IPv6 Support in Reference Platform of RDK Broadband - User Manual

1.1. Introduction

The support for IPv6 has been added to the Reference platform i.e. Raspberry-pi Gateway with RDK Broadband. With this feature added, the Raspberry-pi gateway will support following:

- The gateway will have global IPv6 address for its WAN and LAN interfaces.
- This gateway will be able to provide an IPv6 address to its connected clients and it will able to route the internet connectivity over IPv6.
- With this solution, it will support both IPv4 and IPv6 connectivity simultaneously.

1.2. Environment Setup

- ### 1.2.1. Set-up Considerations
    - Connect the Raspberry-pi gateway device, running RDK-B, to an open network which supports IPv6.
        - If open network is not available, connect Raspberry-pi to another gateway as a client device.
        - Put that gateway device in "Bridge" mode. This will connect the Raspberry-pi to open network.
    - Connect a PC to Raspberry-pi gateway as a client.

1.3. Executing System

When the Raspberry-pi Gateway device is booted, verify that below processes are running.

- "dibbler-client"
- "dibbler-server"

Follow the below steps to verify the basic functionality of IPv6 routing:

- Connect to the shell of Raspberry-pi and verify
    - "/var/log/dibbler/"
    - Both the interfaces have IPv4, local IPv6 and global IPv6 addresses
    - Run "dibbler-client status" to check both dibbler client and dibbler server are running
    - Check the logs for both client and server in the below path and check if they are running fine without any errors
    - Check the "ifconfig" for erouter0 and brlan0 to confirm
- On the client PC, connected to Raspberry-pi, open the website www.test-ipv6.com
    - Verify that on the "Summary" page, the score is 10/10.
    - Verify that the test results on the "Tests run" tab are all "ok" for all the tests executed.
    - Check the "summary" tab and "Tests run" tab

1.4. Support

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