Configure Web Filtering on the RV13x and RV32x Series Routers

Objective

Web filtering is a feature on your router that can enhance an already secured network and promote productivity in the workplace by screening websites according to a score on a Web Reputation Index, adding keywords or domain names to a blacklist, and by server IP address.

An administrator or a company may have existing guidelines that discuss general network security, the Internet of things, and rules they want to implement on a network yet find an exception to the rules when it comes to a particular department. The administrator can create scheduled rules and bind them to exception lists granting access to specific websites during a certain time of the day or granting access to all websites to a specific user or users while the rest of the users on the network have denied access.

This article aims to show you how to configure web filtering on the RV Series Routers. This configuration will also emphasize the importance of the features.

Applicable Devices

- RV130
- RV130W
- RV325
- RV320

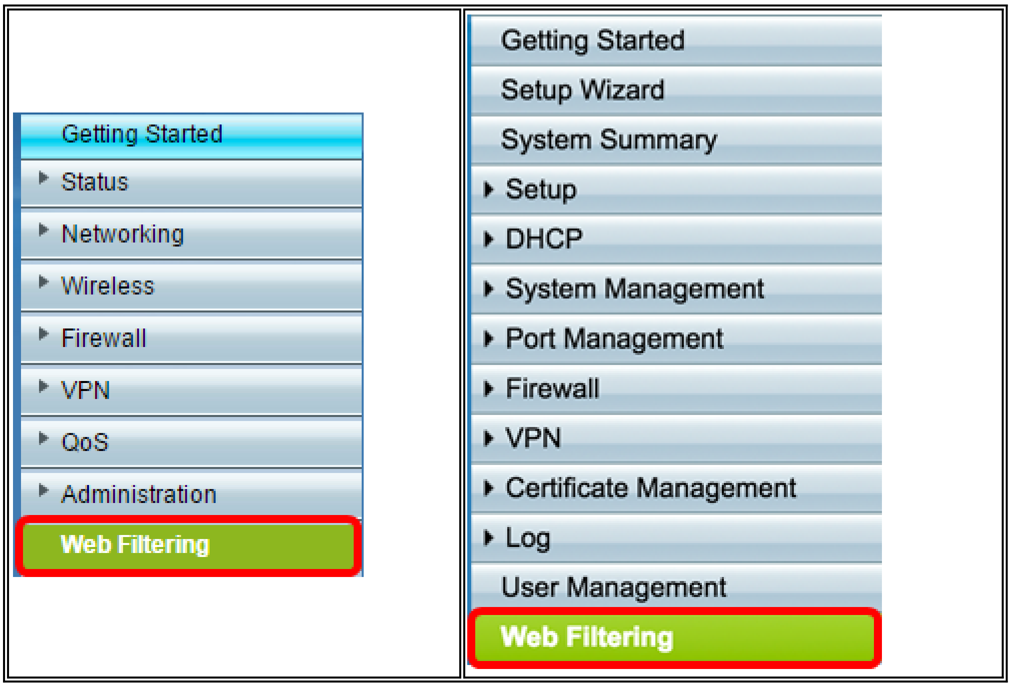
Software Version

- 1.0.3.14 – RV130, RV130W
- 1.3.1.12 – RV320, RV325

Configure Web Filtering

Step 1. Log in to the web-based utility and choose **Web Filtering**.

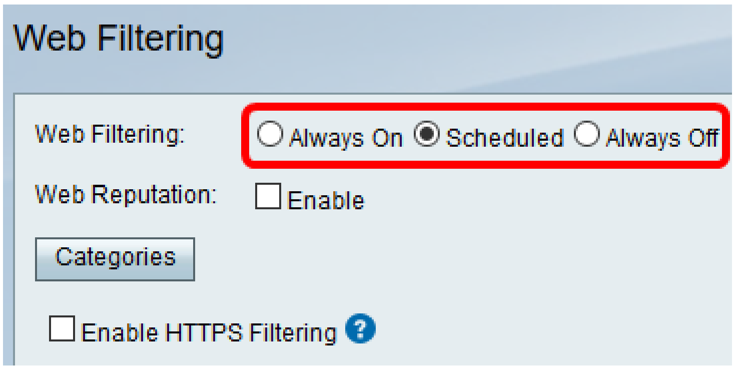
RV130, RV130W	RV320, RV325



Step 2. Choose a radio button in the Web Filtering area. By default, Web Filtering is set to Always Off. The options are:

- Always On — Web filtering is always enabled.
- Scheduled — Set a schedule to implement web filtering.
- Always Off — Disables web filtering.

Note: For this example, a scheduled web filter will be created.



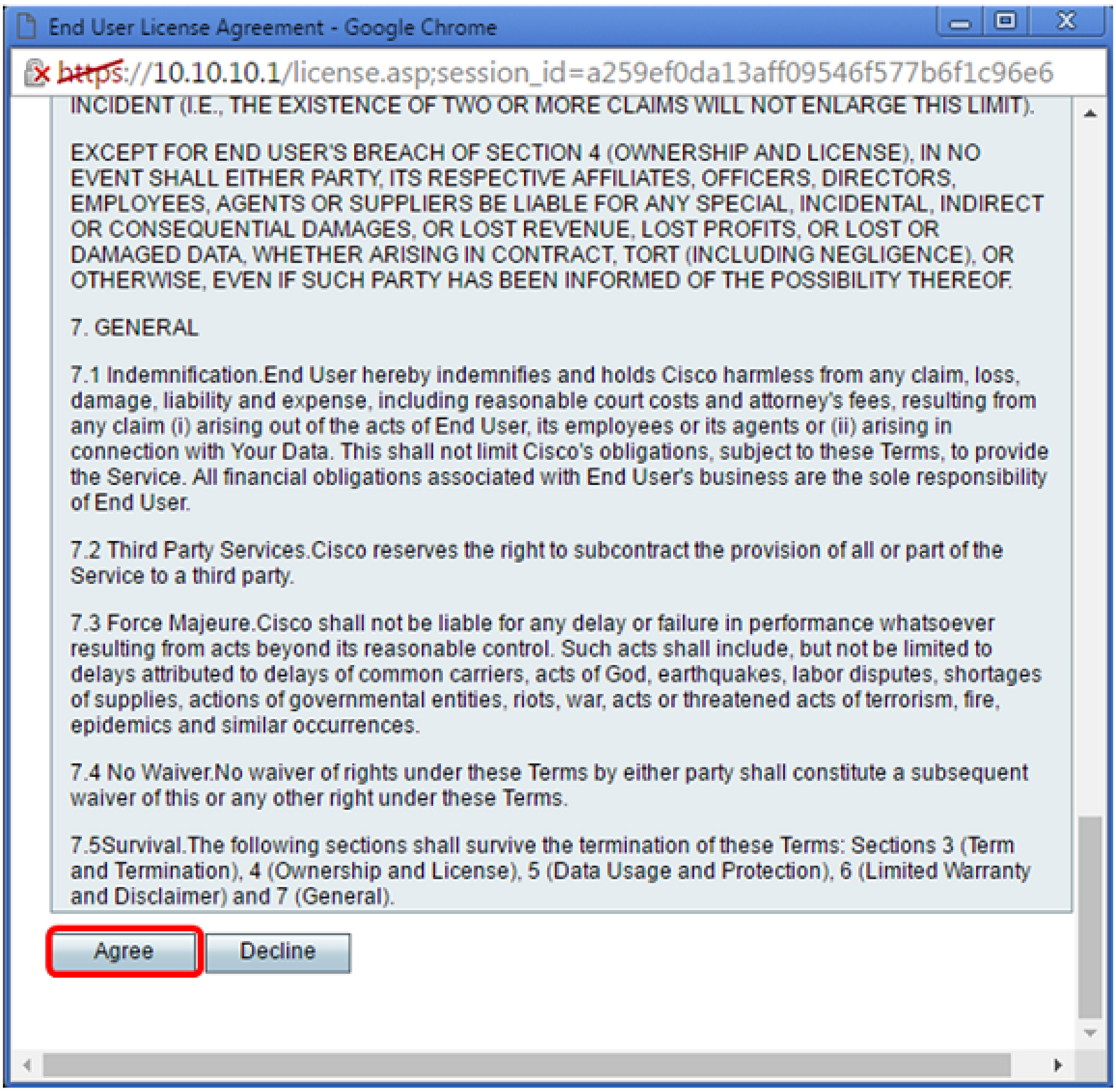
Web Filtering

Web Filtering: ○ Always On ● Scheduled ○ Always Off

Web Reputation: □ Enable

□ Enable HTTPS Filtering

Step 3. The End User License Agreement will appear as soon as web filtering is enabled by choosing either Always On or Scheduled. Go over the agreement and click **Agree** to continue with the setup.



End User License Agreement - Google Chrome
~~https~~://10.10.10.1/license.asp;session_id=a259ef0da13aff09546f577b6f1c96e6

INCIDENT (I.E., THE EXISTENCE OF TWO OR MORE CLAIMS WILL NOT ENLARGE THIS LIMIT).

EXCEPT FOR END USER'S BREACH OF SECTION 4 (OWNERSHIP AND LICENSE), IN NO EVENT SHALL EITHER PARTY, ITS RESPECTIVE AFFILIATES, OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR SUPPLIERS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES, OR LOST REVENUE, LOST PROFITS, OR LOST OR DAMAGED DATA, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE, EVEN IF SUCH PARTY HAS BEEN INFORMED OF THE POSSIBILITY THEREOF.

7. GENERAL

7.1 Indemnification.End User hereby indemnifies and holds Cisco harmless from any claim, loss, damage, liability and expense, including reasonable court costs and attorney's fees, resulting from any claim (i) arising out of the acts of End User, its employees or its agents or (ii) arising in connection with Your Data. This shall not limit Cisco's obligations, subject to these Terms, to provide the Service. All financial obligations associated with End User's business are the sole responsibility of End User.

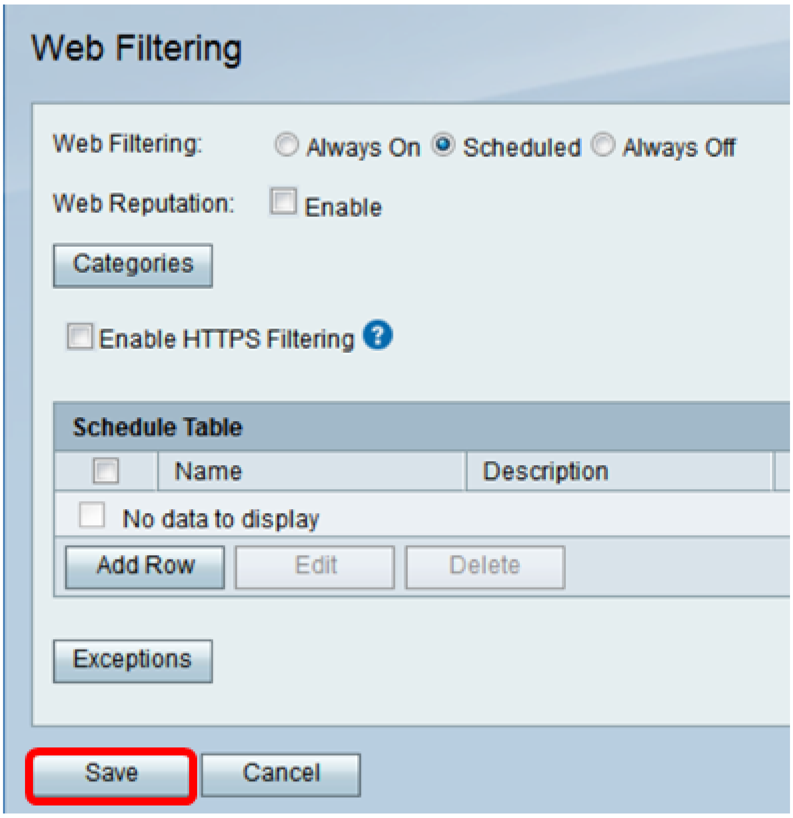
7.2 Third Party Services.Cisco reserves the right to subcontract the provision of all or part of the Service to a third party.

7.3 Force Majeure.Cisco shall not be liable for any delay or failure in performance whatsoever resulting from acts beyond its reasonable control. Such acts shall include, but not be limited to delays attributed to delays of common carriers, acts of God, earthquakes, labor disputes, shortages of supplies, actions of governmental entities, riots, war, acts or threatened acts of terrorism, fire, epidemics and similar occurrences.

7.4 No Waiver.No waiver of rights under these Terms by either party shall constitute a subsequent waiver of this or any other right under these Terms.

7.5Survival.The following sections shall survive the termination of these Terms: Sections 3 (Term and Termination), 4 (Ownership and License), 5 (Data Usage and Protection), 6 (Limited Warranty and Disclaimer) and 7 (General).

Step 4. Click **Save**.



Web Filtering

Web Filtering: ○ Always On ● Scheduled ○ Always Off

Web Reputation: □ Enable

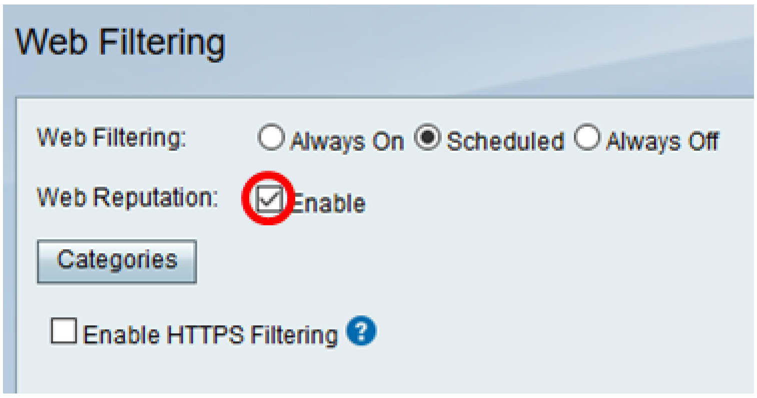
□ Enable HTTPS Filtering

Schedule Table

□	Name	Description
□	No data to display	

Step 5. Check the Web Reputation check box to enable filtering based on a web reputation index.

Note: Content will be filtered according to the notoriety of a website or URL based on a web reputation index. If the score falls below 40, the website will be blocked. To read more about web reputation, click here.



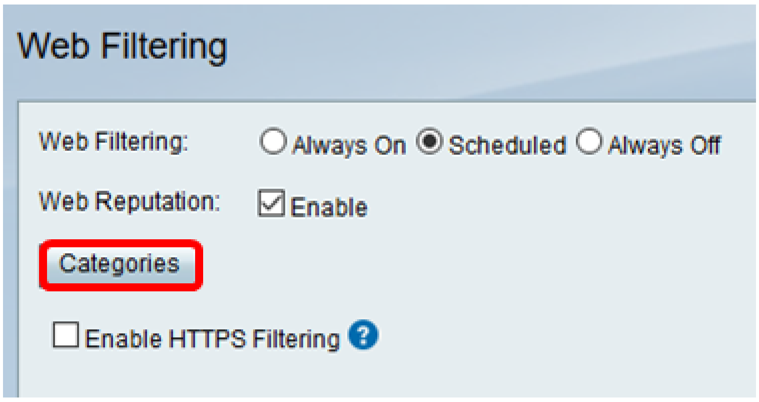
Web Filtering

Web Filtering: ○ Always On ● Scheduled ○ Always Off

Web Reputation: ☑ Enable

□ Enable HTTPS Filtering

Step 6. Click **Categories** to manage and apply filters. You will be taken to the Category page.



Web Filtering

Web Filtering: ○ Always On ● Scheduled ○ Always Off

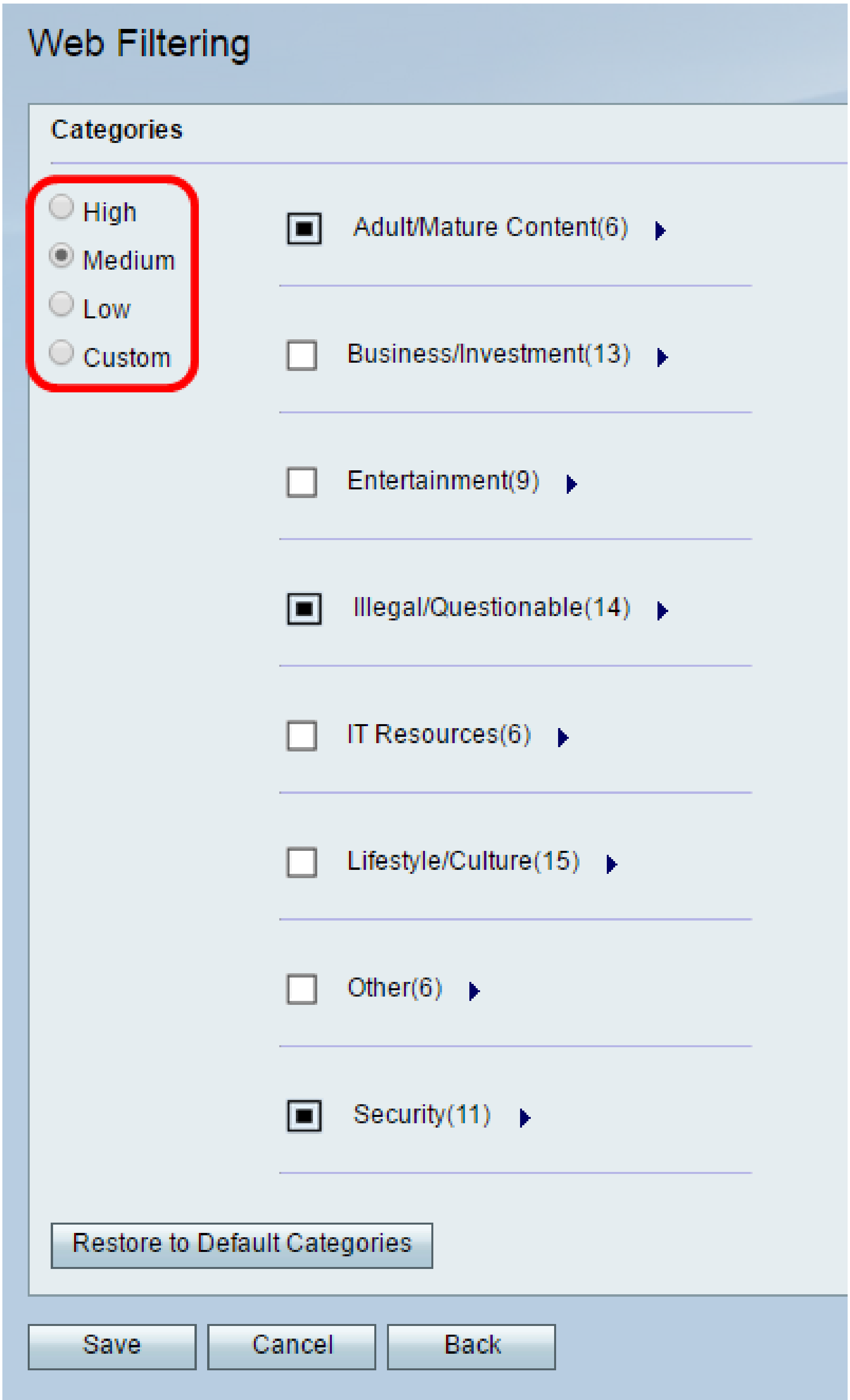
Web Reputation: ☑ Enable

□ Enable HTTPS Filtering

Step 7. Click a radio button to quickly define the filtering extent that would best fit the network policies. The options are High, Medium, Low, and Custom.

- Low — Adult/Mature Content and Security are enabled with this option. Check the appropriate sub check boxes to further fine tune your filter.
- Medium — Adult/Mature Content, Illegal/Questionable, and Security are enabled with this option. Check the appropriate sub check boxes to further fine tune your filter.
- High — Adult/Mature Content, Business/Investment, Entertainment, Illegal/Questionable, IT Resources, Lifestyle/Culture, and Security are enabled with this option. Check the appropriate sub check boxes to further fine tune your filter.
- Custom — No defaults to allow custom admin-created filters.

Note: For this example, a medium category is chosen.



Web Filtering

Categories

○ High
● Medium
○ Low
○ Custom

☒ Adult/Mature Content(6)

□ Business/Investment(13)

□ Entertainment(9)

☒ Illegal/Questionable(14)

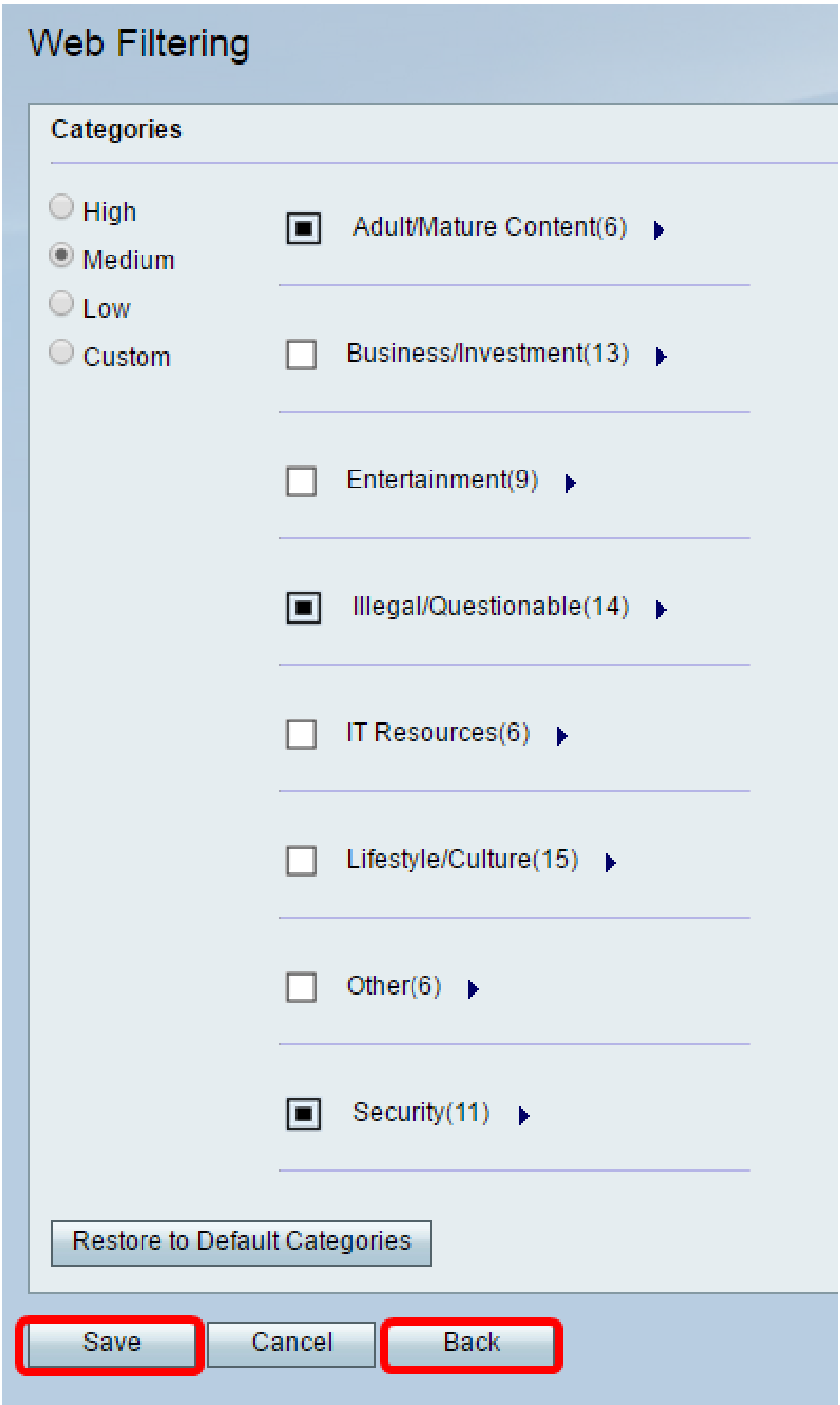
□ IT Resources(6)

□ Lifestyle/Culture(15)

□ Other(6)

☒ Security(11)

Step 8. Click **Save** and **Back** to return to the Filter page to continue the setup.



Web Filtering

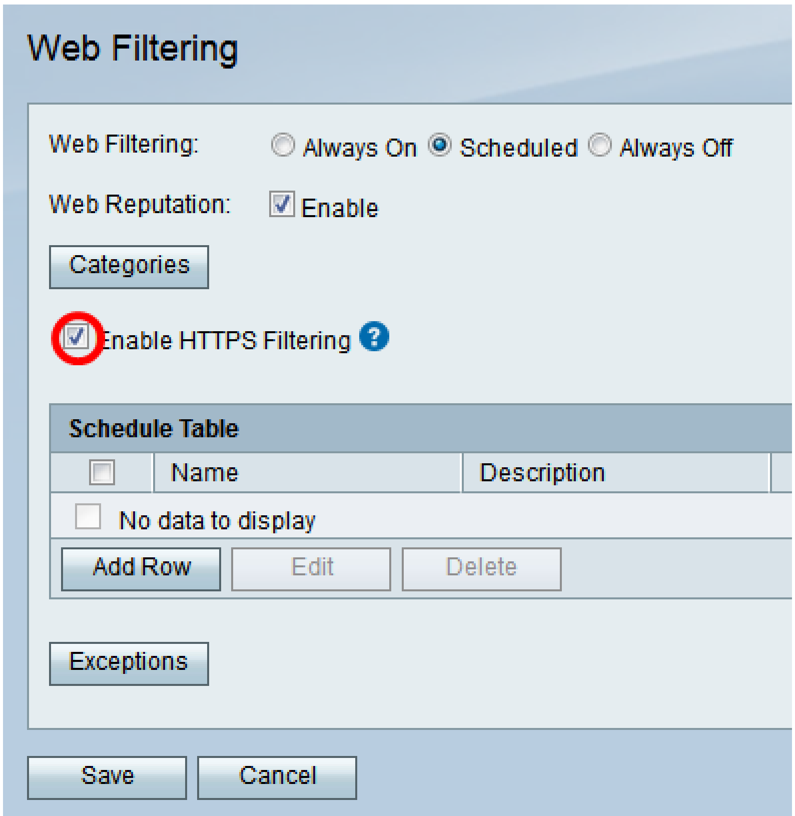
Categories

○ High
● Medium
○ Low
○ Custom

☒ Adult/Mature Content(6)
□ Business/Investment(13)
□ Entertainment(9)
☒ Illegal/Questionable(14)
□ IT Resources(6)
□ Lifestyle/Culture(15)
□ Other(6)
☒ Security(11)

Step 9. Check the Enable HTTPS filtering check box to filter content based on the web server's IP address instead of the URL. Websites with secured HTTP or HTTPS will be accessible. If you want to block websites regardless of a secured URL, leave the check box unchecked.

Note: Since the URL is encrypted, often multiple websites will use the same web server IP address. If that is the case, the router will not block that page if there are multiple website categories associated with that IP address. However, the router will block the page if there is only one category associated with that page, if adult content hosts are associated, or if the IP address is known to host or distribute malware.



Web Filtering

Web Filtering: ○ Always On ● Scheduled ○ Always Off

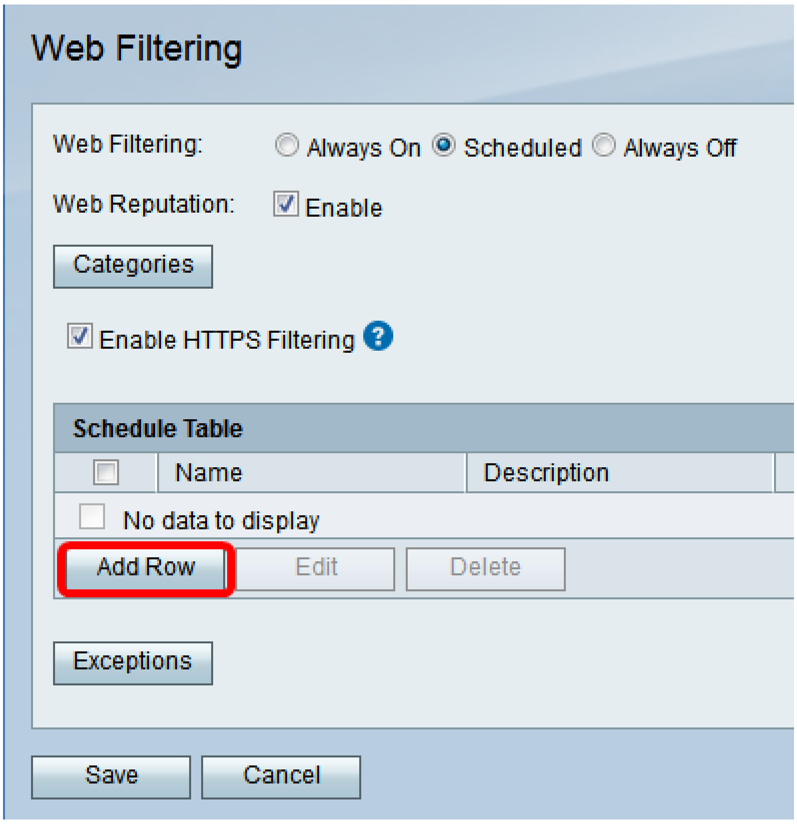
Web Reputation: ☑ Enable

☑ Enable HTTPS Filtering

Schedule Table

□	Name	Description
□	No data to display	

Step 10. Under Schedule Table, click **Add Row** to create a scheduled rule or policy to be implemented.



Web Filtering

Web Filtering: ○ Always On ● Scheduled ○ Always Off

Web Reputation: ☑ Enable

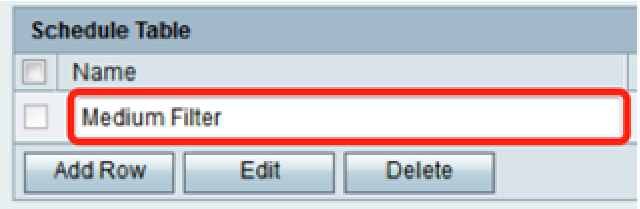
☑ Enable HTTPS Filtering

Schedule Table

□	Name	Description
□	No data to display	

Step 11. Create a user-defined name in the *Name* Field to make identifying rules easier.

Note: In the example below, Medium Filter is used.

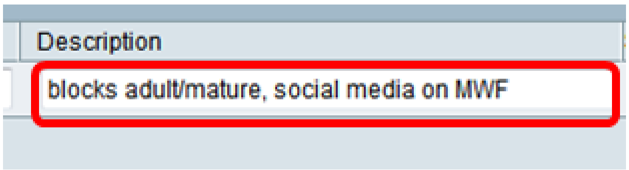


Schedule Table

□	Name
□	Medium Filter

Step 12. Enter a description for this rule in the *Description* field to make identifying rules and policies easier.

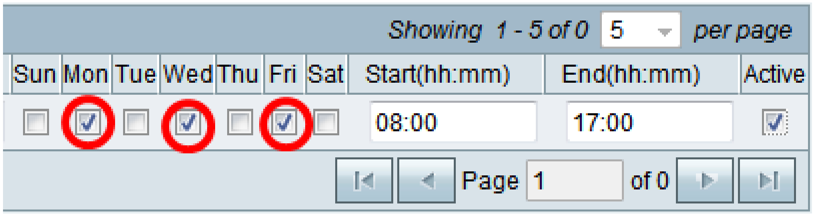
Note: In the example below, blocks adult/mature, social media on MWF is used.



Description
blocks adult/mature, social media on MWF

Step 13. Check the check box for the day of the week you would like this rule to take effect.

Note: For this example, Monday, Wednesday, and Friday have been selected.



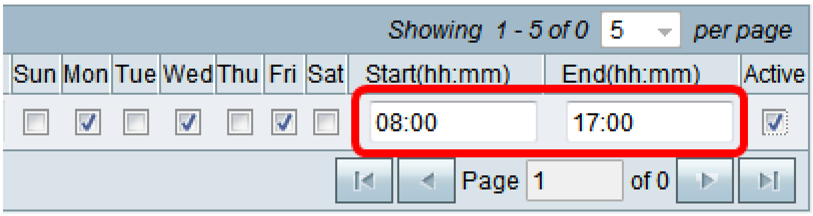
Showing 1 - 5 of 0 5 *per page*

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Start(hh:mm)	End(hh:mm)	Active
□	☑	□	☑	□	☑	□	08:00	17:00	☑

Page 1 of 0

Step 14. Using military time, enter the time of the day you would like for the rule to take effect. This allows you to switch rules and policies through out the day.

Note: For this example, 08:00 to 17:00 is used.

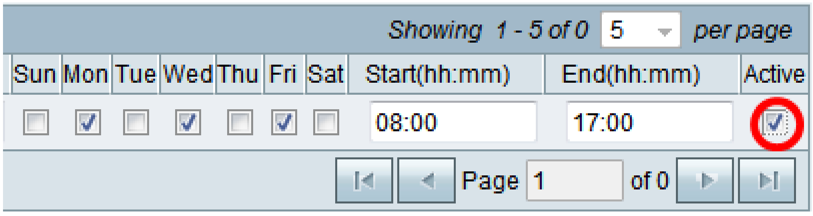


Showing 1 - 5 of 0 5 *per page*

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Start(hh:mm)	End(hh:mm)	Active
□	☑	□	☑	□	☑	□	08:00	17:00	☑

Page 1 of 0

Step 15. Check the Active check box to enable the scheduled rule.



Showing 1 - 5 of 0 5 *per page*

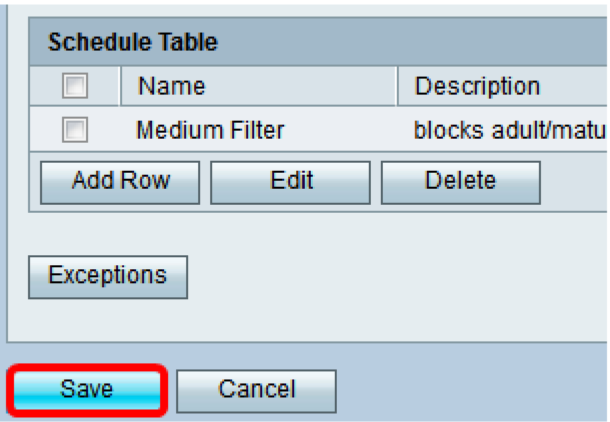
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Start(hh:mm)	End(hh:mm)	Active
□	☑	□	☑	□	☑	□	08:00	17:00	☑

Page 1 of 0

Note: There is no limit to the number of rules to be implemented.

Step 16. Click **Save**.

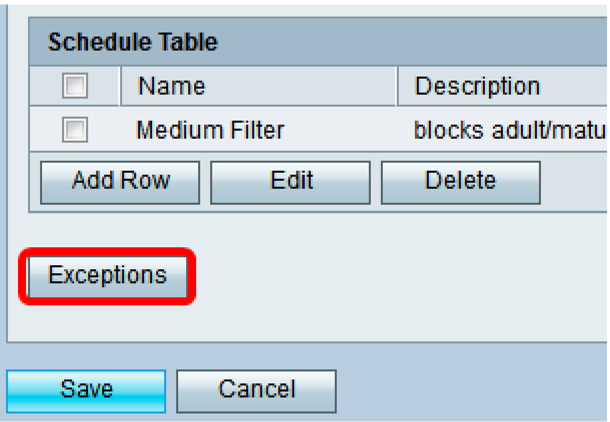
Note: It is important to save your configuration after enabling/disabling. Otherwise, you will lose your settings after moving through the different steps of the setup.



Schedule Table

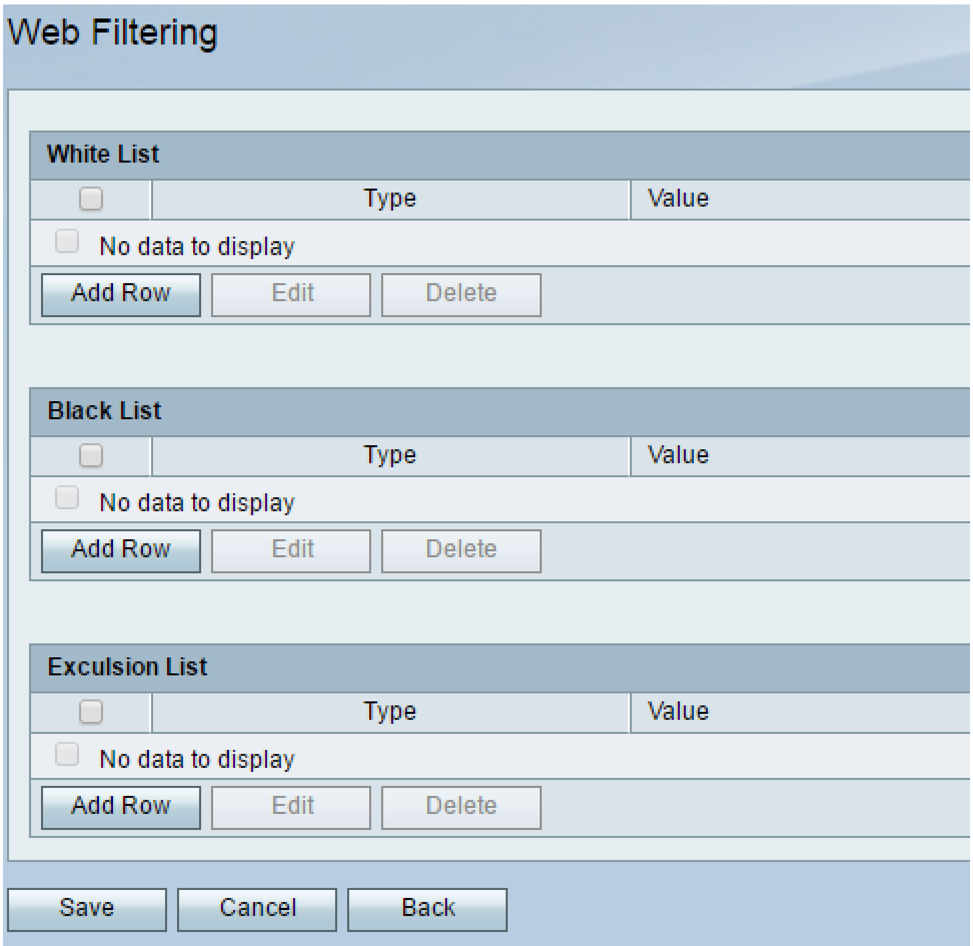
□	Name	Description
□	Medium Filter	blocks adult/matu

Step 17 (Optional). Click **Exceptions**. You will be taken to the exceptions list page.



Schedule Table

□	Name	Description
□	Medium Filter	blocks adult/matu



Web Filtering

White List

□	Type	Value
□	No data to display	

Black List

□	Type	Value
□	No data to display	

Exculsion List

□	Type	Value
□	No data to display	

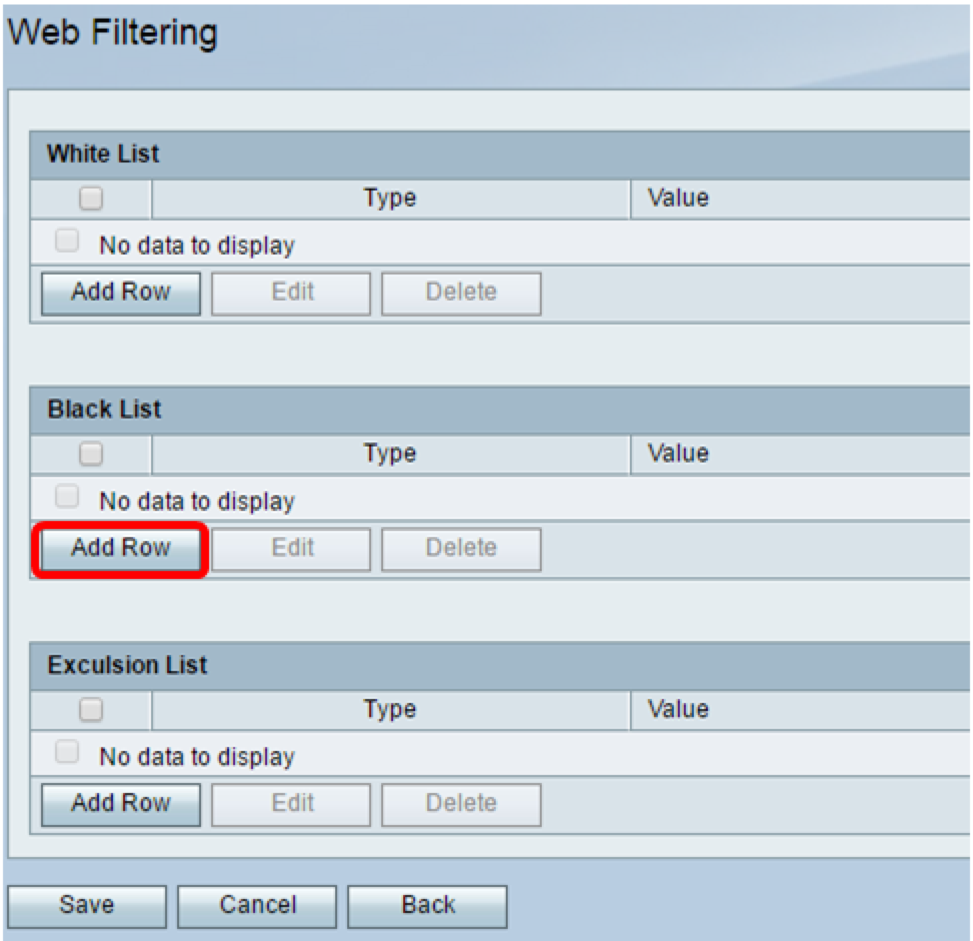
Step 18 (Optional). Create a list to either allow, deny, or exclude in the filtering process. Choose the type of list you want to create. The options are:

- White List — If the incoming URL is included in the White List, the URL is allowed. If not, check the web category.
- Black List — If the incoming URL is included in the Blacklist, the URL is not allowed.
- Exclusion List — If the incoming URL is in the Exclusion List and its Web Reputation index value is not lower than 40, the URL is safe and allowed and vice versa. If the incoming URL is not in the Exclusion List, check if it is in the Black List. If it is in the Black List, the URL is blocked. If it is not in the Black List, check if it is in the White List.

Note: If the reputation index value of a URL is not lower than 40, then it is safe and will be allowed access.

Step 19. To create an entry, click **Add Row**.

Note: For this example, a Black List is created.



Web Filtering

White List

□	Type	Value
□ No data to display		

Black List

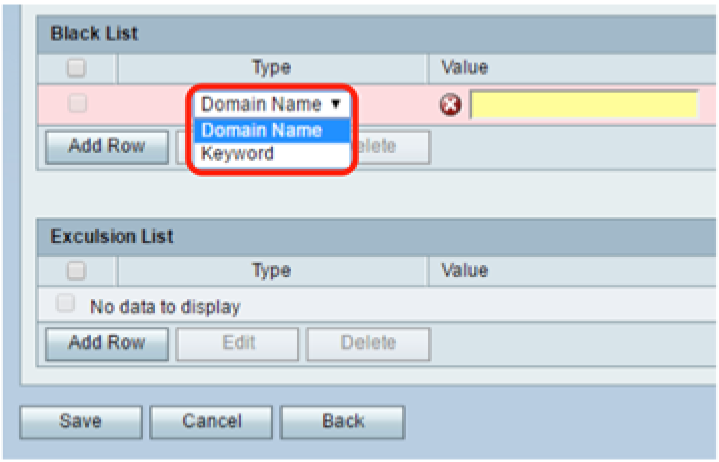
□	Type	Value
□ No data to display		

Exculsion List

□	Type	Value
□ No data to display		

Step 20. From the Type drop-down list, select whether you want data to be blocked according to a keyword, or through a domain name.

Note: For this example, Domain Name is chosen.



Black List

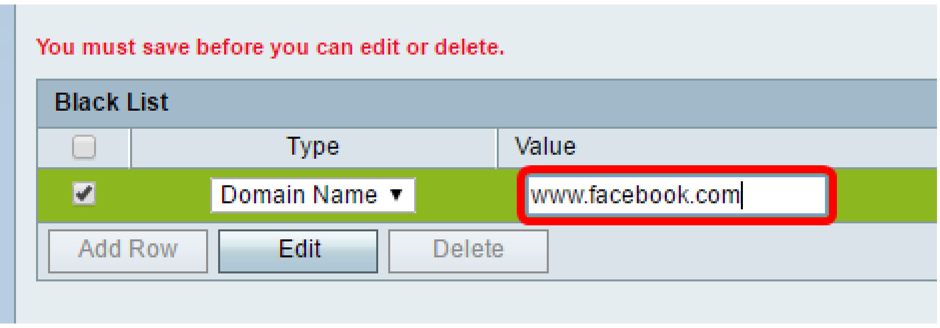
□	Type	Value
□	Domain Name ▾ Domain Name Keyword	

Exculsion List

□	Type	Value
□	No data to display	

Step 21. In the *Value* field, enter the domain name.

Note: For this example, www.facebook.com is used. If HTTPS filtering is enabled, any incoming URL using HTTPS will not be blocked.

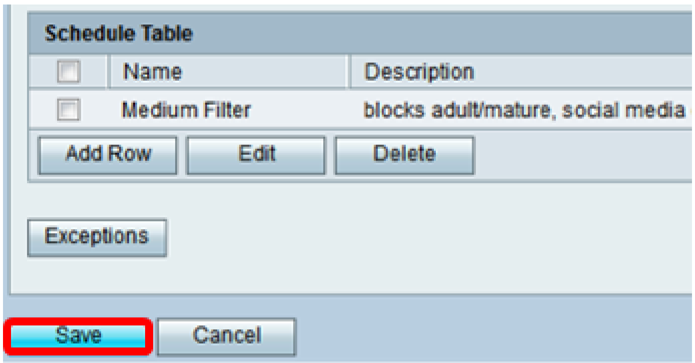


You must save before you can edit or delete.

Black List

□	Type	Value
☑	Domain Name ▾	www.facebook.com

Step 22. Click Save.

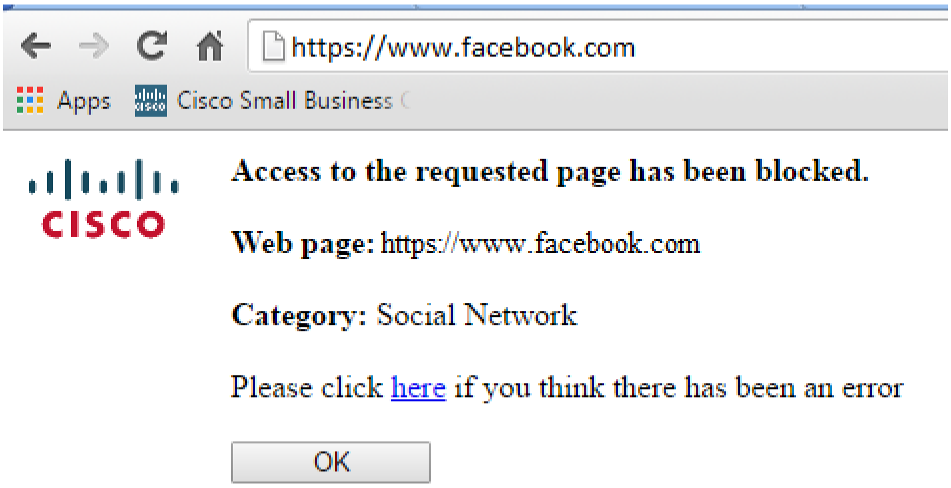


Schedule Table

□	Name	Description
□	Medium Filter	blocks adult/mature, social media

Step 23 (Optional). To verify that a website or URL has been filtered or blocked, go to a web browser and enter the domain name you have just blacklisted.

Note: In this example, it would be www.facebook.com.



Access to the requested page has been blocked.

Web page: https://www.facebook.com

Category: Social Network

Please click here if you think there has been an error

You should now have successfully configured web filtering on your router.