How do I configure the bandwidth management/traffic shaping?

This FAQ will demonstrate setting up bandwidth management/traffic shaping on 1Mbps leased line upstream and downstream.

For inbound and outbound http and https: Maximum bandwidth is 500 Kbps. For inbound and outbound pop3: Guaranteed bandwidth is 300 Kbps. For inbound and outbound other services: The remaining bandwidth will be used.

Step 1: Open the web browser and type the IP address of the device in the address bar *(default is 192.168.1.1),* press **Enter**.

Step 2: Click on **Traffic Management** and click on **Traffic Shaping**, select **Pipes**. Click **Add** and select **Pipe** for inbound traffic. Configure the pipe rule as followed:

- **Name:** Name as desired (wan_in in this example)
- Precedences:
- Highest: 300 Kbps
- Total: 1000 Kbps
- Group: None

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Step 3: Click Add and select Pipe for outbound traffic. Configure the pipe rule as followed:

- Name: Name as desired (wan_out in this example)
- Precedences:
- Highest: 300 KbpsTotal: 1000 Kbps
- Group: None

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Step 4: Click **Add** and select **Pipe** for http/https inbound traffic. Configure the pipe rule as followed:

- **Name**: Name as desired (*http_https_in in this example*)
- Precedences:
- Medium: 500 Kbps
- Total: 500 Kbps
- Group: None

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Step 5: Click **Add** and select **Pipe** for http/https outbound traffic. Configure the pipe rule as followed:

- **Name**: Name as desired (*http_https_out in this example*)
- Precedences:
- Medium: 500 Kbps
- Total: 500 Kbps
- Group: None

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Step 6: Click **Add** and select **Pipe** for Pop3 inbound traffic. Configure the pipe rule as followed:

- **Name:** Name as desired (*pop3_in in this example*)
- Precedences:
- Highest: 300 Kbps
- Total: 300 Kbps
- Group: None

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	Grouping:	None	~	Maximum bandwidth per group:
	Network Size:	Ø	~	Enable dynamic balancing of groups

Step 7: Click **Add** and select **Pipe** for Pop3 outbound traffic. Configure the pipe rule as followed:

- **Name:** Name as desired (*pop3_out in this example*)
- Precedences:
- Highest: 300 Kbps
- Total: 300 Kbps
- Group: None

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Step 8: Click **Pipe Rules** on the left side of the configuration screen. Click on **Add** and select **PipeRule** for http/https. Configure the pipe rule as followed:

- **Name:** Name as desired (wan_http_https in this example)
- Service: http-all
- Schedule: None
- Source Interface: lan
- Source Network: lannet
- Destination Interface: wan
- **Destination Network:** all-nets

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	Network:	lannet	~	all-nets	~			

Step 9: Select the **Traffic Shaping** tab and configure as followed:

• Forward Chain: Add desired pipe into Selected box in order to perform traffic shaping. (wan_out and http_https_out created in step 3 and 5)

• **Return Chain:** Add desired pipe into Selected box in order to perform traffic shaping. (wan_in and http_https_in created in step 2 and 4)

• **Precedence:** select **Use fixed precedence**, click the drop-down menu and select desired precedence. (*0 is selected in this example*)

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				Move up Move down		

Step 10: Click **Add** and select **PipeRule** for Pop3. Configure the pipe rule as followed:

- **Name**: Name as desired (*wan_pop3 in this example*)
- Service: pop3
- Schedule: None
- Source Interface: lan
- Source Network: lannet
- Destination Interface: wan
- **Destination Network:** all-nets

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Step 11: Select the **Traffic Shaping** tab and configure as followed:

• Forward Chain: Add desired pipe into Selected box in order to perform traffic shaping (pop3_out and wan_out created in step 7 and 3)

• **Return Chain:** Add desired pipe into Selected box in order to perform traffic shaping (*pop3_in and wan_in created in step 6 and 2*)

• **Precedence:** select **Use fixed precedence**, click the drop-down menu and select desired precedence (6 is selected in this example)

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				Move up Move down

Step 12: Click **Add** and select **PipeRule** for other services. Configure the pipe rule as followed:

- **Name:** Name as desired *(wan_others in this example)*
- **Service:** all_services
- Schedule: None
- Source Interface: lan
- Source Network: lannet
- Destination Interface: wan
- **Destination Network:** all-nets

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Step 13: Select the **Traffic Shaping** tab and configure as followed:

• Forward Chain: Add desired pipe into Selected box in order to perform traffic shaping (*wan_out created in step 3*)

• **Return Chain:** Add desired pipe into Selected box in order to perform traffic shaping (*wan_in created in step 2*)

• **Precedence:** select **Use fixed precedence**, click the drop-down menu and select desired precedence (*0 is selected in this example*)



Step 14: Click the plus sign next to **Rules**, select **IP Rules**, click **Add** and select **IP Rule Folder**. Configure as followed:

• Name the folder as desired

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Step 15: Click Add and select IP Rule. Configure the new IP rule as followed:

- Name: Name as desired
- Action: Allow
- Service: http-all
- Schedule: None
- Source Interface: lan
- Source Network: lannet
- Destination Interface: wan
- **Destination Network:** all-nets

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	Network:	lannet	~	all-nets	*

Step 16: Click Add and select IP Rule. Configure the new IP rule as followed:

- Name: Name as desired
- Action: Allow
- Service: pop3
- Schedule: None
- Source Interface: lan
- Source Network: lannet
- Destination Interface: wan
- **Destination Network:** all-nets

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PipeRules	NEROCH.	lannet	~	all-nets	~			

Step 17: Click Add and select IP Rule. Configure the new IP rule as followed:

- Name: Name as desired
- Action: Allow
- **Service:** all_services
- Schedule: None
- Source Interface: lan
- Source Network: lannet
- Destination Interface: wan
- **Destination Network:** all-nets

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Step 18: Click on the **Configuration** tab and select **Save and Activate** from the dropdown menu Click **OK**.

