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T. Yang
L. Li
Q. Ma
China Mobile
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Scenario of IPv6 Transition Technologies Selection draft-yang-v6ops-ipv6tran-select-03

Abstract

Many IPv6 transition technologies has been proposed, such as Dual-Stack, 6rd and so on. An CPE may support some of them instead of only one. But the ISPs always support different kinds of transition technologies. So they must control all the CPEs to match the exact transition tech through the CPEs' management system or configuring them before issuing to the customers.

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[1.](#) Problem Statement

Nowadays, many IPv6 transitioning technologies has been proposed such as Dual-Stack, DS-Lite, 6rd and so on. Each of them proposes individual requirment to the CPEs. To promote the competitive ability of products,the CPE manufacturers certainly will try to support more technologies as much as possible. Meanwhile, the operators tend to use single or less technologies. Moreover, users can buy and use their own equipments instead of using the one which operator gives them, that will bring the diversity of CPEs.

Assume that an operator uses one or more transitioning strategies in its network. There are two ways to make the CPEs available. The first one is to make a pre-configuration for each CPE in advance. But, when the users modify the configuration or change to their own equipment, the connection will fail. The Second method is to deploy Network Management System (NMS) to configure all the CPEs. Various CPEs from different manufactories usually need different NMS which means either the operator needs to maintains multiple NMS in their network or operator can only use one manufacturer's product in a subnet. What's worse, when users buy and use their own CPE instead of using the original one, there will be no any solutions to configure correctly except visiting service.

Some specific messages need to be define between CPE and DHCP Server to communicate the IPv6 transition technologies.

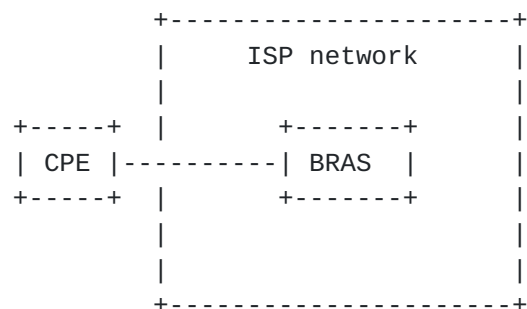


Figure1 IPv6 trans tech configuration Scenario

2. Security Considerations

The security problem is under discussion.

Authors' Addresses

Tianle Yang
China Mobile
32, Xuanwumenxi Ave.
Xicheng District, Beijing 100053
China

Email: yangtianle@chinamobile.com

Li Lianyuan
China Mobile
32, Xuanwumenxi Ave.
Xicheng District, Beijing 100053
China

Email: lilianyuan@chinamobile.com

Qiongfang Ma
China Mobile
32, Xuanwumenxi Ave.
Xicheng District, Beijing 100053
China

Email: maqiongfang@chinamobile.com

