

# Server Override

draft-ietf-dhc-server-override-03.txt

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# Background on Server Override

- Relay agent tells DHCP server to put a particular address of the relay agent in the dhcp-server-identifier option when talking to a DHCP client.
- This causes the DHCP client to unicast renews to the relay agent, which will forward it on to the DHCP server

# Situation

Presently, the presence of a giaddr in the packet is the way the DHCP server distinguishes a broadcast from a unicast.

DHCP server can't tell if the packet forwarded by the relay agent was broadcast to the relay agent or unicast to the relay agent.

# Issues

- RFC 2131 guidance on when to NAK based on network connectivity can't be followed – may NAK when DHCP client unicast a renew. This makes every renew a rebind, more or less.
- When using load balancing can't tell renew from rebinding – generates two ACK's, makes load balancing less valuable
- DHCP client gets two ACK's whenever failover is used (regardless of load balancing).

# Solutions Discussed To Date

- Don't worry about it, reasonable things still work reasonably. Don't configure this on your relay agent if you don't have a reasonable configuration. Load balancing doesn't play well with server override.
- Add flags byte to server-id-override sub-option to indicate unicast/broadcast receipt by relay agent.
- Add new suboption to relay-agent-info option to indicate unicast/broadcast receipt. Adds value beyond server-id-override suboption.
- Move load balancing algorithm to relay agent.

# Recommendation

- New sub-option flags byte for relay-agent-info option. First flag is unicast flag. Low overhead in relay agent, allows servers to deal intelligently with forwarded packets.
- Doesn't preclude a load balancing algorithm draft for relay agents, but is considerably less difficult to implement (let alone approve).