

DNS for DHCP-PD

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Problem Statement

- Delegated prefixes are managed by CPE
- Demand exists for a populated reverse tree
- CPEs do not provide this functionality
- ISPs do not offer this functionality either

Solutions

- Delegate the prefix to the CPE
- Accept updates from the CPE
- Accept updates from hosts behind the CPE
- Generate answers on the fly
- Support a wildcard, w/ or w/o a zone
- Don't answer for the delegated prefix

More problems

- Someone will want each of these options
- Needs change over time
- So we can't anoint any single option

Solution

- CPE and DHCP server negotiate
- ISP has a default option
- ISP may support one or more other options
- CPE device sends a list of choices
- ISP picks one, tells CPE which it chose
- ISP maybe delegates zone to CPE
- CPE maybe updates zone at ISP

Current Draft

- Documents protocol fundamentals
- Sketches out delegation process
- Needs option definitions
- Needs more on delegation process
- Needs more on CPE updates to ISP
- Needs to document DNSSEC

Additional Work

- Local naming?
- Recommendations for forward zone?
- Split horizon, internal vs external?
- Disconnected versus connected behavior
- DNS updates from client?

Document

draft-lemon-dhc-dns-pd-00.txt

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Should we take on this work?