

DHCPv6 class based prefix

(draft-bhandari-dhc-class-based-prefix-04)

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Presenter

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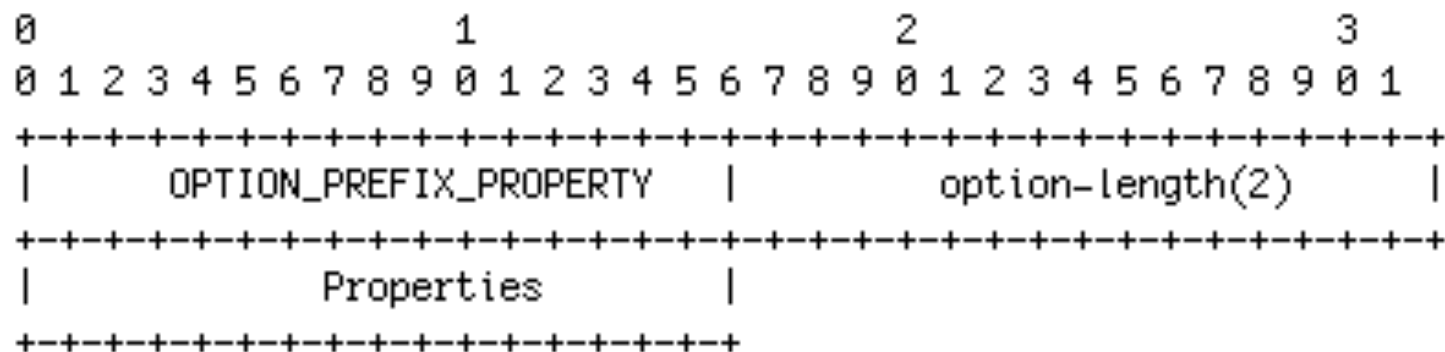
Problem

- A host has multiple prefixes to multiple networks or services
- How can a host pick the right source address for the right network/service?

Prefix metadata

- Prefix Property – Metadata that is universally understood e.g. Prefix provides mobility, Prefix does not provide internet connectivity
- Prefix Class – Metadata of local significance e.g. Prefix can be used to reach ISPs Video service

Prefix Property

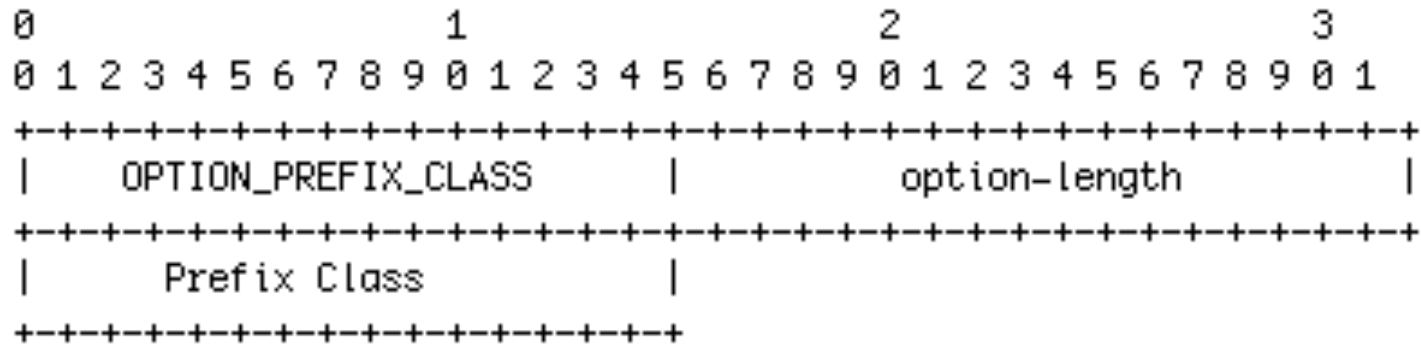


option-code: OPTION_PREFIX_PROPERTY (TBD1)
option-length: 2
Properties: 16 bits maintained as
 OPTION_PREFIX_PROPERTY in
 IANA registered namespace.
 Each value in the registry represents a property.
 Multiple properties can be represented by bitwise
 ORing of the individual property values in this
 field.

Example Prefix Properties:

0x0001	The prefix cannot be used to reach the Internet
0x0002	The prefix provides network based mobility
0x0004	
0x0008	
0x0010	
0x0020	
0x0040	
0x0080	
0x0100	
0x0200	
0x0400	
0x0800	
0x1000	
0x2000	
0x4000	
0x8000	

Prefix Class



option-code: OPTION_PREFIX_CLASS (TBD2)
option-length: 2
Prefix Class: 16 bit integer with the integer value
 of local significance.

Related Work

- Prefix Property and class in IPv6 Neighbor Discovery messages
 - draft-korhonen-6man-prefix-properties-01

Next Steps

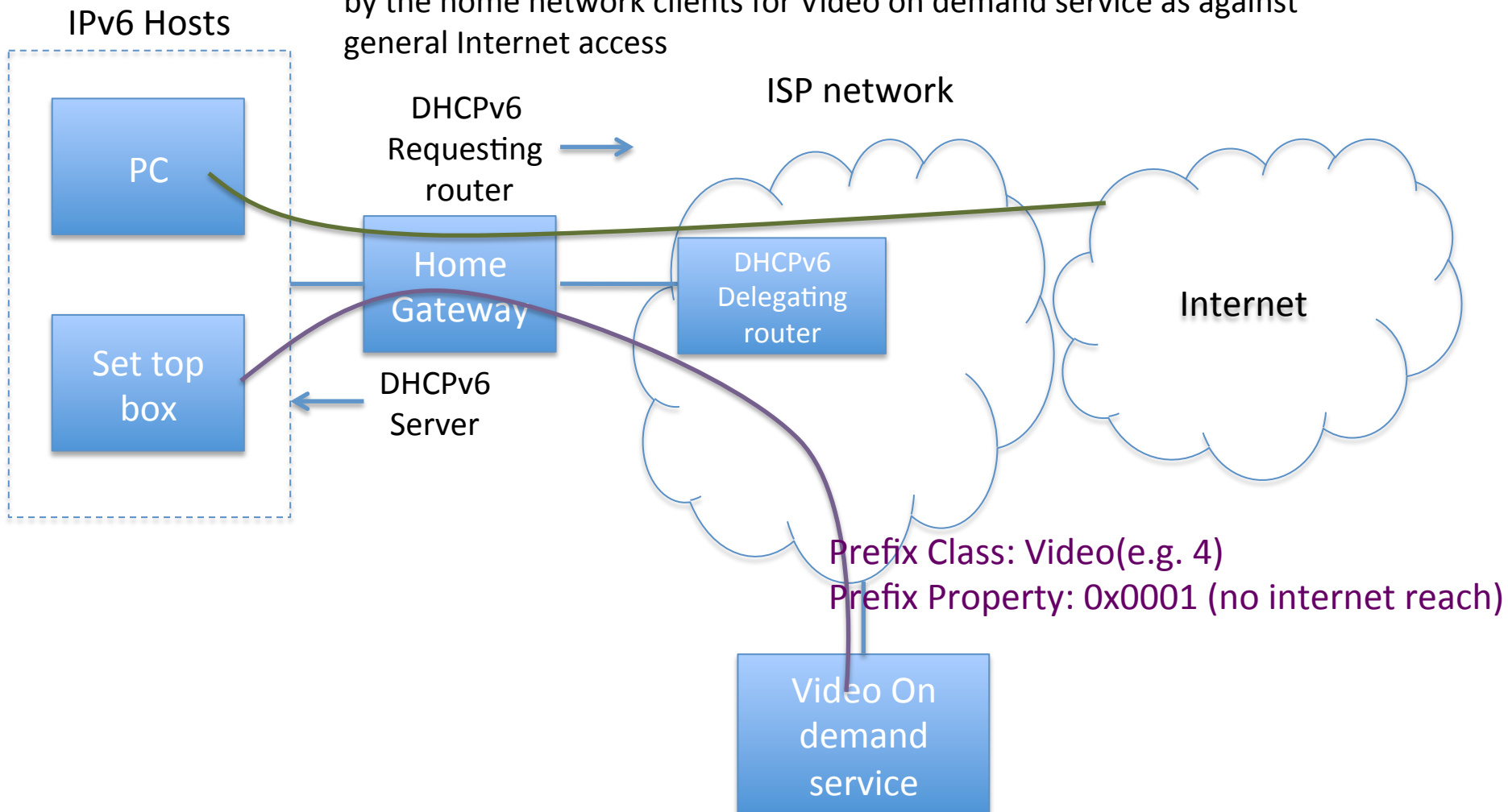
- Authors appreciate feedback from the WG
- WG draft?

Backup

Home network with video class service

In this example, two different services are being run on the same network.

The service provider wishes that traffic is sourced from different prefixes by the home network clients for Video on demand service as against general Internet access



Motivation: WLAN-EPC Integrated Architecture

- To support offload function for certain traffic in chained mobility scenario, the UE needs to use the right source address for the right application flows, based on the offload requirements. The obtained address configuration can be from EPC or from the local domains.

