

RFC6204bis

v6ops,IETF 83, Taipei

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Hemant Singh, Wes Beebee, **Chris Donley**, Barbara Stark, Ole Troan, and several other Contributors

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Agenda

- What is rfc6204bis-02?
- Other changes proposed to rfc6204 that will be included in rfc6204bis.
- Plan forward.

New Requirements

	RFC 6204	RFC 6204bis
6rd	-	6rd-{1-5}
DS-Lite	-	DLW-{1-6}
Coexistence	-	Native IPv4, IPv6 & 6rd, DS-Lite

Proposed Changes:

	RFC 6204	RFC 6204bis
G-5	By default, if the IPv6 CE router is an advertising router and loses its IPv6 default router(s) on the WAN interface, it MUST explicitly invalidate itself as an IPv6 default router on each of its advertising interfaces by immediately transmitting one or more Router Advertisement messages with the "Router Lifetime" field set to zero [RFC4861].	By default, if the IPv6 CE router is an advertising router and loses its IPv6 default router(s) and/or detects loss of connectivity on the WAN interface, it MUST explicitly invalidate itself as an IPv6 default router on each of its advertising interfaces by immediately transmitting one or more Router Advertisement messages with the "Router Lifetime" field set to zero [RFC4861].
WAA-7	If the IPv6 CE router is unable to assign address(es) through SLAAC, it MAY do DHCPv6 address assignment (request an IA_NA option) even if the M flag is set to 0.	

Proposed Changes:

	RFC 6204	RFC 6204bis
WAA-4	The IPv6 CE router MUST be able to support the following DHCPv6 options: IA_NA, Reconfigure Accept [RFC3315], and DNS_SERVERS [RFC3646].	The IPv6 CE router MUST be able to support the following DHCPv6 options: IA_NA, Reconfigure Accept [RFC3315], and DNS_SERVERS [RFC3646]. The IPv6 CE router SHOULD be able to support the DNS Search List DNSSL option as specified in [RFC6106].

Proposed Changes:

	RFC 6204	RFC 6204bis
WAA-8	If the IPv6 CE router does not acquire global IPv6 address(es) from either SLAAC or DHCPv6, then it MUST create global IPv6 address(es) from its delegated prefix(es) and configure those on one of its internal virtual network interfaces.	If the IPv6 CE router does not acquire global IPv6 address(es) from either SLAAC or DHCPv6, then it MUST create global IPv6 address(es) from its delegated prefix(es) and configure those on one of its internal virtual network interfaces unless configured to require a global IPv6 address on the WAN interface.
WPD-2	The IPv6 CE router MAY indicate as a hint to the delegating router the size of the prefix it requires. If so, it MUST ask for a prefix large enough to assign one /64 for each of its interfaces, rounded up to the nearest nibble, and MUST be configurable to ask for more.	The IPv6 CE router MAY indicate as a hint to the delegating router the size of the prefix it requires. If so, it MUST ask for a prefix large enough to assign one /64 for each of its interfaces, rounded up to the nearest nibble, and SHOULD be configurable to ask for more.

Proposed Changes:

	RFC 6204	RFC 6204bis
WPD-4	The IPv6 CE router MUST always initiate DHCPv6 prefix delegation, regardless of the M and O flags in a received Router Advertisement message.	By default, the IPv6 CE router MUST initiate DHCPv6 prefix delegation when either the M or O flags are set to 1 in a received Router Advertisement message.
WPD-7	If the IPv6 CE router requests both an IA_NA and an IA_PD option in DHCPv6, it MUST accept an IA_PD option in DHCPv6 Advertise/Reply messages, even if the message does not contain any addresses.	If the IPv6 CE router requests both an IA_NA and an IA_PD option in DHCPv6, it MUST accept an IA_PD option in DHCPv6 Advertise/Reply messages, even if the message does not contain any addresses, unless configured to only obtain its WAN IPv6 address via DHCPv6.

Proposed Changes:

	RFC 6204	RFC 6204bis
L-11	The IPv6 CE router SHOULD support providing DNS information in the Router Advertisement Recursive DNS Server (RDNSS) and DNS Search List (DNSSL) options as specified in [RFC6106].	The IPv6 CE router MUST support providing DNS information in the Router Advertisement Recursive DNS Server (RDNSS) and DNS Search List (DNSSL) options as specified in [RFC6106].
S-3		If the IPv6 CE router firewall is configured to filter incoming tunneled data, the firewall SHOULD provide the capability to filter decapsulated packets from a tunnel.

Not Included:

- Ongoing LAN work – moved to homenet.
- DHCPv6 server storm – item in DHC including the MAX_SOL_RT bullet in the rfc6204bis -02 version.
- Multicast.
- PCP, UPnP/PCP proxy: Include WAN PCP text when rfc6204bis is in IESG if PCP is an RFC or in IESG.

Plan Forward

- Will post -03 soon. Gross delta between the public -02 and the private -03 version is removal of the MAX_SOL_RT bullet in the -03 version.
- We should try and LastCall the -03 version.
- Any issues to discuss from the audience?

Thank you.