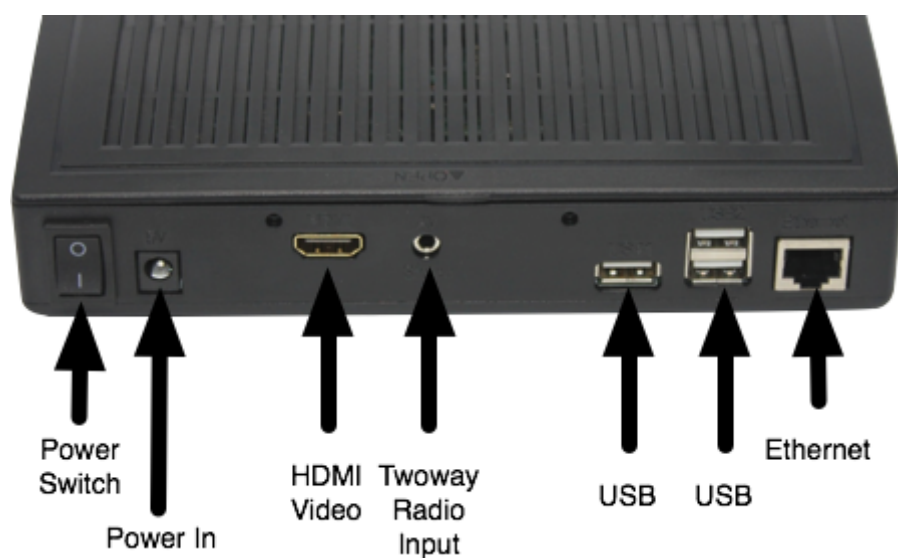


Bleu Bridge Integration Guide June 2015



The unit ships with an AC adapter and built-in two-way radio cable.



Setup Requirements

Configuring and testing will require the following:

- A network connection (details about networking requirements can be found in the section "Networking Requirements")
- Standard CAT5/6 ethernet network cable
- Standard USB computer keyboard and USB mouse (optional)
- HDMI cable (with optional adapter depending on monitor capabilities)
- Computer display with HDMI port (or HDMI-VGA adapter)
- Two Motorola two-way radios: one dedicated to the appliance and one for receiving announcements.

Motorola Radios

One radio must be connected to the device at all times. For a production installation, the radio will need to be placed in the charging dock near the unit and attached using the built in two-way radio cable.

Recommendation is to set the volume level on the attached radio at the lowest setting. The volume level does not affect the announcement transmission volume level.




Logging in Remotely

Before powering on the unit attach the AC power adapter and plug in to power. Attach the ethernet cable and plug in to an active local network port. Attach the two-way radio cable already built in to the unit to the dedicated Motorola two-way radio. Flip the switch on the back of the unit to boot up the device. A red LED on the fron panel of the device indicates the unit is powered on.

If a computer monitor is attached to the HDMI port, the screen will display the unit's system information at startup. A URL is provided for administering the unit from any browser on the same network.

For Network setup, please see the supplemental "Bleu Bridge Network Setup" document.

bleu bridge [sign in](#)

System

Software version: 2.0

Network Info

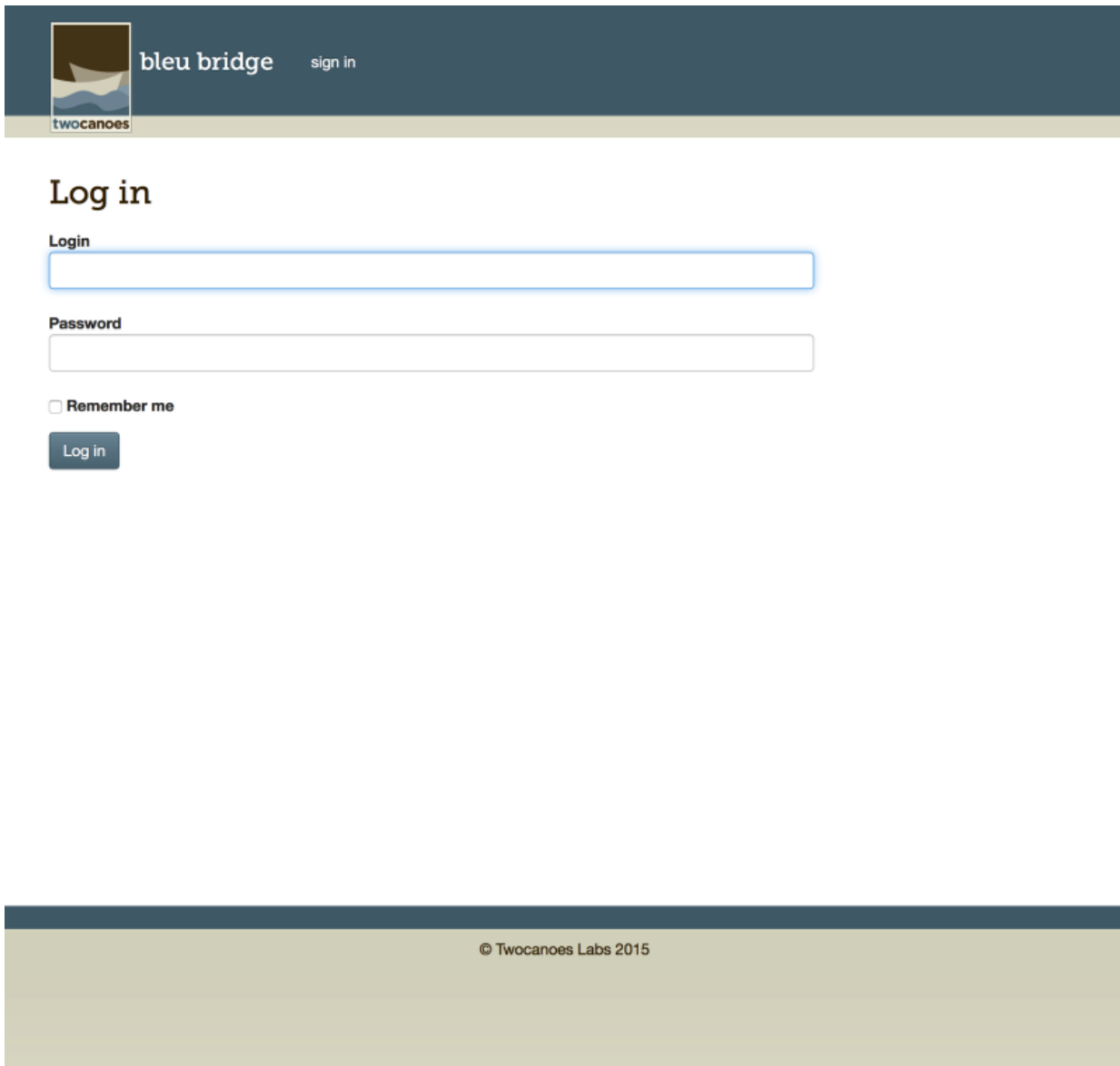
IP Address	192.168.1.88
Subnet mask	24
MAC address	b8:27:eb:7e:36:79
Mode	dhcp
Host name	bridge
Name server	192.168.1.254

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Sign In Page

Select the sign in link and log in using the default username and password: admin / manhattan

After the initial login, you will be required to choose a new password different from the default password.



bleu bridge sign in

twocanoes

Log in

Login

Password


☐ Remember me

Log in

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System Page

The default view when first logging in is the System page where important setting information can be found at a glance, including networking information, system time, broadcasting schedule, announcement interval, broadcast volume and activity monitoring. The System page also provides shutdown, restart and reset buttons for the Bleu Bridge appliance. Settings in your Bleu Bridge will differ from the settings shown in the example below.

bleu bridge

[api](#)[audio](#)[devices](#)[email](#)[orders](#)[account](#)[sign out](#)

System

Shut downRestartReset

Software version: 2.0

Network Info

IP Address	192.168.1.88
Subnet mask	24
MAC address	b8:27:eb:7e:36:79
Mode	dhcp
Host name	bridge
Name server	192.168.1.254

System Time

EditDisable sync

Current time

2015-06-22, 9:05 AM (CDT)

Sync successful

yes

refresh

Broadcast Hours

Edit

Radio messages allowed to play from 9:00 AM to 12:00 PM

Broadcast Volume

80

Change

Announcement Interval

edit

Minimum interval

disabled

Repeat interval

10 minutes

Activity Monitoring

edit

Event count threshold

3 events

Time period

1 minute

Reset Interval

5 minutes

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Networking Requirements

Pease see the supplemental "Bleu Bridge Network Setup" document.

For basic testing and configuration, connect the unit to a DHCP-enabled network.

Before deploying the unit to a production environment, it is recommended to consult with administrators responsible for the production network and provide them with the MAC address of the appliance. The MAC address can be found on the underside of the enclosure.

If you have any questions or problems with integrating the unit into the network, please check with your network administrator.

System Time Settings

By default, the unit will attempt to connect to a known time server. If the device does not have internet access, the time cannot be automatically synchronized and will need to be set manually. For production environments, the best practice is to ensure that the unit can reach the time server. The sync indicator on the main Settings page displays if the most recent attempt to contact the time server was successful or not. You may manually initiate a sync to verify access to the time server.

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Update Date and Time

Time zone

(GMT-06:00) Central Time (US & Canada)

Time

2015 June 16 — 02 PM : 41

Update

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Broadcast Hours, Volume and Announcement Interval

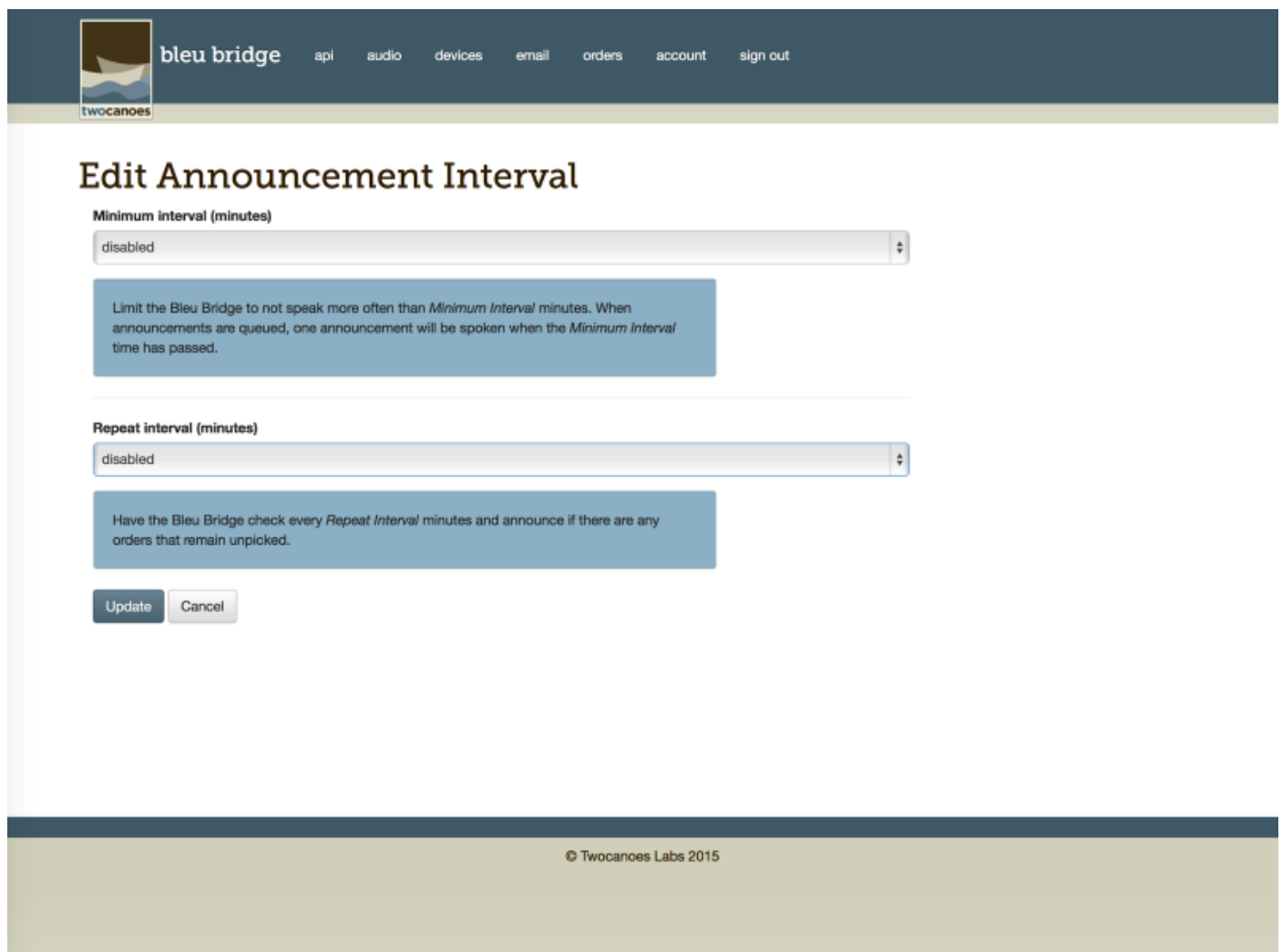
Set Broadcast Hours to correspond to retail floor hours of operation. Tune the audio volume using the Broadcast Volume setting.

The frequency with which announcements are spoken can be adjusted with two settings on the Announcement Interval page.

The minimum interval will limit speaking to not more than the specified interval.

The repeat interval controls how often the unit will speak when there are existing unpicked orders waiting.

Both settings can be disabled or set at an interval from 1 minute to 60 minutes.



The screenshot shows a web application interface for 'bleu bridge' by twocanoes. The top navigation bar includes links for 'api', 'audio', 'devices', 'email', 'orders', 'account', and 'sign out'. The main heading is 'Edit Announcement Interval'. There are two settings sections: 'Minimum interval (minutes)' and 'Repeat interval (minutes)'. Both are currently set to 'disabled'. Each section has a blue informational box explaining the setting. At the bottom, there are 'Update' and 'Cancel' buttons. The footer indicates '© Twocanoes Labs 2015'.

bleu bridge api audio devices email orders account sign out

Edit Announcement Interval

Minimum interval (minutes)

disabled

Limit the Bleu Bridge to not speak more often than *Minimum Interval* minutes. When announcements are queued, one announcement will be spoken when the *Minimum Interval* time has passed.

Repeat interval (minutes)

disabled

Have the Bleu Bridge check every *Repeat Interval* minutes and announce if there are any orders that remain unpicked.

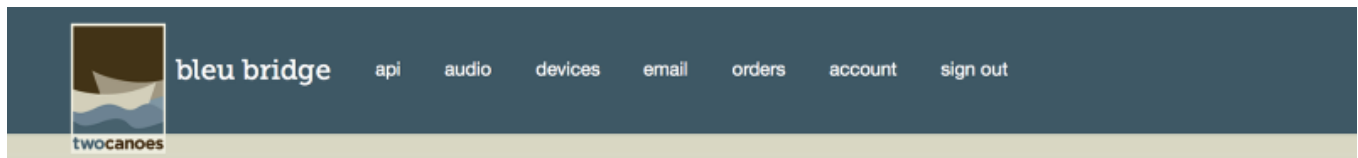
Update **Cancel**

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Audio Page

From the top navigation bar, click **audio** to select the audio configuration page.

From the audio page you may view, play edit delete and add new broadcast messages in the form of audio files. By default, audio messages are defined for *Ink*, *Chairs* and *Order Pick*. The restore button will restore the default *Ink*, *Chairs* and *Order Pick* audio messages. Any existing audio messages will remain unaffected when restoring default messages, but changes made to the these default audio messages will be overwritten with factory settings.




Audio Messages

[New](#)[Delete all](#)[Restore defaults](#)

Name	Actions
Ink	Play Edit Delete
Chairs	Play Edit Delete
Order Pick	Play Edit Delete

New Audio Message

To create a new audio message, provide a message name that is descriptive of the device, location or content of the audio message. The name field cannot be blank and cannot contain special characters. In the Audio field, click "Choose file" and navigate to the audio file you wish to upload to the Bleu Bridge appliance. Audio message files must be in .WAV format and maximum size of 2 MB.

 **bleu bridge** [api](#) [audio](#) [devices](#) [email](#) [orders](#) [account](#) [sign out](#)

New Audio Message

Name

Audio wav format, max 2 mb

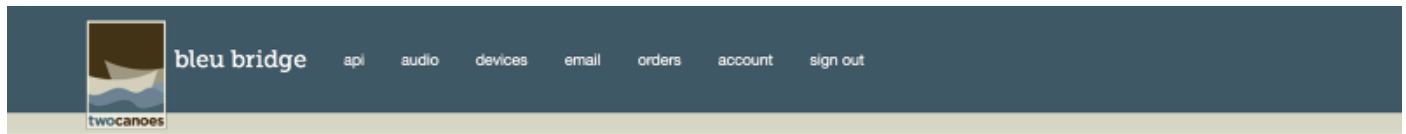
[Choose File](#) no file selected

[Create Audio message](#) [Cancel](#)

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Devices Page

The Devices page is where camera or Secure FTP (SFTP) connections can be added, edited or removed. Click the New button to create a new device.



Devices

[New](#)[Delete all](#)

None yet. Click 'New' to add.

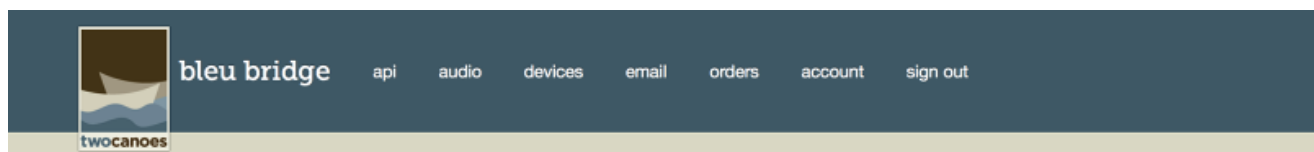
New Device

New or existing devices can be configured as device type "camera" or Secure FTP (SFTP) devices. Configuration options are dependent on the selected device type. Both camera and SFTP devices can have a single assigned audio message. Select an existing audio message or click the Add button to create a new audio message. See the Audio Page for help creating or editing audio messages.

The Radio option for channels 1-4 determines on which radio channel the device's assigned audio message is broadcast.

The SFTP device has an additional requirement of an assigned public key for authenticating the SFTP connection. The public key is stored on the Bleu Bridge appliance and authenticates a private key stored on the device uploading files to the Bleu Bridge. Please contact support@twocanoes.com for assistance configuring public-private key authentication for the SFTP feature.

After specifying a device name, select type, audio message and radio channel, click Create Device to save.



New Device

Name

Device type


camera

SFTP

Public key

Choose File no file selected

Audio message

Please select  or Add

Radio

1

2

3

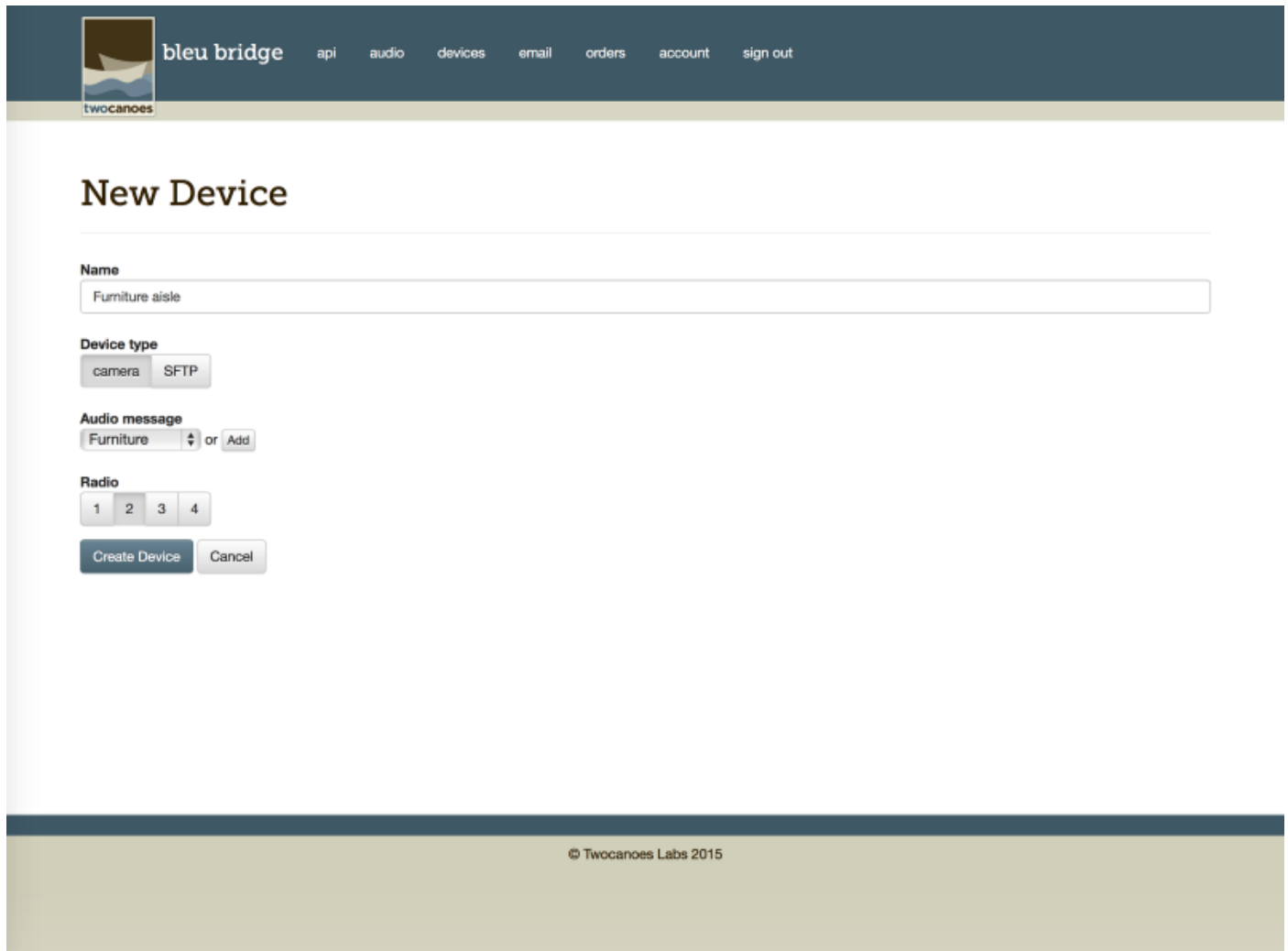
4

Create Device

Cancel

Create New Device

For example, to create a camera device for the furniture aisle of a retail sales floor, we've named the device "Furniture aisle", selected the camera device type, selected an existing audio message named "Furniture" and selected radio channel 2 to broadcast the message when the assigned furniture camera detects activity. Configuring camera detection settings is beyond the scope of this guide. Click Create device to save settings.



The screenshot shows the 'New Device' form in the Bleu Bridge application. The form is located on a page with a dark blue header and a light beige footer. The header contains the 'bleu bridge' logo and navigation links: 'api', 'audio', 'devices', 'email', 'orders', 'account', and 'sign out'. The footer contains the copyright notice '© Twocanoes Labs 2015'.

The form itself is titled 'New Device' and contains the following fields and controls:

- Name:** A text input field containing 'Furniture aisle'.
- Device type:** Two buttons: 'camera' (selected) and 'SFTP'.
- Audio message:** A dropdown menu showing 'Furniture' with an up/down arrow, followed by 'or' and an 'Add' button.
- Radio:** Four buttons labeled '1', '2', '3', and '4'. Button '2' is selected.
- Buttons:** 'Create Device' and 'Cancel' buttons at the bottom of the form.

Devices Page Example

Existing devices are available to test announcement broadcasts and send a test event to the event log. Click "play audio" to verify that the announcement is correctly broadcasting to the specified radio channel. Click Report Activity to verify that the event log is correctly logging events from this device. Clicking the Report Activity button will generate an event and display a page in the browser containing the event text. Edit or delete a device using the correspondingly named buttons to the right of each device.

Links for the Play Audio button and the Report Activity button for a particular device can be copied into the device's configuration to trigger audio playback or event logging. For example, the camera detection rules found in the camera setup interface can be configured to play back the announcement using the URL link from the Play Audio button for that device. Likewise, a device can post an event in the log by calling the Report Activity URL. Right-click the Play Audio button or Report Activity button to copy the URL.

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Devices


New Delete all

Name	Device type	Audio message	Radio	Actions
Furniture aisle	camera	Furniture	2	Play audio Report activity Edit Delete

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Email Configuration

Email settings configures outgoing messages to selected recipients. Messages from the Bleu Bridge include a daily event report of all bridge activities in the previous 24 hours and a configurable alert message sent when no orders have been received within a specified period of time.

 [bleu bridge](#) [api](#) [audio](#) [devices](#) [email](#) [orders](#) [account](#) [sign out](#)

Email Settings

[Edit](#) [Send test email](#) [Send daily report](#)

Email	bleubridge@gmail.com
User Name	bleubridge@gmail.com
Outbound Server	smtp.gmail.com
Domain	not set
Port	587
Authentication	login

Email Report Subscribers

[Add](#) [Manage](#)

None

Monitor for SFTP Activity


[Edit](#)

Report by email if no SFTP activity received during broadcast hours for more than **1 hour**.

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Email Page

Settings for email include sender email address, user name, password, outbound server address, domain, SMTP port and authentication method. See your email server documentation for guidance on configuring outbound email settings.

 **bleu bridge** [api](#) [audio](#) [devices](#) [email](#) [orders](#) [account](#) [sign out](#)

Edit Email Settings

For Gmail accounts, just enter your email/user name and password. The remaining values will be defaulted to support Gmail. For other account types, please enter the settings required for your account.

Email

User name

Password

* If using Gmail, note that Gmail requires generating an app specific password if your account uses 2-Step Verification. If your Gmail account does not use 2-Step Verification, Gmail requires turning on access for less secure apps.

Outbound server

Domain

Port

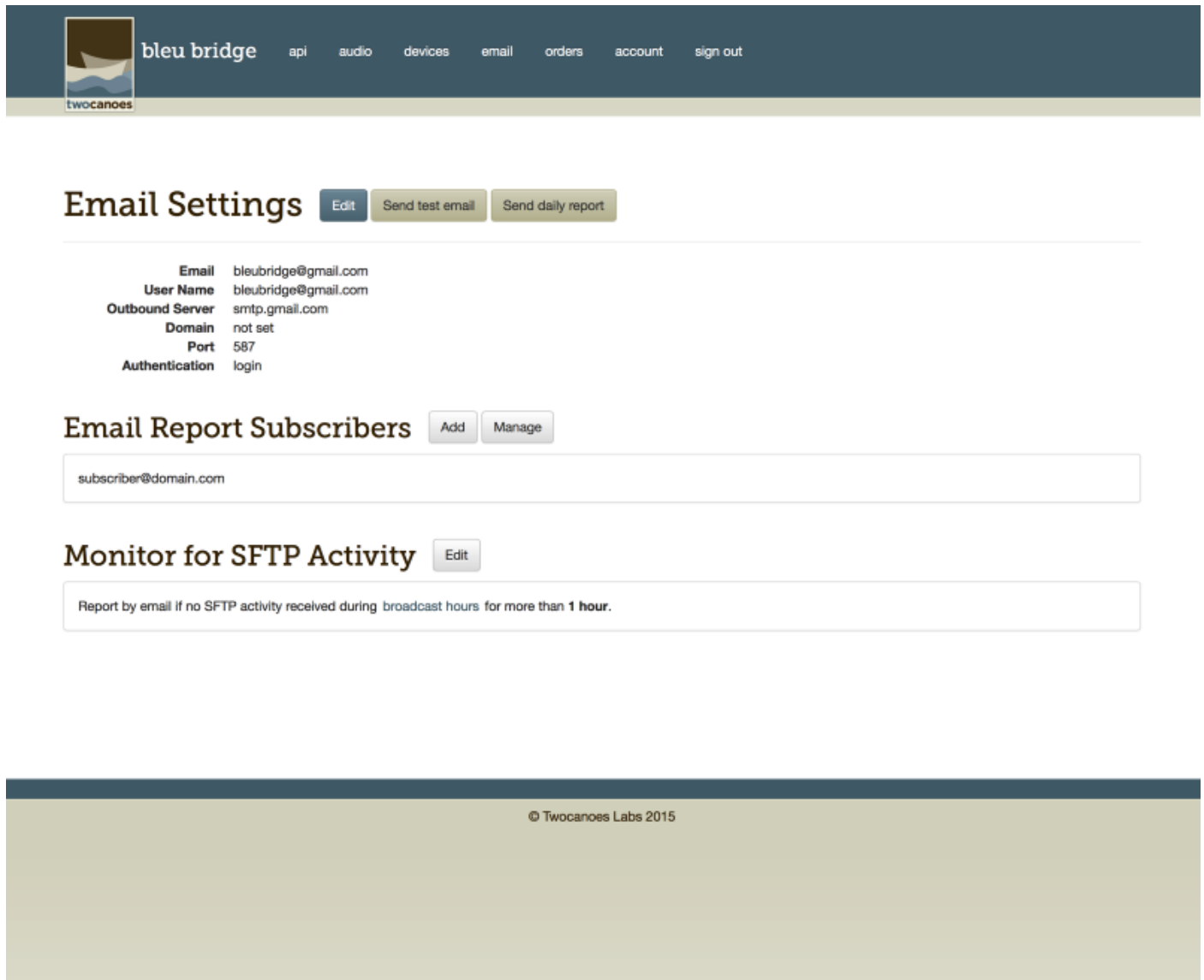
Authentication

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Test Email Settings

To test, return to the main Email Settings page, enter your receiving email address in the Email Report Subscribers, save, then send a test email. You should immediately receive the test email message.

To test the daily report email, click the "Send Daily Report" button. The Daily Report email will contain a list of BOPIS events and/or announcement activity. If no events have been recorded in the previous 24 hours, there will be no events in the daily report email.



The screenshot displays the Bleu Bridge web application interface. At the top is a dark blue navigation bar with the 'bleu bridge' logo and links for 'api', 'audio', 'devices', 'email', 'orders', 'account', and 'sign out'. Below this is a light beige footer bar with the copyright notice '© Twocanoes Labs 2015'.

The main content area is divided into three sections:


- Email Settings:** Features a title and three buttons: 'Edit' (dark blue), 'Send test email' (light beige), and 'Send daily report' (light beige). Below the buttons is a table of settings:

Email	bleubridge@gmail.com
User Name	bleubridge@gmail.com
Outbound Server	smtp.gmail.com
Domain	not set
Port	587
Authentication	login
- Email Report Subscribers:** Features a title and two buttons: 'Add' and 'Manage'. Below the buttons is a text input field containing the placeholder 'subscriber@domain.com'.
- Monitor for SFTP Activity:** Features a title and an 'Edit' button. Below the button is a text input field containing the text 'Report by email if no SFTP activity received during broadcast hours for more than 1 hour.'

Monitor for SFTP Activity

The SFTP Monitor is designed to alert staff to possible disruption of the BOPIS order upload mechanism. Bleu Bridge monitors SFTP upload activity of incoming BOPIS orders and can be tuned for specific environments based on frequency of BOPIS order activity. Set the monitoring interval for a period slightly greater than the expected time between BOPIS orders. If no BOPIS orders are received within the set interval, a notification email will be sent to the recipients specified in the Email Report Subscribers list.

An email will be sent automatically to all subscribers every 30 minutes when there is no SFTP activity for the number of hours chosen in settings (and an SFTP device is set up on the device page). To test this feature, enter your email address in the Email Report Subscribers field. If an SFTP device exists and no orders have been uploaded since adding your email address to the subscribers list, you will receive an email within 30 minutes reporting no SFTP activity has occurred. You will continue receiving emails at 30 minute intervals until either new orders are received, you remove the SFTP device or remove your email address from the subscribers list.

 [api](#) [audio](#) [devices](#) [email](#) [orders](#) [account](#) [sign out](#)

Email Settings

Edit Send test email Send daily report

Email	bleubridge@gmail.com
User Name	bleubridge@gmail.com
Outbound Server	smtp.gmail.com
Domain	not set
Port	587
Authentication	login

Email Report Subscribers

Add Manage

subscriber@domain.com

Monitor for SFTP Activity

Cancel

Report by email if no SFTP activity received during **broadcast hours** for more than **1 hour**.

Report when more than (hours)
1

Update

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API Info Page

The API reference page provides information for developers to integrate the unit into backend ordering and inventory systems. For testing announcement services, we will use the browser example URLs found in the sections "Create an order", "Remove and order", "Pick an order" and "speak".

[illegible]

Add order records by uploading an XML file

An order can be created by uploading an XML file.

Request type: POST

Path: /orders/process_upload.xml

Parameter name: 'order_file'

XML structure example:

```
<tXML>
  <Message>
    <DistributionOrder>
      <DistributionOrderId>
        order ID value: any alphanumeric value up to 255 characters
      </DistributionOrderId>

      <OrderedDttm>
        order date and time in format:
          Month/Day/Year Hour:Minute

        example:
          2/2/15 14:10

        * note 24-hour time is required
      </OrderedDttm>
    </DistributionOrder>
  </Message>
</tXML>
```

Success response: Status 202 (accepted)

Error responses:

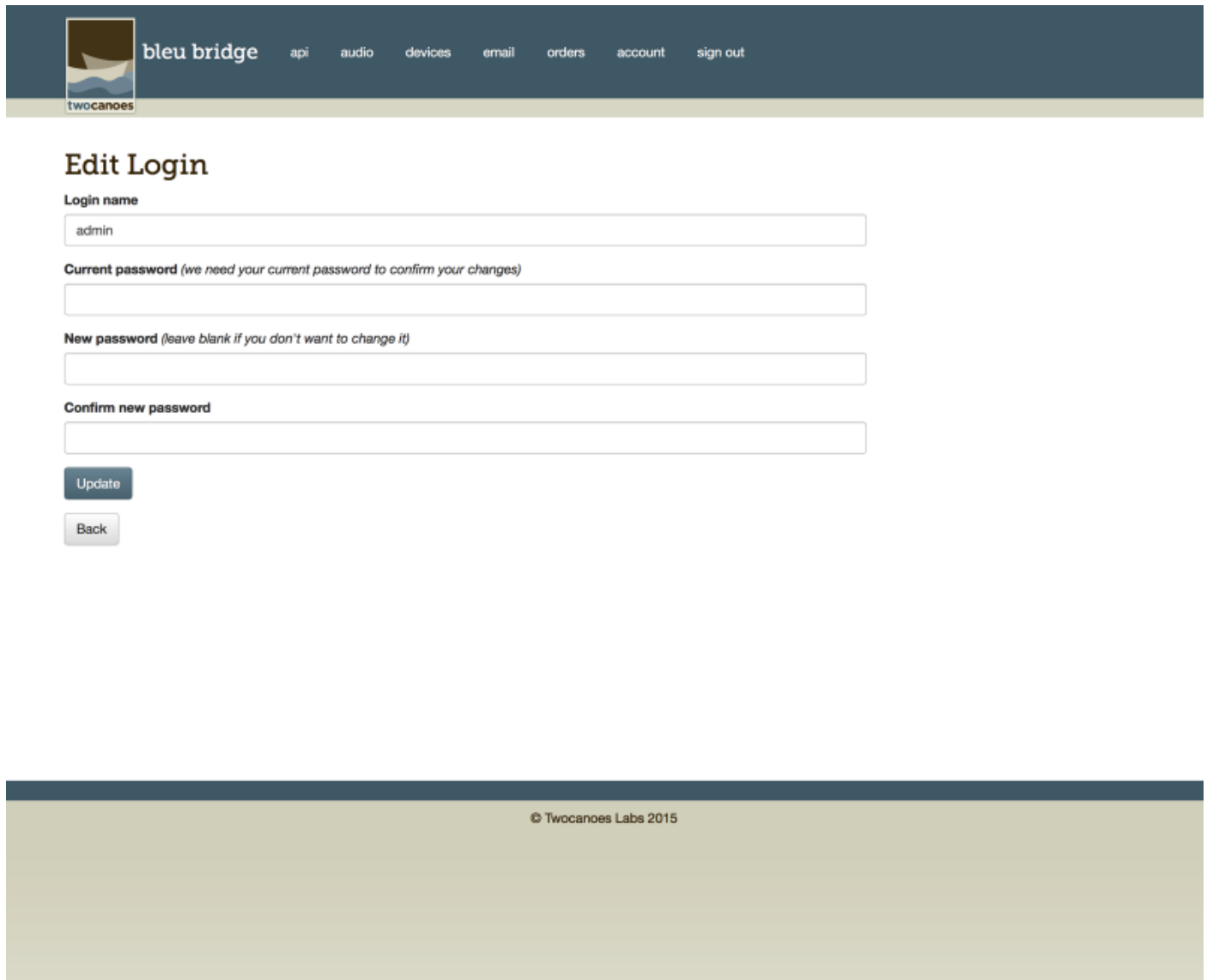
Status 401 (unauthorized) indicates a problem with authentication parameters provided

Status 406 (not acceptable) indicates a problem with XML file provided

Status 422 (unprocessable) indicates a problem with the values provided for order records

Account Settings

Login name and password changes can be made from the Account page. Click "update" to save changes.



The screenshot shows the 'Edit Login' form in the Bleu Bridge web interface. The header bar is dark blue with the 'bleu bridge' logo and navigation links: api, audio, devices, email, orders, account, and sign out. The form contains four input fields: 'Login name' (containing 'admin'), 'Current password (we need your current password to confirm your changes)', 'New password (leave blank if you don't want to change it)', and 'Confirm new password'. Below the fields are two buttons: 'Update' (dark blue) and 'Back' (light grey). The footer of the page is light beige with the copyright notice '© Twocanoes Labs 2015'.

bleu bridge api audio devices email orders account sign out

Edit Login

Login name
admin

Current password (we need your current password to confirm your changes)

New password (leave blank if you don't want to change it)

Confirm new password

Update

Back

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Testing Announcements

After completing configuration in the web interface, it is recommended to test the system's radio announcement notifications. In order to do this, you will begin by simulating an order arrival into the system. Test communication between the two radios to ensure both can send and receive as standalone devices. Then connect the dedicated radio to the unit appliance and make sure the unit, dedicated radio and field radio are all turned on.

The volume level on the dedicated radio should be turned to the lowest setting. On the field radio, make sure the volume is set at a sufficient level to hear the announcement broadcast.

Create an order

Note: Do not copy/paste the example URLs from this document, use the examples shown on the web interface for your device.

In the unit's web interface, go to the API page and locate the section titled "Create an order". Select and copy the Example URL and paste into a new browser window/tab. Note the order number (found in the URL string as "order[number]=00052109" in the example below) is for testing purposes and not a real order. The order number used in this exercise will be referenced later for the "Pick an order" operation.

Once the URL is pasted into the browser, hit enter and the order will enter the system. Within seconds, the system should announce "There is one order waiting". The unit will continue to announce the number of orders waiting according to the set repeat interval. If there are zero orders waiting, no announcement will be broadcast.

For problems, see the section on Troubleshooting.

Create an order

Description	Create an order record
Example	<code>http://108.243.0.231:8881/orders/create.json?order[number]=1001&user_email=admin&user_token=q8sV2zjXsXZsSADiJq9r</code>
Request type	GET
Path	<code>/orders/create</code>
Required parameters	<code>order[number]</code> (integer)
Optional parameters	<code>order[picked_at]</code> (datetime) Example: <code>http://108.243.0.231:8881/orders/create.json?order[number]=1001&order[picked_at]='2015-06-16 19:42:00 +0000'</code>

Pick an order

Now that an order has been added to the system and the announcement spoke through the radio successfully, you will need to simulate picking (or fulfilling) an order. If only one order is in the system, picking the order will reduce the number of waiting orders to zero. If zero orders are waiting, the system will make no announcements during the specified interval until new orders arrive or a picked order is unpicked.

In the Blue Radio web interface, go to the API page and locate the section titled "Pick an order". Select and copy the Example URL and paste into a new browser window/tab. Note the order number (found in the URL string as "order[number]=00052108" in the example below) is for testing purposes and not a real order. If the number in the URL does not match the order number used in the Create an order exercise, modify the URL's order number to match before hitting Enter. Within seconds, the system should announce "There are no orders waiting".

For problems, see the section on Troubleshooting.

Pick an order	
Description	Mark an order record as picked at the present time
Example	<code>http://108.243.0.231:8881/orders/1/pick.json?user_email=admin&user_token=q8sV2zjXsXZsSADiJq9r</code>
Request type	GET
Path	<code>/orders/:id/pick.json</code>
Required parameters	id (integer)

Troubleshooting

Make sure all devices are connected to power and switched on.

Make sure the two-way radios are functional and able to send/receive voice communication.

Make sure the unit's audio in/out plugs are connected and firmly seated in the jacks.

Set volume level of dedicated radio to the lowest setting.

Set volume level on the field radio to an audible level.