



XR Solution Administrator

XR Solution Technical Certification Training

Session 3:

Training | Knowledge Check | Lab Exercise

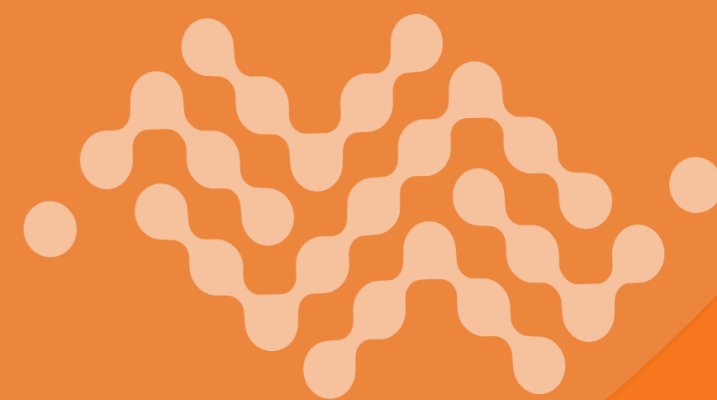
March 2022



Session 3

- AirLink Services for XR Series
- Basic and Partner-specific ALMS Skills
- Working with Templates in ALMS
- Working with AirLink Support
- What's Next

REVIEW AND LAB RECAP



Review and Lab Recap

What are your questions from last week and the lab?

What did you learn during the lab?

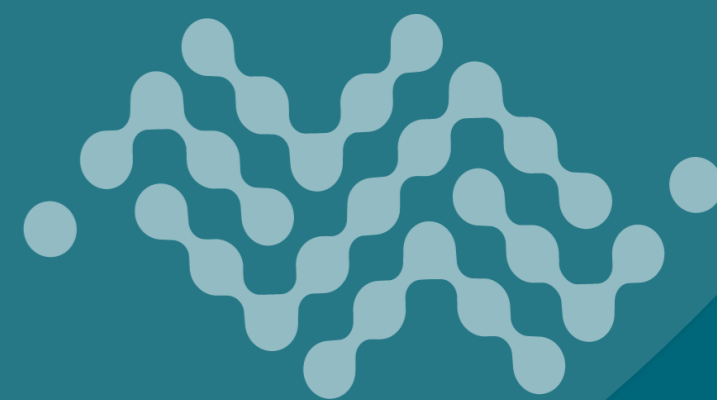


What You Should Know

- The details and benefits of each AirLink Services offer for XR
- Basic skills in ALMS
- The ALMS tools for deploying and managing routers
- The partner-specific details of ALMS for XR/AirLink OS
- How to create and deploy templates in ALMS
- How to factory reset and upgrade routers using ALMS

AIRLINK SERVICES FOR XR SERIES

Details of All Services
Accessing Services



Details of All AirLink Services for XR Series



Router Models	XR80 (All)	XR90
Default Warranty (1 Year)	Yes	Yes
Service Offering	AirLink Complete	AirLink Premium
Management Platform (ALMS)	Yes*	Yes*
Access to SW Support	Yes*	Yes*
ALMS Out-of-Band Management	Yes*	Yes*
Advanced Mobility Reporting	Optional Add-on*	Yes*
Advanced Replacement	No	Yes*
Extended Warranty (up to 5 Years)	Yes*	Yes*

*** Requires registration with a valid subscription**



Registration is Required

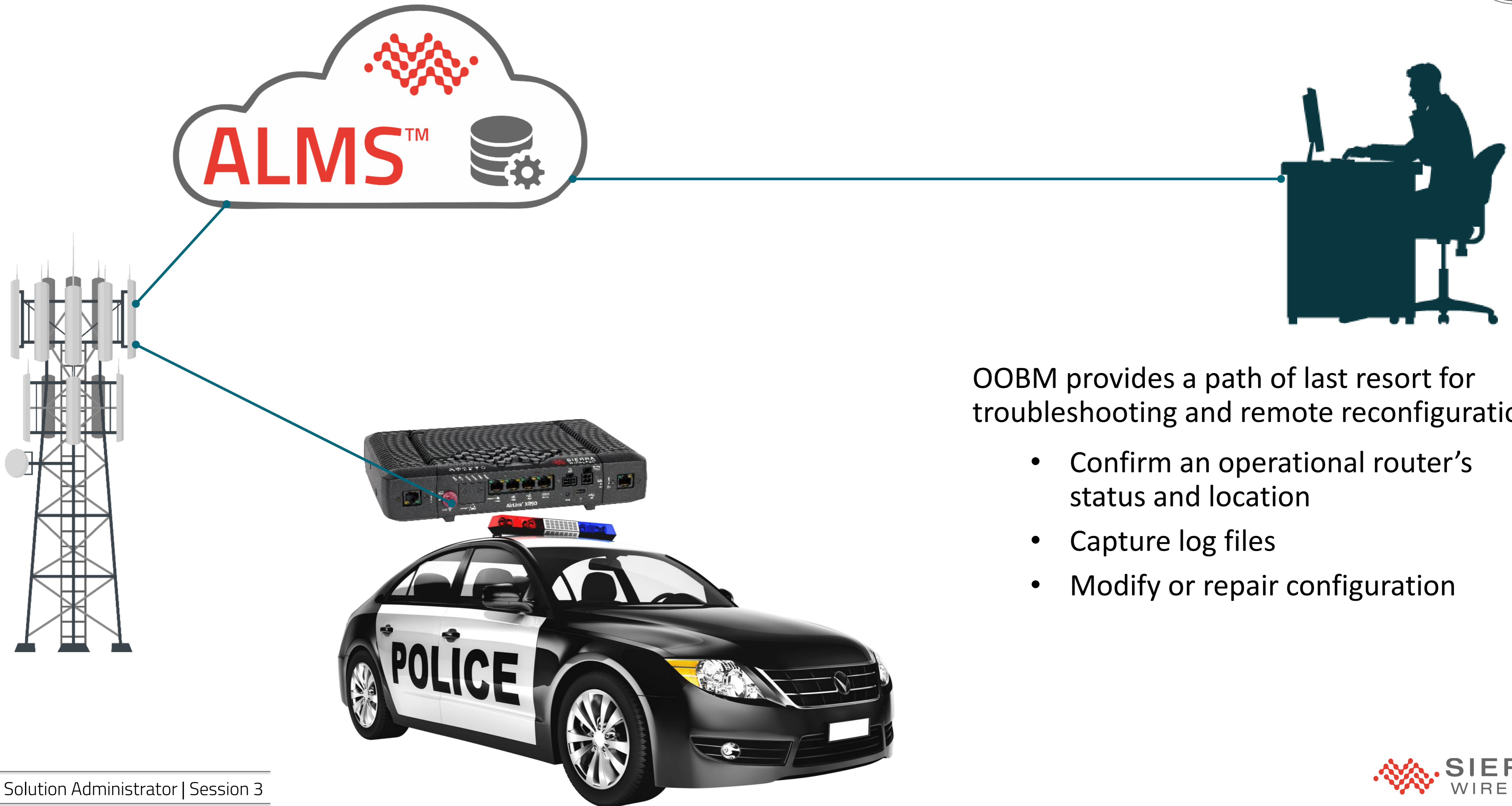


Most features come with AirLink Premium or AirLink Complete and require registration

Some features absolutely require access to ALMS

Devices can be registered anytime within the first year, but the 1-year coverage is based on a fixed clock

ALMS Out-of-Band Management



OOBM provides a path of last resort for troubleshooting and remote reconfiguration

- Confirm an operational router's status and location
- Capture log files
- Modify or repair configuration

Advanced Mobility Reporting



Coverage

- Coverage Map (Beta)
- Coverage Trails (Beta)
- Link Utilization (Beta)



Driver

- Driver Behavior
- Seat Belt
- Trip Replay



Vehicle

- Engine Fault Summary
- Odometer Report
- Vehicle Report
- Vehicle Utilization



Geographic

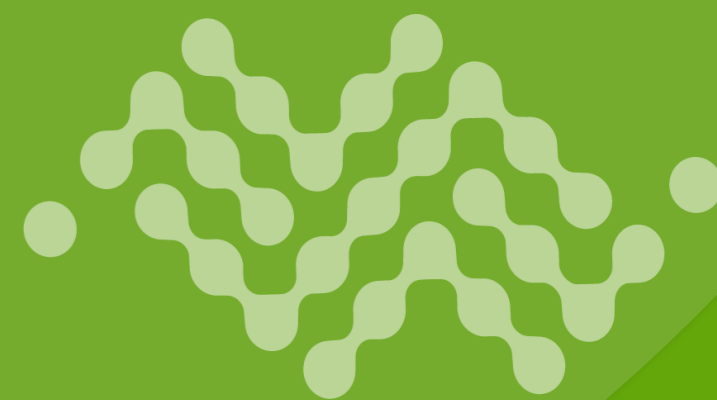
- Trips Report
- Zone Summary

BASIC ALMS SKILLS FOR XR SERIES

Basic Skills in ALMS

Additional Skills for Partners

Helping Customers Sign Up



Basic ALMS Skills



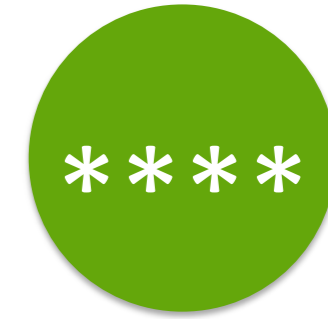
Register routers



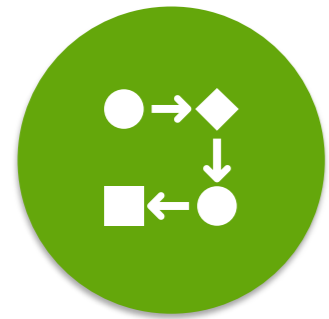
Create and deploy templates



Upgrade router software



Set passwords and unique values



Use a workflow



Synchronize a router



Run a report



View a router configuration



Monitor operations



Retrieve a router log file



Read the timeline



Factory Reset

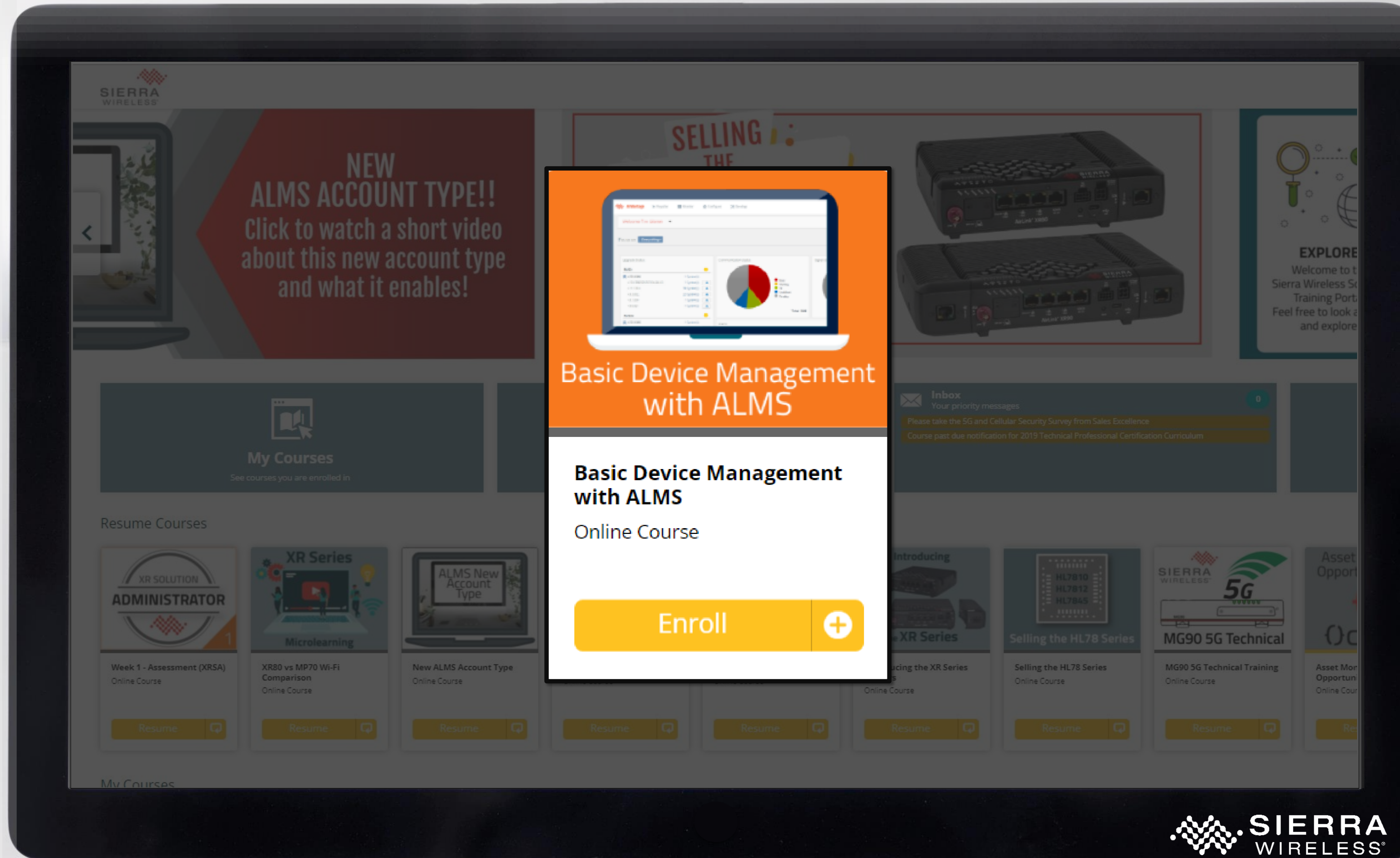
Basic Skills Reinforcement



Take the **Basic Device Management with ALMS** course

Most of these basic skills have not changed at all for XR

Some, like registration, have had very small changes

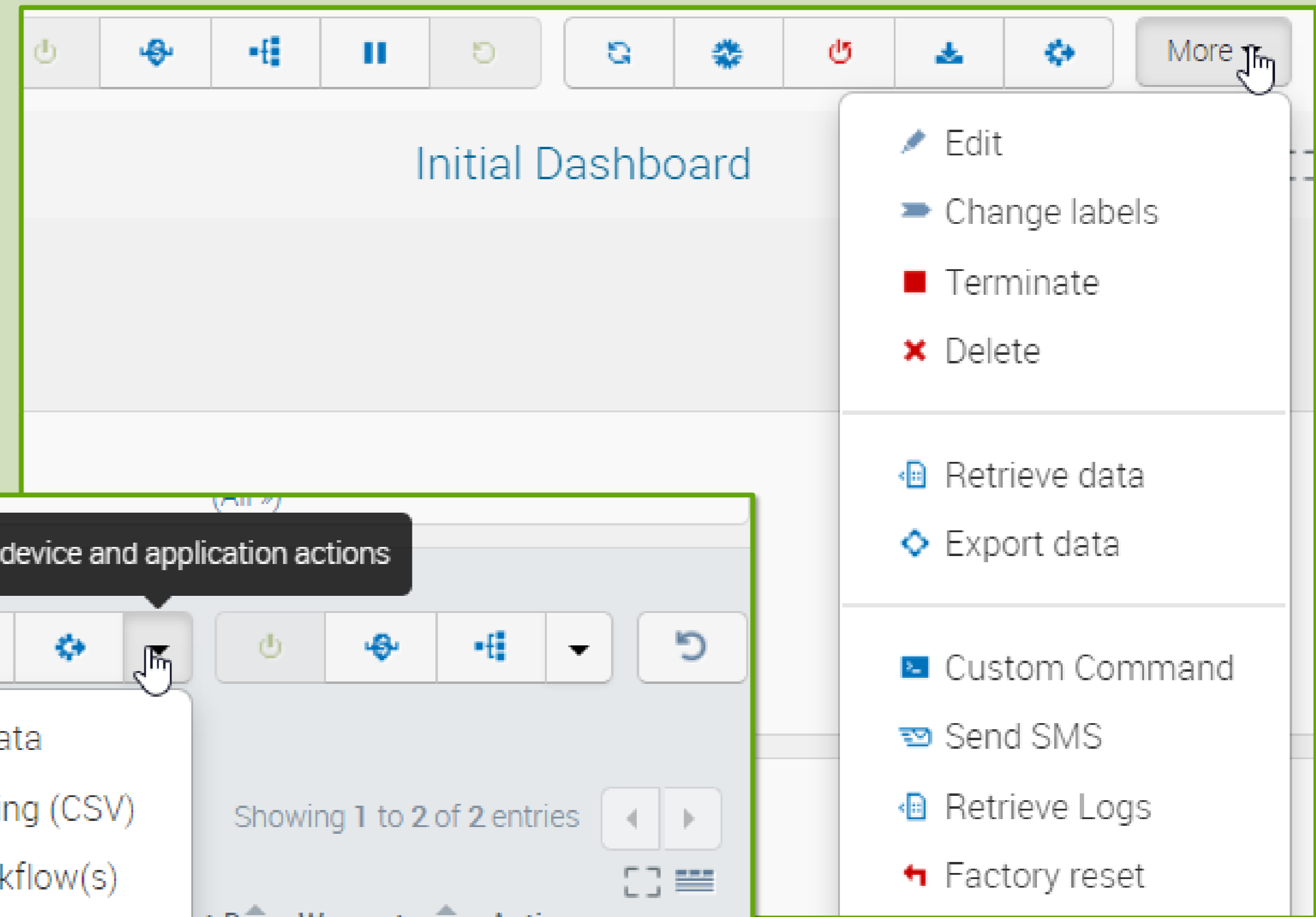


Perform Operations on a Single Router or a Fleet

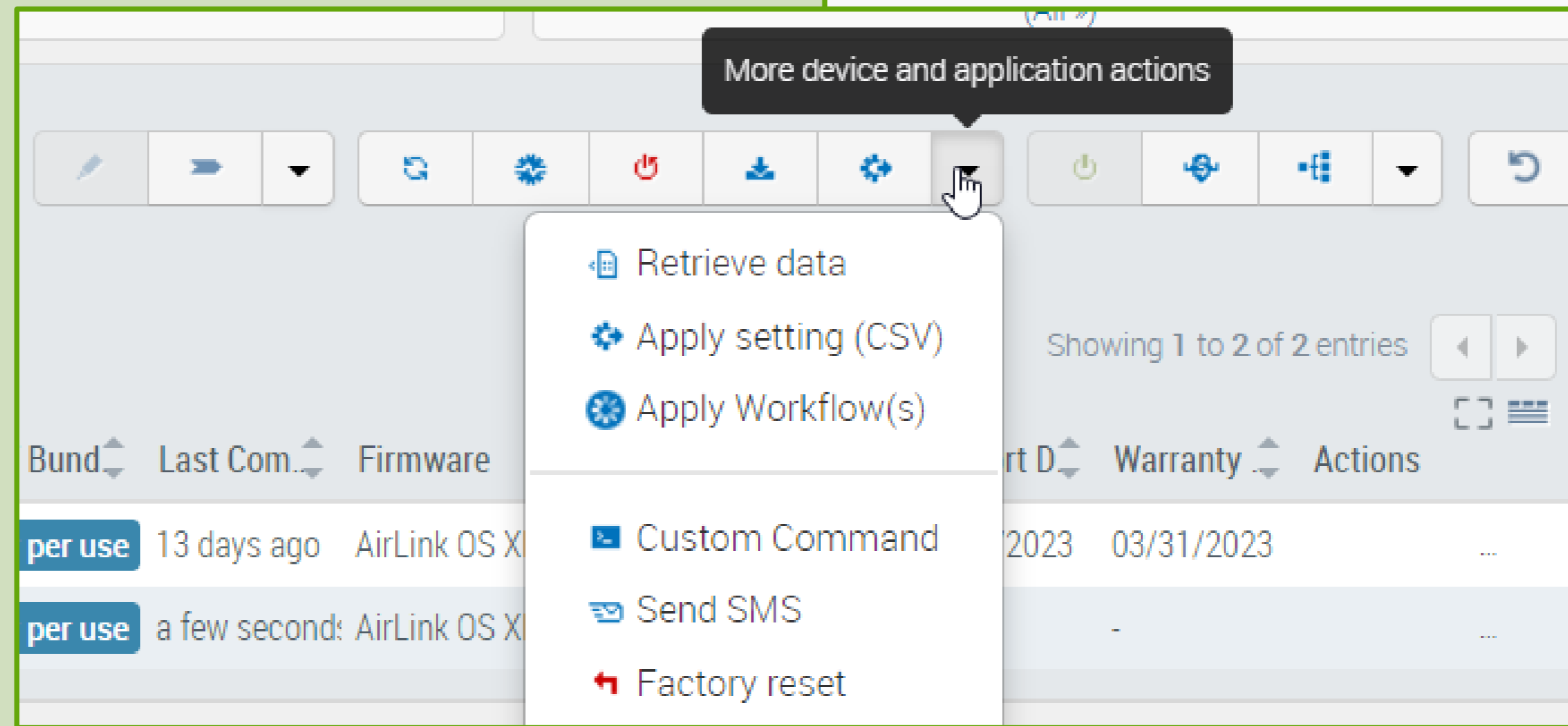
- One router at a time on Device Monitor page
- A large number of routers on the Systems Monitor page

These operations include:

- Synchronize
- Apply template
- Reboot
- Factory reset
- Change labels
- Upgrade firmware



Individual router



Monitor > Systems

The ALMS Toolkit



Widgets



Alerts and
Datasets



Dashboards



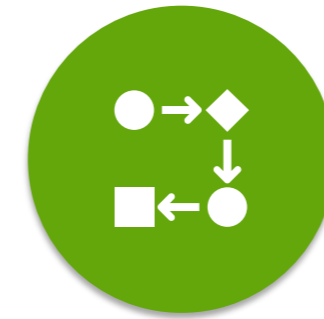
Labels



Names



Operations



Workflow



Apply Settings
CSV tool



Timeline



Configuration
view



Template
Management



Software
Management

Changes in ALMS for AirLink OS and XR



Registration Options



More Data in Timeline



One UI for Configurations



Multiple Dashboards



Register routers



Timeline + Widgets + Reports



Template + Configuration



Dashboards

How the Timeline is Different



Data streams almost instantaneously



More data means more precision for diagnostics and better reporting

Everything happens more quickly

Additional ALMS Skills for Partners



Help customers set up a new ALMS account

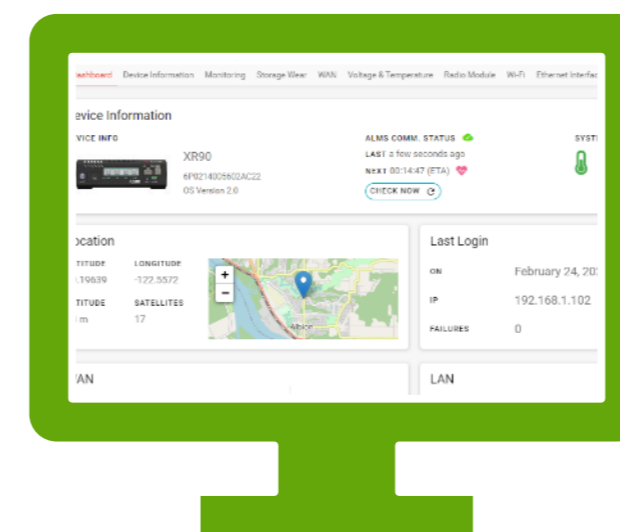


Register routers for customers

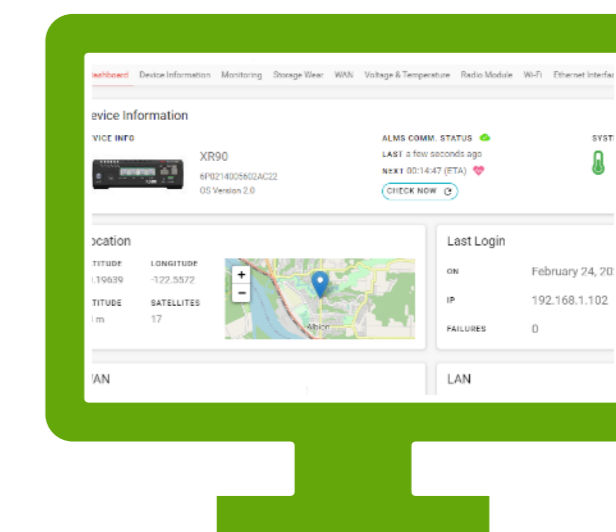


Transfer routers for trials

Things Partners need to understand:



ALMS account changes and migration plan



Partnerships in ALMS

Registering Routers for Customers



Entire process is documented at <https://source.sierrawireless.com/airvantage/almsc/reference/register/howtos/registerSystemsToMultiplePartners/>



ALMS with Connectivity
User Guide

Getting Started Features How-To References GDPR FAQ

eu.airvantage.net


How to register systems to multiple customers?

If you have an "ALMS Reseller" account, you can register and preconfigure devices to any ALMS account for which you know the ALMS account UID. There is no longer a requirement to have a formal Partnership with the account, although Sierra Wireless recommends that you work with your customers to ensure such partnerships are in place between your ALMS Reseller account and your customer's account. For more info about account administration and Partners, see the [Administration documentation](#).

The [Register for multiple companies](#) link on the Registration page allows you to upload a CSV containing settings for multiple devices, along with a `TARGET_COMPANY` field where you can specify customer accounts to which the devices will be registered. This can help streamline your workflows and register devices to multiple accounts all in one registration activity.

Select system type > AirLink Device

Register AirLink Device



AirLink Device

Serial Number

IMEI/ESN

Name

Activate Device ON

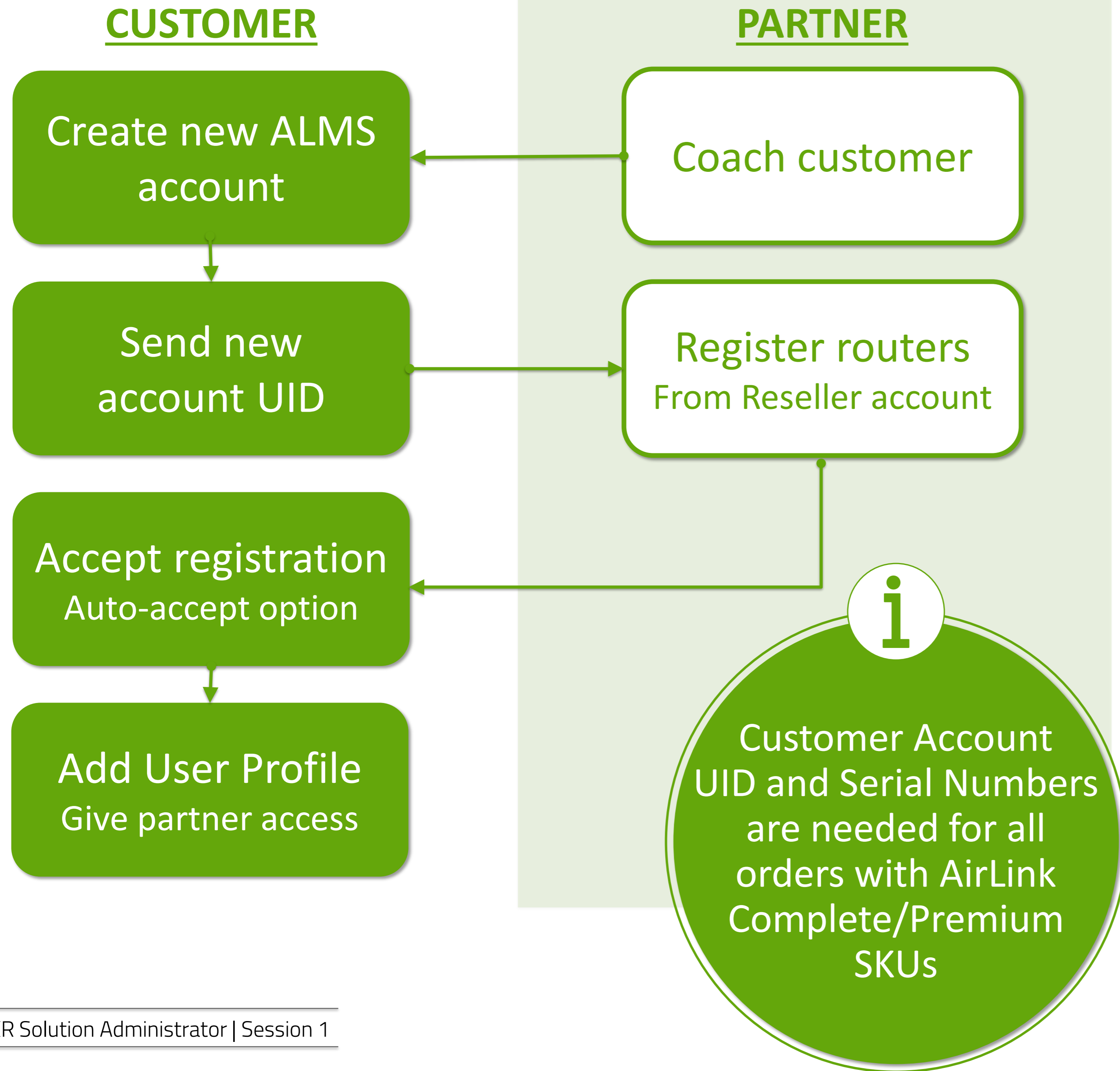
Specify reference firmware

or [Import a list](#)
or [Register for multiple companies](#)

1. Provide the Serial Number and IMEI/ESN of your System and add an optional friendly Name.
2. Activate Device is enabled by default. Disable to put devices into Maintenance on registration (devices will automatically activate after 60 days).
3. If your devices communicate with ALMS using MSCI, enter the ACEmanager password that is on the gateway. This is not required if your devices use LWM2M.
4. Set the Pre-configure system settings.

You can use *Import a list* to register devices in bulk.

1. Switch on your System
2. At first connection the AirVantage Platform will synchronize your new system.

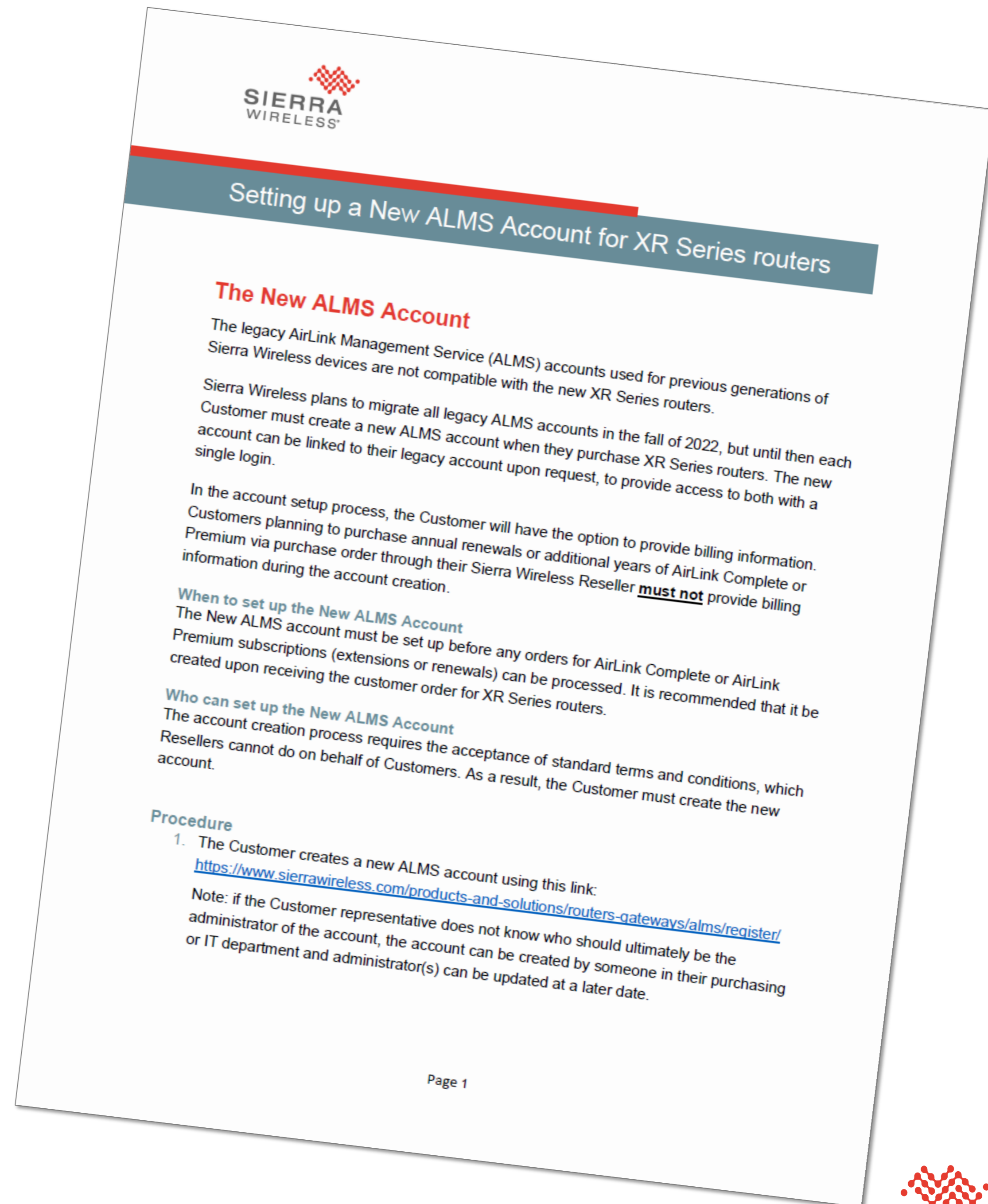


Process for New Customer Account Creation

Job Aid available for coaching customers

Why the changes in ALMS accounts and process?

- Varying needs for
 - Customer security
 - Partner access
- Change to subscription model
- New requirements for OOBM



CUSTOMER

PARTNER

Create new ALMS account

Coach customer

Send Partnership request*

Transfer routers From Reseller account

Engage in Trial full solution experience

i
The Partnership request must have evidence of being customer-initiated but can be in a partner support ticket

Transfer routers
Clean-up partnerships

Process for a customer Trial/Demo

One example that requires creation of a partnership before customer purchases any equipment

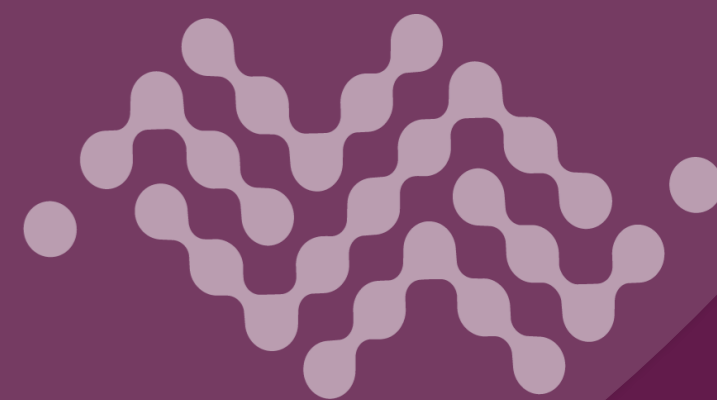
WORKING WITH TEMPLATES IN ALMS

Two ways to work with Templates

Creating Templates

Deploying Templates

Pre-Configure Systems and Workflows

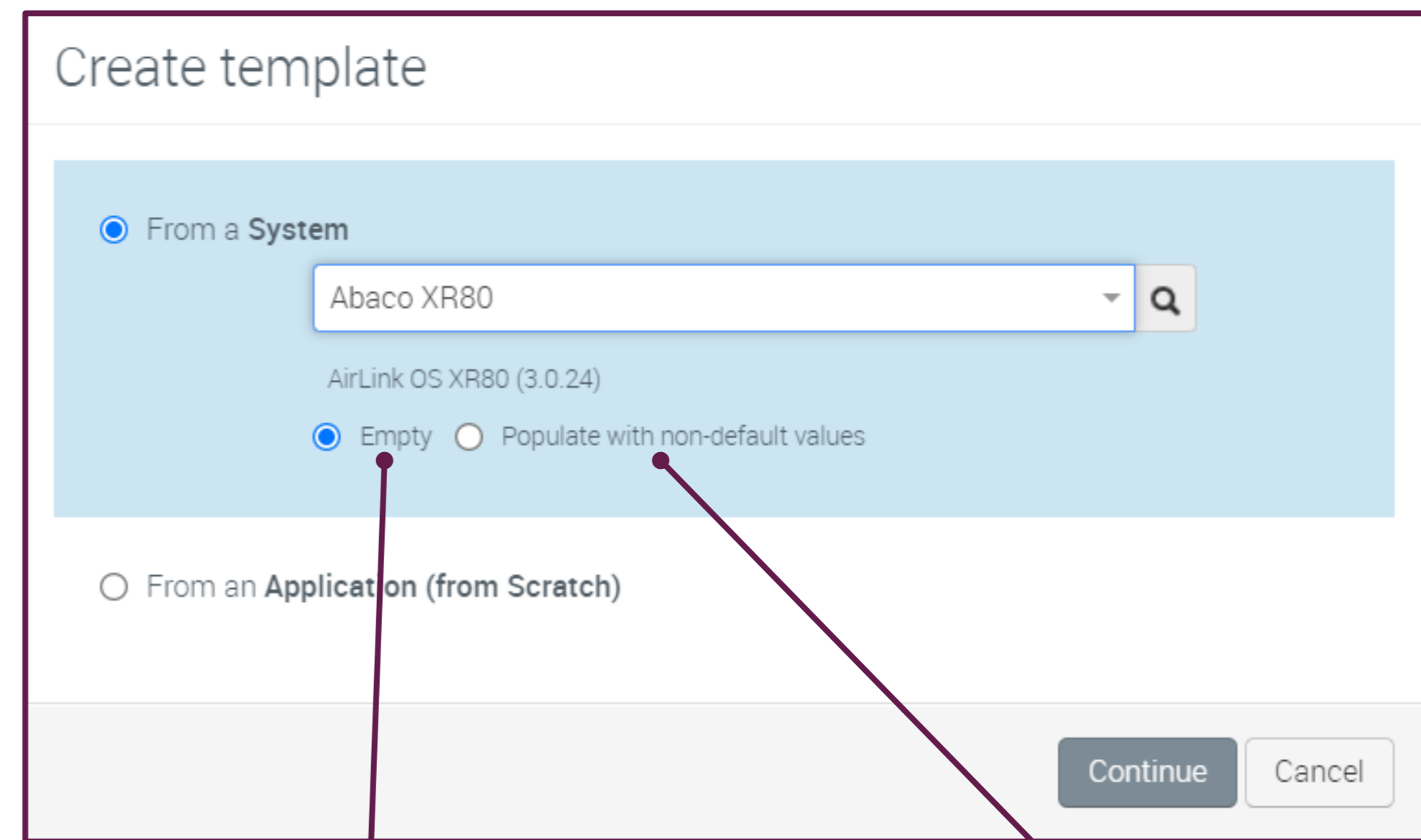


Two options to create Templates in Configure > Templates

Navigate to Configure > Templates and click the + icon to create a new template, or select an existing template to edit it.

You must have a compatible router in your ALMS account

This is slightly different behavior than with ALEOS routers



Create a template with no settings (empty)



Create a template with all non-default values

Template Mode

Template mode through ALMS looks identical to template mode working directly on an AirLink OS router

SIERRA WIRELESS | AirLink

Hardware Interfaces / General

Configuration SSID Database

REGION: US: United States of America

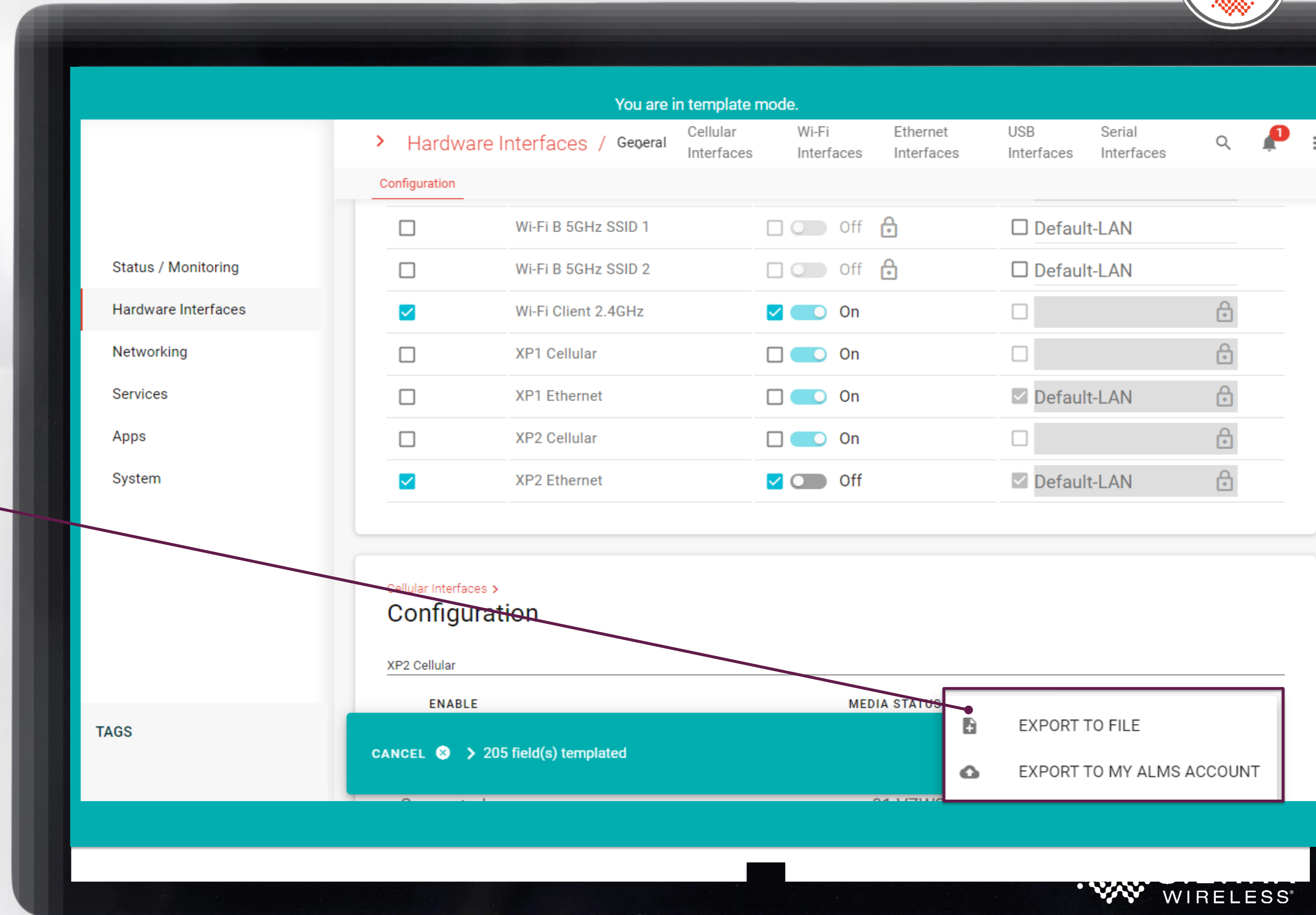
OUTDOOR: Disabled

Template choices	Enable	Status	Name	Antenna Bank	Mode	LAN Segm
<input type="checkbox"/>	<input type="checkbox"/> On	XR90-1 (wp...	Wi-Fi A 5GHz		Access	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/> Off	Disabled	Wi-Fi AP 2.4...	A	Ac	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/> Off	Connected: ...	Wi-Fi B 5GHz		Client	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/> On	Disabled	Wi-Fi Client ...	B	Cli	<input type="checkbox"/>

CANCEL > 2 field(s) templated EXPORT TO FILE

Template Export

Options to Export to File or Export to My ALMS Account



The screenshot displays the 'Hardware Interfaces' configuration page in 'template mode'. The page is divided into several sections: a left sidebar with navigation options (Status / Monitoring, Hardware Interfaces, Networking, Services, Apps, System), a top navigation bar with tabs for Cellular Interfaces, Wi-Fi Interfaces, Ethernet Interfaces, USB Interfaces, and Serial Interfaces, and a main content area. The main content area shows a table of hardware interfaces with checkboxes for selection, status toggles, and lock icons. Below this, there is a 'Cellular Interfaces > Configuration' section for 'XP2 Cellular'. At the bottom, a teal banner displays 'CANCEL' and '> 205 field(s) templated'. A dialog box is open in the bottom right corner, containing two options: 'EXPORT TO FILE' and 'EXPORT TO MY ALMS ACCOUNT'. A red line points from the text 'Options to Export to File or Export to My ALMS Account' to the dialog box.

Configuration	Cellular Interfaces	Wi-Fi Interfaces	Ethernet Interfaces	USB Interfaces	Serial Interfaces
<input type="checkbox"/> Wi-Fi B 5GHz SSID 1	<input type="checkbox"/>	<input type="checkbox"/> Off	<input type="checkbox"/> Default-LAN		
<input type="checkbox"/> Wi-Fi B 5GHz SSID 2	<input type="checkbox"/>	<input type="checkbox"/> Off	<input type="checkbox"/> Default-LAN		
<input checked="" type="checkbox"/> Wi-Fi Client 2.4GHz	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> On	<input type="checkbox"/>		
<input type="checkbox"/> XP1 Cellular	<input type="checkbox"/>	<input checked="" type="checkbox"/> On	<input type="checkbox"/>		
<input type="checkbox"/> XP1 Ethernet	<input type="checkbox"/>	<input checked="" type="checkbox"/> On	<input checked="" type="checkbox"/> Default-LAN		
<input type="checkbox"/> XP2 Cellular	<input type="checkbox"/>	<input checked="" type="checkbox"/> On	<input type="checkbox"/>		
<input checked="" type="checkbox"/> XP2 Ethernet	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Off	<input checked="" type="checkbox"/> Default-LAN		

Cellular Interfaces > Configuration

XP2 Cellular

ENABLE MEDIA STATUS

CANCEL > 205 field(s) templated

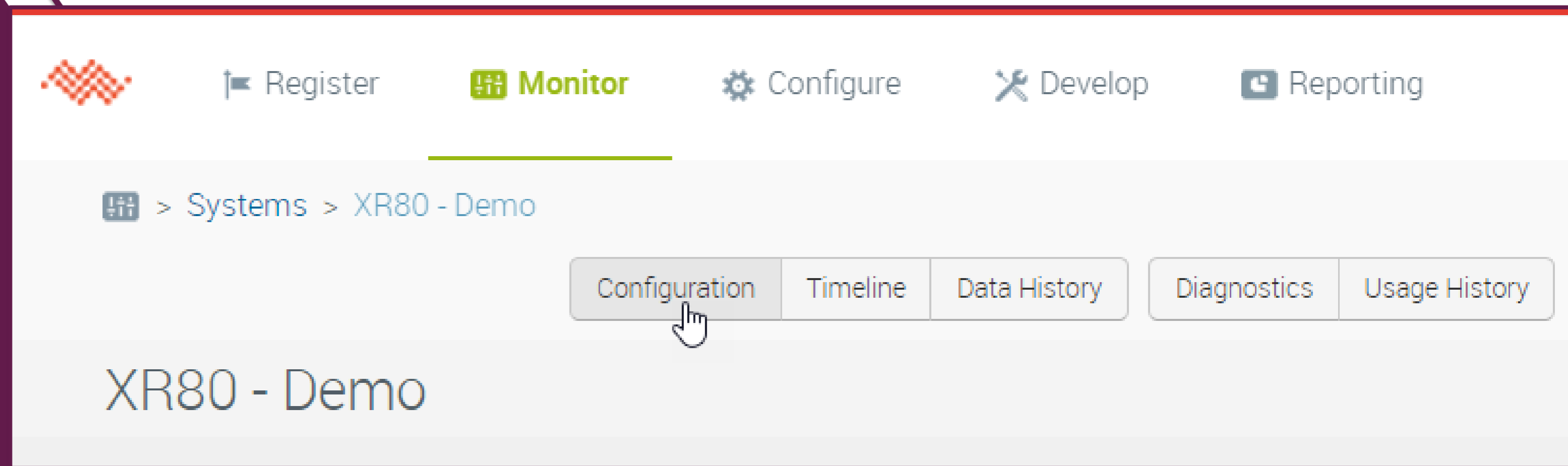
- EXPORT TO FILE
- EXPORT TO MY ALMS ACCOUNT

Access Template creation through ALMS Configuration

From the selected router's Monitor Device page, click on the Configuration button

The AirLink OS UI will appear in the ALMS session

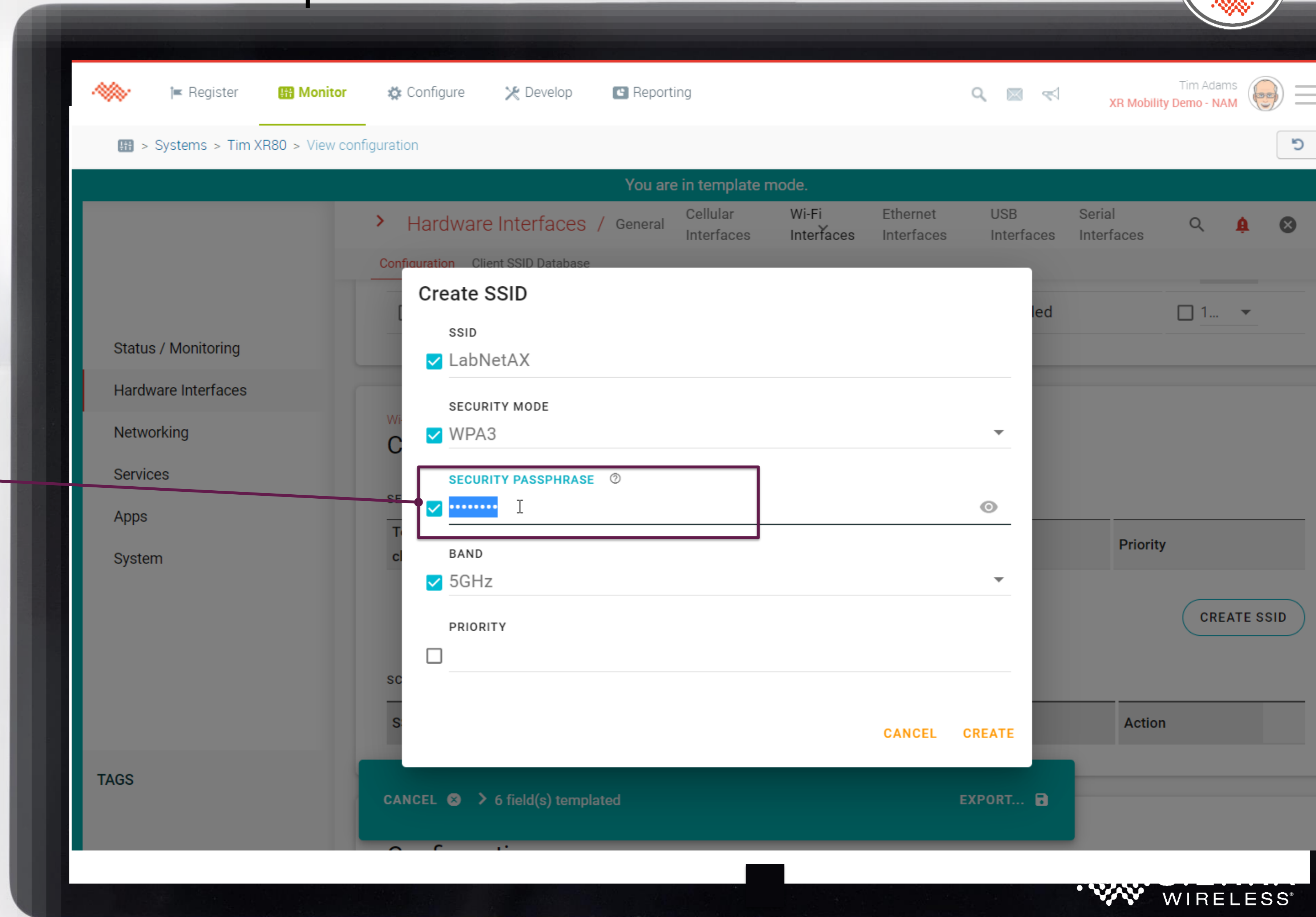
Click on the Template icon in the top right corner just as you would locally



You will have the option to export to your ALMS account when working through ALMS Configuration

Including Passwords in Templates

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Passwords can be included within ALMS templates but requires entering all passwords during the template creation process



WORKING WITH AIRLINK SUPPORT

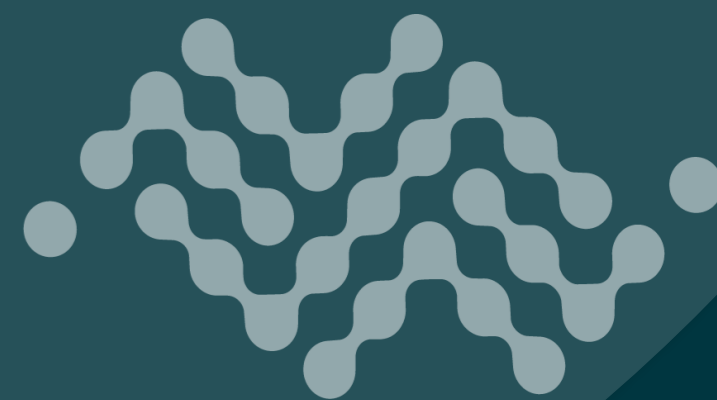
Access to AirLink Support

Information to Provide for Support

Log Files and Templates

Troubleshooting Package

Troubleshooting Tools



Who Has Access to AirLink Support

Access to Support is now controlled by each router's active subscription status

This began with the introduction of AirLink Complete

Access to ALMS-only is now called AirLink Basic and does not include access to Support

i

Customers will be directed to register or subscribe the router before contacting Sierra Wireless

i

Customers unable to register routers will be directed to their reseller for support

i

Sierra will work with resellers on unsubscribed routers but not directly with end users

Services and Warranty Status



There are multiple ways but the quickest is probably the Warranty Checker.



You can check a single router or upload a list of routers.

The screenshot shows the Sierra Wireless Warranty Information page. It features two main sections: 'Check Single Device' and 'Check Multiple Devices from File'. The 'Check Single Device' section has a text input field labeled 'Any Serial or IMEI Number *' and a yellow 'Check Warranty' button. Below this is a separator '- OR -'. The 'Check Multiple Devices from File' section has a file upload button labeled 'Choose File' with the text 'No fil...hosen' and a yellow 'Check Multiple Warranties' button.

The screenshot shows the Sierra Wireless Warranty Information page with the following details:

Model ID (SKU):	XR80 (1104789) - XR80,SWIR,NA,5G SUB-6GHZ,AIF
Serial Number:	6Q1065006502AC24
IMEI Number(s):	359414100105857, 350546850113471
Product Warranty Ends:	08/31/2024
Support Plan:	AirLink Complete
Support Plan End Date:	10/26/2022
+ Open RMA (0)	

<http://csm.sierrawireless.com/warrantychecker.aspx>

What to Provide When You Open a Support Ticket

Most of this has not changed for XR Series routers and is the same as it is for ALEOS routers

The Troubleshooting Package is an encrypted set of files with richer diagnostic information which is needed for escalation to L3 support



Router Serial Number



Problem Description



Steps Already Taken



Log File



Configuration
Template



Troubleshooting
Package (AOS 3.0)

Getting Logs and Troubleshooting Package (AirLink OS 3.0)

i
Logs and Template can be accessed locally or from ALMS. Troubleshooting Package is local only

The screenshot shows the AirLink OS 3.0 administrator interface. The top navigation bar includes 'System / Admin', 'Device Management', 'I/O', 'LEDs', 'Logs', and 'Security'. The 'Logs' menu is expanded, showing 'Regular logs', 'Audit logs', 'Log Levels', and 'Troubleshooting Package'. The 'Troubleshooting Package' page features a 'GENERATE PACKAGE' button (highlighted with a hand cursor) and a 'DOWNLOAD PACKAGE' button. Below this, the 'Certificates' page is visible, showing a table for 'IMPORTED CERTIFICATES' with columns for 'Name', 'Subject / Distinguished Name', and 'Type'.

Tools Available for Troubleshooting



Status Screens



Status LEDs



IP Capture



Traceroute + Ping



Audit Log



Timeline + Widgets

Reading log files isn't for everyone.

There are many other tools available.

Thanks to the increased amount of data being sent, remote and historical diagnostics are better than ever.

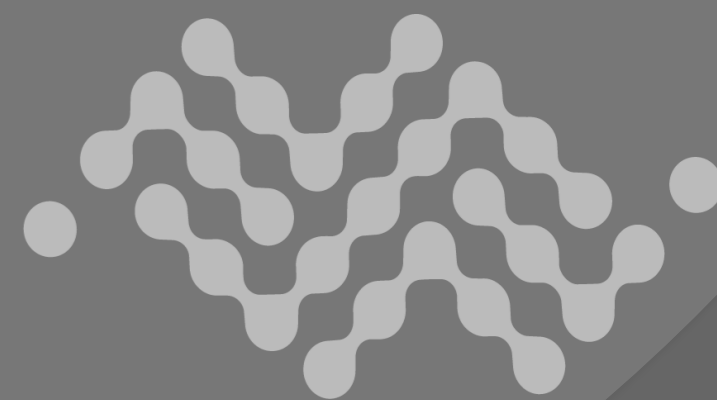
WHAT'S NEXT

Knowledge Check

Online Quiz

Lab Exercise #3 and Submission

Final Exam (Cumulative)



What You Should Know

- The details and benefits of each AirLink Services offer for XR
- Basic skills in ALMS
- The ALMS tools for deploying and managing routers
- The partner-specific details of ALMS for XR/AirLink OS
- How to create and deploy templates in ALMS
- How to factory reset and upgrade routers using ALMS

Introduction to Lab Exercise #3



In this lab exercise you will:

- Create and save a configuration template in ALMS
- Perform a factory reset in ALMS
- Deploy a saved config template and change the AOS UI password using a Workflow
- Perform a software upgrade remotely using ALMS
- Create and test an Alert Rule



Take the Online Quiz

As part of the certification program, you are required to demonstrate mastery of requirements to work with the XR Series routers



Complete the online quiz with >80% prior to the start of the next session



You do not need to complete the lab exercise prior to taking the quiz, because it is based on the presentation content

Complete the Course Requirements



Complete Labs



Pass Knowledge Checks



Review Materials



Take Final Exam

Once you have completed all course requirements and are ready to take the final exam, you can take it in the same way you have taken the weekly knowledge check quizzes.

After successful completion, you will receive a certificate and icon to display in your email signature.



END OF SESSION 3

Thank you!

