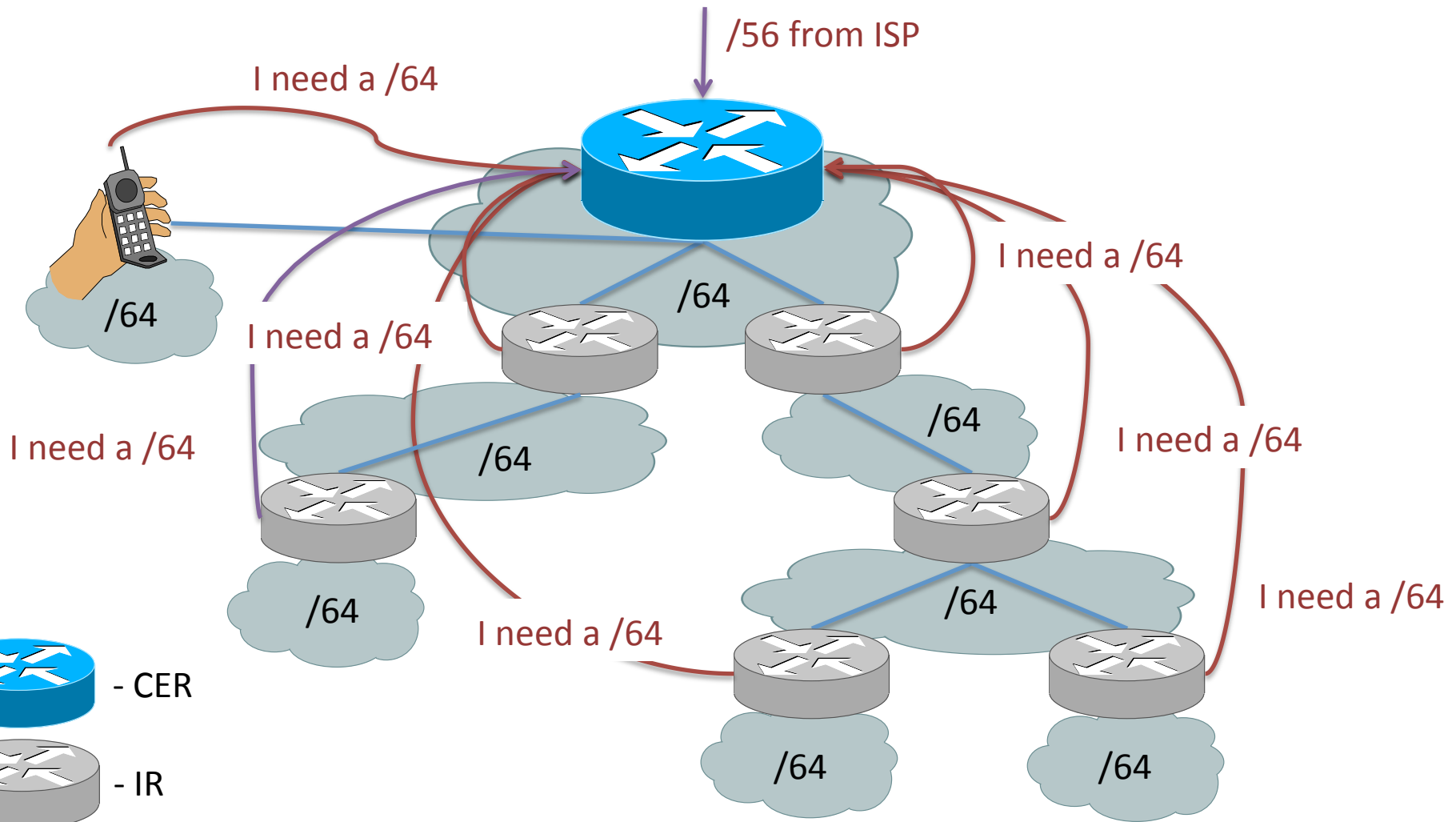
Chris Grundamann

ISOC

Purpose of this draft

- Several home network addressing mechanisms require identification of Customer Edge Router (CER)
- One such mechanism is Service Provider edge Router Interaction
 - <http://tools.ietf.org/html/draft-winters-homenet-sper-interaction-01>
- Others include HIPnet routers and RFC-7084 compliant routers

CER Prefix Delegation



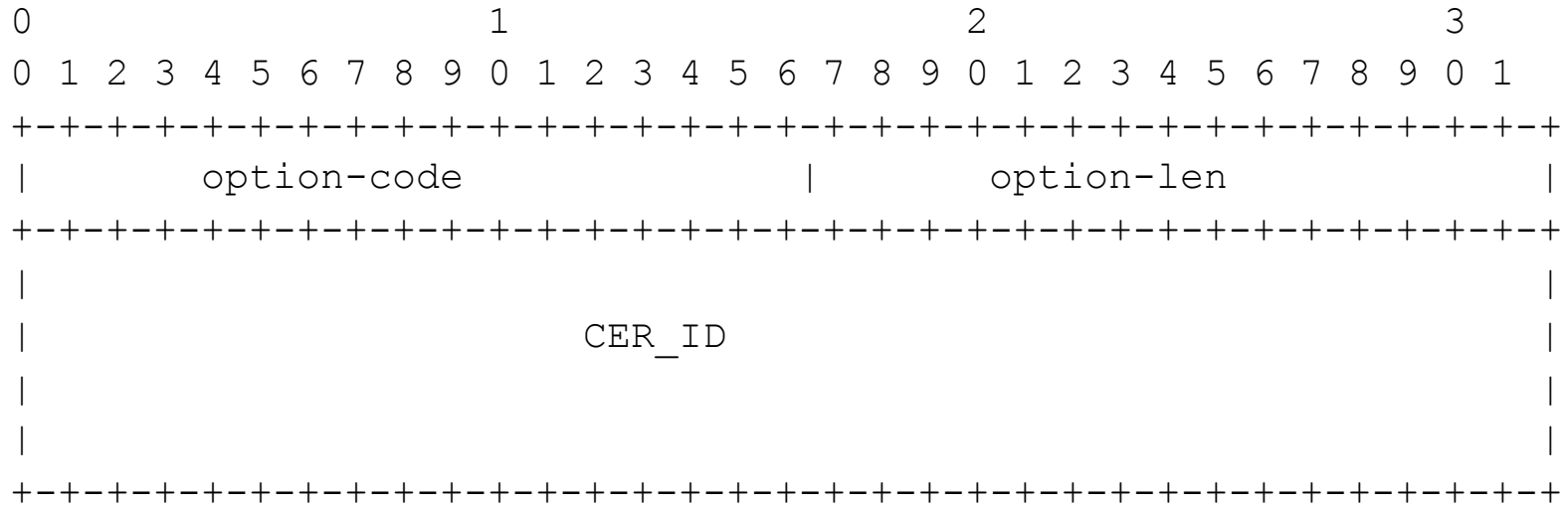
Example: HIPnet or 7084 Router

- CER determines that it is the CER
- IRs determine that they are IRs
- IRs respond to IA_NA requests directly but relay all IA_PD requests “up” towards root of tree
- CER responds to all IA_PD requests

CER ID via DHCPv6 Option

- CER could be identified via a DHCPv6 option
- ISP indicates that it isn't the CER
 - By setting the CER ID option to ::
 - By not returning the CER ID option
- CER identifies itself as CER and populates the CER ID option with its IPv6 address
- Internal Routers (IRs) learn the CER ID option and pass it to other IRs

CER ID Option



option-code OPTION_CER_ID (TBD).
option-len 16
CER_ID value 128 (IPv6 address of CER)

Applicability

- Developed along with <http://tools.ietf.org/html/draft-winters-homenet-sper-interaction-01>
- Also could be used for other addressing mechanisms that require CER identification
- Could be extended to include other information (e.g. size of prefix delegated by the ISP) for distribution in the home
- Hipnet and RFC-7084 compliant Router are existing clients for this CER option.

CER Change History

- CER proposal 01 – initial proposal to IETF
- CER proposal 02 – added security features for authentication
- CER proposal 03 – fixed text inconsistencies
- CER proposal 04 – removed security features

Next Steps

Looking for WG feedback

- Should this option be extended?
- Should this draft become a WG document?