

Bandwidth Management Configuration on RV320 and RV325 VPN Router Series

Objective

Bandwidth is the amount of data that can be transferred across a network at any given time. The RV32x VPN Router Series utilizes bandwidth efficiently through the use of bandwidth management. Bandwidth management is a Quality of Service (QoS) feature that prioritizes network services either by rate controls or prioritization levels.

This article shows the user how to manage bandwidth on the RV32x VPN Router Series.

Applicable Devices

- RV320 Dual WAN VPN Router
- RV325 Gigabit Dual WAN VPN Router

Software Version

- v1.1.0.09

Bandwidth Management

Step 1. Log in to the web configuration utility and choose **System Management > Bandwidth Management**. The *Bandwidth Management* page opens:

Bandwidth Management

Max Bandwidth Provided by ISP		
Interface	Upstream (kb/s)	Downstream (kb/s)
WAN1	20000	152000
WAN2	20000	152000
USB1	256	2048
USB2	256	2048

Bandwidth Management Type

Type : Rate Control Priority

Rate Control Table							Items 1-1 of 1	5	per page
<input type="checkbox"/>	Interface	Service	IP	Direction	Min. Rate(kb/s)	Max. Rate(kb/s)	Status		

Add Edit Delete Service Management ...

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Save Cancel View ...

Step 2. Enter values in the following fields that correspond to the desired interface.

- Upstream — The maximum upload speed that is provided by your ISP in kilobits per second.
- Downstream — The maximum download speed that is provided by your ISP in kilobits per second.

Bandwidth Management by Rate Control

Bandwidth management is a feature that manages the bandwidth usage of a service. Any traffic that meets the criteria of the bandwidth management is subject to the rate control configured in the bandwidth management.

Interface	Service	IP	Direction	Min. Rate(kb/s)	Max. Rate(kb/s)	Status
<input checked="" type="checkbox"/> WAN1	TFTP [UDP/69-69]	192.168.1.1 to 192.168.1.254	Downstream	500	500	<input checked="" type="checkbox"/>

Step 1. Click the **Rate Control** radio button in the Type field.

Step 2 Click **Add** to add bandwidth management.

Step 3. Check the check boxes for the interfaces to which the bandwidth management applies in the Interfaces field.

Step 4. From the Service drop-down list choose the service that applies to the bandwidth management.

Note: Click **Service Management** to add or edit a service. [Service Management](#) is further discussed later in the article.

Step 5. Enter the range of IP addresses that applies to the bandwidth management in the IP field.

Step 6. From the Direction drop-down list choose the direction of traffic that applies to the bandwidth management. Upstream applies to outbound traffic while downstream applies to inbound traffic.

Step 7. Enter the following rates that apply to the bandwidth management.

- Min. Rate — The minimum guaranteed bandwidth allowed for the service in kilobits per second.
- Max. Rate — The maximum guaranteed bandwidth allowed for the service in kilobits per second.

Step 8. Check the check box in the Status field to enable the bandwidth management.

Step 9. Click **Save**. The bandwidth management is configured.

Interface	Service	IP	Direction	Min. Rate(kb/s)	Max. Rate(kb/s)	Status
<input checked="" type="checkbox"/> WAN1	TFTP[UDP/69-69]	192.168.1.1~192.168.1.254	Downstream	500	500	Enabled

Note: Click **View** to view a table of all the configured bandwidth managements by rate control.

Rate Control Table						
Interface	Service	IP Address	Direction	Min. Rate (kb/s)	Max. Rate (kb/s)	Enable
WAN1	TFTP [UDP/69~69]	192.168.1.1 ~ 192.168.1.254	Downstream	500	500	Enabled

Refresh Close

Bandwidth Management by Priority

Bandwidth management is a feature that manages the bandwidth usage of a service. For priority bandwidth management, bandwidth usage is determined by the priority level of a service.

Bandwidth Management Type

Type : Rate Control Priority

Priority Table Items 0-0 of 0 5 per page

<input type="checkbox"/>	Interface	Service	Direction	Priority	Status
<input checked="" type="checkbox"/>	WAN1	HTTP Secondary [TCP/8080~8080]	Downstream	High	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	WAN2				
<input type="checkbox"/>	USB1				
<input type="checkbox"/>	USB2				

Add Edit Delete Service Management ...

Page 1 of 1

Step 1. Click the **Priority** radio button in the Type field.

Step 2. Click **Add** to add bandwidth management.

Step 3. Check the check boxes for the interfaces to which the bandwidth management applies in the Interfaces field.

Step 4. From the Service drop-down list choose the service that applies to the bandwidth management.

Note: Click **Service Management** to add or edit a service. [Service Management](#) is further discussed later in the article.

Step 5. From the Direction drop-down list choose the direction of traffic that applies to the bandwidth management. Upstream applies to outbound traffic while downstream applies to inbound traffic.

Step 6. From the Priority drop-down list choose a priority level for the service, either High or Low. More bandwidth is provided to services with higher priority. Services that have not been applied to priority bandwidth management have a default priority level of medium.

Step 7. Check the check box in the status field to enable the bandwidth management.

Step 8. Click **Save**. The bandwidth management is configured.

Bandwidth Management Type

Type : Rate Control Priority

Priority Table						Items 1-1 of 1 5 per page
<input type="checkbox"/>	Interface	Service	Direction	Priority	Status	
<input type="checkbox"/>	WAN1,WAN2	HTTP Secondary[TCP/8080~8080]	Downstream	High	Enabled	

Add Edit Delete Service Management ... Page 1 of 1

Save Cancel View ...

Note: Click **View** to view a table of all the configured bandwidth management by priority.

Priority				
Interface	Service	Direction	Priority	Enabled
WAN1	HTTP Secondary [TCP/8080~8080]	Downstream	High	Enabled
WAN2	HTTP Secondary [TCP/8080~8080]	Downstream	High	Enabled

Refresh Close

Edit Bandwidth Management

Bandwidth Management Type

Type : Rate Control Priority

Priority Table						Items 1-1 of 1 5 per page
<input type="checkbox"/>	Interface	Service	Direction	Priority	Status	
<input checked="" type="checkbox"/>	WAN1,WAN2	HTTP Secondary[TCP/8080~8080]	Downstream	High	Enabled	

Add Edit Delete Service Management ... Page 1 of 1

Step 1. Check the check box of the bandwidth management that you want to edit.

Step 2. Click **Edit** in the Rate Control or Priority Table to edit the bandwidth management.

Bandwidth Management Type

Type : Rate Control Priority

Priority Table						Items 1-1 of 1 5 per page
<input type="checkbox"/>	Interface	Service	Direction	Priority	Status	
<input checked="" type="checkbox"/>	WAN1 <input checked="" type="checkbox"/> WAN2	HTTP Secondary [TCP/8080~8080]	Downstream	High	<input checked="" type="checkbox"/>	

Add Edit Delete Service Management ... Page 1 of 1

Step 3. Edit the desired fields.

Step 4. Click **Save**. The bandwidth management configuration is updated.

Delete Bandwidth Management

Bandwidth Management Type

Type : Rate Control Priority

Rate Control Table							Items 1-1 of 1 5 per page
<input type="checkbox"/>	Interface	Service	IP	Direction	Min. Rate(kb/s)	Max. Rate(kb/s)	Status
<input checked="" type="checkbox"/>	WAN1	TFTP[UDP/69-69]	192.168.1.1~192.168.1.254	Downstream	500	500	Enabled

Add Edit Delete Service Management ... Page 1 of 1

Step 1. Check the check box of the bandwidth management you want to delete.

Step 2. Click **Delete** in the Rate Control or Priority Table to delete the bandwidth management.

Step 3. Click **Save**. The bandwidth management configurations is deleted.

Add Service Name

Step 1. Click **Service Management**. The *Service Management* window appears.

<input type="checkbox"/>	Service Name	Protocol	Port Range
<input type="checkbox"/>	All Traffic	TCP&UDP	1~65535
<input type="checkbox"/>	DNS	UDP	53~53
<input type="checkbox"/>	FTP	TCP	21~21
<input type="checkbox"/>	HTTP	TCP	80~80
<input type="checkbox"/>	HTTP Secondary	TCP	8080~8080
<input type="checkbox"/>	Service 1	UDP	27000 ~ 27015

Items 1-5 of 20 5 per page

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Save Cancel

Step 2. Click **Add** to add a new service.

Step 3. Enter a name for the service in the Service Name field.

Step 4. From the protocol drop-down list choose the protocol that the service uses.

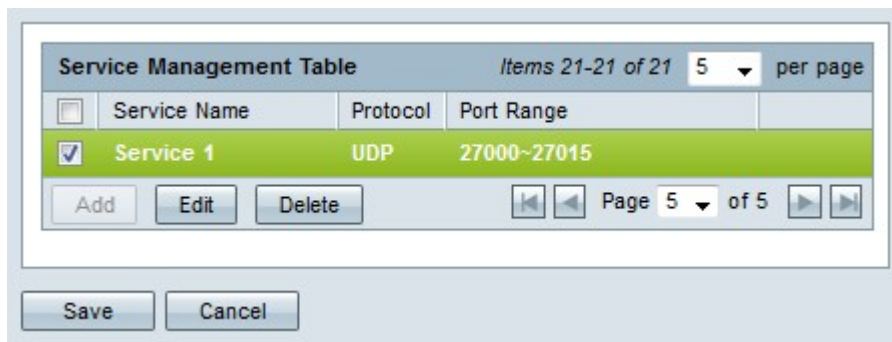
- TCP — The service forwards Transmission Control Protocol (TCP) packets.
- UDP — The service forwards User Datagram Protocol (UDP) packets.
- IPv6 — The service forwards all IPv6 traffic.

Step 5. If the protocol is either TCP or UDP, enter the range of ports that is reserved for the service in the Port Range field.

Step 6. Click **Save**. The service is saved to the Service Management Table.

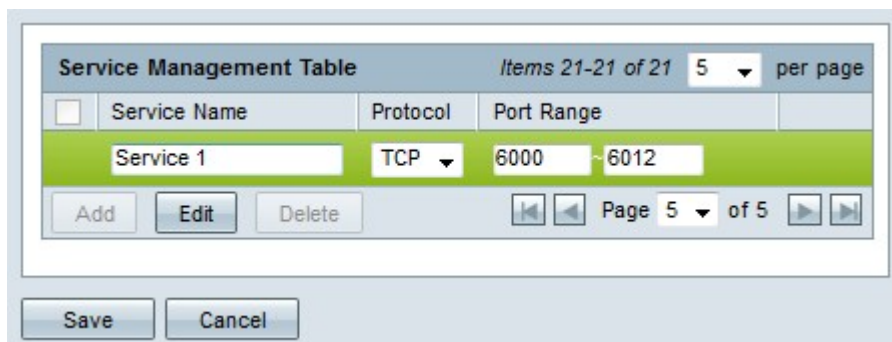
Edit Service Name

Step 1. Click **Service Management**. The *Service Management* window appears.



Step 2. Check the check box of the service you want to edit.

Step 3. Click **Edit** to edit the service.



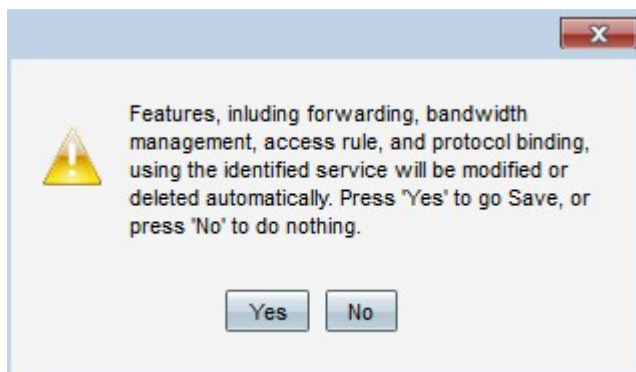
Step 4. Edit the name for the service in the Service Name field.

Step 5. From the protocol drop-down list choose the protocol that the service uses.

- TCP — The service forwards Transmission Control Protocol (TCP) packets.
- UDP — The service forwards User Datagram Protocol (UDP) packets.
- IPv6 — The service forwards all IPv6 traffic.

Step 6. If the protocol is either TCP or UDP, enter the range of ports that is reserved for the service in the Port Range field.

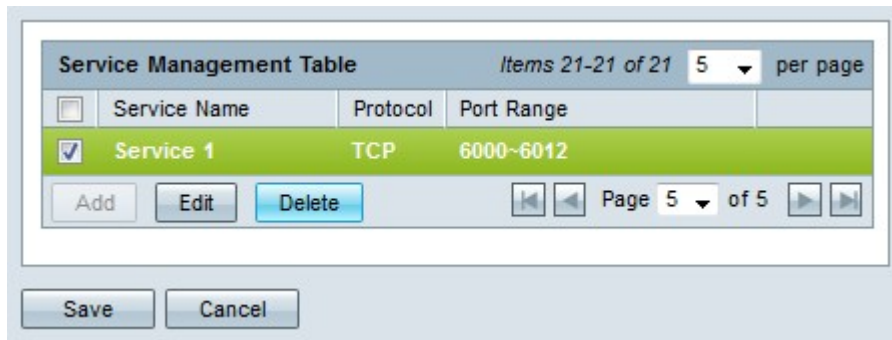
Step 7. Click **Save**. A warning window appears. Any configuration that is associated with the edited service will be automatically updated.



Step 8. Click **Yes**. The service configuration is updated.

Delete Service Name

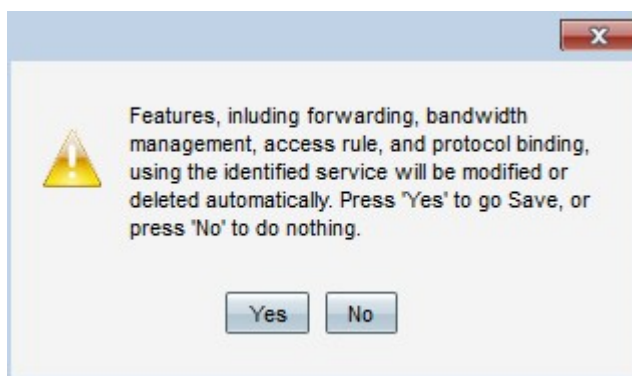
Step 1. Click **Service Management**. The *Service Management* window appears.



Step 2. Check the check box of the service you want to delete.

Step 3. Click **Delete** to delete the service.

Step 4. Click **Save**. A warning window appears. Any configuration that is associated with the deleted service will be automatically deleted.



Step 5. Click **Yes**. The service is deleted.