Manual Addendum

Bandwidth Control Feature
AN-310-RT-4L2W Network Router

Introduction

This document details functionality and setup of the Bandwidth Control feature introduced in firmware version 1.1.64.

> ⚡ **Caution –** Bandwidth Control should only be used by networking professionals. Configuring this feature incorrectly will cause network performance and reliability issues.

What is Bandwidth Control?

This feature allows you to manage WAN interface bandwidth for network clients based on IP address. Bandwidth Control does not control intra-network traffic, only traffic to and from the WAN connection(s) for clients on the LAN. Use this feature to limit the total bandwidth use, for specified clients.

Bandwidth Control is implemented by creating rules for upstream or downstream traffic limits to one or more IP addresses. Rules may be "stacked" in order to further segment bandwidth use based on the needs of each client's applications.

Basic Example

You have a client with a guest network, but they do not want guests using all their bandwidth downloading movies or games. Bandwidth control can be used to limit the amount of bandwidth the guest network can use.

> ☰ **Note –** See the last page for an additional setup example including menu configuration.

Bandwidth Control Menu Overview

Path – Advanced, Bandwidth Control

Service Management

Entries in the Service Management table are used when creating new rules in the Bandwidth Control Settings menu at the bottom of the page. Entries may be deleted or modified and new rules can be added.

Service Management

Service Name ⇕	Protocol ⇕	Port ⇕	ℹ
All Traffic	TCP+UDP ▾	1 ~ 65535	🗑
	TCP ▾	~	🗑
≡+ Add Service			

Parameters –

•   **Service Name –** Description for the ports in the rule.

•   **Protocol –** Select the protocol(s) for the ports. Options: TCP, UDP, TCP+UDP

•   **Port –** Enter the port or port range for the rule. Enter the same port number in both fields to specify a single port.

•   **Delete –** Click to delete a rule.

•   **Add Service –** Click to add a new rule entry.

You must click **Apply** at the bottom right of the page to save changes.

> ≡   **Note –** Changes in the Bandwidth Control Services table are shared with the ACL Services table.

Bandwidth Control Settings

This menu is used to configure the total bandwidth being limited among specific clients.

> ☰ **Note –** Bandwidth Control does not guarantee any minimum amount of bandwidth.

- **Bandwidth Control Settings**
  - **Interface –** Select the WAN interface the rule will affect.
  - **Service –** Select a service from the drop down. Use the All Traffic setting unless you want to regulate bandwidth for a specific program or service using a forwarded port.
  - **IP Range –** Set the range of IP addresses that will be affected by the rule. Enter the same address in both fields to create a rule for a single IP address.
  - **Direction –** Select whether the rule affects upstream or downstream traffic.
  - **Bandwidth (kbits/s) –** Enter the maximum bandwidth allowance for the rule.
  - **Bandwidth Sharing –** Select *Sharing total bandwidth for all IP* to split the specified bandwidth among the clients, or *Assign for each IP* to allow the full specified bandwidth for each IP.
  - **Enable –** Select whether the rule is in effect or not.
  - **Trashcan –** Delete a rule.
  - **Add Bandwidth Settings –** Click to add a new rule entry.

You must click **Apply** at the bottom right of the page to save changes.

Bandwidth Control Setup Instructions

Before You Begin

- Calculate the bandwidth requirements for all Bandwidth Control rules and make sure that remaining bandwidth is sufficient for unregulated clients.

- We recommend reserving no more than 80% of the available bandwidth from the ISP in the rules you create. This guarantees that bandwidth will remain available for unspecified IPs.

Configuration Instructions

1. Log into the router interface and navigate to the Bandwidth Control menu: Advanced > Bandwidth Control.

2. Insert the maximum bandwidth values into the appropriate Interface Bandwidth Setting fields (second menu on the page). In this example, only the WAN1 interface is being used.

3. Click the **Add** button under the Bandwidth Control Settings menu. A new entry line will appear for adding bandwidth management rules.

4. Create rules to regulate the bandwidth as needed.

5. After all of the rules have been created, click the **Apply** button to save the new configuration.

6. See the next page for additional information about the example shown above.

Menu Configuration Example

The above example shows the IP range of a Guest Network. We do not want guests using all of our bandwidth downloading movies or games.

- Enter the IP Range of the Guest Network under IP Range.
- Direction has been set to Both.
- Bandwidth has been set to 30,000kbits. Enough for a few guests to stream content, and browse the Internet.

Contacting Technical Support

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