

now  
meets  
next

COMMSCOPE®

## DAS AND SMALL CELL TRAINING

## TRAINING CATALOG – 2024

## AMERICAS REGION (NAR/CALA)



### eLearning & Webinar Training

CommScope offers a variety of eLearning and webinar training. Individuals can attend the training at their convenience



### Instructor Led Training

CommScope offers Classroom and Virtual training for groups/individuals. Private training sessions are available upon request.

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## Introduction

CommScope's DAS and Small Cell Training group provides a variety of learning opportunities related to products and technologies, including ERA, ONECELL and CBRS. Registered users can utilize a variety of self-paced eLearning courses in addition to attending live training events, such as distance learning Virtual Trainings sessions along with focused workshops and product-based classroom instruction. Users have access to the CommScope University Learning Management System (LMS), where they can track their in-progress and completed courses, review transcripts and pull information in training completions and certifications.



## New User Registration

To enroll in courses, you must first be registered in the learning portal, CommScope University (CU). The following steps need to be followed to complete the registration process.

- Go to <https://www.commscope.com/>
- Click on the Login icon at the top of the page
- Click on the "Create an Account" button at the bottom of the page
- Complete the "New User Registration" form
- After My CommScope registration is complete login and request access to CommScope University
- After completing the access request Log out and then back into My CommScope
- On the My CommScope page click on the CommScope University (CU) tile for access to CU
- On the CU Dashboard select the DAS and Small Cell Training tile to access to the desired training

Here is a link to a tutorial video that will walk you through the registration process for setting up a My CommScope account and then requesting access to CommScope University - [CU Registration](#)

## Registered User Login

If you are already a registered user with CommScope's DAS and Small Cell Training, you can login using the steps below.

- Go to <https://www.commscope.com/>
- Click on the Login icon at the top of the page
- On the My CommScope page click on the CommScope University (CU) tile for access to CU
- On the CU Dashboard select the DAS and Small Cell Training tile to access to the desired training

## Course Enrollment

At the CommScope University Dashboard you identify and enroll in the desired course using the steps below.

### **Find the desired training**

Use one of the following methods to find the desired training:

1. Search for training by typing search words in the "Search" bar

**OR**

2. Click on the "DAS and Small Cell Training" tile, then select a course from the desired catalog

### **Enroll in the training**

#### *E-Learning Courses*

Identify the desired course and click on the "Enroll" button on the course tile. The "Enroll" button will change to the "Start" button. Click on the "Start" button and then simply follow the requirements for that course to completion.

#### *Instructor Led Courses*

1. Identify the desired course tile
2. Click on the button with a shopping cart and dollar value listed
3. The "dollar value" on the button will change to "added to cart", click on the button again.
4. Proceed through the checkout process.
  - a. If you have a coupon code for a discount on the dollar value enter it and click "Apply"
  - b. Click on the "Proceed to Checkout" Button, and a second time to confirm.
  - c. Enter in the needed information and Click on the "Proceed to Checkout" Button
  - d. The "Order Complete" window will appear. Click on the "View Course" button
5. Click on the "Enroll" button for the course, the button will change to "View", click on it to see the available dates for the training.
6. Click on the "Enroll" button for the desired training date. At this point you are enrolled in that date. You do have the option to either change or cancel the session at that point. Here is a link to an external [Training Calendar](#) to view schedule of upcoming Instructor led training sessions, so you can identify the desired date before you enroll.

Here is a link to a tutorial video that will walk you through navigation in CommScope University and [DAS and Small Cell Training](#).

## Private Training Sessions



Any of the instructor-led courses are available as a private training class.

We can work with you and your local CommScope sales representative to develop a customized program that best fits your needs. Venue and cost for such training sessions will be determined on a case-by-case basis.

Please contact us at [icn\\_training@commscope.com](mailto:icn_training@commscope.com)

## eLearning Courses

This section of eLearning courses will give the learner a better understanding of CommScope's DAS and Small Cell and supporting technologies. These eLearning courses and instructional videos will give the learner a head start when attending our Instructor Led Training, so they can be more involved in class from the start. These courses offer preparation for any training that is attended in either a Classroom or Virtual environment.

 <b>North American Region Courses \ Audience</b>		Installation & Commissioning	System Operations	System Engineering	Project Management
<b>Online Learning</b>					
ND4111	ION-B System Operations and Commissioning Overview	X	X		X
ND5100	AIMOS General Overview	X	X	X	X
ND5101	Avoiding PIM in DAS Installation	X	X	X	X
ND5102	Return Material Authorization (RMA) Process	X	X		X
ND5103	Understanding dB and dBm	X	X	X	X
ND5104	Wireless & DAS 101	X	X	X	X
ND6432	Introduction to ION-M	X	X	X	X
ND6442	ION-U Solution eLearning	X	X	X	X
ND6463	ERA Overview	X	X	X	X
ND6464	ERA RF Design		X	X	X
ND6465	CommScope's ERA Interleaved MIMO		X	X	X
ND6466	ERA Operation & Maintenance (Recertification)	X			
ND6468	ERA WCS Airflow	X	X	X	X
ND6469	ERA Installation & Commissioning (Recertification)	X			
ND6479	Node A Repeater Systems	X	X	X	X
ND6500	Public Safety Repeater Installation, Configuration, Operations & Maintenance	X	X	X	X
ND7111	ONECELL Overview	X	X	X	X
ND7150	ONECELL DMS Network Management Overview				
ND7504	CBRS System Specialist		X	X	X
ND7506	CBRS Installation and Commissioning	X			X
ND7507	CBRS Operation and Maintenance	X	X	X	X

## [\[ND7111\] OneCell Overview](#)

### Overview

This is CommScope's OneCell Overview. The module will provide a high-level overview of the OneCell Solution.

### Target Audience

This eLearning course is designed for anyone who is interested in learning about CommScope's OneCell Solution.

### Objectives

This module is intended to provide:

- OneCell basics
- OneCell benefits
- OneCell Component
- Overview of the DMS

*Est. duration (30 Mins)*



## [\[ND7150\] Device Management System \(DMS\) for OneCell Overview](#)

### Overview

This is CommScope's Device Management System (DMS) Overview. The module will provide a high-level overview of the DMS.

### Target Audience

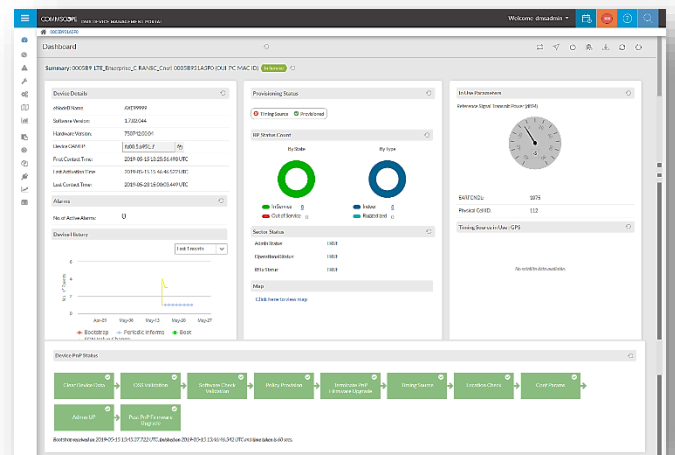
This eLearning course is designed for anyone who is interested in learning about CommScope's Device Management System.

### Objectives

This module is intended to provide:

- DMS basics
- DMS features
- Cover briefly the Network Management Console
- Cover briefly the Device Management Console

*Est. duration (30 mins)*



## [ND7504] CBRS System Specialist

### Overview

The training will address the overall CBRS market, the Ruckus offering, how to plan, design and set up a CBRS network, and an introduction to key CBRS device and solution ecosystem partners.

### Target Audience

Network deployment and operations professionals who work with Certified Professional Installers utilizing the Citizens Broadband Radio Service or CBRS band, but anyone with an interest in CBRS can benefit from this course.

### Objectives

The training is comprised of four recorded webinars:

- CBRS Introduction, Sales and Marketing
- Overview of the CBRS Solutions
- CBRS Deployment and Management
- CBRS Technical Solution Update

At the conclusion of the training there is a knowledge assessment, and the passing score is 80%. Retakes of the exam are allowed after a 24-hour period.

*Est. duration (4 hours)*



## [ND7506] CBRS Installation and Commissioning

### Overview

This training curriculum consist of self- paced training videos for CBRS installation and Commissioning. Successful completion will give you the comprehension of how to install the CBSDs (Q410, Q710, Q910) and then complete the commissioning process. Commissioning topics include: How to activate a License, Add Venues, Add a Network and SAS, Add Access Points and also how to manage the SIM Management Service (SMS) portal.

### Target Audience

Certified Professional Installers that will be installing and maintaining CBRS equipment.

### Objectives

Upon completion the learning will be able to:

- Identify CommScope's RUCKUS CBRS components and system architecture
- Demonstrate how to correctly install the CBSDs
- Properly commission CBRS components

*Est. duration (1.5 hour)*



## [ND7507] CBRS Operation and Maintenance

### Overview

This training curriculum consist of self- paced training videos for CBRS installation and Commissioning. Successful completion will give you the comprehension of how to install the CBSDs (Q410, Q710, Q910) and then complete the commissioning process. Commissioning topics include: How to activate a License, Add Venues, Add a Network and SAS, Add Access Points and also how to manage the SIM Management Service (SMS) portal.

### Target Audience

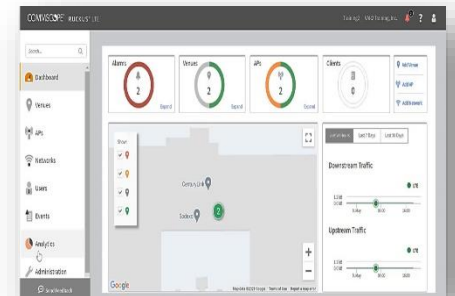
Certified Professional Installers that will be installing and maintaining CBRS equipment.

### Objectives

Upon completion the learning will be able to:

- Identify the Building Blocks and Network Topology CommScope's RUCKUS CBRS
- Demonstrate how to troubleshoot:
  - IP Layer Based Issues
  - Basic Application Issues
  - LTE related Issues
  - AP State Issues
- Identify Ruckus LTE CRBS Alarms and Documentation

*Est. duration (1.5 hour)*



*"I really appreciated the eLearning. It's easy to use and easy to come back to the needed information. Great!"*

*- Anonymous student*



## [\[ND6463\] ERA Overview](#)

### Overview

CommScope's ERA™ Solution is CommScope's new C-RAN platform. This platform is fully compatible with CommScope's ION-E platform. Both platforms can be combined within a single deployment, providing even more flexibility.

### Target Audience

Anyone who would like to learn about CommScope's new C-RAN platform, ERA™, and those who would like to take the instructor led certification course, [ND6460] ERA & ION-E Installation & Commissioning.

### Objectives

This ERA Overview video will provide:

- ERA™ Overview
- Deployment Examples
- System Modules
- CWDM Solution Overview

*Est. duration (27 mins)*



## [\[ND6464\] ERA RF Design](#)

### Overview

The video will explain the configuration of the ERA RF design templates.

### Target Audience

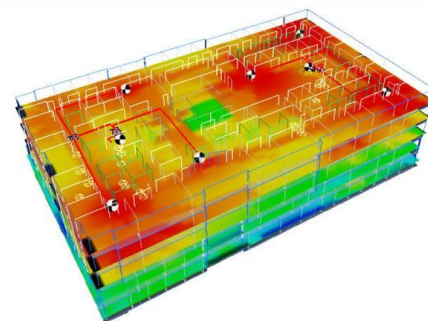
Any personnel/DAS engineer involved in using iBwave to design CommScope's ERA System.

### Objectives

Upon completion the learning will be able to:

- Describe the process of configuration of the ERA system and RF design
- Define how the design involves the CAN, SCAN, TEN, WIN, UAP and CAP L
- Identify Service Group Associations

*Est. duration (1 hour)*



## [ND6465] ERA Interleaved MIMO

### Overview

An alternative to co-located MIMO is CommScope ERA Interleaved or software defined MIMO. Interleaved MIMO, also known as I-MIMO, can provide near-full MIMO performance without the cost of additional cabling or equipment.

### Target Audience

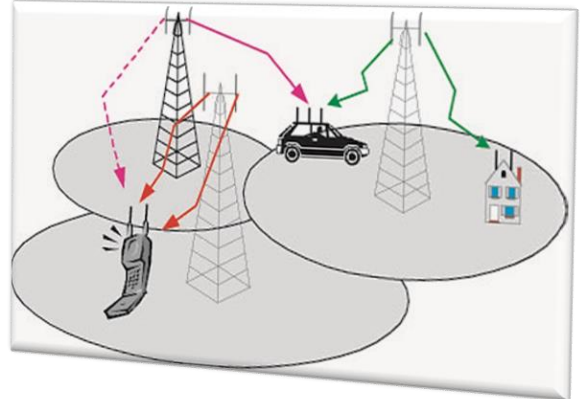
Any personnel/DAS engineer involved in using CommScope's ERA and ION-E Systems.

### Objectives

Upon completion the learning will be able to:

- Describe CommScope's ERA Interleaved or software defined MIMO.
- Define how I-MIMO can provide near-full MIMO performance without the cost of additional cabling or equipment

*Est. duration (1 hour)*



## [ND6468] ERA WCS Airflow

### Overview

This course describes the requirement for proper airflow for ERA WCS cabinets. Highlighting potential issues that can restrict airflow within WCS 2 & WCS 4 subracks and common solutions to resolve the issues.

### Target Audience

Any personnel/DAS engineer involved in using CommScope's ERA and ION-E Systems.

### Objectives

Topics Covered:

- Proper WCS Subrack Airflow
- Rack Mounting
- Cable Management
- Filler Panels
- Fan Units

*Est. duration (10 Mins)*



## [ND6479] Node A Repeater Systems

### Overview

This instructional video aims to educate the learner on CommScope's digital repeater system.

### Target Audience

Anyone involved with or interested in repeater applications.

### Objectives

The objectives of this instructional video are to have the student:

- Understand the guidelines of repeater applications.
- Have a clear picture of Node A repeater system architecture.
- Operate the Graphical User Interface to correctly set the Node A system parameters



*Est. duration (40 Mins)*

## [ND6500] Public Safety Repeater Installation, Configuration, Operations & Maintenance (UL2524)

### Overview

The Public Safety Repeaters (PSR 700/800) are designed to cover the 700 and 800 MHz public safety bands and comes in two variants, one is a digital, channelized Class A repeater and the second is an analogue Class B repeater. This course will cover the Installation, Commissioning, RF Optimization, and Troubleshooting of this solution for both the Class A and Class B repeaters.

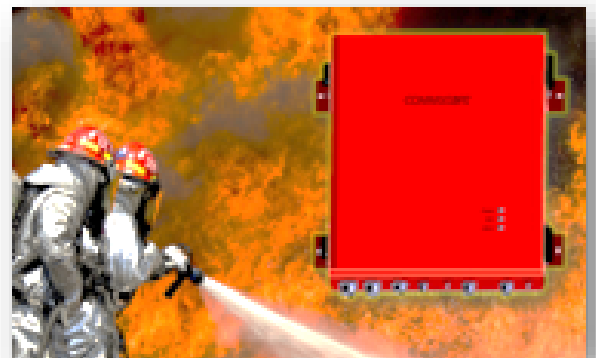
### Target Audience

Anyone involved with or interested in PSR repeater applications

### Objectives

- Upon completion of the course the learner will be able to:
- Understand basic Installation process
- Identify GUI activities associated with the PSR Commissioning & RF Optimization
- Understand the Troubleshooting process for both the Class A and Class B repeaters.

*Est. duration (40 mins)*



## [ND5100] AIMOS (Advanced Integrated Monitoring Operating System)

### Overview

This eLearning module is designed to introduce the learner to CommScope's AIMOS. It will provide the learner with fundamental knowledge of AIMOS. Additionally, the module will provide basic AIMOS terms and definitions to assist the learner with learning about AIMOS and its features.

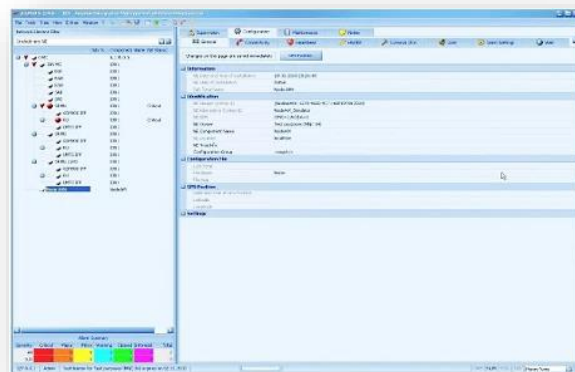
### Target Audience

Sales personnel, NOC personnel or anyone involved with AIMOS

### Objectives

- Upon completion of the course the learner will be able to:
- Describe the benefits of AIMOS.
- Describe the function of AIMOS.
- Describe the purpose of AIMOS.
- Understand the best practices in avoiding and testing PIM in DAS installations.

*Est. duration (35 mins)*



## [ND5101] Avoiding PIM in DAS Installation

### Overview

This eLearning provides the learner an overview of Passive Intermodulation (PIM) and its impact on DAS installation. It also covers CommScope's PIM calculation tool and best practices to avoid PIM in DAS installations.

### Target Audience

Anyone involved with DAS installation, commissioning, optimization & troubleshooting.

### Objectives

The objectives of this video for learners are to:

- Gain an understanding of PIM and how it affects DAS installations.
- Learn how to calculate PIM frequencies.

*Est. duration (28 mins)*



## [ND5102] Return Material Authorization (RMA) Process

### Overview

The purpose of this video is to make the Returns Process as efficient and painless as possible. The video will demonstrate how to successfully complete the Return process for defective and non-defective DAS and Small Cell products in warranty and non-warranty items.

### Target Audience

Anyone involved in return process for defective and non-defective DAS and Small Cell products in warranty and non-warranty items.

### Objectives

Upon completion the learning will be able to:

- Identify Defective vs Non-Defective
- Describe Process In-Warranty and Out-of-Warranty
- Identify and Contact Tech Support
- Obtain an RMA
- Identify roles within the RMA process
- Describe Packaging, Shipping, Turnaround Time and Invoicing Policy

Est. duration (30 Mins)



## [ND5103] Understanding dB and dBm

### Overview

This instructional video aims to educate the learner on the basic RF calculation terminology dB & dBm.

### Target Audience

Anyone involved in DAS design and commissioning.

### Objectives

The objectives of this instructional video are to:

- Describe the difference between dB and dBm.
- Provide examples of real-life calculations using dB and dBm.

Est. duration (12 mins)

dBm and mW conversion table			
dBm	mW	Power level	
+90	1000000000	1MW	
+80	100000000	100kW	
+70	10000000	10kW	
+60	1000000	1kW	
+50	100000	100W	
+40	10000	10W	
+30	1000	1W	
+20	100	.1W	
+10	10	.01W	
0	1	.001W, 1 mW	
-10	.1	.1mW	
-20	.01	.01mW	
-30	.001	.001mW	
-40	.0001	.0001mW	Very strong signal
-50	.00001	.00001mW	
-60	.000001	.000001mW	Good signal
-70	.0000001	.0000001mW	
-80	.00000001	.00000001mW	
-90	.000000001	.000000001mW	Typical noise floor

## [ND5104] Wireless & DAS 101

### Overview

This course provides a fundamental understanding of the increasing need for wireless coverage and capacity, the role of distributed antenna systems (DAS) to deliver wireless service, and CommScope products and their applications. It provides a foundation for the subsequent CommScope eLearning courses.

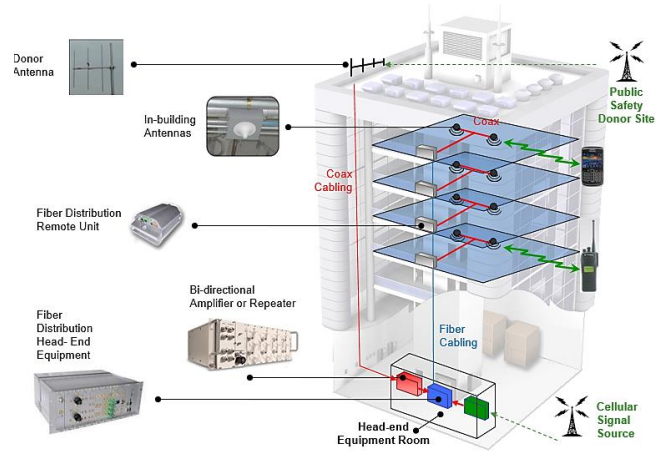
### Target Audience

Any person who would like to learn the fundamentals of wireless and active DAS.

### Objectives

- Provide an overview of wireless technology.
- Provide an overview of active DAS.

*Est. duration (30 Mins)*



## [ND6432] Introduction to ION-M

### Overview

This video provides the learner an overview of ION-M, one of CommScope’s high power DAS platforms.

### Target Audience

Wireless operators, and CommScope partners and System Integrators.

### Objectives

After studying this video, the student is expected to be able to:

- Understand the general architecture of an ION-M system.
- Determine how ION-M could be deployed in various applications.
- Understand the various optimization parameters available through the ION-M Graphical User Interface (GUI).

*Est. duration (40 Mins)*





## [\[ND6432\] ION-U Solution eLearning](#)

### Overview

This video provides the learner an overview of ION-U, one of CommScope's DAS platforms.

### Target Audience

Wireless operators, and CommScope partners and System Integrators.

### Objectives

After studying this video, the student is expected to be able to:

- Understand the Architecture, Components and Connections for the ION-U system.
- Determine the routing of subrack cabling, subrack controller options, ethernet vs. bus communications, rules of subrack addressing and cabling.
- Understand the ideal DAS deployment process.



*Est. duration (40 Mins)*

## [\[ND4111\] ION-B System Operations and Commissioning Overview](#)

### Overview

This eLearning training flow is designed to provide an overview of the basic Operations and Commissioning tasks for the ION-B system.

### Target Audience

Wireless operators, and CommScope partners and System Integrators.

### Objectives

After studying this video, the student is expected to be able to:

- Understand the overall ION-B System Architecture.
- Navigate the ION-B Graphical User Interface (GUI).
- Describe the ION-B Commissioning Process.
- Recognize common ION-B issues and the process to resolve them.



*Est. duration (3 Hours)*

## Instructor-Led Training

CommScope’s DAS and Small Cell instructor-led courses offer students in class training that typically runs from 1 to 2 days. Our instructor-led courses are offered virtually, via online training platforms, or at the CommScope training center in Richardson, TX (USA). The installation and commissioning certification training courses include PowerPoint presentations, hands-on exercises covering equipment configuration and GUI (Graphical User Interface) operations. Any certified training can be requested as private training for groups of 8 max individuals and will be quoted on an individual basis. For more information on private training, see [Private Training Sessions](#).

 <b>North American Region Courses \ Audience</b>		Installation & Commissioning	System Operations	System Engineering	Project Management
<b>Instructor Led Training – Delivered Virtual and In-Classroom</b>					
ND6460	ERA Installation & Commissioning (2 Days)	X			X
ND6462	ERA Technical Solution Overview (1 Day)	X	X	X	X
ND6467	ERA Operation & Maintenance (1 Day)		X	X	X
ND7110	OneCell Technical Solution Overview (1/2 Day)	X	X	X	X
ND7122	OneCell as a Coverage Solution - Installation & Commissioning (1/2 Day)	X			X
ND7125	OneCell as a Signal Source - Installation & Commissioning (1/2 Day)	X			X
ND7130	OneCell as a Coverage Solution - System Design (1/2 Day)		X	X	X
ND7135	OneCell as a Signal Source - System Design (1/2 Day)		X	X	X

### Certification

Upon completion of a certification course the learner will receive a 2-year certificate. Once the certification expires, the student may recertify by completing either the eLearning recertification course to receive an additional year of certification or by completing the ILT certification course to receive an additional 2 years of certification.



## [\[ND6460\] ERA Installation & Commissioning](#)

### Overview

This 2-day **Certification** course is designed to enable learners to install and commission an ERA system. This is an instructor led classroom course that includes PowerPoint presentations and hands-on exercises.

### Target Audience & Class Size

All CommScope partners directly involved in the installation and commissioning of an ERA system. The class min/max size is 4/8.

### Objectives

Upon completing this ILT course, students will verify they're able to:

- Define CommScope's ERA system components, specifications and architecture
- Demonstrate how correctly install an ERA system to prepare the system ready for commissioning
- Properly commission an ERA system in a lab environment



### Certification

Upon completion the student will receive a 2-year ERA Installation & Commissioning certificate. If you need to recertify on ERA Installation & Commissioning, see the [Recertification](#) section in this document.

## [ND6462] ERA Technical Solution Overview

### Overview

This 1/2 day course will provide a detailed summary of the ERA Solution. It highlights the benefits of implementing the solution, the system components and connectivity requirements. This is an instructor-led course that includes a PowerPoint presentation along with live GUI demonstrations.

### Target Audience & Class Size

This course is designed for management and technical support personnel needing a more in-depth understanding of the ERA Solution. The class min/max size is 6/15.

### Objectives

Upon completing this ILT course, students will be able to:

- Understand and define common terminology regarding the ERA system
- Explain the possible different architectures of the ERA system
- Explain the purpose and function of the major components
- Identify the major signal paths through an ERA system
- Identify Graphical Users Interface Uses

*"Your visual assisted training was exceptional compared to other DAS training provided. The pace and quantity of content was just right for my desired learning."*

Anonymous student

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## [\[ND6467\] ERA Operation and Maintenance](#)

### Overview

This 1-day **Certification** course is designed to enable learners to operate, troubleshoot and maintain an ERA system. This is an instructor led classroom course that includes PowerPoint presentations along with live GUI sessions.

### Target Audience & Class Size

All CommScope partners directly involved in the operations and maintenance of an ERA system. The class min/max size is 4/8.

### Objectives

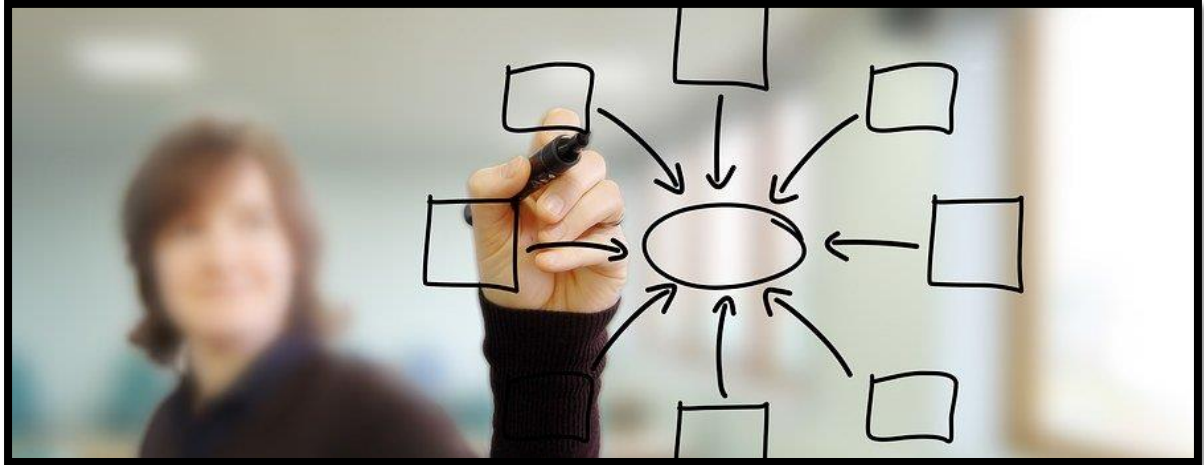
Upon completing this ILT course, students will verify they're able to:

- Understand and define common terminology regarding the ERA system
- Explain the possible different architectures of the ERA system
- Explain the purpose and function of the major components
- Explain the major signal paths through an ERA system
- Use the Graphical Users Interface to troubleshoot common alarms
- Identify how to resolve alarms using CommScope documentation



### Certification

Upon completion the student will receive a 2-year ERA Installation & Commissioning certificate. If you need to recertify on ERA Operation and Maintenance, see the [Re-Certification](#) section in this document.



*"The instructor did an excellent job of gauging my level of understanding and would use analogies to convey the subject matter. I have been removed from the technical aspect of DAS and I appreciated that."*

- Anonymous Student

## [\[ND7110\] OneCell Technical Solution Overview](#)

### Overview

The ½ day course will provide a detailed summary of the OneCell Solution. It highlights the benefits of implementing the solution, the system components and connectivity requirements. The course also provides an overview of the system installation, configuration, monitoring and performance management processes.

### Target Audience & Class Size

This course is designed for management and technical support personnel needing a more in-depth understanding of the OneCell Solution. The class min/max size is 6/15.

### Objectives

Upon completion the learning will be able to:

- Describe the OneCell Solution.
- Identify the different hardware units that comprise a OneCell system.
- Define the basic connectivity requirements for the system.
- Describe the basic process of installing and configuration the hardware units.
- Describe the elements used to execute system monitoring and performance management.



## [\[ND7122\] OneCell as a Coverage Solution Installation and Commissioning](#)

### Overview

This ½ day **Certification** course is designed to enable students to perform the installation and commissioning of a OneCell Coverage Solution. Includes detailed installation instructions for Baseband Controller and Radio Points hardware, planning the installation, performing the physical install, configuring, commissioning the installed equipment to an in-service state and performing the system operational verification tests.

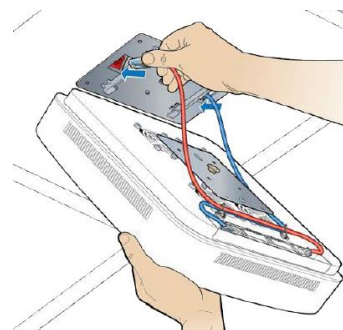
### Target Audience & Class Size

All CommScope partners and any integrators that need to be certified in the installation and commissioning of a OneCell Solution. The class min/max size is 4/8.

### Objectives

Upon completion the learning will be able to:

- Describe the OneCell System Architecture.
- Identify the different hardware units that comprise a OneCell system.
- Define the process and requirements for installing OneCell system components.
- Identify the process of installing and commissioning the OneCell hardware units and system.



## [\[ND7125\] OneCell as a Signal Source Installation and Commissioning](#)

### Overview

This ½ day **Certification** course is designed to enable students to perform the installation and commissioning of a OneCell as a Signal Source Solution. Includes detailed installation instructions for Baseband Controller and Radio Points hardware, planning the installation, performing the physical install, configuring, commissioning the installed equipment to an in-service state and performing the system operational verification tests.

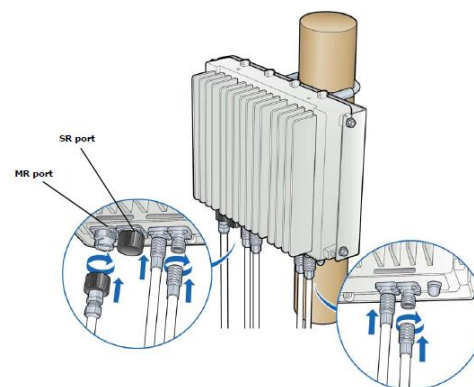
### Target Audience & Class Size

All CommScope partners and any integrators that need to be certified in the installation and commissioning of a OneCell Solution. The class min/max size is 4/8.

### Objectives

Upon completion the learning will be able to:

- Describe the OneCell System Architecture.
- Identify the different hardware units that comprise a OneCell system.
- Define the process and requirements for installing OneCell system components.
- Identify the process of installing and commissioning the OneCell hardware units and system.



## [ND7130] OneCell as a Coverage Solution - System Design

### Overview

This ½ day **Certification** course is designed to train students to design and engineer a OneCell as a Coverage Solution system by determining the number and location of the Baseband Controller(s) and Radio Points and for optimal performance, along with the determining the associated backhaul and fronthaul requirements and equipment.

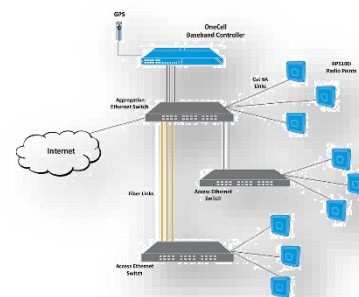
### Target Audience & Class Size

All CommScope partners and any integrators that are involved with performing a OneCell as a Coverage Solution system design solution. The class min/max size is 4/8.

### Objectives

Upon completion the learning will be able to:

- Determine the number and location of the Baseband Controller(s)
- Determining the number of Radio Points and placement for optimal performance
- Identify the different hardware units the comprise a OneCell system.
- Define the process and requirements for installing OneCell system components.
- Identify the process of installing and commissioning the OneCell hardware units and system.



## [ND7135] OneCell as a Signal Source - System Design

### Overview

This ½ day **Certification** course is designed to train students to design and engineer a OneCell as a Signal Source system by determining the number and location of the Baseband Controller(s) and Radio Points and for optimal performance, along with the determining the associated backhaul and fronthaul requirements and equipment.

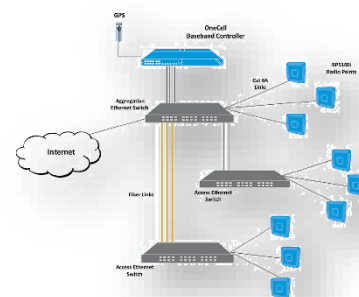
### Target Audience & Class Size

All CommScope partners and any integrators that are involved with performing a OneCell as a Signal Source system design solution. The class min/max size is 4/8.

### Objectives

Upon completion the learning will be able to:

- Determine the number and location of the Baseband Controller(s)
- Determining the number of Radio Points and placement for optimal performance
- Identify the different hardware units the comprise a OneCell system.
- Define the process and requirements for installing OneCell system components.
- Identify the process of installing and commissioning the OneCell hardware units and system.





## [ND5111] AIMOS Technical Solution Overview

### Overview

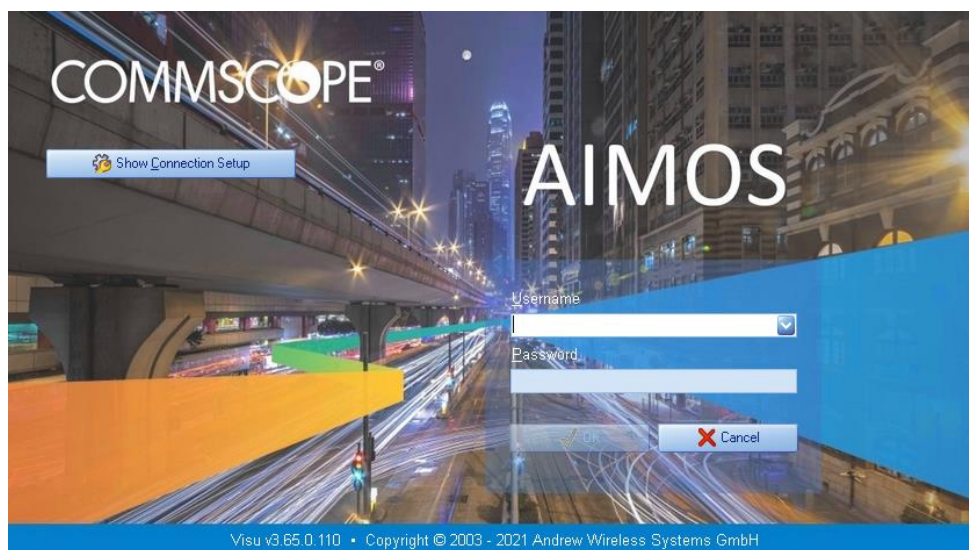
This 1/2 day course is designed to enable students to perform, network operation from AIMOS visualization.

### Target Audience & Class Size

All CommScope partners and NOC engineers involved with or need a detail understanding of AIMOS operation. The class min/max size is 4/8.

### Curriculum

- Explain the basic AIMOS architecture/structure
- Explain the communication principle between Repeater and AIMOS
- AIMOS GUI usage
- Integrate DAS/Repeater into AIMOS
- Login DAS system with AIMOS and perform basic operations
- Interpret incoming alarms
- Fault management
- Configuration management
- Performance management
- Network Element Management



## Re-Certification

Re-Certification on a product can be completed in two ways, either by taking the original Instructor Led certification course again and receiving a new 2-year certification, or by completing our eLearning recertification courses (listed below) and receiving a new 1-year certification. The eLearning recertification course is a self-paced option, enabling the student to complete eLearning learning modules and instructional videos at their own pace, which is followed by a course exam. When a student successfully completes the eLearning re-certification option, they will be recertified for 1 year. After the 1-year re-certification expires, and they want to recertify again, they are required to attend the instructor led certification course and will receive an additional 2 years of certification. \*Note the eLearning re-certification course must be taken within 1 month of certification expiration.

### [ND6469] ERA Installation & Commissioning (Re-Certification)

#### Overview

This eLearning **Re-Certification** training course allows those who have completed the [ND6460] ERA Installation & Commissioning course to recertify their certification for 1 year before having to attend a classroom certification course.

#### Pre-requisites

Successful completion of [ND6460] ERA Installation & Commissioning.

#### Target Audience

Any personnel who have successfully completed CommScope's [ND6460] ERA Installation & Commissioning course.

#### Objective

This eLearning training course is designed to recertify the student's ability to design, install and commission CommScope's ERA DAS solutions. The student must complete the eLearning training modules and pass the course exam.

#### Certification

Upon completion of the eLearning recertification course the student will receive a 1-year ERA Installation & Commissioning certification. After the 1-year certification has expired, the student must attend the instructor led certification course to maintain active certification for the product.



## [\[ND6466\] ERA Operation & Maintenance \(Re-Certification\)](#)

### Overview

This eLearning **Re-Certification** training course allows those who have completed the [ND6467] ERA Operation & Maintenance course to recertify their certification for 1 year before having to attend a classroom certification course.

### Pre-requisites

Successful completion of [ND6467] ERA Operation & Maintenance.

### Target Audience

Any personnel who have successfully completed CommScope's [ND6467] ERA Operation & Maintenance course.

### Objective

This eLearning training course is designed to recertify the student's ability to operate, troubleshoot and maintain an ERA system. The student must complete the eLearning training modules and pass the course exam.

### Certification

Upon completion of the eLearning recertification course the student will receive a 1-year ERA Installation & Commissioning certification. After the 1-year certification has expired, the student must attend the instructor led certification course to maintain active certification for the product.

## Legacy Product Support

If there is a need for training on legacy products, such as Prism, ION-B, ION-M and ION-U, we can assist you with that. You'll need to submit an email request to [icn\\_training@commscope.com](mailto:icn_training@commscope.com), and in the request please identify the product type, specific training need (i.e. Operations, Maintenance, etc.), the number of personal that need the training and the desired timeframe for delivery of the training. We will evaluate the request and reply with potential options to address your needs. Regarding the timeframe for delivery, there will normally be a minimum of 60 days required, from the time the desired training is agreed upon, to the delivery date of the actual training session.

<b>Legacy Product Training Areas</b>
<b>ION-M Installation &amp; Commissioning</b>
<b>ION-M Operation &amp; Maintenance</b>
<b>ION-U Installation &amp; Commissioning</b>
<b>ION-U Operation &amp; Maintenance</b>
<b>Prism Installation &amp; Commissioning</b>
<b>ION-B Operation &amp; Maintenance</b>
<b>Node A+/AM Installation, Commissioning &amp; Maintenance</b>

## Discontinued Courses

The following training courses have been discontinued and will no longer be available on CommScope University as eLearning or scheduled for Instructor Led delivery. Where applicable an alternative course is listed in the table.

<b>Discontinued Courses</b>	<b>Status/Alternative Course</b>
<b>ND4110 Introduction to ION-B</b>	<b>ND4111 ION-B System Operations and Commissioning Overview</b>
<b>ION-E iBwave Template Configuration</b>	<b>ND6464 ERA RF Design</b>
<b>ND6458 ERA Installation</b>	<b>ND6460 ERA Installation &amp; Commissioning</b>
<b>ND6459 ERA Commissioning</b>	<b>ND6460 ERA Installation &amp; Commissioning</b>
<b>ND7120 OneCell On-Site Installation</b>	<b>ND7122 OneCell On-Site Installation &amp; Commissioning</b>
<b>ND7121 OneCell On-Site Commissioning</b>	<b>ND7122 OneCell On-Site Installation &amp; Commissioning</b>
<b>ION-E Solution (eLearning)</b>	<b>ND6463 ERA Overview</b>
<b>ION-U Solution (eLearning)</b>	<b>Discontinued</b>

## Webinars

CommScope regularly offers webinars on various topics that are often recorded and posted to our learning management system to be viewed for convenience or future reference. Please contact us to inquire about or request other topics. Mobility Solutions Training webinars can be requested via email and will be reviewed on a case to case basis. To request a webinar, you can email a request to [icn\\_training@commscope.com](mailto:icn_training@commscope.com).



## Cancellation and No-Show Policy

CommScope's DAS and Small Cell Training will adhere to the following cancellation policy regarding all training courses. By registering for any course, you acknowledge that you agree and consent to the terms of this cancellation policy. CommScope is not responsible for any losses that may be incurred due to a failure to abide by this cancellation policy.

**ALL CANCELLATIONS MUST BE SENT IN WRITING TO:** [icn\\_training@commscope.com](mailto:icn_training@commscope.com).

### ***E-Learning Training Cancellation Policy:***

The following policy shall apply to CommScope's DAS and Small Cell Training E-Learning Training classes. Credit Card payments will be charged upon registration for the class.

Cancellation requests must be made in writing by emailing [icn\\_training@commscope.com](mailto:icn_training@commscope.com) Except for the issuance of a voucher to a participant in the limited circumstances as provided below, CommScope shall not be responsible for any loss incurred by the participant as a result of cancellation.

Cancellation requests must be made within 48 hours of course registration, if none of the course materials have been accessed. Cancellations that meets these criteria will be issued a voucher\* equal to the amount that the participant paid for the current registered e-learning course. This voucher may be applied toward a future e-learning training course offered through CommScope's DAS and Small Cell Training Training site. This voucher must be used within one (1) year of the original registration date. No vouchers will be honored after such one (1) year period.

\* Vouchers are the customary method of resolving cancellations within the policy time period noted above. Alternatively, a participant eligible for a voucher can request for approval for a credit card refund of the amount paid by the participant for the current registered class, and CommScope shall determine in its sole discretion whether to grant approval. Such requests for refunds must be sent to [icn\\_training@commscope.com](mailto:icn_training@commscope.com).

### ***Instructor-Led Training Cancellation and No-Show Policy:***

The following policy shall apply to CommScope's DAS and Small Cell Training Instructor-Led Training classes. Credit Card payments will be charged upon registration for the class. If you wish to cancel or reschedule a class for which you have registered and been confirmed for in writing, we will try to accommodate your request, subject to the Cancellation Policy. Except for the issuance of a voucher or a refund to a participant in the specific, limited circumstances as provided below, CommScope shall not be responsible for any loss incurred by the participant as a result of cancellation.

<b>Table 1 - Instructor-Led Training Cancellation and No-Show Policy</b>		
<b>Policy Area</b>	<b>Timing</b>	<b>Action</b>
Participant Cancels	10 days or more from scheduled training class	CommScope will issue a voucher* equal to the amount paid for the current registered class to apply toward a future in-person training offered through the CommScope DAS and Small Cell Training site. This voucher must be used within one (1) year of the original class date. No vouchers will be honored after such one (1) year period.
	9 days or less from scheduled training class	No voucher or refunds will be made for cancellations within nine days of the scheduled training date.
No Shows		No vouchers or refunds will be made for “No Shows” (a “No Show” is a person who registers for the training but does not cancel or attend the training class).
CommScope Cancels Class		If a training class that participant is registered for is cancelled by CommScope due to circumstances beyond its reasonable control (e.g. minimum class size requirements not met, weather, natural disasters, etc.) and participant chooses not to reschedule such training class, CommScope will issue a refund equal to the amount paid for such registered class.  CommScope also reserves the right to cancel registrations of its competitors, and no refund or voucher will be issued in such situation.
Private Training Cancellations by Requestor	20 days or more from scheduled training class	All unrecoverable expenses will be deducted by CommScope from any payment received prior to reimbursement.
Private Training Cancellations by Requestor	20 days or less from scheduled training class	This will be reviewed by CommScope and any unrecoverable expenses will be deducted by CommScope from any payment received.
Substitutions for another student are allowed with at least 24-hour notice prior to the class start date.		
* Vouchers are the customary method of resolving cancellations within the policy time period noted above. Alternatively, a participant eligible for a voucher can request approval for a credit card refund of the amount paid by the participant for the current registered class, and CommScope shall determine in its sole discretion whether to grant approval. Such requests for refunds must be sent to <a href="mailto:icn_training@commscope.com">icn_training@commscope.com</a>		

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## Contact Us



*Got questions on training programs or course pricing? We're here to help!*

### **DAS and Small Cell Training – 8am-5pm CST (Mon-Fri)**

- Email: [icn\\_training@commscope.com](mailto:icn_training@commscope.com)
- Website: [DAS and Small Cell Training](#)

*Got questions on product support? We've got you covered!*

### **DAS and Small Cell Technical Support – 24/7**

- Website: [www.commscope.com/wisupport](http://www.commscope.com/wisupport)
- Phone: [1-888-297-6433](tel:1-888-297-6433)



# Our 5G Vision and Initiatives

COMMScope®



COMMScope®