

## Huawei AR G3 Series Enterprise Routers Feature Validation

### Executive Summary

As IP networks become the unified platform for information and communication technology (ICT) services, enterprises are interested in routers' high performance, high availability and easy expansion capability. Security, application control and integrated WLAN Access Controller functionalities are all necessary for today's enterprise routers.

AR G3 series enterprise routers are developed upon Huawei's VRP (versatile routing platform) and are ideal as access points for large/medium campuses, enterprise headquarters and branch offices.

Tolly engineers verified that Huawei AR G3 routers support various features like URL filtering, built-in WLAN Access Controller functionalities and Smart Application Control (SAC) to fulfill end users' requirement for a variety of services. Additionally, Tolly engineers verified that the AR3260 model supports dual main control boards providing Non-Stop Forwarding (NSF) for high availability.

### The Bottom Line

Huawei AR G3 Series Enterprise Routers support:

- 1 Dual main control boards providing Non-Stop Forwarding (AR3260 model)
- 2 Built-in WLAN Access Controller functionalities without any additional modules
- 3 URL filtering
- 4 Smart Application Control

### Huawei AR G3 Series Enterprise Routers Tolly Certified Features/Functionalities

Feature Description	
✓	Built-in WLAN Access Controller Functionalities
✓	URL Filtering
✓	Smart Application Control
✓	Dual Main Control Boards that provide Non-Stop Forwarding (only with AR3260)

Source: Tolly, July 2013

Table 1



## Feature Validation

### Built-in WLAN Access Controller

Tolly engineers verified that the integrated WLAN AC capability of Huawei AR G3 routers enabled the router to manage Huawei's WLAN Access Points and associated clients.

### Manage WLAN Access Points

One Huawei AP5010 was successfully registered to the AR G3 router under test.

### Encrypted SSID

Encrypted SSIDs were created with WEP, WPA and WPA2 using the AR G3 router under test.

### Blacklist/Whitelist

Blacklists and whitelists could be created using the AR G3 router under test with MAC addresses. While a MAC address was in the blacklist, the device with that MAC address could not be associated with the SSID. While a MAC address was in the whitelist, only the device with that MAC address could be associated with the SSID.

### URL Filtering

AR G3 routers supported filtering traffic by URL. Tolly engineers put wildcard \*bbs\* to the blacklist and verified that Websites with "bbs" in the URL could not be accessed.

### Smart Application Control (SAC)

#### Instant Messaging (IM)

Tolly engineers used the QQ instant messaging service from Tencent to verify that AR G3 routers could block IM application traffic. When SAC for QQ was enabled, login attempts to QQ failed.

#### Video Streaming

PPTV (a popular Chinese video streaming application) was used to verify that AR G3 routers could block video streaming application traffic. When SAC for PPTV (PPLive) was enabled, videos could not play in the application.

#### Peer-to-Peer (P2P)

Thunder (a popular Chinese P2P application) was used to verify that AR G3 routers could block P2P download application traffic. When SAC for Thunder was enabled, download tasks in Thunder failed.

#### Dual Control Boards with NSF

Two SRU80 control boards (one Master and one Slave) were equipped on one AR3260 router. With 100Mbps traffic passing through the 8FE interface module on the AR3260 router, when the master SRU80 board was unplugged, the slave board became the new master and there was no packet loss.



**Huawei Technologies Co., Ltd.**

**AR G3 Series Routers**

**Feature Validation**

*Tested July 2013*

## Test Environment

One Huawei AR3260 Router was used as the device under test. See Table 2 for details.

Device Under Test	
Product	Firmware
<p>Huawei AR3260 Router (with SRU80 control boards)</p> 	<p>Huawei VRP (R) software, Version 5.130 (AR3200 V200R005C00)</p>

Source: Tolly, July 2013 Table 2



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