



SystemOn

Audio Asset Management Software

Shure online user guide for SystemOn.
Version: 4.1 (2020-K)

Table of Contents

SystemOn Audio Asset Management Software	3	Adding Devices to the Location	18
Overview	3	User Accounts and Roles	18
General Description	3	Add a User Account	18
Features	3	Roles and Access Levels	20
Installation Examples	4	Location Subscriptions	20
Getting started	5	Assign Subscriptions	21
Accessing Your SystemOn Site	5	Notifications and Alerts	21
Menu Navigation	6	Integrating SystemOn with your Network Services	25
SystemOn Dashboard	7	Connecting to the SMTP Server	25
Monitor microphones, channels, and devices	7	Set Up SMS Text Message Notifications	26
Not Seeing Anything on the Homepage?	7	Monitoring Hardware and Making Adjustments	26
Licenses	8	Battery Management	26
Purchasing a License Plan	8	Keeping Track of Devices	28
License Management	9	Working With Locations	31
Apply Your License Plan	10	Adjusting Microphone Gain and Mute	32
Assigning licenses	11	Linking MXW Microphones	32
Checking License Status	13	Device Properties	36
Connecting to the Device Network	14	System Maintenance and Troubleshooting	38
Accessing Devices on the Network	15	Event Log	38
Adding Devices From Subnets	16	Supported devices	39
Organizing Devices by Locations	16	Backup and Restore the Database	41
Creating a New Location	17	Troubleshooting	42
		More Troubleshooting Help	44

SystemOn

Audio Asset Management Software

Overview

General Description

Shure SystemOn software enhances large installations of existing Shure audio systems, helping technical support teams manage devices across buildings and campuses. The software monitors Shure devices across networks, logging system events and alerting users over text or email for time-sensitive and critical issues. An intuitive web browser interface allows technicians and help desk specialists to locate and troubleshoot devices, adjust audio levels and muting, and monitor wireless microphone stability from a remote location.



Features

Centralized Support Tool

- Manage the health of Shure devices for your entire organization, even across subnets
- Troubleshoot audio and connection issues from a remote location using monitoring tools and event logs
- Avoid high setup costs with an out-of-the-box software solution that requires no external programming
- Seamlessly integrate new features for existing Shure devices using SystemOn

Secure User Accounts

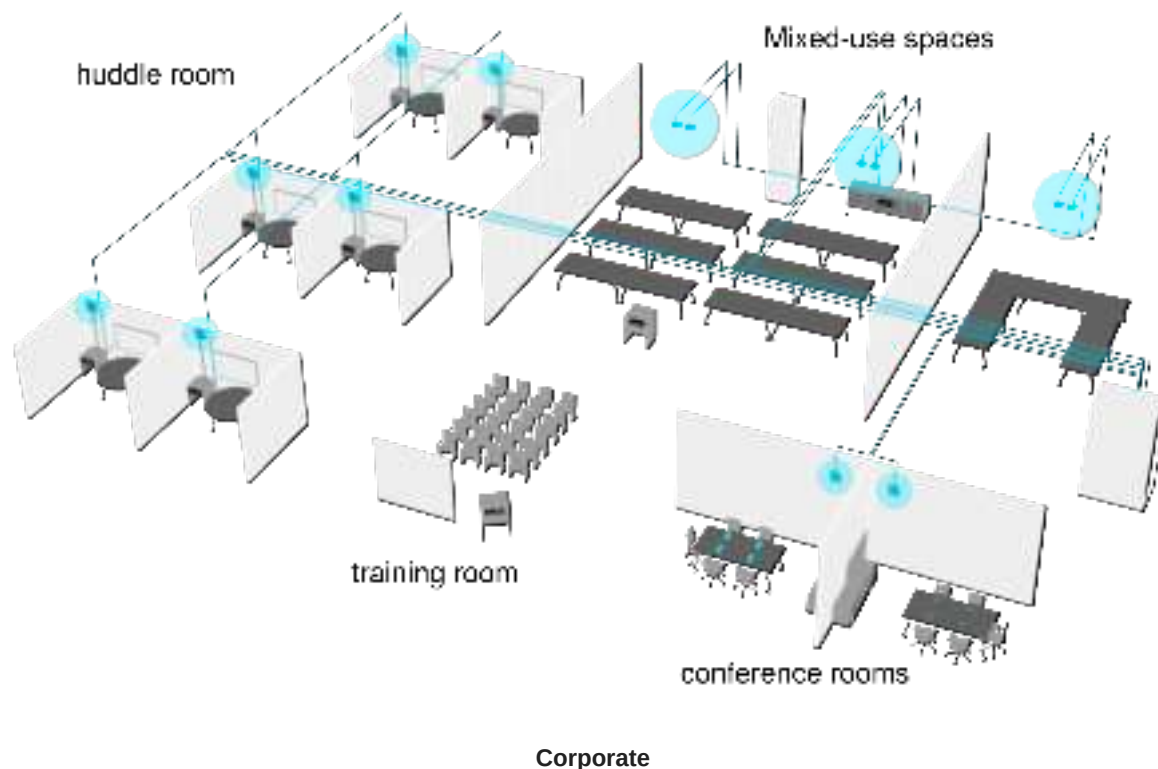
- Proactively manage the network by receiving alerts via e-mail and SMS text messages for low batteries and offline devices
- Minimize risk and simplify workflow by limiting each user's access based on role and function
- Sync existing usernames and passwords by integrating with LDAP

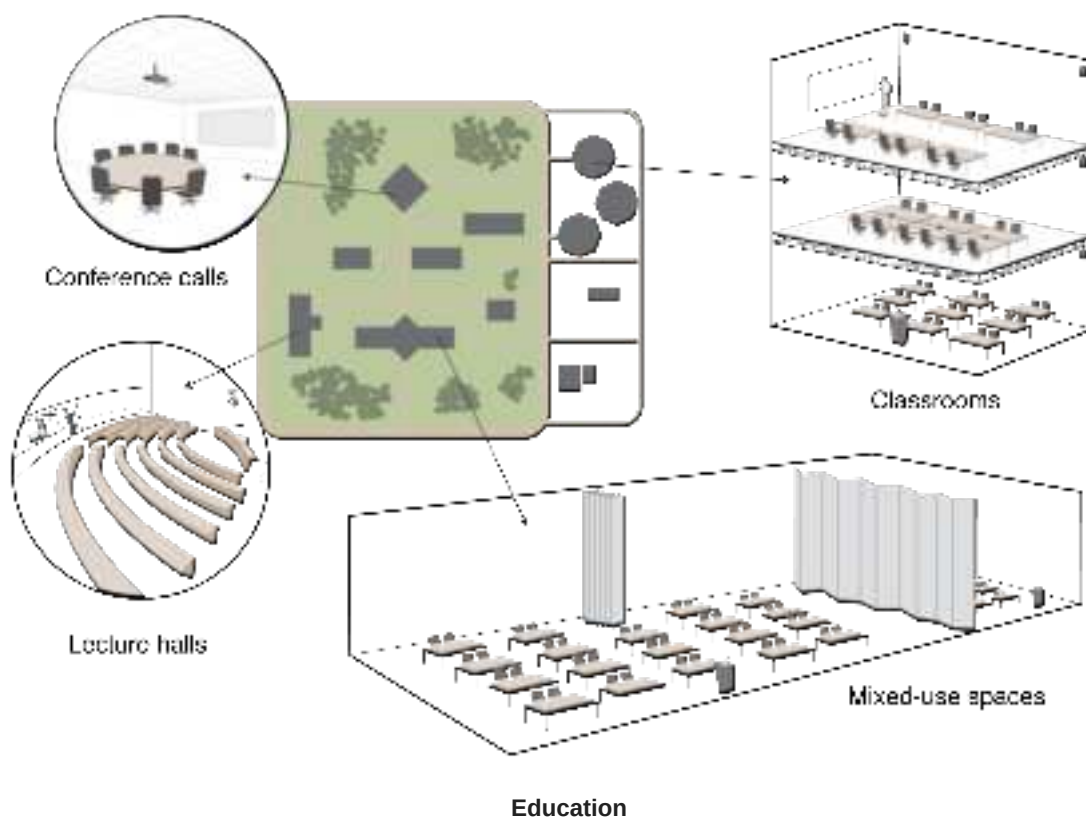
- Work across multiple languages by selecting the language for each account

Remote Control

- Instant remote assistance: audio muting, device identification, gain adjustment, and hardware lockout
- Remote linking ties MXW transmitters to systems on different subnets to streamline help desk support
- Link backup MXW transmitters to provide mic options to presenters or to prepare for long meetings with charged replacements

Installation Examples





Getting started

Accessing Your SystemOn Site

Shure SystemOn software provides secure access to your Shure devices from anywhere and at any time. Simply access your site using a web browser on a mobile device or computer.



Note: The site URL can be customized by your system administrator.

Menu Navigation

Use the navigation bar to get around the application.



Menu	<p>Access other pages of the software. Certain menu items may not be available to you depending on your role and access levels.</p> <ul style="list-style-type: none"> • My Account • Dashboard • <i>Your location</i> • All devices • Event log • Settings
Notifications	SystemOn provides notifications to stay ahead of important device and system issues.
Help	Access help content to improve your SystemOn experience.

SystemOn Dashboard

The SystemOn Dashboard provides critical and time-sensitive events related to your subscriptions. The dashboard identifies the devices that need attention and provides details for troubleshooting the issue, such as device name, model type, and the location.

Unmanaged endpoints discovered	Displays any unmanaged endpoints on your network and can take you directly to the Licenses page to start managing them.
Inventory summary	<p>Displays high-level status indication of your inventories, includes alerts on important device information:</p> <ul style="list-style-type: none"> • Low batteries: Microphones that fall below the threshold set for receiving low battery notices • Missing devices: Microphones that go out of range and devices that are powered down or disconnected from the network.
Lowest Batteries	Monitors all microphones on air in your locations and displays the lowest battery levels first so you can prioritize and quickly resolve battery issues.

Monitor microphones, channels, and devices

Adjust device and channel settings, prepare a new microphone, and monitor audio and battery levels from the Monitoring tab in each location. You can access any device from the locations you are subscribed to.



Open a location from your home dashboard.

Not Seeing Anything on the Homepage?

If you have trouble viewing or accessing devices, additional settings may need to be configured in SystemOn.



Contact your system administrator to ensure that the following items are completed:

- **Licenses:** Check that the license plan is up to date (your location > Licenses) and that each device on the network is assigned a license.
- **Subscriptions and notifications:**
 - Your user account must be subscribed to locations in order to keep track of those devices (your location > select a location > Subscriptions).
 - Ensure that notifications are set up to receive alerts to your email and phone (Settings > Notifications)

Licenses

Shure provides a free 30-day trial license to test and evaluate SystemOn. During this period, all features and tools are fully functional. To continue using the software after 30 days, purchase a license plan and use Your organization > Licenses to apply your licenses.

Purchasing a License Plan

To start a trial or purchase a license plan, contact your local Shure sales representative or distributor.

Cover your Network Devices with a License Plan

Purchase a license plan for the total number of IP-networked devices you want to manage, such as receivers and chargers. A license enables all features for that device and any wireless components that communicate to it, such as wireless microphones.



License example for a higher education application

In this example, a university has 52 Shure network audio devices installed across the campus. To manage all of these devices at the same time, a license plan of at least 52 devices is required.

License Management

Use the license page to view your license environment, add licenses, and apply licenses to start managing devices. Go to [Your organization > Licenses](#).

Managed endpoints

There are currently 57 endpoints on this network. To purchase more management licenses, contact your Shure representative.



Viewing your License Plans

Start managing	Assign licenses to all of your IP-addressable network devices at once. You must have an equal or greater amount of available licenses than devices.
Add licenses	Add licenses to allow you to manage your devices.

Apply Your License Plan

Apply your license plan before assigning licenses to the devices.

1. Find the license in the emailed order receipt.

Activation ID: a61c-29f4-df27-4af7-b1df-65d5-1856-9fc5

SKU: SystemOn

Purchase Order:

Product Name: SystemOn_Product

IP Addressable Devices: 250

Quantity: 1

Start Date: Jun 23, 2019

Expiration Date: Jun 25, 2021

2. Go to Your organization > Licenses in the application.

Managed endpoints

There are currently 64 endpoints on this network. To purchase more management licenses, contact your Shure representative.

36
Managed

0
64

Unmanaged

Available licenses

Add licenses

3. Select Add licenses and enter your ID.

Add licenses

Paste your license ID below or upload your offline activation file to start managing the endpoints on this network. You can find this ID in your purchase confirmation email.

License ID*

|

Upload activation file

Activate

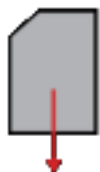
4. Select Activate to add the licenses to the Available licenses total.

If the server is not connected to the internet, see Offline License Application to finalize the process.

Important: IntelliMix™ Room Audio Processing Software requires a license ID to use the software. You manage those license IDs through Designer System Configuration Software.

Apply your License without an Internet Connection

For servers that do not have connection to the internet, follow these steps to activate your license:



Export your ID file from server



Submit at software.shure.com



Apply your license file

Offline License Application

1. Export your ID file (Offline activation)	<p>The Offline activation file is unique to your software account and license purchases.</p> <ol style="list-style-type: none"> 1. On a computer connected to your server, open SystemOn and go to Your - organization > Licenses . 2. Select Add licenses and submit your Activation ID. <p>Tip: Find the Activation ID in your order receipt email.</p> <ol style="list-style-type: none"> 3. Select Activate to add the licenses to the Available licenses total. 4. Download the Offline activation file to your computer.
2. Submit to software.shure.com	<ol style="list-style-type: none"> 1. Go to the Shure software portal at software.shure.com 2. Upload your Offline activation file. 3. Save the confirmation file to your computer.
3. Return the Confirmation to SystemOn	<ol style="list-style-type: none"> 1. Go to Your organization > Licenses. 2. Select Add licenses. 3. Select Upload activation file. 4. Navigate to the location of the capability response file from the Shure software website and upload it.

Assigning licenses

SystemOn assigns licenses to all devices on the network. An active license enables all features for that IP-networked device and any wireless components that communicate with it, such as wireless microphones.

1. Go to Your organization > Licenses in the application.
2. Select Start managing. SystemOn will apply the licenses and start managing your devices.

Managed endpoints

There are currently 57 endpoints on this network. To purchase more management licenses, contact your Shure representative.



Remove a License From a Device

At any time, you can remove a license assigned to a device, referred to as Decommission. The license is then available to assign to another device in your system.

1. Go to All devices > Devices.
2. Select the licensed device or multiple devices.


All devices

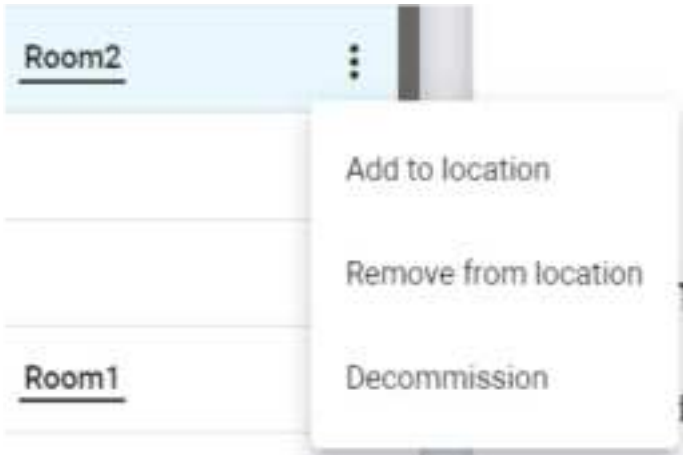
Search

Devices Transmitters

Add cross cabinet device Edit location Start updating all Decommission

	Device name	IP address	Device model	Firmware version	Available firmware	Release Notes	Location
<input checked="" type="checkbox"/>	ANALISE-S0400	192.168.2.60	ANL100	4.1.19	4.2.19	Release notes	
<input type="checkbox"/>	ANALISE-S0400-1912	192.168.2.54	ANL100	4.1.2	4.2.19		
<input type="checkbox"/>	ANALISE-CrossedL...	192.168.2.106	ANL100	4.1.2	4.2.19		
<input type="checkbox"/>	ANALISE-LEGACY...	192.168.2.121	ANL100	3.1.0			
<input type="checkbox"/>	CEOM-M04H10	192.168.2.61	M04H10	4.1.1	4.2.19		Room1
<input checked="" type="checkbox"/>	MX-RM-DESKTEL...	192.168.2.52	MX-Rm001	1.0.4		How to update	
<input checked="" type="checkbox"/>	MX-RM-RLC-4010	192.168.2.63	MX-Rm001	3.0.0		How to update	
<input type="checkbox"/>	MKA-MUTE-215A...	192.168.2.55	MKA-MUTE	3.1.0	1.0.0		
<input checked="" type="checkbox"/>	MKA-710-1	192.168.2.143	MKA-710	4.1.19	4.2.19	Release notes	Room2

3. Select Decommission from the buttons or from the  (More) menu.



4. The device displays an indicator near the IP address and when you hover the cursor over the indicator you see that it is an Unmanaged device.



Checking License Status

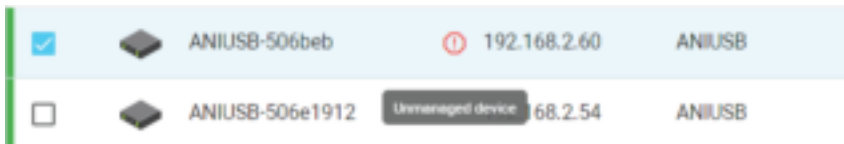
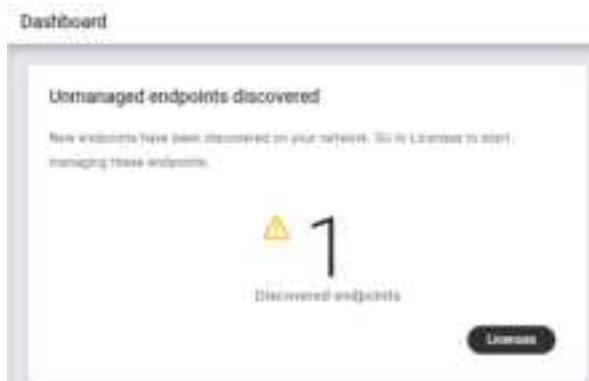
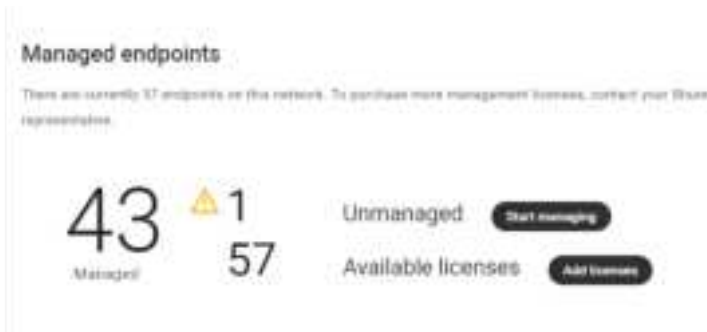
When a device is unlicensed, key tools are unavailable, such as monitoring, audio mute, and gain adjustment. The device displays in the list, but cannot be used in the Monitoring tab:



Unlicensed Device

To take advantage of SystemOn features, ensure that each networked device is licensed.

Individual Devices	Open one of your locations to the Devices tab or go to All devices > Devices to view status of each device.
--------------------	---

	
System-wide	<ul style="list-style-type: none"> Go to Dashboard and if you have any unmanaged devices, you will see them identified.  <ul style="list-style-type: none"> Go to Your organization > Licenses to see a snapshot of your license plan and the number of available licenses from the Licenses page. 

Connecting to the Device Network

Connect the SystemOn server to your audio network by selecting the correct network interface card (NIC) at Settings > General. If more than one NIC is available on your machine, choose the card with an IP address in the same range as your devices.



Select the NIC

Accessing Devices on the Network

SystemOn automatically discovers Shure devices on the local network (automatically populated) and on other subnets (manually added).

View your device network at All devices. The list provides a snapshot of key device information:

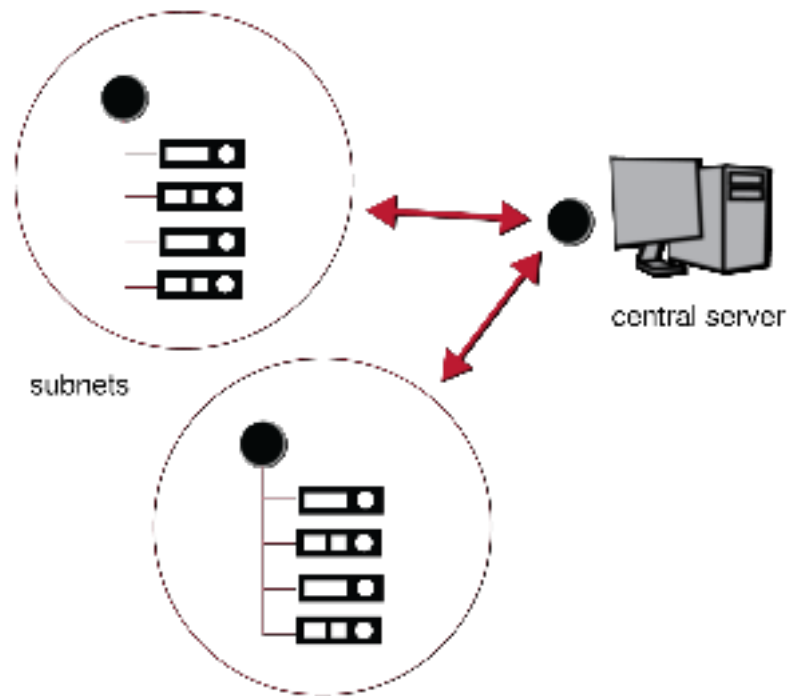
- **Device name:** The user-editable name
- **IP address:** The IP address
- **Device model:** The model of the device
- **Firmware version:** The firmware version currently on the device
- **Available firmware:** Any available firmware versions
- **Release notes:** Any available release notes for the firmware
- **Location:** The location to which the device is assigned

<input type="checkbox"/>	Device name ↑	IP address	Device model	Firmware version	Available firmware	Release Notes	Location
<input type="checkbox"/>	ANUSB-506beb	192.168.2.60	ANUSB	4.3.2	4.2.19		
<input type="checkbox"/>	ANUSB-506e1912	192.168.2.54	ANUSB	4.3.2	4.2.19		
<input type="checkbox"/>	ANUSB-CrossS...	192.168.2.109	ANUSB	4.3.2	4.2.19		
<input type="checkbox"/>	ANUSB-LEGACY...	192.168.2.131	ANUSB	3.1.6			
<input type="checkbox"/>	CEC04-MXA910...	192.168.2.61	MXA910	4.3.1	4.2.18		
<input type="checkbox"/>	IMX-RM-DESKT...	192.168.2.52	IMX-Room	1.0.4	How to update		
<input type="checkbox"/>	IMX-RM-NUC-R1-D	192.168.2.63	IMX-Room	3.0.0	How to update		
<input type="checkbox"/>	MXA-MUTE-2154...	192.168.2.53	MXA-MUTE	1.0.8	1.0.8	Release notes	
<input type="checkbox"/>	MXA310-1	192.168.2.143	MXA310	4.3.1	4.2.18		
<input type="checkbox"/>	MXA310-51a1cc	192.168.2.73	MXA310	4.3.1	4.2.18		

Adding Devices From Subnets

Depending on the infrastructure of the organization, equipment may be separated into subnets to improve network management and reduce traffic. It is common for buildings or campuses to be on subnets and connect to the main server using a router.

SystemOn automatically discovers Shure devices on the same subnet. To manage devices on other subnets, add their IP address through the application to establish the network route.



Control Across Subnets

Import IP addresses for devices on subnets

Tip: Set devices to static (manual) IP addresses to ensure they will not change.

1. Go to All devices > Devices.
2. Press Add cross-subnet devices to add a device by its IP address.
3. Enter the control IP address for each device you'd like to add:
 - **Individually:** Enter the IP address of each device on its own line
 - **Bulk:** Upload a full list of IP addresses by selecting ADD FROM FILE
4. Press ADD and the devices will appear in the Devices list when the connection is established.

MXW Mic Linking Across Subnets

To link MXW microphones over the network, make sure to add the charging station by IP address using the method listed above. This ensures that it can be used for any access point, regardless of subnet.

Organizing Devices by Locations

Categorize your network devices according to their installed location using SystemOn. Locations provide the technical support team with a clear and organized system to keep track of equipment throughout the day, prepare for events, and troubleshoot wireless microphones. This is especially useful for universities and corporations with multiple buildings and campuses, where organization is critical to saving time and solving issues.

Tip: Subscribe technicians to each location to provide more efficient supervision of your equipment.



View Devices in a Location

A location is a subset of your audio network, focusing attention on the devices installed in that space

Creating a New Location

1. Go to Your organization > Locations.
2. Select New > Location and enter a name and description.
3. Select Create and the new location is added to the list.

Select  to edit your location name, move to a folder, subscribe users, or delete.

Location folders

To more accurately represent your installation, nest the locations into folders.

1. Go to Your organization > Locations.
2. Select New > Folder and enter a name and description.
3. Select Create and the new folder is added to the list.

Name ↑	Description
 Conference Room1	Main Conference Room
 Skyview20	Top floor rooms
 West building	1410 Second Street

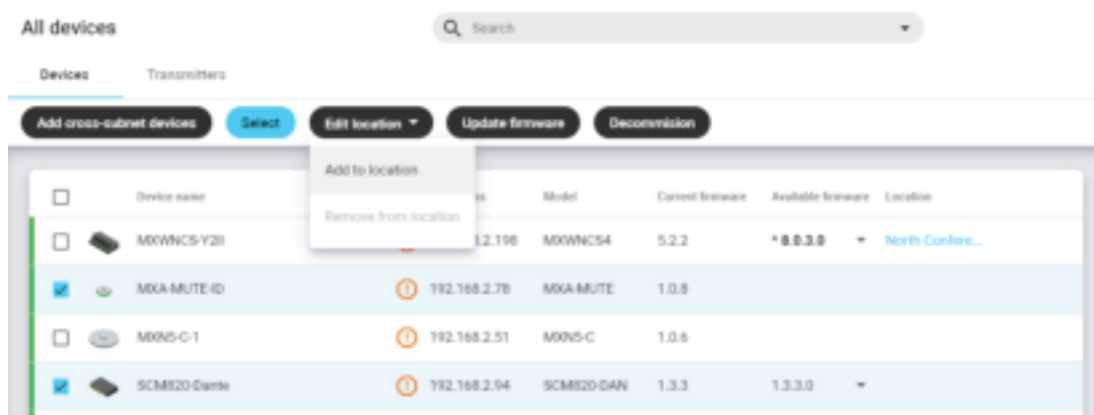
Organize Your Locations

Adding Devices to the Location

Select devices to add to your location:

1. Go to All devices.
2. Choose the device(s) and select Edit location.

Tip: Identify the device to make sure the right hardware is selected.



3. Choose the location and select Edit location > Add to location. A device can only belong to one location at a time.

User Accounts and Roles

Add a User Account

SystemOn dynamically displays content based on a user's roles and subscriptions. Accounts include contact information used to send email and phone notifications to technicians.

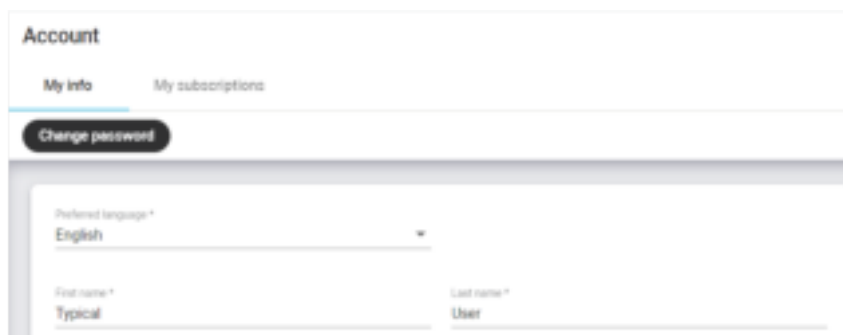
Tip: Integrate with your LDAP server to add users from your organization's database

1. Go to Your organization > Users.
2. Select Add user.

3. Enter the user information and save it to create the account. If you have integrated with your LDAP server, select Add from LDAP to import the username and account information.


Edit User Information

To edit your account information, click near your username to go to My Account. Some fields may only be edited by the administrator or your organization's LDAP database.



Access My Account

If you have the correct permissions, you can edit another user's account information and location subscriptions.

1. Go to **Your organization > Users**.
2. Select  to edit a user's account.



Name	Email	Username	Role	Location	ID	Last login
Typical user	email@company.com	user1	Technician	0	H	Sep 22, 2020


SystemOn User Database

Account Information

Edit user information:

- Name
- Preferred language
- Role
- Contact information

Subscriptions

1. Go to **Your organization > Locations**.
2. Select  to subscribe users to the location.

Subscriptions provide the user with access to those devices and notifications for system updates related to the location.



Change the Language of the Interface

Go to My Account > My info and select your preferred language.

Import Users from your LDAP Directory

Add accounts from your user directory by integrating with your LDAP (Lightweight Directory Access Protocol) database. LDAP integration reduces set up time by importing existing users and simplifies your team's workflow by using the same sign in credentials.

1. Go to Settings > Integrations.
2. In the LDAP section, click Enable.
3. Fill out the required fields according to your LDAP server settings.
4. Select Test connection to verify the integration is successful.
5. Click Enable.

LDAP Passwords

For users imported from LDAP, passwords are maintained by the LDAP database and referenced by SystemOn during sign in. To avoid a conflict with the database, these users cannot reset their passwords through SystemOn.


Roles and Access Levels

User accounts are assigned a role that determines their access to features in the application. Upon installation, the admin account is automatically created with full privileges from the Administrator role.

When creating users, assign them a role based on their responsibilities and tasks. You can select from the roles provided in SystemOn:

- Administrator -The default admin role has full access and permissions in the software. Core tasks for admins include adding user accounts, creating locations, and subscribing users to the locations.
- Technician - The technician role can monitor and control devices but has limited access to changing software settings. Technicians are focused on managing the locations assigned to them by admins.
- Guest - The guest role can monitor devices.

Assign Roles to Users

Assign roles when creating the user account or by editing the account from Your organization > Users and selecting , then Edit to edit a user's account.

Location Subscriptions

SystemOn displays information relevant to each user based on their location subscriptions. When subscribed to a location, the user has access to those devices and tools to help manage them:

- **Lowest batteries**

The Dashboard provides a quick snapshot of the lowest battery levels for all mics on air

- **Notification Messages**


Receive SMS text message and email notifications for important system updates

- **Tailored Location List**

Only see the devices that belong to your subscribed locations

Assign Subscriptions

Set up subscriptions for your team by assigning users to each location. Make sure to create user accounts before beginning.

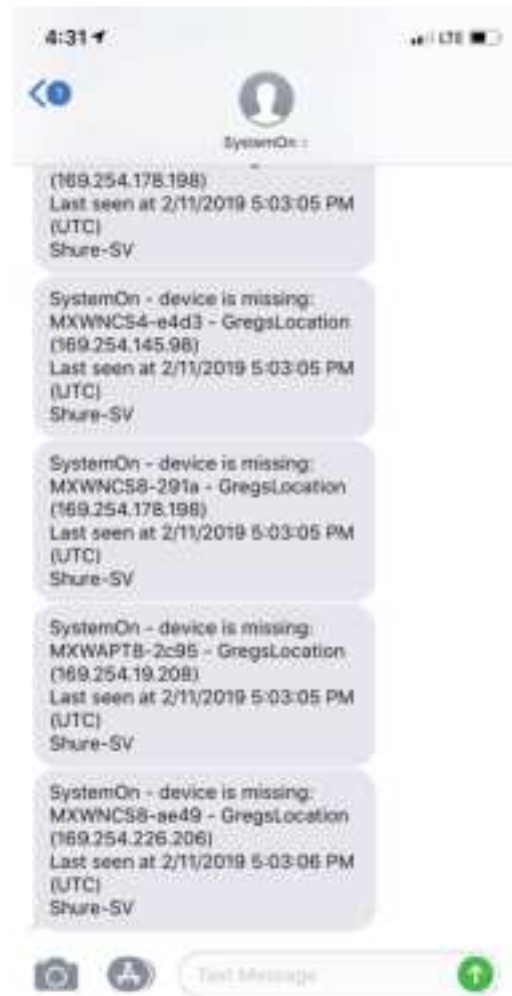
1. Go to **Your organization > Locations**.
2. Select , Subscribe users to subscribe users to the location.



3. Repeat for additional locations.

Notifications and Alerts

Proactively manage devices by receiving emails and SMS text messages for important system events. Notifications are sent for the devices that are included in your subscriptions, providing up-to-date information straight to a phone or mobile device.




- **Low Batteries:** Shure smart, rechargeable batteries allow reliable battery management by accurately and continuously reporting remaining levels. Receive a notification whenever a battery reaches the remaining threshold (adjustable from 5 to 360 minutes left).
- **Missing Device:** Receive a notification whenever SystemOn cannot locate a device, for example, when a microphone stops communicating with its group because it is out of range or powered off, or when a P300 is no longer on the network because it was disconnected or lost power.

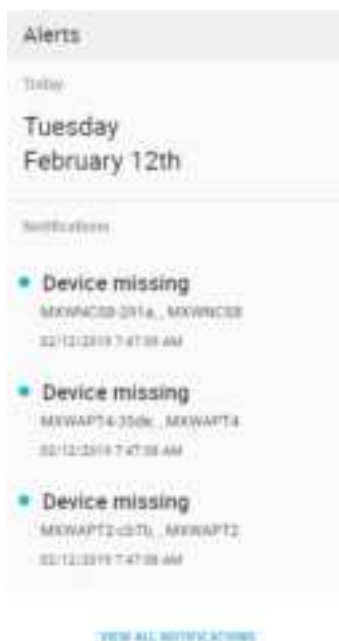
Go to Settings > Integrations to set up SystemOn with SMS text messages and email notifications.

Change Notification Settings

Choose how and when your team receives notifications. Go to Settings > Notifications to select a delivery method for each type of notification:

- SMS text messages
- Email

Regardless of SMS and email settings, you and your team can always view a history of these messages by opening  notifications from anywhere in the application.



View In-App Notifications

Low Battery Notification

When using Shure rechargeable batteries, schedule notifications for when any microphone reports a low battery level. Adjust the notification threshold from 5 to 360 minutes of remaining battery time.

Note: Microphones using other types of batteries do not calculate time remaining and therefore do not trigger low battery notifications.



Missing Device Notification

Receive notifications when a device is no longer accessible through the software. A missing device notification will be sent for one of the following reasons:

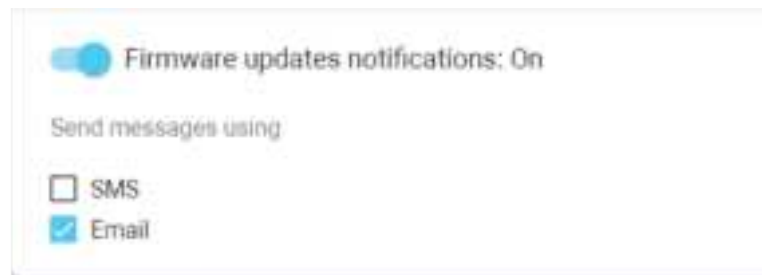
- Networked devices: When a device is powered off or disconnected from the network

- MXW microphones: When an MXW microphone is powered off, runs out of batteries, or is out of range from the access point.



Firmware updates notification

Periodically, new versions of firmware are developed to incorporate additional features and enhancements. Receive notifications when a new version of firmware becomes available.



Firmware Updates

Firmware is embedded software in each component that controls functionality. Periodically, new versions of firmware are developed to incorporate additional features and enhancements. To take advantage of design improvements, new versions of the firmware can be uploaded and installed directly through SystemOn.

Important:

- SystemOn checks for new firmware updates every 24 hours as long as there is an internet connection.
 - You can turn off automatic downloads at Main menu > Settings. Devices are not automatically updated, the firmware files are only automatically downloaded to your SystemOn server.
1. SystemOn alerts you to available updates for SystemOn-supported devices at the bottom tool bar in the application.
 2. Navigate to All devices to download new firmware files and to update firmware. You can update devices that are on the same subnet and cross-subnet.

Note: You cannot use SystemOn 4.3 to update:

- MXW Microflex® Wireless System
- ULX-D® Digital Wireless System
- IntelliMix Room Audio Processing Software
- SCM820 Digital Intellimix® Automatic Mixer
- SBC220/240 Networked Charging Station
- SBC250/450/850 Networked Charging Station

Shure Update Utility

For those devices unsupported by SystemOn, use the Shure Update Utility (SUU) to update the firmware. Download the SUU from https://www.shure.com/en-US/products/software/shure_update_utility.

Perform the following steps to update the firmware:

CAUTION! Ensure the device has a stable network connection during the update. Do not turn off the device until the update is complete.

1. Connect the device and computer to the same network (set to the same subnet).
2. Open the SUU application.
3. Click the Updates button at the top of the window to open the Download Manager.

Note: This button will be labeled either "Check for updates..." or "[#] updates available"

4. From the Download Manager, select the desired firmware versions.

Tip: The dropdown in the upper right allows you to quickly Select: All or Select: None.

Note: After updating, you may need to clear your browser's cache to display updates to the device's web application.

5. Click Download, and then Close the Download Manager. Downloaded firmware is listed and can be viewed and managed in the Firmware tab.
6. From the Update Devices tab, select the new firmware and press Send Updates to begin the firmware update, which overwrites the existing firmware on the device.

Firmware Release Requirements

The recommended best practice is that all devices are on the most current release of their respective firmware. To view the firmware version of each device on the network, navigate to All devices.

Integrating SystemOn with your Network Services

Connecting to the SMTP Server

Set up automatic emails to notify your team of important updates to their devices.

1. Go to Settings > Integrations > Email.
2. Enter your SMTP server settings.
3. Test the settings to ensure that the integration is successful.

Example:

From: AV-Alerts [mailto:AV-Alerts@mycompany.com]
 Sent: Friday, December 16, 2018 10:29 AM
 To: AV Tech
 Subject: SystemOn - Device is missing - Channel 1

Hi Tech,
 Device is missing:
 Channel 1 (172.17.30.11) is missing.
 Last seen at 12/16/2018 10:29:19 AM

MyCompany
www.myCompany.com

Set Up SMS Text Message Notifications

Set up automatic SMS text messaging to alert your team of important updates to their devices. Shure SystemOn uses your Twilio account to facilitate the messages.

Note: An internet connection is required on the server or computer installed with SystemOn

1. Create a Twilio account at <http://www.twilio.com>. Use information from your Twilio account to integrate with SystemOn:
 - Twilio account ID
 - Twilio Token
 - The "from" phone number for the Twilio account (if set up)
2. Go to Settings > Integrations > SMS.
3. Test the settings to ensure that the integration is successful. A message is sent to the phone number entered from the Twilio account.
4. Add phone numbers for each of your team members by editing their accounts at Users.

Monitoring Hardware and Making Adjustments

Battery Management

Shure Rechargeable Batteries

Shure lithium-ion rechargeable batteries use advanced chemistry that maximizes transmitter runtime with zero-memory effect. Power management from the control software provides detailed visibility to critical battery parameters such as charge status, battery capacity, and cycle count.

SystemOn cannot provide these details for non-Shure batteries.

Viewing Battery Levels

Use SystemOn to view battery information for wireless microphones belonging to your locations. Most battery features and details are available for Shure batteries only.

Homepage Dashboard

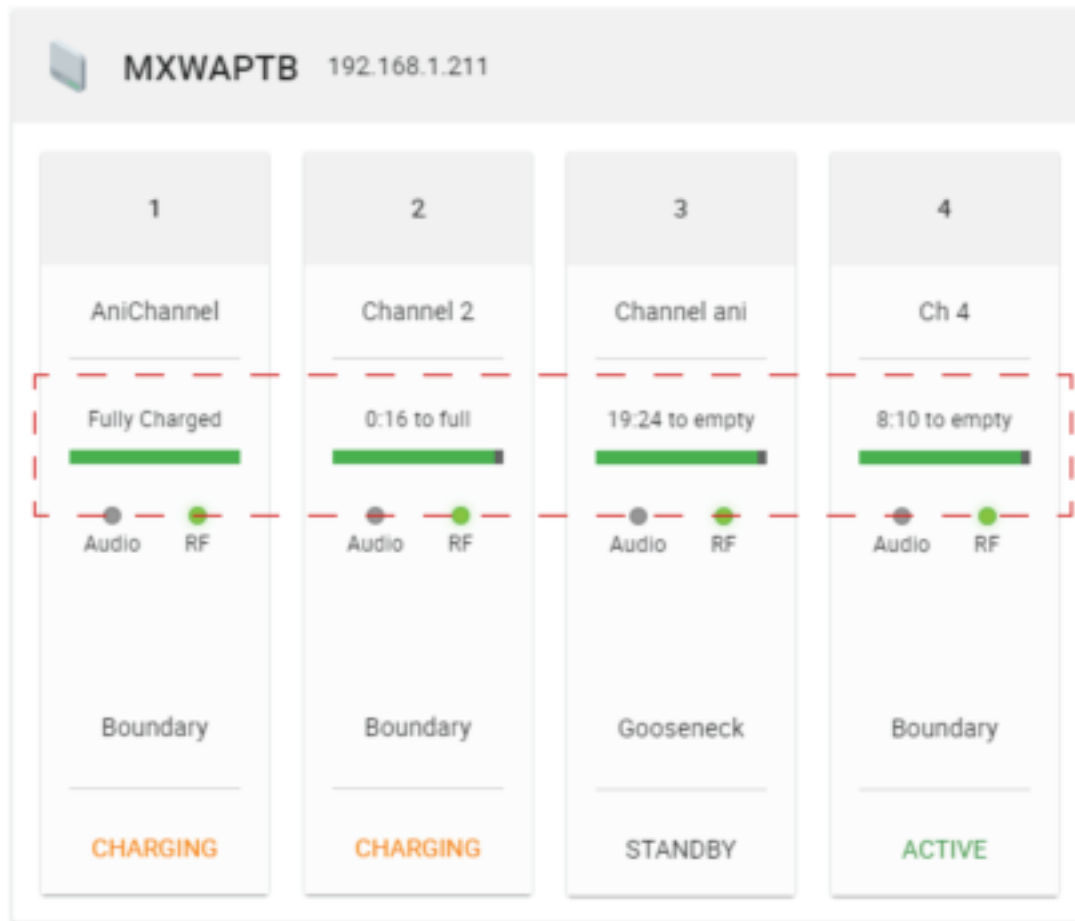
Quickly view the status of batteries across your locations from the homepage.

License ID	Displays the number of licenses available and the number of licenses in use.
Lowest Batteries table	Displays the lowest batteries levels for all mics on air. The table prioritizes the batteries with the least time left and provides device and location details to easily make any necessary adjustments.
Inventory Summary	Displays any notifications triggered by the low battery threshold. Team members assigned to these locations receive the same alert to their phone or email, depending on your team's settings.

Location Monitor View

View individual channel details from Your organization > Locations > [select a location] > Monitoring.

The channel indicates when a battery is fully charged and provides time in detail for microphones in use (time remaining) or charging (time until full):



Non-Shure batteries display an approximation of remaining battery levels:



Viewing Battery Statistics

Use the battery statistics to track battery performance and plan for battery replacements. View statistics by selecting a channel in a location and opening the properties panel.

Battery Health

The microphone battery's percentage of charge capacity as compared to a new battery.

Cycle Count

Number of charge cycles logged by the battery.

Keeping Track of Devices

Identifying a Device from the Software

Before making changes in the software, use Identify to make sure you are interacting with the right hardware. The indicators on the device flash to create a visual link between the selection in the application and the hardware.

1. Select a device from one of your locations or the All devices page.
2. Turn on Identify from the Properties panel. The hardware flashes to confirm that the selection in the application is the correct device.

All devices

Search

Devices Transmitters

Add by IP Select Edit location Update firmware

	Device name	IP address	Model	Current firmware	Available firmware	Location
<input type="checkbox"/>	MXW-Y-APTas	192.168.2.180	MXWAPT8	5.2.2	*8.0.3.0	
<input checked="" type="checkbox"/>	MXWNC58-X	192.168.2.193	MXWNC58	8.0.3	*8.0.3.0	Conference Ros...
<input type="checkbox"/>	MXWAPT2-bw35	192.168.2.186	MXWAPT2	8.0.3	*8.0.3.0	
<input type="checkbox"/>	MXWAPT8-21	192.168.2.233	MXWAPT8	8.0.3	8.0.3.0	
<input type="checkbox"/>	ULXD4	192.168.2.212	ULXD4	2.3.34	*2.4.9.0	
<input type="checkbox"/>	MXWNC5-Y28	192.168.2.198	MXWNC54	5.2.2	*8.0.3.0	
<input type="checkbox"/>	Pw1110	192.168.2.55	ULXD4	2.2.24	*2.4.9.0	
<input type="checkbox"/>	MXWNC5-Dev	192.168.2.192	MXWNC54	8.0.3	8.0.3.0	
<input type="checkbox"/>	MXWNC54-Z	192.168.2.77	MXWNC54	8.0.3	*8.0.3.0	

Properties

General

Device name: MXWNC58-X

Device model: MXWNC58

Identify

Control network

About

Use Identify to Confirm Your Selection

Online/Offline Device Status










Quickly view the status of your Shure devices at glance using SystemOn. A status bar indicates the availability to help your team prepare for events and troubleshoot issues.

All devices

Search

Devices Transmitters

Add cross-subnet devices Select

	Device name	IP address	Model
	ANUSB-123123	192.168.2.128	ANUSB
	ANUSB-LEGACY-ULTIMO-HW	192.168.2.121	ANUSB
	IMX-RM-DESKTOP-6PBHNR	192.168.2.52	IMX-Room
	IMX-RM-Ser123	192.168.2.140	IMX-Room
	Imse VM RA	192.168.2.60	IMX-Room
	MXA-MUTE-16ies	192.168.3.76	MXA-MUTE
	MXA310	192.168.3.138	MXA310
	MXA310-Niles	192.168.2.109	MXA310
	MXA310-Ser123	192.168.3.132	MXA310

Green	The device is online and ready to use.
Red	<p>SystemOn cannot connect to the device at this time. The device persists in the list because it is licensed and/or included in a location. A device displays as offline for one of the following reasons:</p> <ul style="list-style-type: none"> • Powered off • Disconnected from the audio network • If set to another subnet, the device IP address changed since it was initially added from the Add by IP Address tab.

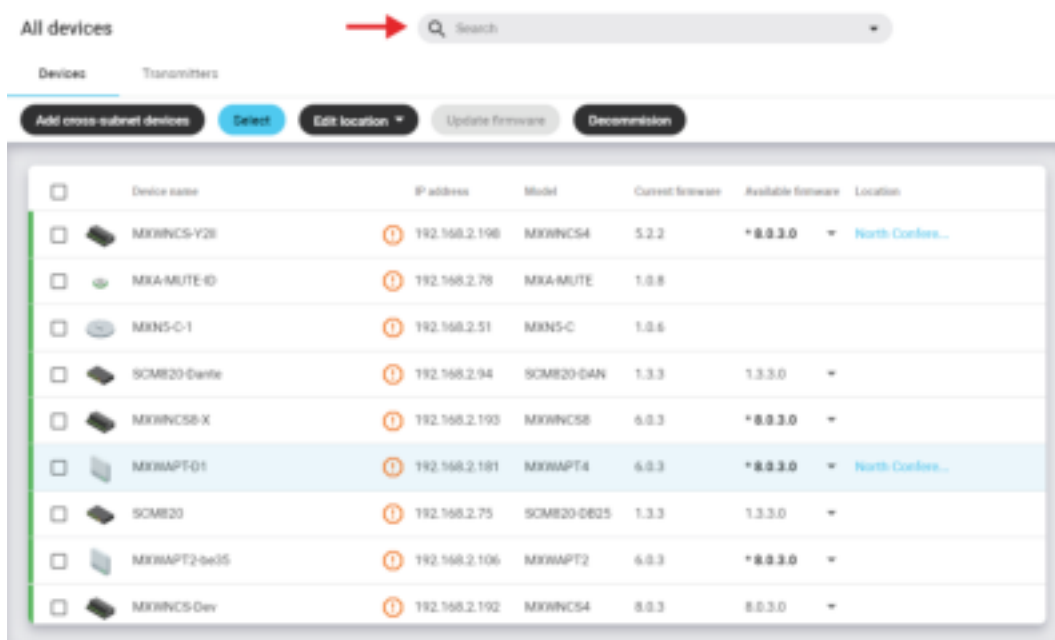
You can quickly check the entire device network from the All devices page or from within a single location (Locations > [select a location] > Devices).

Search for a Device or Microphone Transmitter

Scroll or search to find a specific networked device or group of devices in your system at All devices > DEVICES.

To find a wireless microphone transmitter, use the TRANSMITTER tab.

Use the information in the table to track devices and troubleshoot issues.



	Device name	IP address	Model	Current Software	Available Software	Location
<input type="checkbox"/>	MXWNC54-Y2R	192.168.2.198	MXWNC54	5.2.2	*8.0.3.0	North Conferences...
<input type="checkbox"/>	MXA-MUTE-40	192.168.2.78	MXA-MUTE	1.0.0		
<input type="checkbox"/>	MXNS-C-1	192.168.2.51	MXNS-C	1.0.0		
<input type="checkbox"/>	SCM820-Dante	192.168.2.94	SCM820-DAN	1.3.3	1.3.3.0	
<input type="checkbox"/>	MXWNC58-X	192.168.2.193	MXWNC58	6.0.3	*8.0.3.0	
<input type="checkbox"/>	MXWAPT01	192.168.2.181	MXWAPT4	6.0.3	*8.0.3.0	North Conferences...
<input type="checkbox"/>	SCM820	192.168.2.75	SCM820-DEQ5	1.3.3	1.3.3.0	
<input type="checkbox"/>	MXWAPT2-6e05	192.168.2.106	MXWAPT2	6.0.3	*8.0.3.0	
<input type="checkbox"/>	MXWNC54-Dev	192.168.2.192	MXWNC54	8.0.3	8.0.3.0	

Search

Dynamically displays results as you type.

Keeping Track of Wireless Microphones

Use SystemOn to keep track of wireless microphones throughout your installation. Wireless microphones use the link to their corresponding IP-addressable parent devices, such as receivers or access points, to communicate to the SystemOn network.

Tip: Make sure to use Shure rechargeable batteries to view the full details provided in SystemOn.

Mics on Air	Quickly view a subset of the microphones on air from the Dashboard. This list collects the microphones with 10 lowest batteries across your installation so you can prioritize your tasks and resolve issues as soon as possible. Go to Menu > Dashboard.
Full Transmitter List	For a full list of your microphone transmitters in your system, go to the transmitters tab on the All devices page (Menu > All devices > Transmitters tab). You can search or filter to find a specific microphone or category of microphones.

Working With Locations

Locations provide technicians with tools for managing the devices and preparing for events.

Three views are available for working with locations: Monitoring, Devices, and Subscriptions tabs.

Monitoring

Interact with devices, channels, and microphones for managing live events:

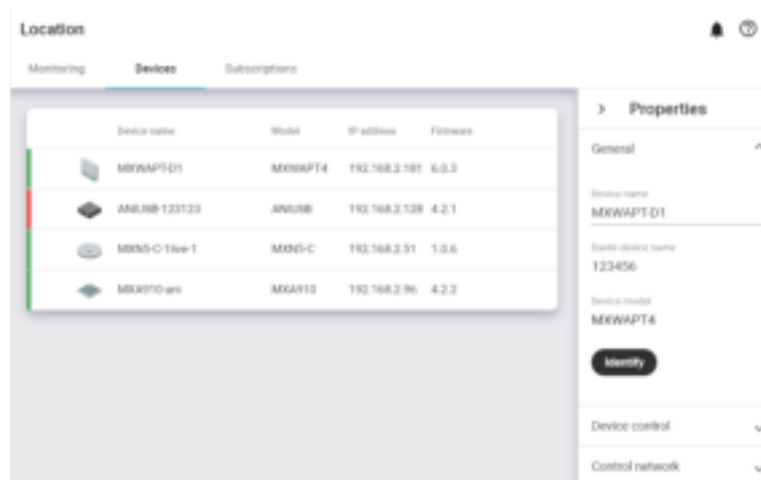
- Battery/charging status
- Audio and RF signal levels
- MXW microphone linking
- Audio gain



Devices

View high-level information at a glance:

- List of all devices in the location
- IP address and online status
- License status



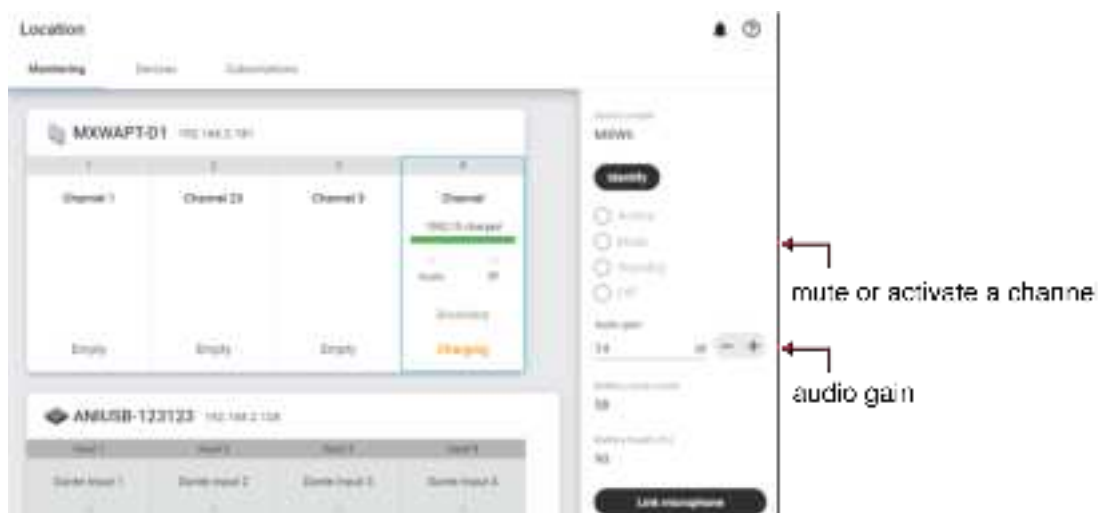
Subscriptions

View all users to see those who are subscribed to this location and specify or remove other users for this location.

Adjusting Microphone Gain and Mute

When setting up your location, you can improve the overall sound by making adjustments to microphone gain and muting unused channels.

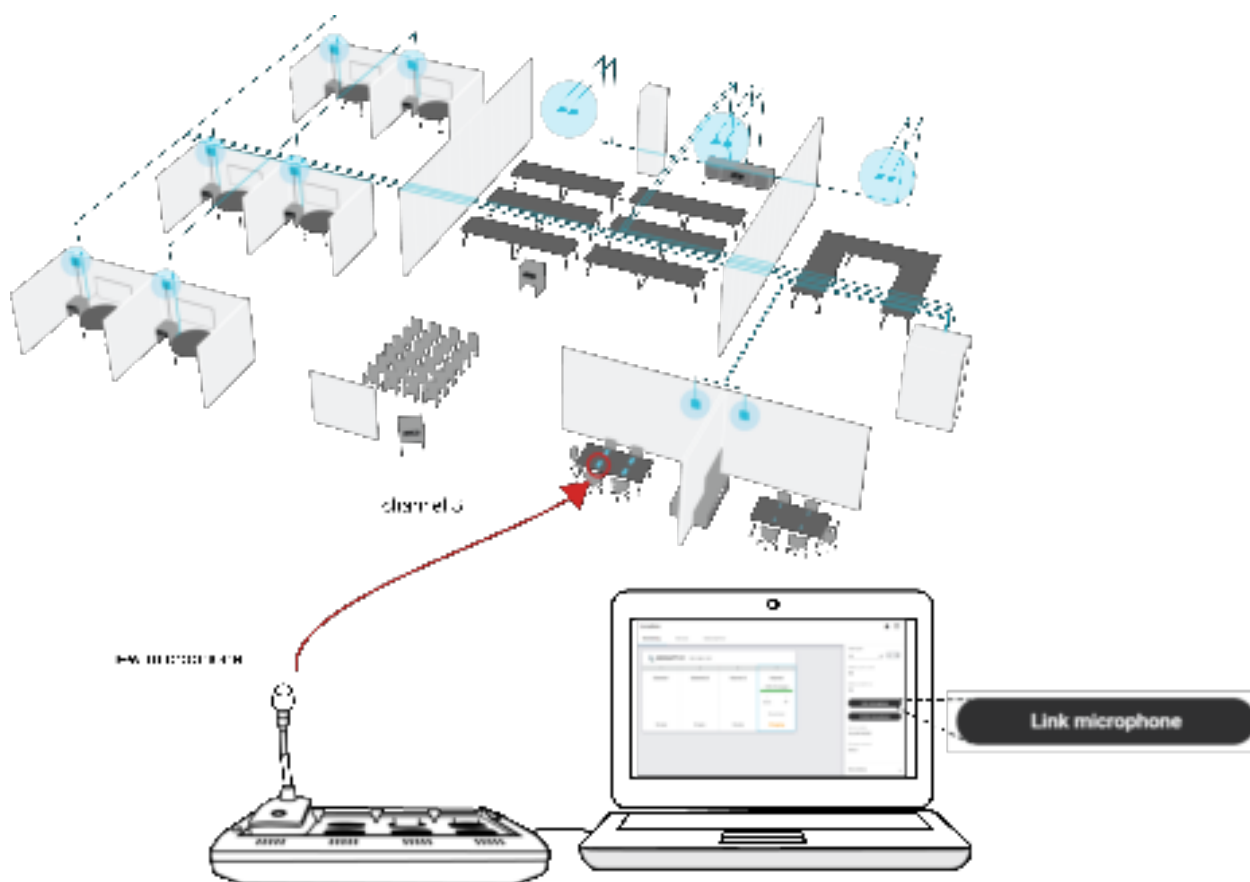
1. Select a channel on the Monitoring page.
2. Adjust the gain level or change the microphone state.



Linking MXW Microphones

Use SystemOn to easily prepare and deploy a new microphone to resolve a low battery issue or a request for a different microphone type.

You can use an existing MXW charger or dedicate one specifically to store and link extra microphones from a centralized help desk.



Remote Linking

Use SystemOn to create a link to a new microphone and an access point installed on the network.

Prepare the hardware:

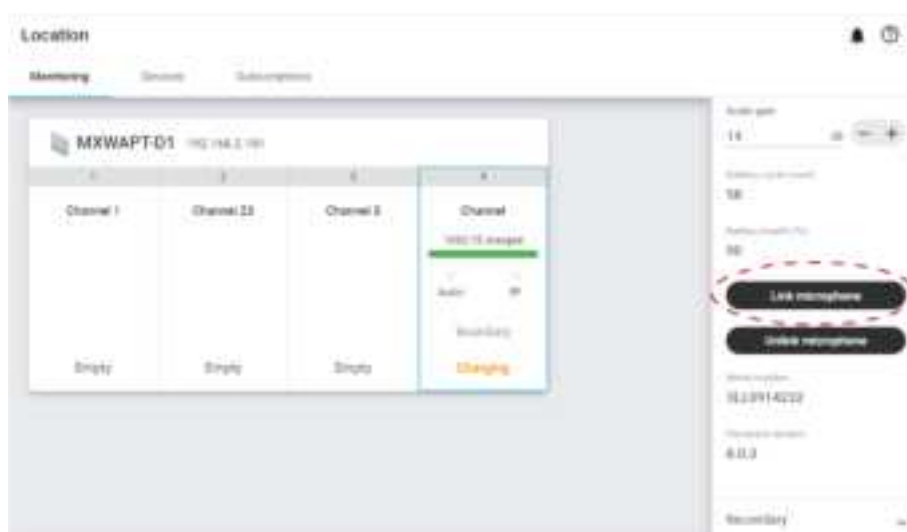
1. Connect the charging station to the network.

Tip: Rename a spare charger to easily distinguish it from other chargers on the network (example: "Help desk charger").

2. Place the new microphone in a charging slot.

Use SystemOn to link the mic:

1. Open SystemOn to the location you want to update.
2. On the Monitoring tab, select the desired channel and expand the properties panel if it is not already open.
3. Open the primary or secondary slot and click Link microphone.



Tip: Use primary slot to replace the most commonly used microphone, or use secondary slot to add a backup microphone to that channel.

4. Select a charger from the list.



5. Then, select the slot you are using for the microphone.



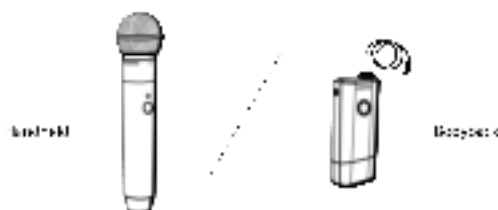
6. Select Link to confirm the new microphone.

If you don't see the charger you want to use, make sure it is licensed and placed in a location you are subscribed to. If the charger appears in the list but is not accessible, make sure to upgrade it to the latest supported firmware version.

Preparing a Backup Microphone

Prepare an alternate microphone for each channel for more reliable and flexible events. Two MXW microphone transmitters can be linked to the same channel, providing the option of either microphone for use.

Link a mic to the secondary slot to anticipate needs that may arise during events:



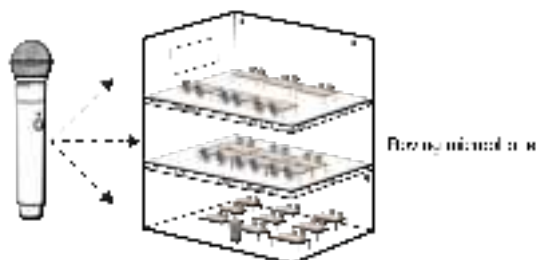
Microphone Preference

Give presenters a choice between two different microphone types, such as handheld or bodypack microphones.



Charged Backup Microphones

Prepare for long events by linking fully-charged microphones as backups



Shared Resources

Easily add a temporary microphone without unlinking the most commonly used microphones.

One Active Mic per Channel

Only one microphone will operate on the channel at a time, blocking the second microphone from interfering with the RF and audio performance. The backup microphone briefly flashes the LED to indicate the channel is occupied, and automatically turns off to conserve the battery. To use the second microphone, simply turn off the first microphone.



Two Microphones Ready for the Audio Channel

The system allows one live microphone per channel.

Linking a Backup Mic in SystemOn

Use the a channel's secondary link slot to prepare the backup microphone.

1. Open the desired location to the Monitor tab.
2. Select the channel and open Secondary slot in the properties panel.
3. Click Link Microphone and finish the procedure in the same way you would a primary microphone.

Device Properties

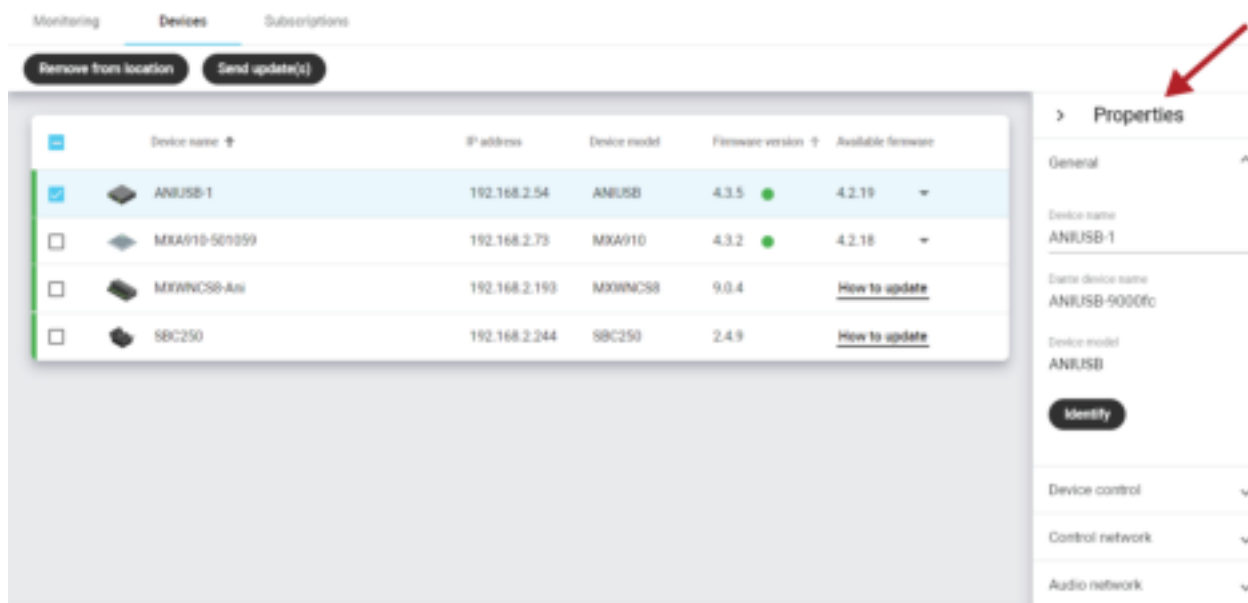
Select a channel or device to view settings and controls from the Properties panel. If you do not see the Properties panel, max-



imize your browser window or click (Device properties) to open the Properties panel.

- Activate or mute the audio
- View IP address and network settings
- Identify the hardware

Open Device Properties	Open the Devices tab in a location or go to All devices. Select the device and open the Properties panel.
Open Channel Properties	Open the MONITORING tab in a location. Select the channel and open the Properties panel.



General Device Properties

General

Device Name

Editable name for the device.

Dante Device Name

The name for the device as listed in Dante™ Controller (DC) software.

Device Model

The Shure model name.

Identify Button

Sends a signal to the device to flash its LEDs for easy identification.

Other

Serial number

The unique identifier used to register the device at the Shure website, guarantee the warranty, and troubleshoot with customer support.

Firmware Version

The current firmware version installed on the device.

Device Runtime

The time that the device has been powered on.

Device Controls

Make changes such as audio mute and front panel lock. Controls vary slightly per device.

Microphone State	Active	Audio on; RF connection
	Mute	Audio mute; RF connection
	Standby	Sleep mode with audio mute and minimal RF activity
	Off	No power (requires powering on at the device)
Front-Panel Lockout	Controls are disabled on the hardware front panel to avoid unauthorized or accidental changes	

Network Properties

Network properties are viewable from the device properties panel. Shure devices with Dante digital audio have two network addresses:

- **Control network:** Discovery and control of the device from SystemOn and other Shure software tools.
- **Audio network:** Transport and control for Dante digital audio.

IP Mode	Sets IP mode of the selected network interface: <ul style="list-style-type: none"> • DHCP: For automatic assignment of IP addresses. • Manual (Static): For Static IP addresses.
IP Settings	Displays the IP Address, Subnet Mask, and Gateway for each network interface.
MAC Address	The network interface's unique identification.

System Maintenance and Troubleshooting

Event Log

The event log collects important account, device, and network activity. Each event includes time and information on the device and location.

Reference the log to monitor system events and troubleshoot issues related to your audio network.

The following are examples of events listed in the log:

- Online/offline device availability
- Microphone missing (powered off or out of range)
- Server and system integration interruptions
- License status and expiration notices

- Sign in and account activity

Severity	Event	Description	Time
Information	User logged in	User admin signed into account	April 2, 2020 at 10:20:09 PM (LST)
Information	Service online	AMX100-114101, the AMX100 module at IP address 192.168.2.126, is online	April 2, 2020 at 9:58:08 PM (LST)
Information	User logged in	User admin signed into account	April 2, 2020 at 1:12:27 PM (LST)
Error	Service missing	MXA400-401-4, the MXA400 module at IP address 192.168.2.1, is missing	April 2, 2020 at 12:02:02 PM (LST)
Warning	Service offline	MXA400-401-4, the MXA400 module at IP address 192.168.2.1, is offline	April 2, 2020 at 11:58:02 AM (LST)
Information	Service online	MXA400-401-4, the MXA400 module at IP address 192.168.2.1, is online	April 2, 2020 at 11:51:01 AM (LST)
Error	Service missing	MXA400-401-4, the MXA400 module at IP address 192.168.2.1, is missing	April 2, 2020 at 11:47:10 AM (LST)
Information	Service online	MXA400-401-4, the MXA400 module at IP address 192.168.2.1, is online	April 2, 2020 at 11:40:04 AM (LST)
Warning	Service offline	MXA400-401-4, the MXA400 module at IP address 192.168.2.1, is offline	April 2, 2020 at 11:34:52 AM (LST)
Warning	Service offline	MXA400-401-4, the MXA400 module at IP address 192.168.2.1, is offline	April 2, 2020 at 11:34:10 AM (LST)

Viewing Event Log

Open the event log from Event Log in the main menu.

To export the event log to a CSV (comma separated values) document, select Export log.

Exporting the Event Log

To troubleshoot problems related to SystemOn, save a snapshot your system events by exporting and saving the file to a computer. Refer to the log file for monitoring system events, troubleshooting issues, or consulting with Shure Systems Support.

Supported devices

The following Shure devices are supported in SystemOn. Whenever possible, upgrade to the latest supported firmware version to take advantage of new features and system improvements.

- MXA310 Table Array Microphone
- MXA710 Linear Array Microphone
- MXA910 Ceiling Array Microphone
- MXW Microflex Wireless System
- ULX-D Digital Wireless System
- IntelliMix Room Audio Processing Software
- P300 IntelliMix® Audio Conferencing Processor
- ANIUSB-MATRIX Audio Network Interface
- SCM820 Digital Intellimix Automatic Mixer
- Microflex Networked Ceiling Loudspeaker
- MXA Network Mute Button
- SBC220/240 Networked Charging Station
- SBC250/450/850 Networked Charging Station

Important:

- SystemOn 4.3 is compatible with the most current firmware versions.

- Refer to the release notes for a list of compatible firmware versions.

See *Firmware Updates* for more information on updating firmware.

View User Guides Online

View user guides and detailed information for Shure devices at pubs.shure.com

Firmware Updates

Firmware is embedded software in each component that controls functionality. Periodically, new versions of firmware are developed to incorporate additional features and enhancements. To take advantage of design improvements, new versions of the firmware can be uploaded and installed directly through SystemOn.

Important:

- SystemOn checks for new firmware updates every 24 hours as long as there is an internet connection.
 - You can turn off automatic downloads at Main menu > Settings. Devices are not automatically updated, the firmware files are only automatically downloaded to your SystemOn server.
1. SystemOn alerts you to available updates for SystemOn-supported devices at the bottom tool bar in the application.
 2. Navigate to All devices to download new firmware files and to update firmware. You can update devices that are on the same subnet and cross-subnet.

Note: You cannot use SystemOn 4.3 to update:

- MXW Microflex Wireless System
- ULX-D Digital Wireless System
- IntelliMix Room Audio Processing Software
- SCM820 Digital Intellimix Automatic Mixer
- SBC220/240 Networked Charging Station
- SBC250/450/850 Networked Charging Station

Shure Update Utility

For those devices unsupported by SystemOn, use the Shure Update Utility (SUU) to update the firmware. Download the SUU from https://www.shure.com/en-US/products/software/shure_update_utility.

Perform the following steps to update the firmware:

CAUTION! Ensure the device has a stable network connection during the update. Do not turn off the device until the update is complete.

1. Connect the device and computer to the same network (set to the same subnet).
2. Open the SUU application.
3. Click the Updates button at the top of the window to open the Download Manager.

Note: This button will be labeled either "Check for updates..." or "[#] updates available"

4. From the Download Manager, select the desired firmware versions.

Tip: The dropdown in the upper right allows you to quickly Select: All or Select: None.

Note: After updating, you may need to clear your browser's cache to display updates to the device's web application.

5. Click Download, and then Close the Download Manager. Downloaded firmware is listed and can be viewed and managed in the Firmware tab.
6. From the Update Devices tab, select the new firmware and press Send Updates to begin the firmware update, which overwrites the existing firmware on the device.

Firmware Release Requirements

The recommended best practice is that all devices are on the most current release of their respective firmware. To view the firmware version of each device on the network, navigate to All devices.

Backup and Restore the Database

Protect against data loss by backing up the MongoDB database (installed with SystemOn) that stores your Shure software information. Backups are also useful when migrating to a new server.

Backups store all projects, locations, and device settings that your team makes in the software. For backup restoration, only those backup files (.bak) that match the current operating software version are supported.

Identify the MongoDB port

You must identify the dynamically allocated port for MongoDB by looking in the configuration section of:

"[location of SystemOn Software install directory]\Services\Mongo-3.4.0\Bin\mongod.cfg"

The port number is specified in the following lines:

```
"
net:
port: [port #]
"
```

Backup the Mongo Database

Use the machine installed with the software to create the MongoDB backup.

1. Identify a location to archive the database backup. You use this path in the command line.
2. Begin to open a command prompt by opening the Start menu and start typing "command". Do not press Enter.
3. Right-click the command prompt item and select Run as administrator.
4. Type the following command line (including quotation marks for file paths) after replacing the placeholders marked by []:

```
"[location of SystemOn Software install directory]\Services\Mongo-3.4.0\Bin\mongodump.exe" --host localhost --port [MongoDB port number] --gzip --archive="[path and file name of backup]"
```

Tip: Sample command line with default settings:

```
"c:\Program Files\Shure\Shure Networked Systems Software\Services\Mongo-3.4.0\Bin\mongodump.exe" --host localhost --port [MongoDB port number] --gzip --archive="c:\Shure.bak"
```

5. Press Enter. The file is archived at the path specified in the prompt.

Restore a Database Backup

1. On the machine installed with the software, open a command prompt by opening the Start menu and start typing "command". Do not press Enter.
2. Right-click the command prompt item and select Run as administrator.
3. Type the following command line (including quotation marks for file paths) after replacing the placeholders marked by []:

```
"[location of SystemOn Software install directory]\Services\Mongo-3.4.0\Bin\mongorestore.exe" --host localhost --port [MongoDB port number] --drop --gzip --archive="[path and file name of backup]"
```

Tip: Sample command line with default settings:

```
"c:\Program Files\Shure\Shure Networked Systems Software\Services\Mongo-3.4.0\Bin\mongorestore.exe" --host local-host
--port [MongoDB port number] --drop --gzip --archive="c:\Shure.bak"
```

4. Press Enter.
5. Reload the database configuration by typing

```
iisreset
```

at the command prompt.

Troubleshooting

Cannot sign in to the software


Possible Cause	Solution
Forgot the username or password	<ul style="list-style-type: none"> Follow the links on the sign in screen to look up your username or reset your password. If user was created from LDAP, no changes are allowed from SystemOn. Try signing in to your network and contact your network administrator.
Locked out after entering invalid credentials	<ul style="list-style-type: none"> Wait 10 minutes before attempting again. Reset your password. If user was created from LDAP, contact your network administrator.

Devices are not showing up

Possible Cause	Solution
Devices are not ready	<ul style="list-style-type: none"> Power on the devices. Connect the devices to the network.
The wrong network interface card (NIC) is selected	The NIC connects the SystemOn server to the device network. Go to Settings > General > Network setup and verify the selected NIC corresponds with the device network.
Devices on subnets have invalid IP addresses	Make sure devices have valid, routable IP addresses and that they are entered correctly into SystemOn All devices > Devices > Add cross-subnet devices. Use static IP addresses for devices on separate subnets to ensure they don't change by DHCP.

Possible Cause	Solution
Network traffic not routing between the server and devices	<ul style="list-style-type: none"> • Ping the device by IP address to see if it is responding properly outside of SystemOn. • Reset the device to default settings. • Make sure that unicast traffic is routing properly between your server and the devices. • Consult your network administrator

Cannot open or monitor a device

Possible Cause	Solution
Device is offline	<ul style="list-style-type: none"> • Connect the device to the network • Check the solutions listed above in "Devices are not showing up"
License is not assigned to the device	Assign a license to all devices that you want to manage.
Devices are operating on unsupported firmware versions	Check that device firmware versions are supported by SystemOn. Select a device and go to Properties > About > Firmware version. A notice displays if the version is not supported. See the release notes for the current list of supported firmware for each device and update them accordingly using the Shure Update Utility application .
Access Control is enabled on a device	<p>If a device displays with the network lock icon  , you can manage this setting using the Shure software that enabled Access Control. Access Control prevents any user from controlling or editing device settings from SystemOn.</p>

Users are not receiving notifications

Possible Cause	Solution
Subscriptions have not been assigned to users	Check that the correct users are subscribed to the location Your location > [Select a location] > Subscriptions.
Notifications are turned off	Enable notifications and select the delivery method from Settings > Notifications.
Wrong contact information	Verify the users' contact information from Your location > Users > [Select a user].
User opted out of SMS messages	Respond from an older message with START, YES, or UNSTOP to resume service.
Email and SMS integrations are not set up	Make sure the right SMTP and Twilio information is entered in Settings > Integrations. Test the connections to receive sample notifications to the account currently being used to troubleshoot the issue.

Possible Cause	Solution
Server is not connected to the internet	Make sure the SystemOn server is connected to the internet to facilitate the SMS text messages.
Emails are filtered	Check the SPAM folders of your email account to make sure they aren't filtered.

Cannot apply license plan

Possible Cause	Solution
Server is not connected to the internet	Follow the prompts in SystemOn for the offline application method.
Your activation ID is invalid	Call Shure customer support to obtain a new ID.
NIC is removed or not accessible	Restart the Shure Inventory Server from Windows > View local services. Right click and restart Shure Inventory Service and reopen SystemOn.

Application is behaving unexpectedly

Possible Cause	Solution
No or poor connection to the server	<ul style="list-style-type: none"> • Refresh the browser. • Ensure a strong connection to the server.
Browser cache is causing problems	Clear your browser cache.
Browser is out of date	Update to the latest version of your browser. See the Release notes for supported browser versions.
Server clock was changed	Uninstall and reinstall the SystemOn application and database.

More Troubleshooting Help

For additional troubleshooting assistance or further information on complex installations, contact your local Shure sales representative, distributor, or Shure Systems Support. In the Americas region, call the Systems Support group at 847-600-8440. For users in other locations, go to www.shure.com to find support contact for your region.

To more effectively troubleshoot your issue, export the SystemOn event log and have it ready when you contact support. The exported log includes data from your hardware, server, and SystemOn activity to provide Shure support with more information about your installation. Export the log from Event Log > Export Log.