draft-ietf-dhc-options-guidelines
draft-ietf-dhc-dhcpinform-clarify

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Status of the Author

Let's talk about these "plans."

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draft-ietf-dhc-options-guidelines

- Expired once before. Re-upped in 2010-03 for IETF 77.
  - Seemed silly to re-up again with no changes.
  - You can get an archive version from the data-tracker now too.
- The decision there (IETF 77) was to gather readers, and do a last call.
- Last meeting (IETF 78) was to do the last call(?). I don't think we did?
- Shall we dance again? Re-up and last-call?

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draft-ietf-dhc-dhcpinform-clarify

1. DHCPINFORM and Link Selection
2. DHCPINFORM and Relay Agents
3. DHCPINFORM and Littering
4. DHCPINFORM-muddify?
5. Next Steps

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DHCPINFORM and link-selection

Since address assignment is not a part of DHCPINFORM, link-selection only informs configuration selection criteria.

"Appropriate configuration parameters for this address."

It's clarified:

1. Subnet-Selection option (client-supplied)
2. CIADDR
3. Link-selection relay-agent sub-option.
4. GIADDR
5. IPv4 source address.
6. The server's address on the ingress interface.

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DHCPINFORM and Relay Agents

- RFC 2131 section 4.1 directs servers to reply to GIADDR generically (no exclusion for DHCPINFORM -> DHCPACK exchanges). Section 4.3.5 says SHOULD NOT set YIADDR, and has a non-normative direction to direct replies to CIADDR.
- RFC 1542 (bootp relay agent) compliant relay agents however will **unicast** the message to chaddr:yiaddr (mac: IP). We know yiaddr SHOULD be 0.0.0.0.

It's clarified: DHCPINFORM->DHCPACK exchanges are directed to CIADDR if it is set before checking GIADDR. When directing to GIADDR the client's unicast address is lost, so the broadcast bit is set as an assist.

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DHCPINFORM and Littering

RFC 2131 permits DHCPINFORM to be broadcast, to also perform server discovery if a server isn't known.

One client, the Microsoft Industry Updater, will send a batch of DHCPINFORMs to broadcast some time after the OS DHCP's and periodically thereafter. No matter how often it receives replies, it continues to send DHCPINFORMs until it receives a reply with option code 252 (on its PRL).

Finding an "out of band" DHCP server / cache? [ ]
Broadcast domain littering? [X]

Clarify: SHOULD unicast to server-id.

DHCPINFORM-muddify

The biggest issue we don't really seem to have consensus on is the pains the draft goes through to respond to clients that are 'broken'.

Actually, RFC 2131's strongest language against these clients is that servers SHOULD reply to CIADDR. (and a non-normative Table 5 "client's network address" is the runner-up)

At IETF 78, it was suggested;
Maybe we can convince clients sending zeroed ciaddr not to do that anymore, in which case the zero ciaddr handling can be described as an interim compatibility solution (appendix).

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Next Steps

Author's requirements:

- Peer review (thanks Bernie and Kim).
- Someone who hopes to implement to the resulting standard.
- Standard must describe actual behavior of DHCP servers, not a preservation of false simplicity.
  - I would not omit the CIADDR behavior from ISC DHCP's implementation, if I still had that sort of say.
  - I don't think anyone else should either.