Content Access Point
User Manual

Models: WRTD-303N, WAPD-235N, WAPD-237N
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Revision History

<table>
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<tr>
<td>001</td>
<td>Initial release.</td>
<td>January 2015</td>
</tr>
<tr>
<td>002</td>
<td>Update.</td>
<td>August 2015</td>
</tr>
<tr>
<td>003</td>
<td>Update.</td>
<td>November 2016</td>
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NOTES:

- WAPD-237N is a custom model that is not publicly available.
- Features and specifications are subject to change without prior notice.
1 Overview

The Content Access Point is a wireless access point with an integrated digital content distribution system, which provides an easy-to-use interface and storage that can be loaded with educational materials for students to access without requiring access to the Internet.

Networking features

- Wireless access point supporting Wi-Fi IEEE 802.11 b/g/n (2.4 GHz) and IEEE 802.11 a/n/ac (5 GHz) with WEP, WPA, and WPA2 encryption.
- Supports wired Gigabit Ethernet and 3G/4G/LTE mobile WAN connectivity, with intelligent failover if one connection type is unavailable.
- Allows admin and teacher to turn Internet access on and off easily without complicated settings.
- Firewall that can block attacks such as Portscan, SYN flood, and Echo Storm.
- Captive portal capability automatically directs users to the primary website on the device when wireless connection is established.
- Built-in DHCP server, MAC address filtering (whitelist, blacklist) of clients, and ability to limit number of connected clients.

Remote management (model WAPD-235N only) features - Refer to “Remote Management Admin Guide for Content Access Point 2.0”

- Mass enroll Content Access Points to be managed.
- Organize Content Access Points by groups.
- View inventory of Content Access Points.
- Manage Content Access Points’ wireless access point settings, upgrade firmware, and reboot.
- Deploy and manage offline websites and Lesson Planner content.
- Remote access to Content Hub, Admin console, and SSH.
- Queue and control bulk jobs.
- View job history and status.

Content management and distribution features

- Supports most file formats (PDF, HTML, JPG, MP3, ZIP, etc.), even apps/executables.
- Supports single-file or bulk-file upload of content.
- Contains two content spaces:
  - “Preloaded Content” which can be populated by the LOEM, reseller, MOE, content publisher, or the factory and cannot be erased or modified by teachers or by device factory reset.
  - “My Uploaded Content” which can be populated and managed (including erasure) by teachers.
- Supports IMS content packaging standard.
- Content can be tagged and categorized according to pedagogical structure.
- Content can be organized into lessons.
- Content and lessons can be featured so it’s easier for students to see what is most relevant.
- Teachers can restrict (hide) access to content from students.
- The device’s content management system allows students easy access to content without any complicated login.
- Upload and manage offline/static websites.

Other features

- Designed with simple and intuitive user interface making it easy to use, configure, and manage.
- Elegant, compact, lightweight, and portable - designed to be mounted and unmounted easily so it can be transported.
- Ability to save and restore configuration settings.
- Can be mass-provisioned (firmware update, configuration settings, content upload, factory reset).
- Include USB 3.0 and microSD card (model WAPD-237N1 only) ports to allow faster upload of content and firmware updates.
- Additional content storage capacity can be expanded with an external USB hard drive.
- Contains a battery for uninterrupted use and mobile usage for up to 4.75 hours.
2 Getting Started for Admin

2.1 Package contents
• Content Access Point
• Power supply
• Mounting kit
• Quick Start Guide for Admin, Teacher, and Student

2.2 Supported operating systems, browsers, and languages
• Operating systems:
  – Windows* 7
  – Windows 8 and higher
  – Android* 4.2 and higher
• Internet browsers:
  – Internet Explorer* 9 and higher
  – Chrome* v35 and higher
  – Firefox* v30 and higher
  – Android native browser
• Languages:
  – Arabic
  – English
  – French
  – Portuguese (Brazilian and European)
  – Simplified Chinese
  – Spanish (Latin American and European)
  – Turkish
2.3 Get to know the device

Figure 1: Content Access Point - Top view

Figure 2: Content Access Point - Bottom and ports view

Figure 3: Content Access Point - Inside view
2.3.1 LEDs

Table 1:  System LED status

<table>
<thead>
<tr>
<th>Device state</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>None</td>
<td>The device is powered off</td>
</tr>
<tr>
<td>Fast pulsing then solid</td>
<td>Blue</td>
<td>The device is powered on and booting up</td>
</tr>
<tr>
<td>Slow pulsing (&quot;breathing&quot;)</td>
<td>Blue</td>
<td>The device has booted and is functioning normally</td>
</tr>
<tr>
<td>Slow pulsing</td>
<td>Blue and orange</td>
<td>Battery low</td>
</tr>
<tr>
<td>Solid</td>
<td>Orange</td>
<td>System error/warning</td>
</tr>
</tbody>
</table>

Table 2:  3G/4G/LTE LED status

<table>
<thead>
<tr>
<th>Device state</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>None</td>
<td>3G/4G/LTE off</td>
</tr>
<tr>
<td>On</td>
<td>Blue</td>
<td>3G/4G/LTE on</td>
</tr>
<tr>
<td>Blinking</td>
<td>Blue</td>
<td>No signal</td>
</tr>
</tbody>
</table>

Table 3:  WAN Ethernet LED status

<table>
<thead>
<tr>
<th>LED</th>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity</td>
<td>Off</td>
<td>No activity</td>
</tr>
<tr>
<td></td>
<td>Green</td>
<td>Receive</td>
</tr>
<tr>
<td></td>
<td>Orange</td>
<td>Transmit</td>
</tr>
<tr>
<td>Link</td>
<td>Off</td>
<td>No link</td>
</tr>
<tr>
<td></td>
<td>Green</td>
<td>Link</td>
</tr>
</tbody>
</table>

2.3.2 Buttons

Table 4:  Power button

<table>
<thead>
<tr>
<th>Device state</th>
<th>Action</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Press and hold for 2 seconds</td>
<td>Turns on</td>
</tr>
<tr>
<td>On</td>
<td>Press once</td>
<td>Turns off</td>
</tr>
</tbody>
</table>

Table 5:  Factory reset button

<table>
<thead>
<tr>
<th>Device state</th>
<th>Action</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>On</td>
<td>Press and hold for 5 seconds</td>
<td>System LED flashes and device goes through reset process</td>
</tr>
</tbody>
</table>

2.3.3 Ports

The device has four ports:

- WAN Gigabit Ethernet
- USB 3.0 (USB 2.0 compatible)
- Micro-SIM (accessible by removing bottom cover)
- microSD (model WAPD-237N1 only)
2.4 Device placement location

For best signal strength, put the Content Access Point:

- In an open area.
- High off the floor.
- Away from the wall.
- Away from magnetic and large metal objects.
- At least 3 feet (1 meter) from client devices.

2.5 Mounting

The Content Access Point comes with a mounting kit. To mount it, follow this diagram (Figure 4).

Figure 4: Mounting diagram

2.6 Setup

1. Connect the Content Access Point to a network (WAN) with an Ethernet cable. (See Figure 5.)
   **TIP!** For 3G/4G/LTE cellular-based WAN connection, see 6.8.2 (Cellular-based WAN).

2. Connect the power supply.

Figure 5: Connect the cables

3. Power up the device by pressing and holding the power button for two seconds. (See Figure 6.)
2.7 Log on as admin for the first time

1. Wirelessly connect to the device using its default SSID. The default SSID is the model name plus the last six digits of the Wi-Fi MAC address (WFM), which is printed on the bottom of the device. (See Figure 2 item 6.) For example, for model WAPD-235N with a WFM of F835DD85457A, the wireless SSID is WAPD-235N_85457A. (See Figure 7.)

2. Launch a browser and go to http://my.admin (or http://192.168.88.1:8080).

3. Enter username admin and password admin.

4. Change the admin default password when prompted.
2.8 Run the setup wizard

1. Click Setup Wizard. (See Figure 8.)
2. Follow the steps in the wizard to set up the following:
   a. Connection access type
   b. Date and time
   c. Wireless settings
   d. LAN settings
   e. A teacher account
   f. WAN and 3G/4G/LTE settings
3. Click Save to save and implement the changes.

Figure 8: Admin - Setup wizard
2.9 Preload content into Lesson Planner

TIP! See Section 5 (Lesson Planner & Offline Website Content Management (Admin Guide)) for advanced methods of uploading content.

To upload Lesson Planner content, do the following:

1. Create a package containing the content to upload:
   a. Zip the content into a file.  
      \textbf{Note: Do not use Windows' built-in compression tool.}  
   b. Do not include subfolders.  
   c. Do not encrypt or password-protect the zipped file.  
   d. Total size must not exceed 2 GB for upload over WiFi.

2. Upload:
   a. Open browser and go to \textit{http://my.content}.
   b. Click Login.
   c. Log in with the administrator's username and password.
   d. Click \textit{Lesson Planner}. (See Figure 9.)
   e. Click \textit{Upload Package}. (See Figure 10.)
   f. Click \textit{Choose Files} and select one or more zipped packages.
   g. Click Upload.

\textbf{Figure 9: Admin - Content Hub Admin}
2.10 Upload offline websites

TIP! See Section 5 (Lesson Planner & Offline Website Content Management (Admin Guide)) for additional details.

The Content Access Point can host offline/static websites. This is easily achieved by uploading a zipped package containing the website’s components. Each uploaded website appears on the Content Hub home page and is represented by a tile.

To add an offline website, do the following:

1. Create a package containing the website:
   a. Zip the website into a file. The website’s index file must be at the root level.
      *Note: Do not use Windows* built-in compression tool.
   b. Do not encrypt or password-protect the zipped file.
   c. Place the zipped package onto a USB drive.
   d. Plug the USB drive into the Content Access Point.

2. Upload:
   a. Open browser and go to http://my.content.
   b. Click Login.
   c. Log in with the administrator’s username and password.
   d. Click Add Tile. (See Figure 9.)
   e. Checkmark the package to upload.
   f. Click Import.
   g. Enter a title for the website. (See Figure 11.)
   h. Click Choose File and select an icon (PNG or JPG format) to represent it.
   i. Set its access properties:
      I. *Hidden from Students* - Only the teacher and admin can see the website.
      II. *Hidden from All Users* - Only the admin can see the website.
   j. Click Create.
Figure 11: Admin - Upload offline website
3 Access Content and Lessons (Student Guide)

The Content Access Point contains educational content and lessons created by the teacher. “Content” is an individual file, whereas “a lesson” may consist of one or more content files.

3.1 Connect to the Content Access Point

1. Wirelessly connect to the device. (See Figure 12.)
2. Enter password if required.

Figure 12: Student - Wirelessly connect to the Content Access Point

3.2 Access Lesson Planner

1. Launch a browser and go to http://my.content.
2. Click Lesson Planner. (See Figure 13.)

Figure 13: Student - Access Lesson Planner
3.3 Lesson and content

A lesson is a collection of one or more content files. Featured lessons and content are shown in the Home page. To see all lessons, go to the Lessons page.

To see all content, go to the Library page (if it’s made accessible). (See Figure 14.)

Figure 14: Student - Home, lessons, library page

3.4 Open lessons and content files

To open a lesson, click it.

To open a content file, click it and it will appear in a new browser tab. If the browser cannot open the file, it will download it to the default Downloads location. Use an appropriate application to open the file. (See Figure 15.)

Figure 15: Student - Open lesson and content
3.5 **Search for content and lessons**

1. To search for content, go to the *Home* or *Library* page. (See Figure 16.)
   a. Enter keywords in the *Search* field. A keyword can be a tag, a description, or the name of a content file.
   b. Another way to search in the *Library* page is by filtering based on a category or a tag.
      i. To filter by category, expand the desired category under the *Filter by Category* area.
      ii. To filter by tag, click the desired tag under the *Filter by Tag* area.

2. To search for lessons, go to the *Lessons* page and enter the lesson name in the *Search* field.

*Figure 16: Student - Search for lessons and content*
4 Content and Lesson Management (Teacher Guide)

The Content Access Point contains a web application called the Content Hub Lesson Planner, which allows you to upload and store educational content locally. It supports all file formats, such as PDF, Word*, Excel*, PowerPoint*, HTML, ePub, audio and video formats, etc. Teachers and administrators can upload files to the Library of the Content Hub Lesson Planner. Teachers can use the files in the Library to create lessons, which students can then access.

Here is a typical workflow for teachers, with detailed instructions for each task in the sections that follow.

- Log on as a teacher.
- Upload and manage content in the library.
- Create and manage lessons.
- Feature content and lessons.
- Search for content and lessons.
- Perform other administrative tasks:
  - Disable Internet access.
  - Change password.
  - Change the wireless name of the device.

4.1 Connect to the Content Access Point

To perform teacher-specific tasks, such as uploading content or creating lessons, you must log on as a teacher.

1. Wirelessly connect to the device. (See Figure 17.)
2. Enter password if required.

*Figure 17: Teacher - Wirelessly connect to the Content Access Point*
4.2 Access Lesson Planner

1. Launch a browser and go to http://my.content.
2. Click Lesson Planner. (See Figure 18.)
3. Click Login ( ). (See Figure 19.)
4. Enter your username and password (Factory default is teacher/teacher).

Figure 18: Teacher - Access Lesson Planner

Figure 19: Teacher - Login

4.3 Upload and manage content in the library

The Library is the place where you upload, store, and manage content files. It contains two content spaces (See Figure 20):

- **Preloaded Content**, which can be populated by the LOEM, reseller, MOE, content publisher, or factory, and which cannot be erased or modified by teachers.
- **My Uploaded Content**, which can be populated and managed (including erasing) by teachers.

Figure 20: Teacher - Preloaded content and My uploaded content

4.3.1 Create and manage categories

Before uploading content, it is useful (but not necessary) to create categories and subcategories so you can categorize the content appropriately. This makes it easier for searching. An example of a category and subcategories is as follows:

- Math (primary category)
  - Addition (subcategory)
  - Integers (subcategory)
• Decimals (subcategory)
  – Subtraction (subcategory)
  – Multiplication (subcategory)
  – Division (subcategory)

To create categories and subcategories, do the following:

1. Click Manage ( ). (See Figure 21.)
2. Select Categories.

**Figure 21: Teacher - Create categories**

3. Click Add New Primary Category. (See Figure 22.)
4. Enter a category name.
5. Click the checkmark ( ) button to add it.
6. Once a category is created, you can add subcategories. Click the plus ( ) button associated with each category. Repeat steps 4 and 5.

**TIP!** Note that categories assigned to Preloaded Content cannot be changed or deleted.

To rename a category, do the following:

1. Click the pencil ( ) button associated with it. (See Figure 22.)
2. Change the name.
3. Click the checkmark ( ) button to save it.

To delete a category, do the following:

1. Click the trashcan ( ) button associated with it. (See Figure 22.)

**Figure 22: Teacher - Add, edit, and delete categories and subcategories**
4.3.2 Upload content

1. Go to the Library ( ) page. (See Figure 23.)
2. Click Upload Content ( ).

Figure 23: Teacher - Upload content

3. Click Choose Files and select one or more files. (See Figure 24.)
4. Modify the title (if desired).
5. Add a brief description about the content.
6. Add one or more tags. Tags are words used to describe content, making it easier for searching. For example: science, physics, and lab exercise.

   TIP! Existing tags can be managed (rename and delete) by clicking Manage ( ) and selecting Tags. Note that tags assigned to Preloaded Content cannot be changed or deleted.

   TIP! To add more tags to an existing content, click the Edit Content Information ( ) button associated with the content.

7. Assign it a category.
8. Click Upload. Uploaded content will appear in the My Uploaded Content tab.
To upload through the device’s USB/SD port, do the following:

1. Plug the USB drive/SD card with the content into the appropriate port.
2. Click Manage ( ). (See Figure 25.)
3. Select USB/SD Import.

4. Checkmark the content to upload. (See Figure 26.)
5. Modify the title (if desired).
6. Add a brief description about the content.
7. Add one or more tags. Tags are words used to describe a content file - making it easier for searching. For example: science, physics, and lab exercise.
   
   **TIP!** Existing tags can be managed (rename and delete) by clicking `Manage (✏️)` and selecting `Tags`. Note that tags assigned to Preloaded Content cannot be changed or deleted.

   **TIP!** To add more tags to an existing content file, click the `Edit Content Information (✏️)` button associated with the content.

8. Assign the content file to a category.
9. Click `Import`. Uploaded content will appear in the `My Uploaded Content` tab.
4.3.3 Open content

Some content can be opened by the browser and shown in a new tab. If the browser cannot open the file, it will download it to the default Downloads location. Use an appropriate application to open the file.

1. Go to the Library ( ) page.
2. Click either the Preloaded Content tab or the My Uploaded Content tab.
3. Click the name of the content to open.

4.3.4 Feature and unfeature content

To highlight content for students to focus on, feature it. Featured content will appear in the Home page.

1. Go to the Library ( ) page. (See Figure 27.)
2. Click either the Preloaded Content tab or the My Uploaded Content tab.
3. Locate the content to feature/unfeature.
4. To feature a content file, click the star ( ) button. The star will turn yellow, and the content will appear under the Featured Content section in the Home page.
5. To unfeature a content file, click the yellow star button associated with it. The star will turn gray.

TIP! A teacher may unfeature a featured content file from the Home page.

Figure 27: Teacher - Feature/unfeature content
4.3.5 Hide and show content and library from students

Individual content can be hidden so students cannot access it.

1. Go to the Library ( ) page. (See Figure 28.)
2. Click either the Preloaded Content tab or the My Uploaded Content tab.
3. Locate the content to hide/show.
4. To hide a content file, click the eye ( ) button. A slash will appear over the eye, and students will not be able to access the content file.
5. To show a content file, click the eye with the slash ( ) button. The slash will disappear, and students will be able to access the content file.

TIP! A teacher may hide/show a featured content file from the Home page.

Figure 28: Teacher - Hide content

To hide/show all content (the entire Library) from students:

1. Go to the Library ( ) page. (See Figure 29.)
2. Locate the Allow student access to library? widget (bottom left).
3. To hide the Library, click No.
4. To show the Library, click Yes.
4.3.6 Delete content

1. Go to the Library ( ) page. (See Figure 30.)
2. Click the My Uploaded Content tab.
   
   **TIP!** Teachers cannot delete content files in the Preloaded Content area.
3. Checkmark the content to be deleted and click Delete ( ).
4.3.7 Edit details of content
1. Go to the Library ( ) page.
2. Click the My Uploaded Content tab.
   TIP! Teachers cannot modify details in the Preloaded Content area.
3. Locate the content to edit details.
4. Click the pencil ( ) button.
5. Edit the details as desired.
6. Click Save to save changes.
   TIP! A teacher may edit the details of a featured content file in My Uploaded Content from the Home page.

4.4 Create and manage lessons
A lesson is collection of one or more content files that teachers create for students. The Lessons page is where lessons are created, viewed, and managed (delete, feature, edit).

4.4.1 Create a lesson name
1. Go to the Lessons ( ) page. (See Figure 31.)
2. Click Create a New Lesson.
3. Enter the name of the lesson when the pop-up appears.
4. Click Create.

Figure 31:  Teacher - Create lesson
4.4.2 Add content to a lesson

There are two ways to add content to a lesson.

1. Method #1:
   a. Go to the Lessons ( ) page. (See Figure 32.)
   b. Click the plus ( ) button under the lesson. The lesson name will show up in the Library page with an empty box on the left side.
   c. Click either the Preloaded Content tab or the My Uploaded Content tab.
   d. Drag and drop each content item into the lesson box.

Figure 32: Teacher - Add content to lesson with drag-and-drop

2. Method #2:
   a. Go to the Library ( ) page. (See Figure 33.)
   b. Click either the Preloaded Content tab or the My Uploaded Content tab.
   c. Checkmark the desired content.
   d. Click Add to Lesson and a dropdown list of lessons will appear.
   e. Select the lesson name.
   f. Click the checkmark ( ) button to add.
4.4.3  Show contents within a lesson
   1. Go to the Lessons ( ) page.
   2. Click the lesson to reveal content within.

4.4.4  Remove content from a lesson
   1. Go to the Lessons ( ) page. (See Figure 34.)
   2. Click the lesson to reveal content.
   3. Checkmark the desired content to remove.
   4. Click Remove From Lesson ( ).

Figure 33:  Teacher - Add content to lesson using dropdown list

Figure 34:  Teacher - Remove content from lesson
4.4.5  Edit a lesson name

1. Go to the Lessons ( ) page. (See Figure 35.)
2. Click the pencil ( ) button.
3. Change the lesson name.
4. Click the checkmark ( ) button to save.

**TIP!** A teacher can also rename a featured lesson from the Home page.

*Figure 35:  Teacher - Edit lesson name*

4.4.6  Feature and unfeature a lesson

To highlight lessons that students should focus on, feature it. Featured lessons will appear in the Home page.

1. Go to the Lessons ( ) page. (See Figure 36.)
2. Locate the lesson to feature/unfeature.
3. To feature a lesson, click the star ( ) button under the lesson and it will turn yellow. The lesson will now appear under the Featured Lessons section in the Home page.
4. To unfeature a lesson, click the yellow star button under the lesson and it will turn gray.

**TIP!** A teacher can also unfeature a featured lesson from the Home page.

*Figure 36:  Teacher - Feature/unfeature lesson*
4.4.7 Delete a lesson

1. Go to the Lessons ( ) page. (See Figure 37.)
2. Checkmark the desired lessons to be deleted.
3. Click Delete ( ).

Figure 37: Teacher - Delete lesson
4.5 Search for content and lessons

1. To search for content, go to the Home or Library page. (See Figure 38.)
   a. Enter the search keywords in the Search field. The keyword can be a tag, a description, or content file name.
   b. Another way to search in the Library page is by filtering based on a category or a tag.
      i. To filter by category, expand the desired category under the Filter by Category area.
      ii. To filter by tag, click the desired tag under the Filter by Tag area.
2. To search for lessons, go to the Lessons page and enter the lesson name in the Search field.

Figure 38: Teacher - Search for lessons and content
4.6 Device settings

In Device Settings, a teacher can change the following settings:

- Disable and enable Internet access.
- Change teacher’s password.
- Change the wireless name (SSID) of the device.
  1. Click Manage ( ). (See Figure 39.)
  2. Select Device Settings.

Figure 39: Teacher - Manage device settings

4.6.1 Disable and enable Internet

Sometimes it may be necessary to temporarily disable the Internet connection during class time to prevent distractions. (See Figure 40.)

1. To disable the Internet connection, set Allow Internet access via this device? to No.
2. To enable the Internet connection, set Allow Internet access via this device? to Yes.

4.6.2 Change teacher’s password

1. Click Change. (See Figure 40.)
2. Enter the old and new passwords, and confirm the new password.
3. Click Update.

4.6.3 Change the wireless name (SSID) of the device

1. Click Change. (See Figure 40.)
2. Enter the new SSID name.
3. Click the checkmark ( ) button for the change to take effect.
4. Reconnect using the new wireless name (SSID).

Figure 40: Teacher - Change device settings
5 Lesson Planner & Offline Website Content Management (Admin Guide)

5.1 Lesson Planner

The Content Access Point contains a web application called the Content Hub Lesson Planner, which allows you to upload and store educational content locally. It supports all file formats, such as PDF, Word*, Excel*, PowerPoint*, HTML, ePub, audio and video formats, etc.

The tasks for the administrator for the Content Hub Lesson Planner are:

- Create preloaded content package.
- Add and delete preloaded content.
- Delete teacher content.
- Delete empty categories.

What is preloaded content?

Preloaded content is educational content loaded into the Content Hub Lesson Planner before it is used by the teacher and students. This content may be loaded by, for example, the equipment manufacturer or a Ministry of Education before it is shipped to the school or educational establishment in which it is being used.

Preloaded content can only be uploaded/imported/removed by an administrator.

What is teacher content?

- Content that a teacher adds to the library in the Content Hub Lesson Planner. That content be any type of file e.g. Excel* document, Word* document, HTML, PDF, ePub, video, image, etc.
- Lessons that a teacher creates

What are categories?

Categories provide a mechanism for teachers/administrators to group/classify content within the library. A content category can be:

- Assigned within a preloaded content package and created when preloaded content is uploaded/imported to the Content Hub Lesson Planner by an administrator
- Assigned when teacher content is uploaded/imported to the Content Hub Lesson Planner by a teacher
- Configured by a teacher through the Manage Categories screen, or configured by an administrator through the Manage Categories screen when viewing the Content Hub Lesson Planner in Teacher Mode

5.1.1 Create preloaded content package

1. Zip the content into a file. *Note: Do not use Windows* built-in compression tool.
2. Do not include subfolders.
3. Do not encrypt or password-protect the zipped file.
4. Total size must not exceed 2 GB for upload over WiFi.

5.1.2 Access Lesson Planner

To perform administrator-specific tasks, you must log on as an administrator.

1. Launch browser and go to http://my.content.
2. Click Login (🔒).
3. Enter administrator’s username and password.
4. Click Lesson Planner. (See Figure 41.)
5.1.3 Add preloaded content package

There are two ways to add preloaded content to the Content Hub Lesson Planner.

1. Upload package over WiFi (only for packages smaller than 2GB):
   a. Click Upload Package. (See Figure 42.)
   b. Click Choose Files and select one or more packages. (See Figure 43.)
      
      Note: If a preloaded content package with the same name already exists, an option will be displayed to overwrite it.
   c. Click Upload.

2. Import package through the Content Access Point’s USB/SD port:
   a. Plug the USB drive/SD card with the content into the appropriate port.
   b. Click USB/SD Import Package. (See Figure 42.)
   c. Checkmark the packages to import. (See Figure 44.)
      
      Note: If a preloaded content package with the same name already exists, an option will be displayed to overwrite it.
   d. Click Import.
Figure 42:  Admin - Manage content

Figure 43:  Admin - Upload package
5.1.4 **Delete preloaded content**
1. Go to the *Preloaded Content* section. (See Figure 45.)
2. Checkmark the desired package to delete.
   TIP! To delete all packages at once, checkmark the top-left checkbox.
3. Click *Delete*.

5.1.5 **Delete teacher content**
1. Go to the *Teacher Content* section. (See Figure 45.)
2. Checkmark the checkbox left of “Teacher Content”.
   Note: The checkbox will be disabled if no teacher content exists.
3. Click *Delete*.

5.1.6 **Delete empty categories**
1. Go to the *Categories* section. (See Figure 45.)
2. Checkmark the checkbox left of “Categories”.
   Note: Only categories that do not have any content assigned to them will be deleted.
3. Click *Delete*.
5.2 Offline websites & bookmarks

The Content Access Point can host offline/static websites. This is easily achieved by uploading a zipped package containing the website's components. Each uploaded website appears on the Content Hub home page and is represented by a tile. Also, bookmarks/links to external websites or links to content on the Content Access Point can added on the Content Hub home page.

The tasks for the administrator for managing an offline website/a bookmark are:

- Create zip package containing an offline website.
- Add, delete, hide, and show an offline website/bookmark.

5.2.1 Create a package containing the website

1. Zip the website into a file. The website’s index file must be at the root level.
   \textit{Note: Do not use Windows* built-in compression tool.}
2. Do not encrypt or password-protect the zipped file.
3. Place the zipped package onto a USB drive.
4. Plug the USB drive into the Content Access Point.

5.2.2 Upload offline website

1. Open browser and go to \textit{http://my.content}.
2. Click \textit{Login}.
3. Log in with the administrator’s username and password.
4. Click \textit{Add Tile}. (See Figure 46.)
5. Checkmark the package to upload. (See Figure 47.)
6. Click \textit{Import}.
7. Enter a title for the website. (See Figure 48.)
8. Click \textit{Choose File} and select an icon (PNG or JPG format) to represent it.
9. Set its access properties:
Lesson Planner & Offline Website Content Management (Admin Guide)

a. *Hidden from Students* - Only the teacher and admin can see the website.
b. *Hidden from All Users* - Only the admin can see the website.

10. Click Create.

**Figure 46:**  *Admin - Add Tile*

![Figure 46: Admin - Add Tile](image1)

**Figure 47:**  *Admin - Select offline website package*

![Figure 47: Admin - Select offline website package](image2)
5.2.3 Add bookmark

1. Open browser and go to http://my.content.
2. Click Login.
3. Log in with the administrator’s username and password.
4. Click Add Tile. (See Figure 46.)
5. Enter a fully-qualified URL. (See Figure 49.)
6. Enter a title for the bookmark.
7. Click Choose File and select an icon (PNG or JPG format) to represent it.
8. Set its access properties:
   a. Hidden from Students - Only the teacher and admin can see the website.
   b. Hidden from All Users - Only the admin can see the website.
9. Click Create.
5.3 Add content storage capacity with external USB hard drive

The Content Access Point’s internal hard drive contains two partitions for storing content - one for the administrator (400 GB) and another one for the teacher (100 GB). When any one of these is full, an error message will appear showing insufficient space when trying to upload content. Additional storage capacity can be added with an external USB hard drive.

Follow these steps:

1. Format the external USB hard drive as NTFS.
2. Name it “ext-cap-hdd”.
3. Create these directories and subdirectory on it.
   a. uploaded
   b. preloaded > content_dir
6 Access Point Management (Admin Guide)

This section provides detailed instructions on how to configure the Content Access Point device. This is intended for IT administrators with advanced networking knowledge.

6.1 Log on as admin

1. Wirelessly connect to the device.
2. Launch a browser and go to http://my.admin (or http://192.168.88.1:8080).
3. Enter the admin username and password.
   
   **TIP!** The factory default admin username/password is admin/admin.

6.2 Setup wizard

To set up the Content Access Point quickly, use the guided Setup Wizard. (See Figure 50.)

1. Click Setup Wizard and configure the following:
   a. Network mode
   b. Date and time
   c. Wireless settings
   d. LAN settings
   e. Set teacher account username and password
   f. WAN and 3G/4G/LTE settings

2. Click Save.

*Figure 50: Admin - Setup wizard*

6.3 Status information

You can get status information from the Dashboard and Wireless Status pages.

- The Dashboard page shows overall system status.
- The Wireless Status page shows the list of connected clients.
6.4 General settings

The network mode determines whether or not users can access the Internet through the Content Access Point. If enabled, the captive portal mode automatically redirects a client’s browser to the default website when a Wi-Fi connection is established. (See Figure 51.)

1. Select a network mode:
   - No Internet access. The device will only be used for classroom content sharing. Users cannot access the Internet through this device.
   - Full Internet access. Allow users to access the Internet through this device.
2. Set Captive Portal mode. When set to ON, the user’s browser is redirected to the primary website when a wireless connection is established with the device.
3. Click Save.

Figure 51: Admin - General settings
6.5 Date and time

Configure the date and time of the Content Access Point. (See Figure 52.)

1. Choose an appropriate time zone from the Time Zone list.
2. Select one of two ways to set the date and time:

   a. To manually set the date and time, select Manually Set System Time and enter appropriate values. To automatically synchronize the date and time with predefined NTP servers, select Dynamically Set System Time (the default). To use a different NTP server, select Custom NTP Servers and enter the NTP server.

3. Click Save.

Figure 52: Admin - Date and time settings
6.6 Wireless settings
Configure the wireless access point and an access control list. (See Figure 53.)

6.6.1 Wireless access point
1. Enter the SSID Name. The default SSID is the model name plus the last six digits of the Wi-Fi MAC address (WFM), which is printed on the bottom of the device. For example, for model WAPD-235N with a WFM of F835DD85457A, the wireless SSID is WAPD-235N_85457A.
2. Select the Wireless Mode. Default is 802.11 b/g/n mixed - 2.4 GHz.
3. Select the Wireless Channel. Default is Auto, which means the optimal channel is determined.
4. Select the Bandwidth Channel. Default is 20 MHz.
   **TIP!** 40/20 MHz is for 802.11 n/ac and 80/40/20 MHz is for 802.11ac only.
5. Select the Extension Channel direction (lower or upper) for the channel bonding.
   **TIP!** This option is not configurable if the Wireless Channel is set to Auto and Bandwidth Channel is 20 MHz.
6. Set Anti-Interference Mode. Default is Off. To improve wireless performance in a noisy environment, set this mode to On.
7. Select Security Mode.
   a. Default is Open.
   b. If WEP is selected, configure the following:
      • Authentication Type: Select the authentication type.
      • Default Transmission Key: Set selected key as the default key to use.
      • WEP Key Type: Select the encryption type.
      • Passphrase: Enter a passphrase and click the Generate button, which will generate the four WEP keys below.
   c. If WPA/WPA2 is selected, configure the following:
      • Encryption Type: Select the data encryption algorithm.
      • Passphrase: Enter the passphrase.
8. Click Save.

6.6.2 Access control list
1. Set the maximum number of clients that can connect simultaneously with User Limit. Default is 0, which means no limit.
2. Access control configuration:
   a. By default, No MAC Filtering is selected.
   b. To whitelist (allow): Select Allow only the following MAC addresses to connect.
   c. To blacklist (don’t allow): Select Prevent the following MAC address to connect.
   d. Enter each MAC address in the MAC Address field and click Add.
3. Click Save.
Figure 53:  Admin - Wireless settings and access control list
6.7 LAN settings

Set the IP address (LAN side) and DHCP server configuration of the Content Access Point. (See Figure 54.)

6.7.1 IP address

1. Enter the desired IP Address. The default IP address is 192.168.88.1.
2. Enter the desired Netmask. The default netmask is 255.255.255.0.
3. Click Save.

6.7.2 DHCP Server

1. To enable the DHCP server, set the DHCP Mode to DHCP Server.
2. Enter the IP address range with Start IP and End IP.
3. Enter the Lease Time of an IP address.
4. Enter the primary DNS server IP address in the DNS Server1 field and an alternate in the DNS Server2 field.
5. Enter the Domain Name.
6. Enter the Default Gateway.
7. Click Save.

Figure 54: Admin - LAN settings
6.8 WAN settings

The Content Access Point provides two types of WAN connections: Ethernet-based through the Ethernet port and cellular-based when a micro-SIM card is installed. By default, the Ethernet connection is the primary connection if both are enabled. If the Ethernet connection fails, it will switch over to the cellular connection automatically and switch back once restored.

6.8.1 Ethernet-based WAN

1. Go to WAN Settings. (See Figure 55.)
2. Select the IP address assignment type:
   a. Use DHCP Client if an IP address is automatically assigned.
   b. Use Static IP if a static IP address must be entered.
3. Set the MTU size.
   a. By default, this value is automatically set to 1500 bytes.
   b. To set a specific value, select Manual and enter the value in the MTU Value field.
   **TIP!** MTU (maximum transmission unit) defines the largest size an IP packet can be.
4. Set the DNS server source.
   a. By default, this is set to Get Dynamically from ISP, which means the service provider automatically sets this information.
   b. To use a different DNS server, set it to Use these DNS Servers. Then enter the primary DNS server IP address in the DNS Server1 field and an alternate in the DNS Server2 field.
5. Set MAC source address.
   a. By default, the factory-assigned MAC address of the Ethernet WAN port is used to identify it.
   b. To assign a custom MAC address, select Use the following MAC address and enter the new MAC address in the MAC Address field below.
6. Click Save.

6.8.2 Cellular-based WAN

**TIP!** Recommended tools: Phillips screwdriver and small flathead screwdriver.

1. Install a micro-SIM card.
   a. Turn off the device, and disconnect the Ethernet and power cables.
   b. Turn the device over to access the bottom cover.
   c. Remove the four rubber screw-hole plugs.
   d. Loosen and remove the four screws.
   e. Lift off the bottom cover.
   f. Disconnect the battery cable. (Note the orientation of the connector for later reattachment.)
   g. Open the micro-SIM card slot by pushing the metal cover in the direction of the arrow and lifting it up.
   h. Install the micro-SIM card. Match the notched corner of the micro-SIM card with the notch of the slot. You will need a micro-SIM adapter if you are using a nano-SIM card.
   i. Reassemble the device.
   j. Reconnect the Ethernet and power cables.
   k. Power the device by pressing and holding the power button for two seconds.
2. Go to WAN Settings. (See Figure 55.)
3. Set 3G/4G/LTE to **ON**.
4. Enter the PIN code (if applicable).
5. By default, the predefined APN settings for the detected carrier are used. To manually configure the APN settings, click **Manual** and add/modify as needed.
6. Click **Save**.
6.9 Firewall settings

The firewall, which is enabled by default, protects against Portscan, SYN flooding, and Echo storm attacks. It also blocks pings against the WAN interface. To disable the firewall, do the following:

1. Go to Firewall Settings. (See Figure 56.)
2. Click OFF.

Figure 56: Admin - Firewall settings

6.10 Account settings

You can manage the admin and the teacher account information here.

6.10.1 Admin account

1. Go to Account Settings. (See Figure 57.)
2. Enter the Admin’s username.
3. Enter the Admin’s password and confirm it. The Admin’s password must be at least 8 characters long (16 max), and must contain at least one capitalized character and at least one numeral.
4. Click Save for the changes to take effect.

6.10.2 Teacher account

1. Go to Account Settings. (See Figure 57.)
2. Enter the teacher’s username.
3. Enter the teacher’s password.
4. Click Save.

TIP! To reset the teacher account to factory default, click Reset account to factory default. This will set the teacher account username to “teacher” with the password “teacher”.

5. Reboot the device for the changes to take effect.
6.11 Device management

6.11.1 Update firmware

**CAUTION:** The device will reboot as part of the firmware update process. This will temporarily disrupt network and content access for users.

1. Go to Device Management > Firmware Update. (See Figure 58.)
2. Select the method of supplying the firmware file.
   a. Upload the file from the local computer.
   b. Use a USB flash drive. For this method, format a USB flash drive (NTFS or FAT32), put the file on it, plug it into the USB port of the device, and refresh the Device Management page. The file will appear following “Update firmware from USB port”.

**Note:** The firmware update file’s extension must be “.tgz”. If the browser changed the file’s extension during the download process, change it back to “.tgz”.

3. Click Update.
4. Wait a couple of minutes for the upgrade to complete.
5. Verify that the upgrade was successful by logging on and checking the firmware version on the Dashboard.

6.11.2 Enable remote management

Refer to “Remote Management Admin Guide for Content Access Point 2.0”.

6.11.3 Backup and restore the configuration settings

Once the device has been configured properly, it’s a good idea to save the settings for future uses such as replicating the settings to multiple devices, restoring settings in case of corruption, etc.

**CAUTION:** The device will reboot as part of the configuration setting restoration process. This will temporarily disrupt network and content access for users.

1. Go to Device Management > Configuration File. (See Figure 58.)
2. To back up settings, click Export. This will generate a “configure.xml” file and save it to the browser’s default Downloads location.
3. To restore settings, click Choose File and select a “configure.xml” file.
4. Click Apply.

6.11.4 Reboot the device

There are two ways to reboot the device:

Through the Admin console (preferred method):
1. Go to Device Management > Reboot & Reset. (See Figure 58.)
2. Click Reboot.

Hard reboot (use this method only if the device is not responding through the Admin console):
1. Press and hold the power button for two seconds and it should turn off.
2. Press and hold the power button again for two seconds to power on.

6.11.5 Reset to factory defaults

There are two ways to perform a factory reset.

CAUTION:
• This action will reset the Admin and teacher accounts.

Through Admin console:
1. Go to Device Management > Reboot & Reset. (See Figure 58.)
2. Click Reset to Factory Defaults.

Factory reset button:
1. Locate the pinhole button next to the power button.
2. Press and hold the button for five seconds then release. The system LED will flash rapidly, indicating the factory reset process.
Figure 58: Admin - Device management
7 Troubleshooting and Support

No Internet access through Ethernet connection.
1. Confirm the physical Ethernet WAN connection works.
2. Confirm the network mode is set to Full Internet access in the Admin console > General Settings.
3. Confirm the WAN settings are configured properly in the Admin console > WAN Settings.

No Internet access through 3G/4G/LTE connection.
1. Confirm the SIM card is activated and there’s an adequate data plan.
2. Confirm the SIM card is installed properly (gold pins face down and notch oriented in the right direction).
3. Confirm the network mode is set to Full Internet access in the Admin console > General Settings.
4. Confirm 3G/4G/LTE is set to ON and saved in the Admin console > WAN Settings.
5. Confirm 3G/4G/LTE LED status is on and is solid blue.

“503 - Service Not Available” message when accessing http://my.content.
Malformatted or encrypted content was uploaded to the server.
1. Make sure there aren’t any subfolders in the content package file.
2. Reload the content.

Uploaded content package does not show up in Preloaded Content space.
The content package might be malformatted or encrypted.
1. Make sure the content within the package is not in subfolders, but at the top level.
2. Make sure the package is not encrypted.
3. Properly create the package. See Section 5.1.1 (Create preloaded content package) for details.
4. Reload.

System unresponsive and admin cannot log on to reboot.
1. Press and hold the power button until the device powers off.
2. Power back on.

Where to get latest firmware?
1. Contact the supplier of the Content Access Point.

Firmware update failed.
1. Confirm the firmware update file’s extension is “.tgz”. If the browser changed the file’s extension during the download process, change it back to “.tgz”.

Whom should I contact for additional technical support?
1. Contact the supplier of the Content Access Point.
## Technical Specifications

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<td>Factory reset</td>
<td>Factory reset</td>
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<td>Lithium-ion polymer 7.4 V, 4050 mAh (up to 5 hours)</td>
</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>AC input: 100 to 240 V</td>
<td>AC input: 100 to 240 V</td>
</tr>
<tr>
<td></td>
<td>DC output: 12 V / 2 A</td>
<td>DC output: 12 V / 2 A</td>
</tr>
<tr>
<td></td>
<td>Frequency: 50 to 60 Hz, single phase</td>
<td>Frequency: 50 to 60 Hz, single phase</td>
</tr>
<tr>
<td><strong>Physical specs</strong></td>
<td>Dimensions: 190 × 190 × 30 mm</td>
<td>Dimensions: 190 × 190 × 30 mm</td>
</tr>
<tr>
<td></td>
<td>Weight: 607 g</td>
<td>Weight: 607 g</td>
</tr>
<tr>
<td><strong>Environmental specs</strong></td>
<td>Operating temperature: 32 to 95°F (0 to 35°C)</td>
<td>Operating temperature: 32 to 95°F (0 to 35°C)</td>
</tr>
<tr>
<td></td>
<td>Relative operating humidity: 20 to 80% (noncondensing)</td>
<td>Relative operating humidity: 20 to 80% (noncondensing)</td>
</tr>
<tr>
<td></td>
<td>Storage temperature: 14 to 140°F (-10 to 60°C)</td>
<td>Storage temperature: 14 to 140°F (-10 to 60°C)</td>
</tr>
<tr>
<td></td>
<td>Relative storage humidity: 10 to 90%</td>
<td>Relative storage humidity: 10 to 90%</td>
</tr>
<tr>
<td><strong>Remote management</strong></td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Regulatory</strong></td>
<td>FCC</td>
<td>CE</td>
</tr>
<tr>
<td></td>
<td>CE</td>
<td>CE</td>
</tr>
</tbody>
</table>