

Service Identifiers List Option for DHCPv6

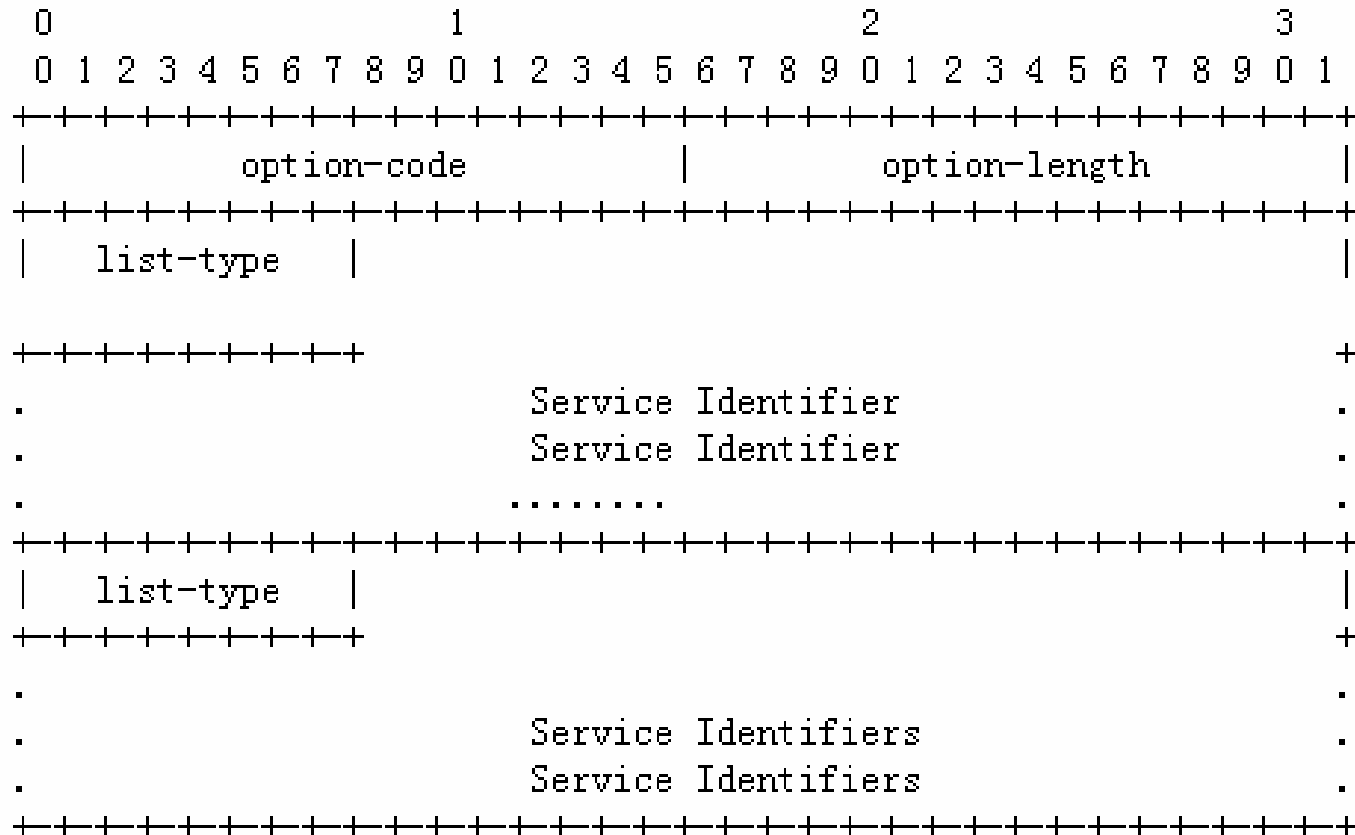
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Requirements from operating experience

- With the various kind of promising wireless broadband access technologies, there are more possibilities that mobile node could have multiple connections which may provide different kind of service available.
- In some cases, the operator would like to let the mobile node to know what kind of services it allow or doesn't allow in this connection. It may influence network routing, policy and quality of service, et al. consideration.
- Reminders of subscribers about what kind of service might be interesting for them.

Format of the Service Identifiers List Option



list-type

- The type of service identifier:
 - 0 Supported
 - 1 Not Supported

Identifier

- A variable length UTF-8 encoded service identifier string used to identify the requested service. 'ims', 'voip' and 'p2p' are valid examples of Service Identifiers.
- Identifier: TLV
 - Type 1: string
 - Type 0: port number

Thanks comments from Shane Kerr

- Two kinds of meaning:
 - There is a reachable ... Server.
 - Allow such kind of ... port traffic.
- Clients need to be able to know exactly what the server means when it sends a service identifier
- Also, if you are going to be sending lists of ports that are open, perhaps it makes more sense to send those, instead of giving service names. Clients will need to know how these ports are handled.

Option usage

- There are various kind of wireless broadband access technologies, one mobile node may has multiple wireless cards, subscriber may choose different connection for different service. So a DHCPv6 server may provide a list of service identifiers option to different clients. The mobile node will decide which service may take which connection based on this advertisement of this dhcp option.
- This option could be advertised to dhcp client after authentication procedure to guarantee eligible subscriber could get this information.

Conclusion

- This document describes a new option for DHCPv6 [RFC3315] that provides a mechanism for specifying a list of service identifiers which this connection support or don't support.