Feature Setup Guide

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Simple Motion Detection

How Simple Motion Detection Works

Cameras cannot actually see movement; all surveillance video is just a series of still images.

Instead, your camera and/or recorder compares each image it takes with the last one. Even if your camera is set to record snaps once every minute, it's still doing this comparison all the time.

When the camera detects that a set of pixels shifts color by a significant amount, it considers this discrepancy to be a motion event. This is why the camera considers it a motion event when a light gets switched on, for example, or a tree's shadow sways against the wall.

Best Practices

For best results, use as small a motion area as is feasible. If you want to detect whether someone comes through a door, just set the motion area for that door, not for the whole room.

With a smaller area to check, you can get more reliable results within that area, and not be bothered by results from areas that do not matter.
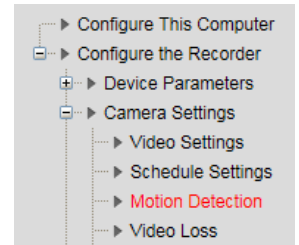
Also, as far as it is possible, ensure that the area you want to detect has uniform lighting.

Setting Up Motion-Activated Recording

Fire up the web interface, and click on the Settings ⚙ icon to get into the menu system.

Click on **Configure the Recorder > Camera Settings > Motion Detection** as shown here.

○ **Important:** When you make changes, click **Save** before switching to another camera, tab, or menu item!

Set the Area

Select a camera here

The red border indicates the whole screen is selected.

Clear All lets you define a smaller area.

Select a camera in the dropdown at the top, and ensure motion detection is enabled with the checkbox.

By default, the system detects motion over the entire camera screen. This is not ideal.

Click **Clear All**, then **Draw Area**. Click and drag to define up to three areas to use; these areas can overlap. You can also click-and-drag an existing area to move it around the screen.

When you are done drawing, click **Stop Drawing**.

You can then adjust the *Sensitivity* slider; higher sensitivity means smaller changes start a motion recording.

The red borders show the areas we're scanning for motion.

To the right is a sample setup (it's from our QA lab). We put motion detection areas at each doorway, so we can see whenever someone enters or leaves.

We deliberately left the center of the screen without motion detection, because (a) the TV screen is always "moving," and (b) if someone is sitting in the chair, we don't want them endlessly triggering motion events.

Scheduling
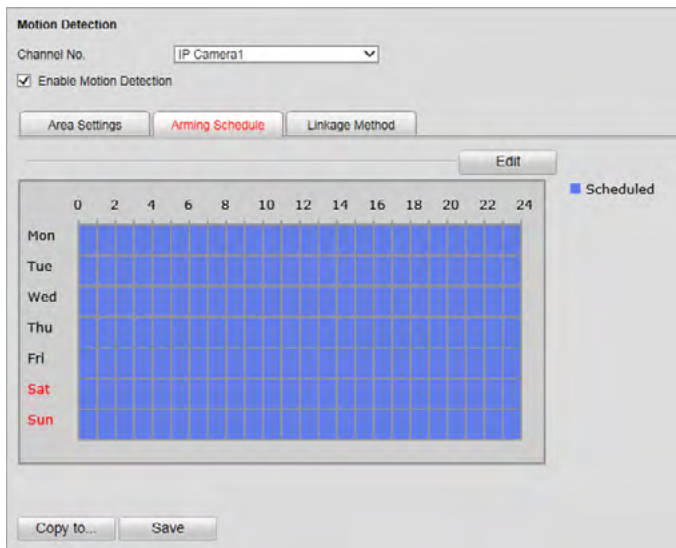
Next, click on the Arming Schedule tab. This tab tells the system when the camera is and is not allowed to report a motion event.

You set the master schedule under **Configure the Recorder > Camera Settings > Schedule Settings.** See the manual for more details.

With the master schedule in place, you want motion detection for the individual cameras enabled 24/7. By default, it should be, and you should leave it this way.

Pre- and Post-Record

If you want to add extra footage to the start and end of each motion event, navigate to **Configure the Recorder > Camera Settings > Schedule Settings.** Then click the **Advanced** button.

The pop-up lets you decide how much extra time to add before the start and after the end of each motion event.

After you press **OK** to exit the pop-up, be sure to click **Save** to keep your changes.

Smart Motion Detection

Your camera (and NVR, if you are using one) must have the latest firmware to use these capabilities.

About Smart Motion Detection

The new Luma IP cameras have two smart motion detection features: line crossing and area intrusion. These use specific algorithms that detect not only motion, but specific types of motion into or across areas you define.

- ○ **Important:** When you make changes, click **Save** before switching to another camera, tab, or menu item!

Storage and the SD Card

Your camera provides the most effective performance when is equipped with a Micro SD card (up to 128GB). To capture activity logs, the camera must have an SD card.

For models with no SD port (300 bullet and 500 turret), you must use a NAS drive (we recommend Synology drives).

- ○ **Important:** The SD card *cannot* be used as a faux NVR. The camera is designed to use the SD card as a backup to the NVR, not as the primary recording device.

Setting Up Automatic Network Replenishment

Automatic network replenishment (ANR) automatically stores video data on the IP camera's SD card if the network connection to the attached NVR is lost. Once the connection is restored, the NVR recovers the video that was stashed on the camera's SD card.

To activate ANR on your NVR, click the Settings ⚙ icon, then go to **Configure the Recorder > Camera Settings > Schedule Settings**. Click the Advanced button, then click the *Enable ANR* checkbox in the dialog.

Setting Up Line Crossing

Open up the camera's web interface. Click the Settings ⚙ icon to get to the configuration page.

Click on **Event > Smart Event**, then select the **Line Crossing Detection** tab as shown here.

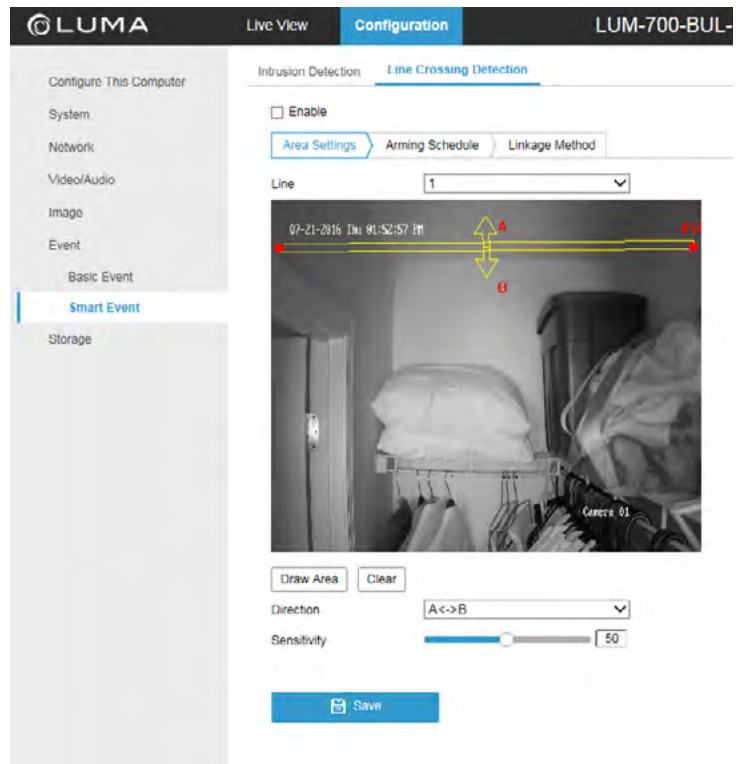Click **Enable** at the top to activate line crossing.

Below the screen, click **Draw Area**. To arrange the line for crossing detection, move your mouse into the screen display and click on the line. Once it is selected, the endpoints of the line become red boxes. Click-and-drag those lines to arrange the line on the screen. Note that line crossing does not detect movement that goes around the endpoints.

Once you have adjusted the line, click outside the screen to deselect it. Use the *Direction* drop-down menu to determine whether you want to detect movement across the line in one direction or both.

Next adjust the *Sensitivity* slider; higher sensitivity means smaller changes start a motion recording.

Click **Save** at the bottom to accept your changes.

Finally, set the arming schedule and linkage method as described on the previous page.

Setting Up Area Intrusion

Open up the camera's web interface. Click the Settings icon to get to the configuration page.

Click on **Event > Smart Event**. The system should default to the Intrusion Detection tab as shown here.

Click **Enable** at the top to activate area intrusion.

Below the screen, click the **Draw Area** button. This allows you to define one four-sided rectangle on the screen to use for area intrusion detection. Move your mouse into the screen display and click the locations of each of the four corners of your area. Your area must have exactly four sides; the system will not accept a three-sided area (although the fourth side can be tiny), nor will it allow you to add a fifth corner to the shape.

Once you have defined the four corners, click **Stop Drawing**.

Adjust the Threshold, Sensitivity and Percentage settings.

- **Threshold** is measured in seconds, and is the amount of time required to determine whether an event is intrusion or crossing.
- **Sensitivity** affects what triggers an event. High sensitivity means even small changes start a recording.
- **Percentage** sets the minimum required size of the intruding object as compared to the size of the intrusion area (for example, you could set it high enough that it would not detect your cat, but would detect people).

Click **Save** at the bottom to accept the changes you have made.

Finally, set the arming schedule and linkage method as described under Basic Motion Detection.
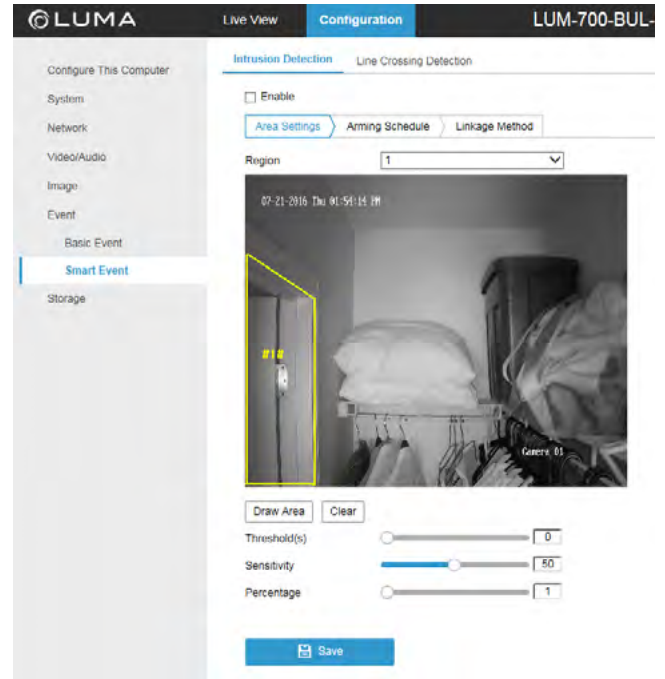
Recording Smart Motion Events

Now that you have the camera configured to use smart events, you want to have those events recorded on the NVR.

You **must have the latest firmware** installed to record smart motion events!

Adjust the Camera's Schedule Settings

Fire up the web interface, and click on the Settings icon to get to the configuration page.

Click on **Camera Settings > Schedule Settings**. It defaults to the Record tab, as shown here.

Use the **Channel No.** dropdown to select the camera with smart motion enabled.

Activate the **Enable Record Schedule** checkbox, then click the **Edit** button.

If you want smart events to be recorded around the clock, click the **All Day** radio button, and to the right, use the Record Type dropdown box to select VCA. Finally, click the **Select All** checkbox below the schedule grid.
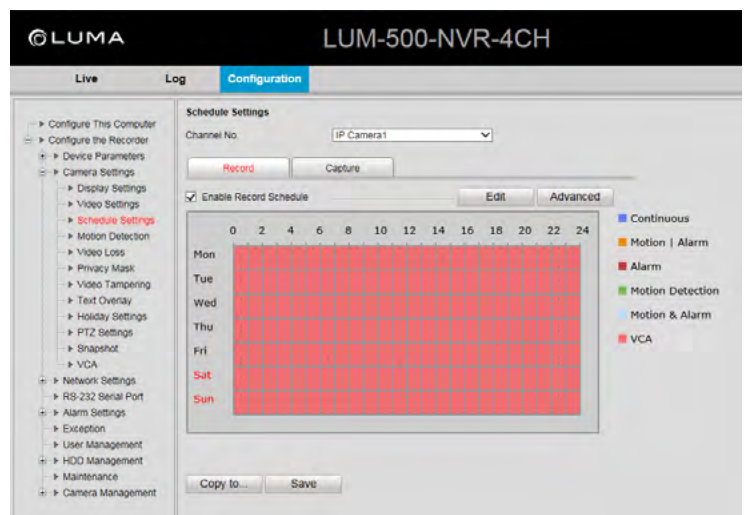
If you want smart events to be recorded only during certain times or days, select the **Customize** radio button. You can then edit your schedule as described in the manual. Use the Record Type dropdown box to select VCA for those times you want smart motion to be recorded.

Click **OK** to close the Edit Schedule window and return to the Schedule Settings screen.

Click **Save** button to save all your settings. The timeline shows pink for all times that VCA is scheduled.

Set VCA Communications for the NVR

Click on **Configure the Recorder > Camera Settings > VCA.** It defaults to the Arming Schedule tab, as shown here.

Use the **Channel No.** dropdown to select the camera with smart motion enabled.

Activate the **Enable** checkbox, then click the **Edit** button.

Select the days and time periods for your NVR to accept smart motion events. For details on how to use the schedule tool, see the manual.

Click **OK** to close the Edit Schedule Time window and return to the VCA screen.

Click **Save** button to save all your settings. The timeline shows blue for all times that the NVR will accept smart motion events.
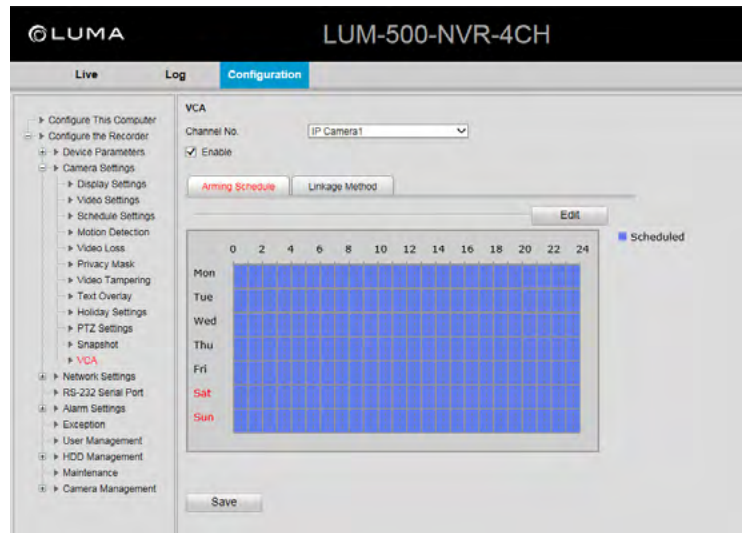
Finding Smart Motion Events

After these configurations are made, all Smart/VCA events should be present in Live View. Smart events show as green in the timeline.

Setting Up Email Alerts

To set up email alerts for your Luma device, you need to connect to the client's email provider to allow your equipment to send messages out.

Disclaimer

This list is provided as a public service. The information herein is provided "as is" without warranty of any kind in terms of correctness, accuracy, reliability, obsolescence, or otherwise. We do not warrant, guarantee, or make any representations regarding the use, or the results of use, of this information; and we are not responsible for any damages incurred by use of this information.

Adding an Image

When setting up, if you enable *Include Image*, your Luma adds a snapshot of the event to the email sent.

Connecting to Email Servers

Each email service has different settings. Settings for major service providers are given here:

Service	SMTP Server (outgoing mail)	Authentication	Port
AT&T	smtp.att.yahoo.com	SSL	465
BT Internet ***	mail.btinternet.com	*—none—*	25
Comcast	smtp.comcast.net	SSL	465
Gmail (TLS) *	smtp.gmail.com	TLS	587
Hotmail	smtp.live.com	SSL	465
Office 365 **	smtp.office365.com	StartTLS	587
Outlook	smtp.live.com	TLS	587
Verizon (basic)	outgoing.verizon.net	SSL	465
Verizon (hosted by Yahoo!) ***	outgoing.yahoo.verizon.net	*—none—*	587
Yahoo! Mail	smtp.mail.yahoo.com	SSL	465
Yahoo! Mail Plus	plus.smtp.mail.yahoo.com	SSL	465

* Gmail Note

Please ensure that POP3 access is enabled in the account settings.

You also need to enable "less secure apps" (third party apps) in the Gmail settings; see the next page for a step-by-step guide.

** Office 365 Note

If the above settings do not work, log in to the Outlook web app, navigate to **Settings > Options > Account > My Account > Settings for POP and IMAP Access**, and make adjustments from there.
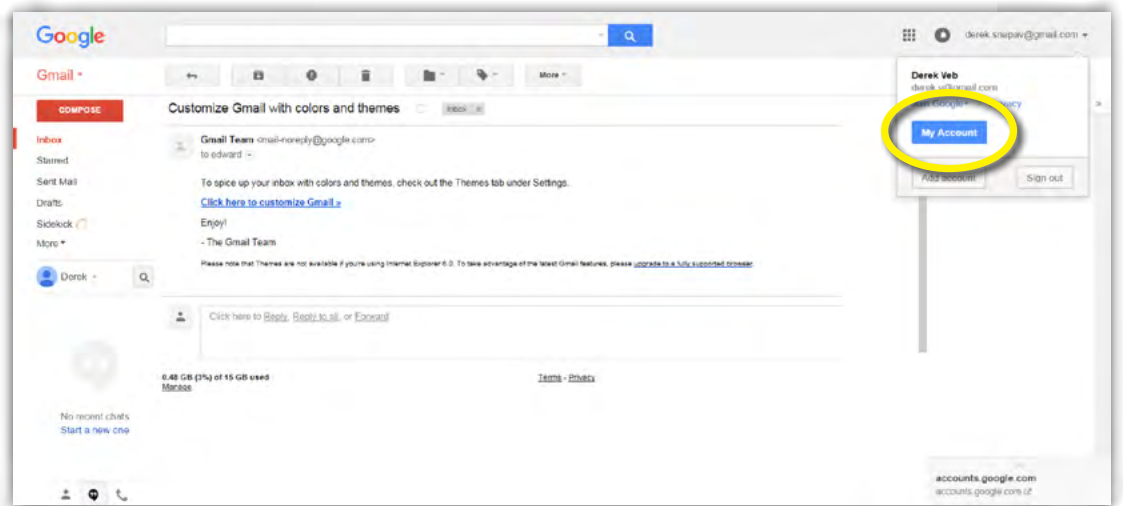
*** Authentication Note

For security reasons, we do not recommend using a server that does not use authentication.
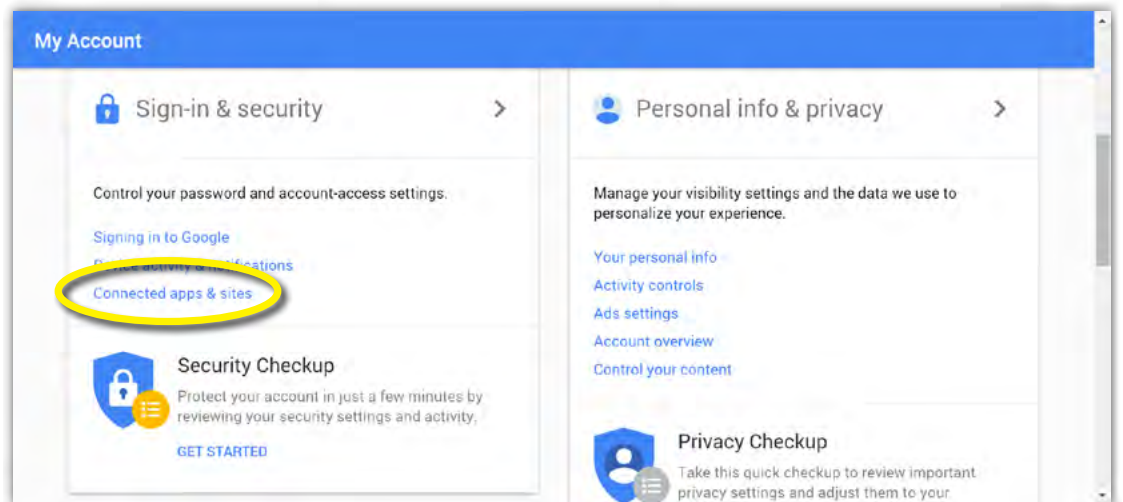
Enabling "Less Secure Apps" on Google


Go to gmail.com.

In the upper right-hand corner, click on the down arrow next to your email account, then press **My Account**.

Under **Sign-in & security**, click on the link labeled **Connected apps & sites**.

The web browser opens at a section Connected apps & sites. If you scroll down a little bit, you'll see a box labeled **Allow less secure apps**. Move the slider in the top right of that box to the right to switch this on.
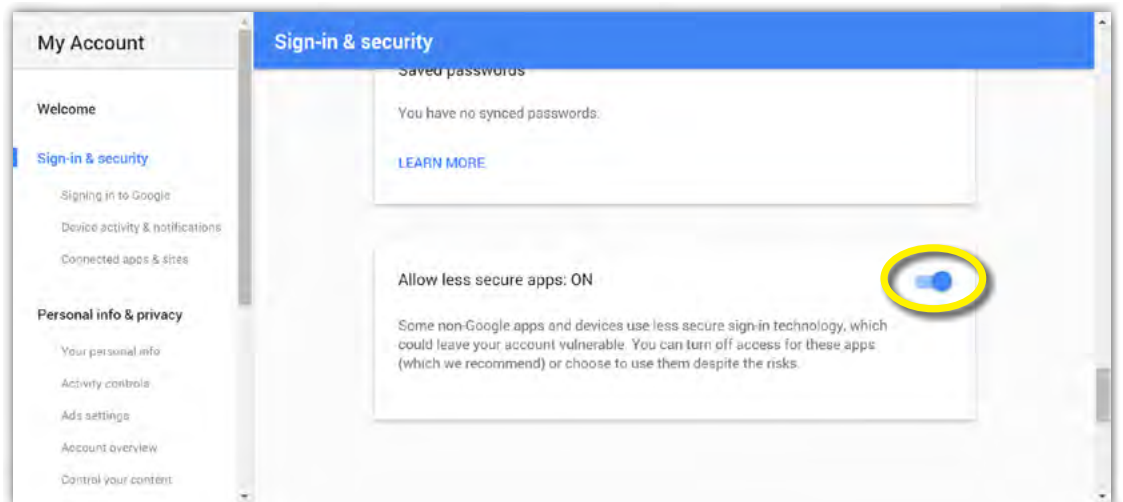
Network Settings / Port Forwarding

Suggested Best Practices: Ensure the **Enable DHCP** box is activated. In your router, reserve an IP address and assign it to the device's MAC address (found on its box). See your router's documentation for details.

The HTTP port defaults to 80. It lets you to access your camera through the web. The server port defaults to 8000. The Luma mobile app uses it.

For security reasons, change your ports and record the new numbers. Consult your manual for reserved port numbers to avoid.

To confirm changes, enter the password that you created and then click **Save**.

Port Forwarding

Port forwarding allows you to access the camera from the internet for remote operations. These settings are entered in your network router, typically in a menu called *Port Forwarding* or *Applications and Gaming.* Refer to your router manual for help. Find the settings you need, then log in to the router and enter the new ports.

Port	Default	New Value	Protocol
HTTP	80		TCP/UDP
Server	8000		TCP/UDP
RTSP	554		TCP/UDP

Camera IP Address
Admin Password

Dynamic DNS

DDNS allows you to connect to your surveillance system from anywhere, via the Internet, using a web address that's easy to remember.

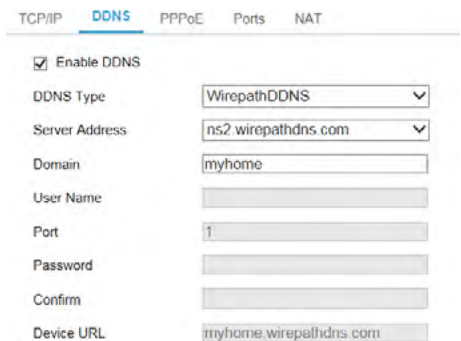Click on the **Settings Menu** icon and navigate to **Basic Network Settings > DDNS**.

Click **Enable DDNS**, then choose a DDNS type from the dropdown menu. We recommend WirepathDDNS. Next, choose a server address. We recommend ns2.wirepathdns.com.

Enter your desired domain in the Domain box. This creates a personalized server address, which is shown under Device URL. If someone has already registered your desired domain, the system adds two to four digits to your domain.

Example: If you choose the domain myhome, your system's custom URL would become myhome. wirepathdns.com. *If someone already had claimed the myhome URL, then your system's URL would look like* myhome13.wirepathdns.com.

If you changed your HTTP port (see above), add a colon and the port number to the URL (for example, myhome.wirepathdns.com:8402).

NOTE: All your network devices now use this same DNS (with appropriate port numbers)!

Click **Save** to finalize the settings.