Homenet Design Team

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Proposed Next Steps for Design Team

- Long term WG Goal:
  - IGP-based solution == "Homenet"
- Short Term Design Team Goal:
  - Identify 6204bis, SPER(HIPnet) and Homenet scenarios.
  - Document the scenarios, and make recommendations on which should be worked and
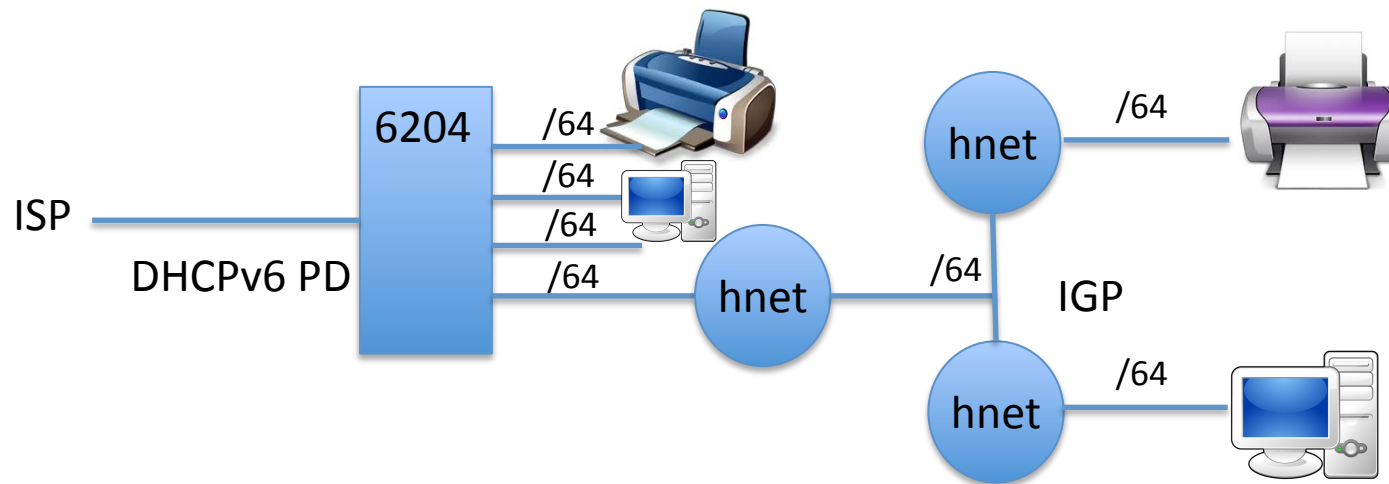
6204bis

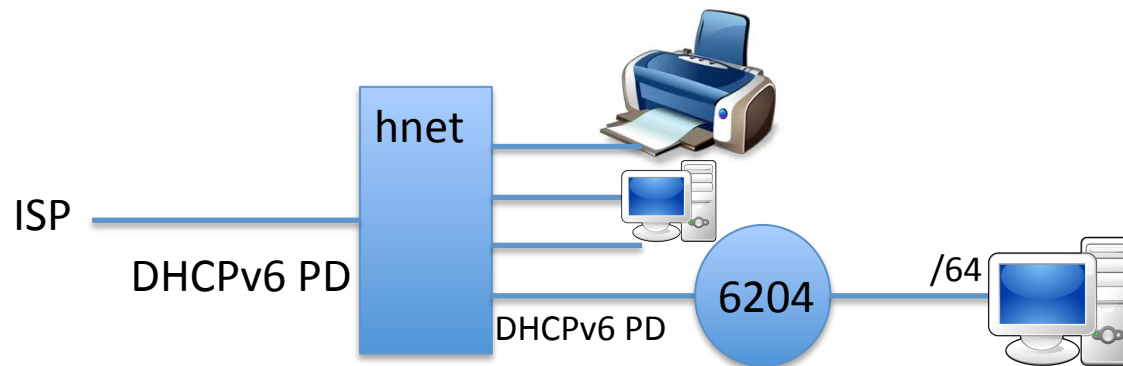Bridged LAN with single /64, perhaps with guest + home SSIDs and IPv6 routing between.

ISP

DHCPv6 PD

6204

/64
/64
/64
/64
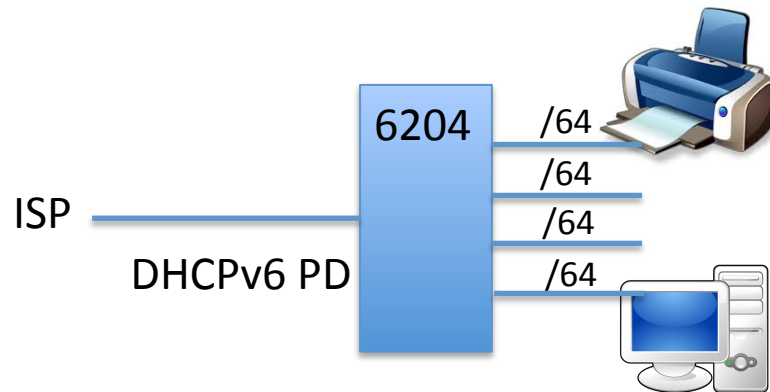
6204 to Homenet

6204bis WAN without PD on LAN

ISP

DHCPv6 PD

6204

/64
/64
/64
/64

hnet

/64

IGP

hnet

/64

hnet

/64

No PDs == No Fun.
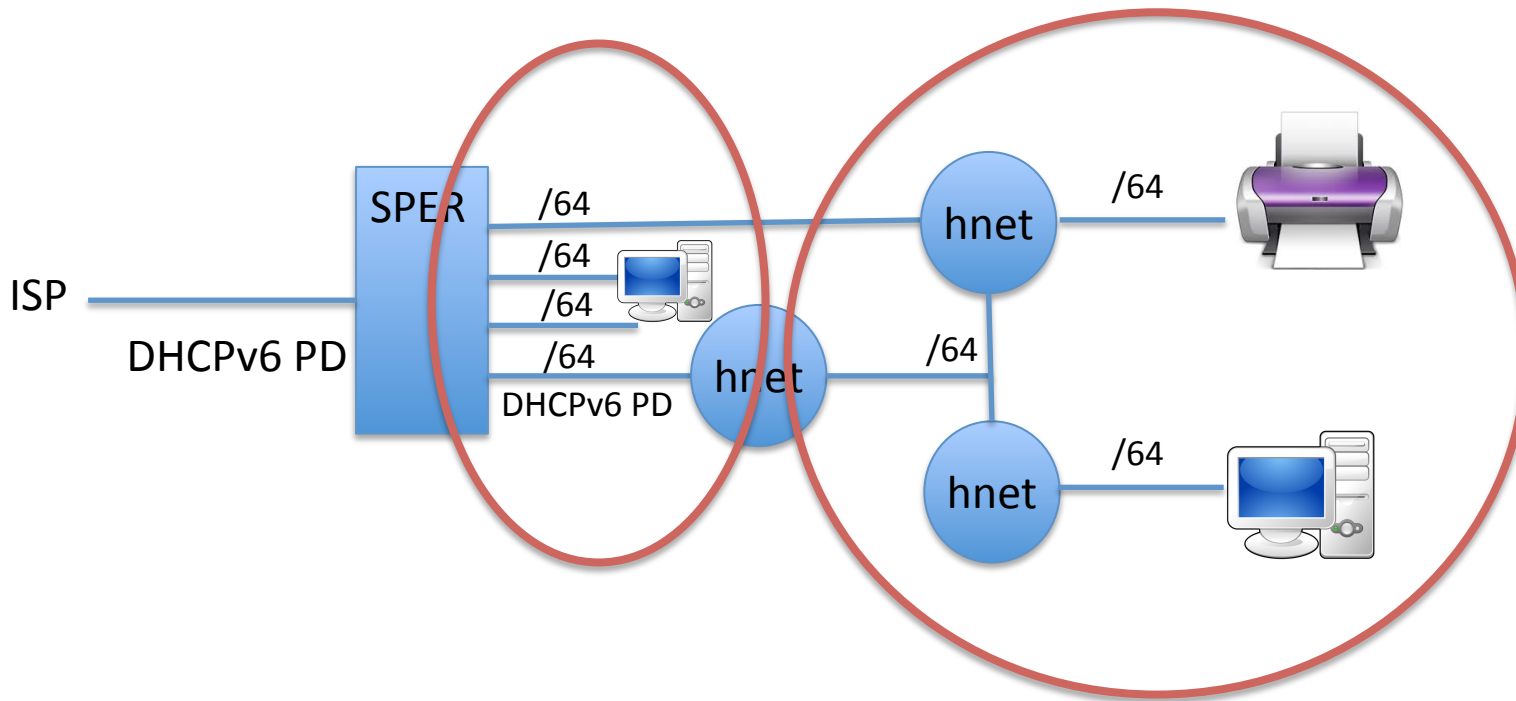
Homenet to 6204bis

Homenet edge, with 6204 interior router

This requires homenet gives out an IA_PD to the 6204bis Router
when requested.   Border Discovery needs some work.
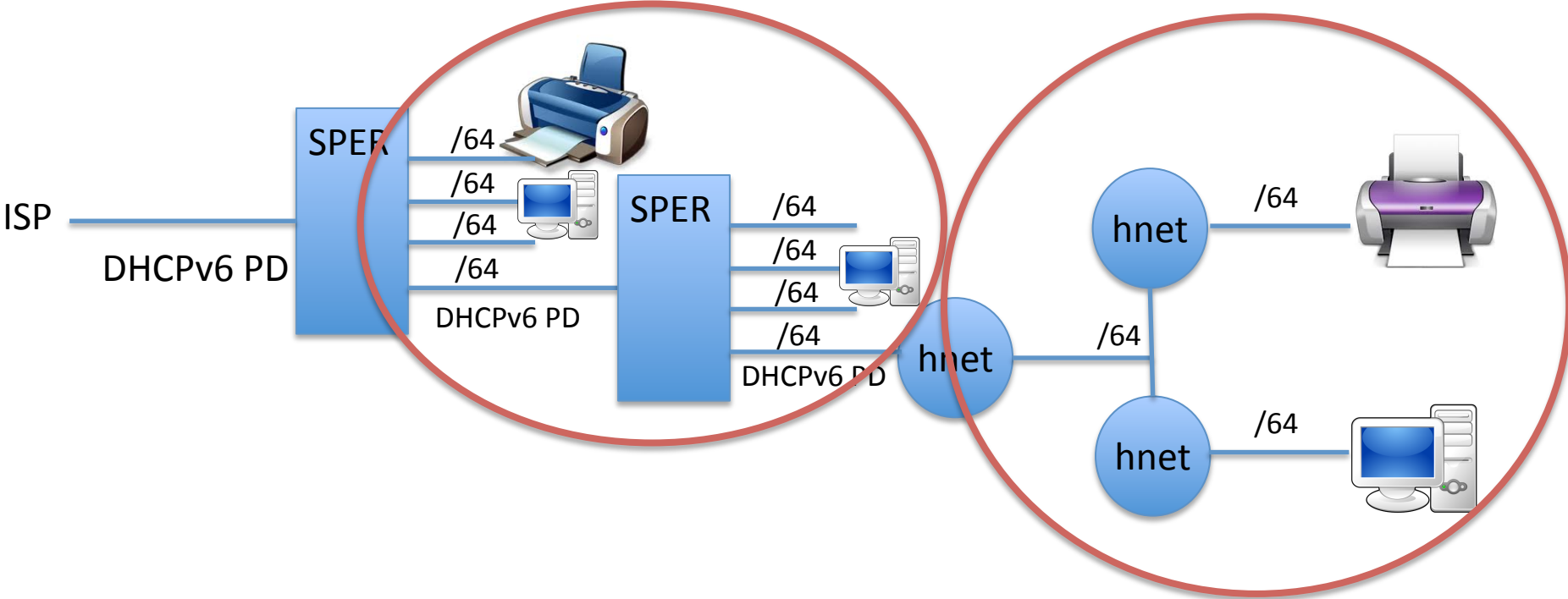
SPER to Homenet

Service Provider Edge Router, PD on LAN side

ISP

DHCPv6 PD

SPER

/64
/64
/64
/64

DHCPv6 PD

hnet

hnet

/64

hnet

/64

/64

hnet

/64

Addressing and Routing can work. Border Discovery needs some development.

Multi-layer SPER

Don't try this at home!

This scenario needs to be avoided due to border discovery incompatibility.

Border Discovery Problems

- Homenet defines three different interfaces types for border discovery.
  - Internal, External, Mixed
- Need to define method for SPER and Homenet Border Discovery to be compatiable
  - Prevents traffic initiated from the SPER from entering the Homenet.
  - Traffic out of the Homenet to the Internet works.
  - Service Discovery requires Border Discovery.
- Design team would like to get the working group feedback on the possible solutions.

Homenet WAN to SPER LAN

- Routing **to** the Internet and to the SPER from the Homenet network.

- Service Discovery into SPER w/mDNS with Homenet.

- Requires that the Homenet sends Service Discovery information out the external interface.

Homenet detects SPER

- If Homenet is able to identify the SPER the firewall can be disabled accordingly.

- Service Discovery into Homenet from SPER will work if we are able to solve the detection problem.

- Possible Solutions include /48 check and/or CER_ID Option.
  - Users MUST have an option to give them option to reject non-authenticated methods.