COMMSCOPE®



Guide to Technical Services ARRIS Products Access Network Solutions and Home Networks April 2023

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Contacts

We are happy to provide support for your CommScope products from these two CommScope divisions:

- Access Network Solutions (formerly Broadband Networks)
- Home Networks

To review support information related to each CommScope division, visit the following pages:

- Access Network Solutions Support
- Home Networks Support

Please have your service-level agreement ID ready before you contact us. If you do not know your ID, please call your sales representative or CommScope TAC.

Access Network Solutions

Products include: Advertising, CherryPicker, ME-7000, Conditional Access, Content Manager, Digital Satellite Receivers, CMTS, Remote MACPHY Devices (RMD), Remote PHY Devices (RPD), RF Optics, Passive Optical Networks (PON), ServAssure, Uplink, Video On Demand, Optical Hubs, Nodes, and Passives.

Here are some important links to get you started:

- Manage cases: My Support (web portal)
 For detailed instructions, review the My Support User Guide.
- Access entitled product documentation: Technical Content Portal
 Make sure you log in with your My CommScope account to access entitled content.
- Open a case:
 - Sev 3-4 case: Go to My Support, email TAC.Helpdesk@commscope.com, or contact us via Live Chat
 - Sev 1-2 case: Call the CommScope TAC at
 - +1-215-323-2345 or +1-888-944-4357
 - +1-215-323-2346 (Spanish)
 (Spanish available M-F 8AM-5PM ET. Translation services available outside of those hours)
 - International support is available via phone or email during local business hours
 - TechSupport.Europe@CommScope.com
 - TechSupport.CALA@CommScope.com
 - TechSupport.Asia@CommScope.com

• Open an RMA:

Please download the RMA Request Form, complete it, and email it to TAC.Helpdesk@commscope.com. You may also request an RMA by calling the CommScope TAC.

- **Technical Support Escalation:** Call the CommScope TAC for escalation contacts.
- Repair Escalation
 - o Level 1

Americas-EMEA Mostafa Badry mostafa.badry@commscope.com +1 978-760-2549

APAC Gary Tang gary.tang@commscope.com +852 9400 8017

o Level 2

Gary Pieters
Gary.Pieters@commscope.com
+1-219-670-1452

o Level 3

Scott Bojanoski Scott.Bojanoski@commscope.com +1 815-210-1919

Home Networks

Products include: CPE Devices (modems, gateways, and set-top products) and CPE-related software (ECO, EDGE, Andromeda, and KreaTV)

Here are some important links to get you started:

- Manage cases and access product documentation: AskARRIS (web portal)
 For detailed instructions, review the AskARRIS user guide.
- Open a case:
 - Sev 3-4 case: go to AskARRIS
 - Sev 1-2 case: call the CommScope TAC at
 - +1-215-323-2345 or +1-888-944-4357
 - +1-215-323-2346 (Spanish)
 (Spanish available M-F 8AM-5PM ET. Translation services available outside of those hours)

Open an RMA:

CPE repair is provided by our Authorized Service Centers (ASCs). To find an ASC in your area, call the CommScope TAC.

• E-mail contacts:

Provider Group	Products	Email Address
Home Broadband	Touchstone, Surfboard, NVG w/o ECO, Extenders, HAv3, Plume, Asia	homebroadbandsupport@commscope.com
HomeAssure Support	ECO, Edge, Andromeda	homeassuresupport@commscope.com
Home Media Devices	IP STB and QAM STB (except those supported by LTTS)	homemediadevicesupport@commscope.com
Home Media Software	KreaTV	homemedias of twa resupport@commscope.com

Technical Support Escalation:

o Level 1

Home Media Devices & Spanish Language escalations

Victor Reyes – Sr. Manager +56 9 9434 7477 (mobile) Victor.Reyes@CommScope.com

DOCSIS CPE & NVG products without ECO

Marshall Leathers – Manager +1 404 822 6077 (mobile)

Marshall.Leathers@CommScope.com

Home Assurance Software and NVG with ECO

Ismael Perez Garcia – Manager +34 650 514 211(mobile) Ismael.PerezGarcia@CommScope.com

o Level 2

Andy Bergquist – Sr. Director +1 678-986-3585 (mobile) Andy.Bergquist@CommScope.com

o Level 3

Chris Kohler – Vice President, Engineering +1 678-473-8480 (office) Chris.Kohler@CommScope.com

• Customer Premise Equipment (CPE) Repair

For CPE repair services, CommScope uses ASCs (Authorized Service Centers) for both in and out of warranty repairs. In addition, customers may work directly with the CommScope CPE ASCs for Clean & Screen, Cosmetic Refurbishment, Kitting, and Logistics services.

For Repair Partner information and our CommScope CPE Repair Guide, please contact TAC:

- o **Email:** TAC.Helpdesk@commscope.com
- o Call:
 - +1-215-323-2345
 - +1-215-323-2346 (Spanish) (available M-F 8A-5P ET. Translation services available outside of those hours) or
 - +1-888-944-4357

• Repair Escalation

o Level 1

EMEA

Rob Hawlor Rob.Hawlor@commscope.com +44 079 433 091 00

APAC

Pramod Mahadevan Pramod.Mahadevan@commscope.com +91 806 773 830 9

Americas

Chris VanNeyghem chris.vanneyghem@commscope.com +55-11-96452-0798

o Level 2

Americas Ryan Walker ryan.walker@commscope.com +1 847 833 4251

EMEA & APAC

Fatefor Ali (Rocky) Ruf Fateforali.Ruf@commscope.com +44 1274-538113

o Level 3

Mark Walther
Mark.Walther@commscope.com
+1 847-372-5503

CPE Support

To obtain technical support for CPE devices, you must have a Technical Support contract.

Accessing Android and OTT STB Support

Unless you are experiencing an obvious CommScope hardware platform issue, please open a case with the application provider (APK) before opening a case with CommScope. The APK will triage the issue and re-assign it to CommScope if it believes there is a CommScope hardware platform issue.

If you have an active technical support contract, your case will be forwarded to the proper support team. The escalated team will respond during CommScope US Business Day hours, after confirming case has been opened with the APK.

The following services are NOT included in the technical support contract or in the sale of the product, but may be quoted upon request:

Managed network operations

- "level 0 or Tier 1 support"
- Assisted Operations
- Triage Services
- CPE System Integration and/or Software Maintenance of integrated CPE
- Master SI services for end-to-end customer experience solution
- Transition services
- Life Cycle Management
- Training

Chapter 2

CommScope Technical Services

CommScope Technical Services presents this *Guide* as a reference to help you take full advantage of the services provided by our team, including:

Service-Level Agreements

- Technical Support and software maintenance contracts
- Hardware repair and replacement contracts

Repair Services

• Repair and replacement services

Knowledge Services

- Training
- Product documentation

Chapter 3

Definitions

"Technical Support" or **"CommScope"** means CommScope Technical Support engineers and/or its designated affiliates in any CommScope location.

"Business Days" means Monday through Friday local time, except for local CommScope-observed holidays.

"Non-Business Days" means Saturdays, Sundays, and local CommScope-observed holidays.

"Customer Induced Damage" or "CID" /or "Force Majeure" means damage including, but not limited to: lightning damage, infestation, liquid damage, abuse, corrosion, damage due to the environment, any tampering done to enhance or repair the unit by an unauthorized person including the customer, or any other exclusion described in the Guide to Technical Services. CID may also be defined as an action taken by the customer that results in issues if 1) the customer has been provided with a quote for CommScope to perform such action, or 2) the customer has received advice or a recommendation from CommScope not to proceed with the action.

"Customer Premise Equipment" or "CPE" refers to a Product group used at a consumer's site such as a modem, set-top box, wireless gateway, or any other device located at an end-customer's site.

"Dead-on-Arrival" or "DoA" refers to a new hardware unit that fails within 30 days of shipment from CommScope.

"Generally Available" or "GA" refers to a software or firmware release that has been made available to all customers.

"Hardware" means either equipment designed and manufactured by CommScope or other manufacturer's equipment offered for sale by CommScope to customers.

"No Problem Found" or "NPF" refers to devices received for replacement that are found to be in good working order.

"Product" is any combination of CommScope hardware and/or software products, sold to customers by CommScope, CommScope subsidiaries, or authorized resellers of CommScope. Products produced by CommScope but not sold by CommScope or its authorized subsidiaries or resellers are not covered by this *Guide*.

"Product Documentation" is the documentation that CommScope deems necessary for successful use of a CommScope Product. Product documentation can be included with a software build, delivered via download from our customer website, or made available in electronic format on CD-ROM in limited instances.

"Root Cause Analysis" or "RCA" is the CommScope ISO process used to understand the cause of a S1 Critical issue. Prerequisites for RCAs include an S1 case having been opened by the customer within one (1) hour of issue occurrence, remote access to the customer network within that initial hour, customer provision of logs and/or captures relating to the issue, CommScope's receipt of affected hardware, and other data as requested by CommScope. RCAs cannot be performed if all

the required data and equipment is not made available or if the issue cannot be reproduced. For some issues, no root cause can be determined. RCAs are provided on agreement between CommScope and the customer—using CommScope ISO FRM0087 only—that the effort is necessary.

"Request for Feature" or "RFF" is a request for a specific feature/functionality to be added to the Product that is captured in a Severity 4 case and provided to the product line manager for that Product.

"Returned Material Authorization" or "RMA" is the number and document assigned to an item slated to be returned to CommScope for repair or replacement. All materials returned from the field must be issued an RMA (Return Material Authorization) number.

"Response Time*" starts when your communication is answered and a Technical Support case is opened, which is documented in the CommScope case system.

"Restore Time*" starts when a case is opened and ends when CommScope has provided the technical information which, when implemented, will restore the CommScope Product to a reasonably satisfactory, usable level of functionality.

"Service-level Agreement" or "SLA" means this document, or another set of mutually agreed terms and conditions that explains the service CommScope provides to you for an annual fee. A service-level agreement may include Technical Support, and/or hardware replacement parts, and/or GA software. CommScope service-level agreements specifically exclude custom-designed software, optional software that is priced separately, and/or "keyed" firmware and software, as well as the installation of software.

"Service-level Agreement ID" is the 4- or 5-digit number you use to open a case with CommScope.

"Software" means CommScope-licensed, released, GA software, including any updates provided, and any other enhancements, modifications, and bug fixes provided thereto, in object code form only, and any full or partial copies thereof, licensed by CommScope for use solely in conjunction with the covered products.

"Software Update" or "Minor Release" means a released, GA version of Software that embodies a consistent set of corrections of errors, maintenance or emergency (bug fixes), or modifications and minor features released by CommScope to resolve a CommScope product defect that is impacting ongoing business operations. A minor release is generally expressed as the number to the right of the decimal point. Other modifications, improvements, and bug fixes are generally designated with numbers and letters further to the right.

"Software Upgrade" or "Major Release" or "New Feature Software Release" by CommScope means a released, GA version of Software that embodies a consistent set of features and functional enhancements which are not custom-designed software, optional software that is priced separately, and/or "keyed" firmware and software. A major release is generally expressed as the number to the left of the decimal point.

"Technical Assistance Center" or "TAC" is composed of CommScope personnel who verify your Service-level Agreement entitlement and direct you to the correct Technical Support team for your Product family.

"Third-Party Products" means software, hardware, or services that are procured or provided by a third-party and may be part of a CommScope-developed custom solution. Any support for third-party products must be specifically covered via a Statement of Work negotiated with CommScope Professional Services for a customized solution or via a CommScope service-level agreement quote

for standalone third-party products. Third-party products that are embedded in CommScope products are covered under the applicable CommScope service-level agreement, unless they are separately licensed or explicitly excluded.

*Not applicable to the services provided under this Guide for your lab testing environments.

Chapter 4

Service-Level Agreement

CommScope offers one or more fee-based services for each of its products, generally including Technical Support, Software Services, Repair Services (including Advanced Replacement), and Knowledge Services. A valid, fee-based Service-Level Agreement (SLA) is required to access the services per the terms of this *Guide*.

The services offered for each CommScope product are unique and subject to change.

Your purchase order for services means you accept the terms and conditions of this *Guide* as your Service-Level Agreement for the indicated products. If you need a signed document for your internal business purposes, CommScope is happy to fully-execute this *Guide*.

Please contact your sales representative for more information.

Using Your Service-Level Agreement

Each of your CommScope SLAs has an ID number that allows you to access CommScope services. Be sure to keep this data handy and provide it only to authorized personnel within your company.

Changing Your Service-Level Agreement

If you want to decline service or request a change in your SLA, including changes to the asset base, you must provide us with written notice 30 days prior to SLA expiration. If you do not, you will owe CommScope for at least one calendar quarter of service as quoted. Any mutually-agreed changes to your SLA will take effect in the second quarter.

If Your Service-Level Agreement Has Lapsed

To renew your SLA, please contact your sales representative. No technical support will be provided without a current agreement in place.

If you choose to reactivate your SLA after termination or lapse, the following rules apply:

- All previously-issued quotes are invalid. A new renewal quote will be issued at your request.
- Any new service-level agreement purchased will be quoted from the date the previous service-level agreement ended.
- No system work or recovery will begin until a new SLA is in place.

Signature Page

This <i>Guide</i> to Technical Services (" <i>Guide</i> ") is	•				
business at					
country], or the CommScope affiliate issuing	the applicable binding quotation ("CommScope") and				
business at	[Customer's address and country]				
("Customer").					
This <i>Guide</i> will serve as CommScope Service indicated below.	Level Agreement for the CommScope products				
CommScope Product:					
Technical Support Entitlement:					
Software Entitlement:					
Hardware Replacement Entitlement:					
This <i>Guide</i> shall apply for the term of the init and any additional renewal purchase order (tial purchase order received by CommScope ("Term") ("Renewal Term").				
Customer Representative	CommScope Representative				
Customer Signature	CommScope Signature				
 Date	 Date				

Technical Support

The CommScope Technical Support team is made up of experienced engineers located around the world who can provide you with top-quality technical support. CommScope technical support engineers are available 24x7x365 via phone for outages and emergencies. All other issues are handled during normal Business Day hours.



Overview of Technical Support Services

Technical Support Services provided under a Service-level Agreement include:

- Access to web-based knowledge base, ticketing, and RMA portals
- 24x7x365 telephone support for S1 and S2 issues (outages and emergencies) on production equipment. Available 24x7x365 in English with translation services on-call.
- Telephone and e-mail support during normal Business Day hours for S3 and S4 issues on production equipment and for lab issues.
- Access to technical and field bulletins, release notes, letters of consideration, and product documentation.

Technical Support Services provided under a Service-level Agreement exclude:

• Support for products not sold by CommScope, including third-party products, unless specifically called out in a CommScope support quote.

- Support for multi-product solutions, unless a "solution" support contract has been purchased. Refer to the CommScope Product Support and CommScope Solution Support sections of this document.
- System integration services.
- Support for custom-developed software, unless a "custom-developed software" support contract has been purchased.
- Support for hardware products after end-of-support life has been reached.
- Support for software product releases earlier than N-2.
- Electrical work external to CommScope products or maintenance of accessories, alterations, attachments, or other devices not sold by CommScope.
- Issues resulting from your neglect, abuse, or intentional misuse of CommScope products.
- Issues resulting from improper wiring, repairing, splicing, alteration, installation, storage, or maintenance of CommScope products by you or third parties contracted by you.
- CommScope products modified by anyone other than: (A) CommScope, its employees, agents, representatives, or contractors; or (B) you (or third parties contracted by you).
- Training services or classes.
- Product installation services (hardware and/or software).
- Software upgrade services (both remote and on-site).
- DAC code downloads.
- Support for problems resulting from manipulation of the DAC, RADD, or CASMR
 database, including problems with or corruption of the database caused by customerdeveloped scripts, front-end applications, or direct operator command line execution
 by you or a third-party vendor contracted by you. Examples include update, insert, and
 delete statements issued by an operator or script, as well as the addition or removal of
 tables.
- Support for issues caused using backup and restoration procedures not approved by CommScope.
- CET (Category Epoch Transition) services.
- Staff augmentation.
- Moving, adding, or configuring (hardware and/or software).
- Remote monitoring.
- Asset count and/or inventory management.
- Advanced replacement of customer hardware. Customers are responsible for purchasing and managing adequate spares to meet their internally defined business requirements.
- Customer-initiated configuration changes and/or reconfigurations.

Please note that you will be charged a service fee for any "back-out" or emergency support provided to restore services impaired because of projects you execute without CommScope' knowledge

and/or support (upgrades, splits, etc.). Services outside the scope of the Service-level Agreement or for equipment that is not covered under an agreement may be quoted separately.

CommScope Product vs. Solution Support

CommScope Product Support

CommScope provides support for the products it sells. We define those services as CommScope Product Support, which:

- Includes end-to-end technical support of CommScope-designed, manufactured, and sold products and their features and functionality.
- Is provided under the terms of the Guide to Technical Services or a prevailing agreement.
- Is sold in conjunction with the sale of the CommScope product and renewed annually.

CommScope Solution Support

CommScope may also be engaged, at an agreed fee over and above the CommScope product(s) support fee, to provide support for solutions it designs and sells.

We define those services as CommScope Solution Support, which:

- Includes end-to-end technical support of an CommScope-developed, customized solution. The solution may include CommScope products and third-party products.
- Is provided under the terms of a separately negotiated Statement of Work (SoW).
- Is sold at a negotiated price over-and-above CommScope Product Support.
- May be purchased at the following levels, which will be defined in the SoW for Solution Support:
 - Tier 3 only
 - Tier 3 and Tier 2
 - Tier 3, Tier 2, and Tier 1

Solution Support Activities

Solution Support may include any of the following activities, which will be defined and priced in the agreement or SoW:

Tier 1

- Configuring monitoring equipment according to the provided specifications and tools, setting alarms and notifications, and upgrading the equipment as needed.
 - 24x7x365 proactive monitoring of the solution for alarms or other data points that may indicate maintenance needs or service impacts
- Identifying user impact and confirming the severity level of issues.
- Performing initial triage of issues identified or reported, including problem isolation.
- Handing-off to Tier 2 support, upon problem isolation.
- Maintaining backups for all component configurations and application software.

Tier 2

- Providing general production information and configuration support.
- Collecting relevant technical problem identification information.
- Distinguishing non-technical problems from technical problems.
- Isolating problems and determining if the product is not performing to specifications.
- Pinpointing problems found in system logs. Typically involves dissecting logs and analyzing the issue data provided by Tier 1 to determine the step or that a supporting licensee service is malfunctioning.
- Analysis to determine where in the platform the problems occurred.
- Simulating the problem in the lab.
- Performing interoperability testing.
- Performing maintenance activities.
- Creating an action plan for problem resolution.
- Creating a standardized trouble ticket describing the problem.

Tier 3

Coordinating with all the vendors in the solution to neutralize/resolve any persistent network, product or hardware problem reported.

Customer Responsibilities in Solution Support

Regardless of which solution support activities CommScope is contracted to provide, you must agree to accept certain responsibilities for the solution to be successful.

Your responsibilities include:

- Informing CommScope of any recent environment changes or changes to other vendor's equipment at your site. Examples include power outages, changes in external equipment, network changes or issues, software upgrades to any other vendors' equipment, etc.
- Providing remote access to CommScope personnel for Solution monitoring and troubleshooting.
- Providing reasonable physical access to any third-party data center as needed. You will need to authorize/notify the third-party data center that CommScope has been the vendor selected as your designated agent for providing technical support services, and that CommScope is authorized to communicate directly with the third-party data center on your behalf to complete any network troubleshooting or repairs.
- Providing CommScope with access to the third-party data center facilities and for receiving and processing any equipment needed for the Solution.
- Providing remote access to your monitoring systems and support tools.
- Providing log data to assist in problem identification.
- Notifying and updating CommScope, verbally and in written form, of any modifications or changes in process or procedures in any third-party data center or in Internet connectivity.

- Assisting in providing information and details for determining Root Cause Analyses (RCA) of defects and/or issues identified in the Solution.
- Installing repaired hardware that is not covered by our agreement with that with another Solution vendor.
- Working with CommScope on updates, technical reviews, and change management.
- Providing and maintaining dedicated consumer external network connectivity for the Solution.
- Providing and maintaining dedicated private external network connectivity for the Solution, specifically including VPN access to the site's network and access to linear feeds for CommScope lab testing as needed.
- Acting as the primary interface to other organizations within your company and other specified vendors that are not being managed by CommScope in our agreement.

CommScope Solution Lab Validation Services

A dedicated solution lab, with all the components successfully integrated to duplicate the customer's production environment, is required for solution success. CommScope or the customer must maintain and staff a lab to manage the ongoing production network operations of the solution.

Solution lab validation is offered at a separate fee and includes:

- Detailed documentation of the hardware, software, and networking requirements for installing the solution lab.
- Access to integration subject matter experts during lab installation.
- Assistance in solution release testing and results validation.
- End-to-end interoperability testing of the solution prior to implementation of any production network change.
- Method of Procedure (MoP) creation and testing prior to implementation in production network.

Customer Data Security

CommScope will use commercially-reasonable security technologies (such as password and firewall protection) when providing Technical Support, and Customer shall comply with the applicable CommScope security procedures made known to Customer through Technical Support or otherwise. Customer is responsible for the security of data, including but not limited to any content, materials, data and information ("Customer Data") transferred by Customer and/or accessed by CommScope while providing Technical Support and agrees that CommScope does not control the transfer of Customer Data provided by Customer to CommScope over telecommunications facilities, including the Internet, and CommScope does not warrant the secure provision of Technical Support or that such security technologies will be able to prevent third-party disruptions of Technical Support.

Customer is responsible for the connection to Technical Support, including the Internet connection. Customer shall be responsible for the maintenance of Customer Data and hereby represents and warrants to CommScope that the Customer Data is free of all viruses, Trojan horses, and comparable elements that could harm the systems or software used by CommScope to provide Technical Support. Customer agrees that it has collected and shall maintain and handle all Customer data in

compliance with Customer's data security policies and all applicable data privacy and protection laws, rules, and regulations.

Tracking Support Issues

CommScope Technical Support uses a call tracking system to log all customer cases—whether they are reported via phone, e-mail, or on the web. When you contact us, a case reference number is assigned to your issue. Please make a note of the case number and use it to refer to your case during future communications. You will also receive an e-mail that contains the case number when the case is created.

Our tracking system enables us to record the details of your case, including all investigatory steps taken, contacts with representatives at your site, your corresponding issue tracking number (if applicable), and the steps we took to resolve your issue.

CommScope also provides a method by which you can open and track your support requests online via our customer web portals. CommScope Technical support will help you register, and you can view and search our support knowledgebase solutions and view your open and recently closed cases. The portals are available to all CommScope customers with a valid service-level agreement.

Before You Contact CommScope Support

CommScope Technical Support provides support for CommScope-supplied products that are under a valid service-level agreement. Unless CommScope is your system integrator, issues related to other hardware, software, or non-CommScope networks must be addressed by your organization or the appropriate third-party vendor.

When working with Technical Support, help us expedite your call by following these guidelines:

- Make sure that the product is using a supported version of CommScope software/firmware.
- Make sure all software updates have been installed in a timely manner and in accordance with CommScope product documentation and other instructions.
- Make sure remote network access exists, as necessary, for CommScope to establish a
 data link for use in remote diagnosis and maintenance of the product. The parties will
 agree on appropriate security measures to prevent unauthorized access. CommScope
 Technical Support will not connect to your network without your prior authorization,
 and the connection will be made solely to provide product support.
- Perform a first-level diagnosis to try to isolate and correct the problem.
- Check that day-to-day maintenance and network operations have been performed.
- Monitor network and system alarms.
- Be prepared to provide your service-level agreement ID, name, company name, site location, serial number of the system you are calling about (if required), system and software version numbers, and as much detail about the problem as possible.
- Review the available documentation, including release notes, product and installation manuals, and online help for information about your problem.

- Unless specifically instructed, do not reboot or restart equipment or software processes prior to consulting with Technical Support. Vital data about the problem can be lost when these actions are performed.
- Be prepared to perform diagnostic tasks in accordance with instructions provided by CommScope Technical Support and carry out initial remedial actions including remote diagnosis.

All personnel who contact Technical Support should have a high level of familiarity with CommScope systems. We strongly recommend that your support personnel attend the appropriate CommScope training programs. For more information on CommScope training programs, contact us at techtraining@commscope.com.

Opening a Technical Support Case

CommScope provides support for its products via regional offices around the world. If the issue is critical, please call us. If the issue is not critical, use the other methods indicated below to contact us.

Telephone Requests

Call the CommScope TAC at +1-215-323-2345 or 1-888-944-4357 when you have a critical issue and you need to speak with a Technical Support engineer immediately. Please remember to provide a number where you can be reached. Please note that all calls are recorded for quality purposes.

E-mail Requests

You can also contact Technical Support via e-mail. Please note that CommScope Technical Support does not monitor e-mail at night, over the weekends, or on CommScope-observed holidays; therefore, you should use e-mail for non-critical support issues only.

Support in Languages Other than English

If you contact CommScope Technical Support by phone and the language you need is not available, inform the Support Engineer, in English, "Need a translator for <the language needed>". The Support Engineer will immediately conference-in a translator for the language requested. Translation service is available for Spanish, German, French, Chinese, Korean, Portuguese (Brazil), and Japanese. Other languages may be available but are not guaranteed.

Support for Third-Party Products

Third-Party Product support is only available when the Third-Party Product has been procured through CommScope and the support is quoted on a CommScope service-level agreement quote, or a Statement of Work negotiated with CommScope Professional Services for a customized solution.

If CommScope determines that a Third-Party Vendor should be engaged in trouble-shooting an issue, CommScope will assist you in opening a case for the Third-Party Product with the Third-Party Vendor. You will then work directly with the Third-Party Vendor to address the case. In certain instances, CommScope may require that Customer contact Third-Party Vendor directly rather than CommScope for Third-Party Product issues. Third-Party Vendor response and resolution times may vary. The CommScope Respond and Restore guidelines shall not apply.

Collecting Information

When you contact CommScope Technical Support, we:

- Collect your name, company name, the product that you are calling about, the location of your problem, and your serial number or system ID.
- Create a case in our call tracking system.
- Ask for a brief, accurate description of your problem or question.
- Confirm your contact information.
- Verify the product you are calling about is covered under warranty or that you have a valid service-level agreement.
- If applicable, ask for any additional associated information or tracking numbers you may use in your system.

We record this information in our call tracking system and then provide you with a case reference number, which you should record for future reference. If your issue is not resolved during the initial support contact, referring to your case reference number helps expedite subsequent communication.

After the identification questions, we work with you to make a preliminary assessment of the severity of your issue based on your problem description.

Setting the Severity

Your Technical Support engineer will work with you to set or revise the severity of your issue. We use the severity levels below to prioritize cases. CommScope is not TL9000 certified, but we may agree to follow TL9000 guidelines in supporting certain products.

Severity Levels and Response/Restoration Times

The response time and restoration targets vary for each case based on the severity of the issue and the type of product.

For some products, CommScope offers technical support and software updates at no charge. Examples include inside- and outside-plant equipment. Our engineers follow the same processes for these products as for all other products, but the level of support and software availability may be limited to **commercially reasonable** levels during normal Business Day hours.

Severities for cases are defined in Table 1, Guidelines by Severity. The classification and reclassification of all problems will be according to the definitions in the following table.

Table 1: Guidelines by Severity

Severity	Description	Response Target	Restore Target
Severity 1- Critical *	The CommScope product is no longer providing service for one or more of its main features, or if a significant portion of subscribers and/or users is no longer able to use one or more critical features of the platform.	Immediate within 15 minutes 24x7x365 support provided continuously until system functionality is restored. *	6 hours
S2 - High	Partial loss of production system functionality (diminished capacity).	Immediate within 15 minutes 24x7x365 support provided continuously or as agreed with customer until system functionality is restored.	8 hours
S3 - Medium	Other problems of a lesser severity than "critical" or "major" such as conditions that have little or no impairment on the function of the system.	During normal Business Day hours.	Not defined
S4 – Low/RFF**	Information request or Request for Feature (RFF). ** or Lab system issues	During normal Business Day hours.	Not Defined

^{*}The response and restore goals listed above apply only to issues received **via phone**, not via email or the web portal. System functionality may be restored via a permanent fix, a temporary fix, or a workaround.

CommScope has no obligation to act on issues we are unable to replicate or otherwise verify the issue based on the data and information you provide.

If you believe the severity assigned to your issue should be changed, you can request a change through the Support engineer who is working your issue.

Diagnosing the Problem

You may be asked to provide the Technical Support engineer with copies of the system files, reports, and data files, as well as sufficient support and test time on your CommScope system. CommScope must have access to your CommScope system to help you. The information and access you provide helps the Technical Support engineer:

- Duplicate a failure when the product isn't functioning according to the corresponding documentation for the specific release.
- Confirm the problem is caused by CommScope.
- Initiate correction of the problem.

^{**} RFFs are the responsibility of the Sales Engineering and PLM (Product Line Management) teams. You can request a feature via a Severity 4 case.

It is important that you inform CommScope of any other recent environment changes or changes to other vendor equipment at your site that can be contributing to the problem (for example, power outages, changes in external equipment, network changes or issues, software upgrades to other vendor equipment, etc.).

If the problem cannot be reproduced, the Technical Support engineer will make a good-faith effort to identify a workaround until the problem can be reproduced or fixed.

If the problem is related to third-party equipment or your network, the Technical Support engineer will make a good faith effort to identify the issue. CommScope is not responsible for diagnosing or resolving third-party hardware or networking issues. You are responsible for third-party or internal resource escalation for ownership and resolution.

In the case where on-site support is requested, you may incur additional charges. See the **On-Site Support Policy** for more information.

Reviewing the Progress and Actions

To help assure our work on your case will meet your expectations, please review the following with your Technical Support engineer when you open your case.

Agree on:

- The severity level for your issue
- The action items for Technical Support and those for which you are responsible
- Who is responsible for the call back and when it will happen
- Case number

CommScope Technical Support will work on cases according to the priorities agreed with you.

However, any problem may be escalated to management via the TAC.

Technical Support Management Escalation

Should you believe a case is not being resolved in a timely manner or receiving the level of attention you believe is warranted, cases can be escalated within the CommScope Technical Support management structure. When escalating an issue, be sure to supply the case reference number in all communications. See Chapter 1 for escalation contacts.

Escalations first go to the Manager, then to the appropriate Director. If the Manager is unable to resolve the problem for any reason or does not provide the level of attention you believe is warranted, escalation may continue to higher levels of the organization.

At each level of escalation, we request that your company provide a contact at the same level, which helps ensure that the level of management involvement matches the decision-making level dictated by the resolution requirements of the problem.

To escalate, contact us via the TAC and ask to escalate your case to management. If the technical support manager is unavailable, he or she will respond as soon as possible to discuss the situation and work with you to create a plan to resolve the issue.

Note that for outage situations, the Executive-Level Team is notified within two hours of an on-going outage being reported. Periodic updates are sent out until the outage is cleared.

Support for Discontinued Products

Hardware

CommScope may discontinue a Product at any time but will give you reasonable prior notice in the form of a written End-of-Life notice. We use reasonable commercial efforts to provide fee-based hardware replacement parts and technical support for any discontinued product for one (1) to five (5) years from the End-of-Life notice date. The support and repair period for each discontinued product will be stated in the End-of-Life notice.

Software Versions

CommScope generally supports the current New Feature Software Release, as well as the previous two New Feature Software Releases. Releases older than 5 (five) years, except during the active lifecycle of the Product, will not be supported by CommScope even if they are one of the previous two New Feature Software Releases mentioned above.

On-Site Support Policy

In cases of severe network degradation in which telephone support, remote diagnosis, and other means of restoring the network have failed, upon your request CommScope will, at its discretion, dispatch a CommScope Technical Support engineer to further attempt to isolate and resolve the problem. If we determine the cause of the problem was not the CommScope product(s), you will reimburse CommScope for all charges reasonably incurred, including engineering time at our standard rate, as well as lodging and travel expenses of CommScope personnel while traveling and at your site.

Requests for services outside the scope of this Service-level Agreement or for equipment that is not covered under an agreement may be quoted separately and may be delivered only under the terms and conditions of a CommScope Professional Services Agreement. On-site support will be provided according to CommScope parts and service availability at current CommScope time and materials billing rates.

Chapter 6

Software Services

Software Warranty

CommScope software is warranted to substantially function as designed for 90 days from your download of the software. CommScope does not warrant that the operation of the CommScope software will be uninterrupted or error-free; that the functions of the software will meet Customer's requirements; or that the software will operate in combination with non-CommScope products selected by Customer for its use.

Details of the CommScope standard software warranty are contained online in the *ARRIS Terms and Conditions of Sale* or as agreed in the purchase agreement (or relevant channel agreement) in place with CommScope.

During this 90-day software warranty period, you may

- Email us for technical support. We will respond within two (2) Business Days for software defects only.
- Request maintenance and emergency software releases for software defects only.

To receive technical support and software per the terms of this *Guide*, you must purchase a service-level agreement for your CommScope product.

Accessing New Software Releases

You will be able to download the software (and related documents such as Release Notes) to which you are entitled under your technical support contract.

If necessary, TAC will help you register for our software download tool using your agreement ID.

Chapter 7

Access Networks Solutions Repair Services

All network product repairs and replacements of CommScope products are managed by CommScope Repair Services.

Our Technical Assistance Center (TAC) will work with you to determine the:

- Hardware warranty status (in- or out-of-warranty)
- Type of hardware failure (DoA, Standard, or Advanced Replacement)

We will then let you know what to expect from the RMA process. Requesting an RMA is always your first step.

How to Request an RMA

For return material authorizations, please download the RMA Request Form at https://www.commscope.com/support/arris-support/repair-and-return/ and email the completed form to TAC.Helpdesk@commscope.com.

Call the CommScope TAC at

• +1-215-323-2345 or +1-888-944-4357+1-215-323-2346 (Spanish) (available M-F 8A-5P ET. Translation services available outside of those hours)

When you call, please have the following information about the defective unit:

- Defective Part Number and Serial number
- Symptom (detailed description of the failure, including when the product failed—i.e., initial deployment or after a period of time)
- Company name and ship-to address
- Contact name, e-mail, and a valid phone number

Note: An RMA is valid for 30 days.

If you are requesting RMAs for multiple units at one time, CommScope will contact you if additional time is needed to repair and return the units and work with you to create a return schedule.

New Hardware Warranty Terms

If you purchased your new hardware directly* from CommScope, please see either the *ARRIS Terms* and *Conditions of Sale* for standard warranty details per-product, or any unique purchase agreement in place.

A repaired or functionally-equivalent replacement unit will be shipped within 30 calendar days of CommScope's receipt of your defective unit, unless otherwise stated in your service contract.

* If you are a member of the CommScope Channel Program, please see https://www.commscope.com/partners/ for details.

Repaired Product Warranty Terms

If a repaired unit fails, a repaired unit or functionally-equivalent replacement unit will be shipped within 30 calendar days of CommScope's receipt of the defective unit.

The new warranty term will be 180 days from date of repair shipment or the remaining original warranty period, whichever is longer.

Types of Hardware Failures

A defective hardware unit is categorized as:

- Dead-on-Arrival (DoA)—New unit failure within 30 days of shipment
- Standard Repair—In- or out-of-warranty unit failure
- Advanced Replacement—A failure covered under a valid SLA that includes advanced replacement parts

Note: A Return Materials Authorization (RMA) is required for all the failure types above.

DoA Replacement Process

The DoA Replacement Process is used if you have equipment that fails within the first 30 calendar days of being shipped from CommScope.

Reasonable commercial efforts are made to ship a replacement part within two Business Days of the DoA replacement request being approved.

Refer to How to Request an RMA to begin a DoA Replacement Process.

Replacement notification, RMA Number, and Shipping Instructions

After a DoA request is validated and approved, CommScope will provide, via e-mail, an estimated replacement ship date and a completed copy of your RMA Request Form, which will include your RMA number and shipping instructions.

Defective Unit Shipping Instructions

Return all CommScope hardware in CommScope-approved packaging.

You are responsible for repair or replacement charges for damage incurred during shipping, so please pack carefully.

- Send us only the defective unit.
 Do not send batteries, external power supply, power cords, manuals, brackets etc. when returning defective unit(s).
- o Write the RMA number on the outside of the box.
- o Enclose a copy of the completed RMA form inside the box.
- o Notify the carrier not to split the shipment.

Standard Repair Process

The Standard Repair Process is used if the unit is not DoA and you have not purchased a service-level agreement that includes advanced replacement parts.

Refer to How to Request an RMA to begin a Standard Repair Process.

CommScope Verifies Warranty Status

We will first verify the warranty status of the product.

- After a product has been verified as "In-Warranty," an RMA number will be issued within one (1) Business Day.
- After a product has been verified as "Out-of-Warranty," we will need a purchase order for the repair cost before an RMA number can be issued. A repair quote will be provided so you may "pay per-repair."
- "Pay-per-repair" service means: if the part is out-of-warranty and is determined to be repairable, CommScope will target to repair and return the part within 30 calendar days of our receipt of both a defective unit and a PO for the repair. Since CommScope can make no commitment to provide a part in time to remedy an operational impact due to a faulty part, CommScope advises customers to stock their own spare parts. Note that fans, disk drives, and power supplies will not be repaired or replaced by CommScope.

You Receive your RMA Number and Shipping Instructions

After warranty status is established and a purchase order is received (if required), CommScope will provide, via e-mail, a completed copy of your RMA Request Form, which includes your RMA number and shipping instructions.

Shipping Instructions

- Return all CommScope hardware in CommScope-approved packaging.
 You are responsible for repair or replacement charges for damage incurred during shipping, so please pack carefully.
- Send us only the defective unit.
 Do not send batteries, external power supply, power cords, manuals, brackets etc. when returning defective unit(s).
- Write the RMA number on the outside of the box.
- Enclose a copy of the completed RMA form inside the box.
- Notify the carrier to not split the shipment.

CommScope Screens, Repairs, and Returns

Returned units are screened and repaired at a CommScope Repair Facility.

Note: The same unit may be returned, but CommScope reserves the right to ship a functionally equivalent unit.

Advanced Replacement Process

The Advanced Replacement Process is used if the unit is not DoA and you have purchased a service-level agreement that includes advanced replacement parts. Your advanced replacement contract will only be valid for in-service network failures. It will not cover failures that occur during staging, deployment, or relocation of equipment. Not all components of a product are entitled to be advanced replaced under contract, including COTS (Commercial of-the-Shelf) Servers and consumable items such as air filters and others.

Before you purchase a service-level agreement that includes advanced replacement parts, you must verify that all equipment, including spares, is in working order. Equipment that has failed or otherwise needs repair prior to the start date of the advanced replacement services is specifically excluded.

Please note that an advanced replacement contract does not obviate your need to carry on-site spares. Advanced replacement is meant to replace your spares, not your live, production equipment. CommScope is not responsible for network outages that occur because of not having spares on-site. Refer to How to Request an RMA to begin an Advance Replacement Process.

Technical Support Verifies Your Need for a Replacement

During the RMA request process, you may be routed to Technical Support to help you troubleshoot your product issue and help determine if a part replacement is needed.

You Receive Your RMA Number and Shipping Instructions for the Defective Part

After we agree a replacement part is needed, CommScope will provide, via e-mail, a completed copy of your RMA Request Form, which includes your RMA number and shipping instructions.

Shipping Instructions

After you have received your replacement unit, the defective unit must be returned. It is important that you return the defective unit quickly, so we can analyze the failure, repair the unit, and return the part to our replacement inventory.

If the defective unit is <u>not</u> returned to us within forty (40) Business Days of your receipt of the replacement part, your advanced replacement services will be suspended and replaced with our standard in-warranty service until we receive the defective part. No penalty to CommScope may be assessed.

- Return all CommScope hardware in CommScope-approved packaging.
 Your replacement part will arrive with a pre-paid air waybill, packing information, and instructions for return of the defective part.
- Send us only the defective unit.
 Do not send batteries, external power supply, power cords, manuals, brackets etc. when returning defective unit(s).
- Write the RMA number on the outside of the box.
- Enclose a copy of the completed RMA form inside the box.

Advanced Replacement Terms and Conditions

- The Advanced Replacement clock starts after your CommScope Technical support engineer has agreed that a replacement part is required and the RMA has been assigned.
- The clock start time is documented in the CommScope case-tracking system.
- Advanced replacement RMAs assigned after 2PM Eastern in NA & CALA regions and after 2 PM local regional hub time zone, (outlined below) are considered assigned the next CommScope Business Day.
 - EMEA—Amsterdam hub—Central European Time (CET)
 - Japan—Tokyo hub—Japan Standard Time (JST)
 - Singapore—Singapore hub—Singapore time (SGT)
 - Australia—Melbourne hub—Australian Eastern Standard Time (AEST)
- CommScope is not responsible for delays outside its control once the replacement unit is in the custody of the courier.
- If the replacement unit you requested does not correct the problem and additional replacement units are required (regardless of fault), you must open a new RMA.
- We reserve the right to limit the number of units you request to a reasonable number.
 If you request more than 1.5 times the average return rate of the product at one time, we will contact you for more information and further diagnostics.
- We reserve the right to charge you an additional fee for units that are returned when our analysis reveals no-problem-found (NPF) or Customer-Induced Damage (CID). You may be liable for shipping, handling, and diagnostic fees for each unit.

General Repair Terms and Conditions

Repair Charges Outside CommScope Standard Warranty

Units found to have failures caused by events outside CommScope's standard warranty listed in the *ARRIS Corporate Terms and Conditions of Sale* policy may be subject to charges and/or result in the unit to be deemed unrepairable. Customer will be notified in advance if charges apply or the unit cannot be repaired.

CommScope reserves the right to charge a fee for in-warranty testing for units determined to be NTF (No Trouble Found).

Shipping Delays

On rare occasions, a part may not be in inventory, which can cause shipping delays. In these situations, CommScope pursues all other means to obtain and ship the required part at the earliest possible time. To ensure that you always have the part you need, we recommend you purchase a spares kit to keep at the site. For more information on spares kits, please contact your CommScope Sales Representative.

Due to factors outside of CommScope's control (e.g., local customs requirements), the shipment arrival date at the customer site cannot be defined. CommScope will return ship the unit or a functionally-equivalent replacement unit to the address provided on the RMA Request Form.

Freight and Customs

Customer Responsibilities

- You ship the defective unit(s) via our standard DAP (Delivered-at-Place) unless otherwise specified.
- You bear the risk of loss or damage until we receive the defective unit.
- You bear the cost of return shipping and customs for return of 'Standard Repair" RMA.

CommScope Responsibilities

- We ship repaired unit(s) to you via our standard DAP (Delivered-at-Place) unless otherwise specified.
- Clear and unencumbered title to the defective unit passes to us upon our receipt of the defective unit.
- We are responsible for the freight and insurance charges to ship your replacement unit.
- We bear risk of loss or damage until you receive the replacement unit.
- CommScope covers all freight and customs cost for "DoA" and "Advance Replacement" RMA's.

COTS Servers Warranty Information

Some CommScope products (DAC6000, RADD, Uplink) are based on Commercial-off-the-Shelf (COTS) Servers.

CommScope provides you with the manufacturer's warranty on these servers directly from the manufacturer.

Note: You are responsible for contracting directly with the manufacturer after the initial manufacturer's warranty period expires.

Chapter 8

Knowledge Services

Documentation

At CommScope, we focus on what you need to know to get your job done right. Our content developers and trainers work side-by-side with product development teams to acquire an in-depth knowledge of the software and systems you use and support. We communicate the intricacies of the software with business owners and operators, so the value of CommScope products can be realized as quickly and completely as possible.

CommScope provides one or more of the following technical documentation resources for your products so you can get the most from your investment:

- Getting started guides and product overviews
- Deployment, installation, and configuration guides
- User guides, operator guides, and online help
- · Administration, integration, and database guides
- Guides for hosted implementations

The latest technical documentation for generally available (GA) products is available on the Technical Content Portal. In some cases, documentation for pre-GA products may be available through other distribution channels. You must have a My CommScope account to access the content on the Technical Content Portal. If you do not have an account yet, please register via the New User Registration page. Once registered, log in using your My CommScope account. Use the Request Access option on the My CommScope page to request access to entitled content based on your SLA.

We can quote translated guides upon request. We also have the capability and understanding to customize documentation to a specific implementation or create custom documents for integrations. Please contact us for a quote.

Technical Training (Access Networks Solutions only)

CommScope's technical knowledge services group is committed to you—we prepare your workforce to successfully use CommScope products to achieve their business goals.

Our team offers comprehensive training for CommScope products and services. Our technical training solutions offer these benefits:

- Providing courses over a broad range of CommScope products and technologies.
- Offering different delivery methods, removing the need for travel and taking time off work
- Delivering on-demand, year-round access to training via CommScope University.

- Affording hands-on and online access to CommScope equipment for lab practice.
- Offering Certification programs for those that have attained mastery of CommScope products and technologies.

We offer delivery in a variety of flexible methods:

- Instructor-Led Training (ILT) incorporates technical expert lectures, hands-on labs, presentations, printed course materials, and open discussions, either in a CommScope training facility or the convenience of the customer's site.
- Virtual Instructor-Led Training (VILT) uses technology to allow students to log in from anywhere via the internet and complete the same coursework as in the traditional classroom, including lab exercises. These classes are modular and may be divided up into shorter delivery sessions over more days.
- eLearning is available through our learning portal, CommScope University. Courses are available on demand in any location.

SLA Subscription eLearning—Customers with product SLAs have access to basic product training through CommScope University for up to 20 users enrolled at a time. Contact us at techtraining@commscope.com for enrollment instructions.

For more information on the training programs we offer, visit our website at:

https://www.commscope.com/support/training/broadband-and-home-networks-training/

Contact CommScope Training via e-mail at techtraining@commscope.com.



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