ION®-U

Capacity without complexity

COMMSCOPE®

5 simple steps to DAS

DESIGN

INSTALL

COMMISION

OPTIMIZE

DOCUMENT

Traditional DAS: Consider the true cost of complexity

As your customers demand more and more capacity from your network, you find yourself turning to a distributed antenna system (DAS) to deliver that capacity to a given area of high demand.

Office buildings, sports arenas, college campuses or industrial parks call for the specialised capacity boost that DAS can provide—which is why the demand for DAS deployments is currently skyrocketing, with no clear end in sight.

This incredible growth is no surprise, since DAS provides an efficient means of offloading a great deal of traffic from the macro network. The challenge emerges when deploying a simple DAS solution cost-efficiently and easily.

While other technologies have grown progressively more plug-and-play with broader adoption, DAS has remained a challenging, expensive and time-consuming solution—one requiring long times to market, prohibitively expensive engineering expertise, and notoriously difficult optimisation, testing and maintenance.

Common DAS deployment challenges:

There are many circumstances that can further complicate an already-complex process:

- Limited rack space for headend
- Low availability of skilled personnel
- Tightened budgets
- Condensed time-to-market expectations
- Scaling, expanding or reconfiguring after installation

Any of these circumstances can further complicate analready-complex—and expensive—process.

DAS challenges can slow you down at every stage of the process

In spite of all the advances in wireless networking, DAS remains a stubbornly slow-to-implement, manually intensive solution that needs highly skilled resources to implement. Every stage of DAS deployment can be an exercise in extra expense, longer time to market and delayed ROI.
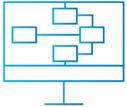
Design and planning: Because no two DAS systems are quite the same, you need hard-to-find design staff with diverse expertise configuring multiple vendor platforms for each deployment. This complex process also produces a lot of documents in a variety of different formats.

Installation: Once again, depending on which combination of active equipment, cables and remotes you're using,making and testing the connections can become a lengthy and expensive process. And without standardised documentation, it gets even more difficult when you have to make changes later on.

Setup and commissioning: At this critical stage, all the errors of previous stages come to light and must be dealt with—again requiring costly, product-specific expertise to track down problems and operate test equipment to help gain maximum network efficiency.
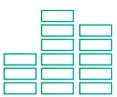
System optimisation: By now, your engineers are involved and the base station is ready to go live. Every hour lost to troubleshooting latent defects, external interference sources, passive intermodulation (PIM) and other problems represents an expensive delay in your time to market.

Each of these complications can slow your time to market, negatively impact your budget, limit your staff's productivity, and limit the scaling options available to you after the installation is complete.

What if there was a powerful DAS option that was actually simple to design, plan, deploy and optimise—a solution that reduced costs and time to market? **Good news—there is.**

Introducing ION®-U from CommScope—an innovative DAS solution that's built around your needs.

Finally, a DAS solution is available with true plug-and-play simplicity

With ION®-U, CommScope greatly reduces DAS complexity to deliver a solution that's easy to design, plan, deploy and optimise

How simple is it? If you can connect a new printer to your computer or navigate a software installation wizard, then you can design and deploy your new DAS.

ION-U comes with the integrated guidance and intelligence that makes it possible to get your DAS up and running more quickly, more efficiently and at a lower total cost of ownership.

ION®-U is a complete system that features:

A unified indoor-outdoor, low-power and high-power platform in a single master unit that reduces space requirements and the number of cable runs

Embedded intelligence that clearly guides the design, planning, installation, setup, commissioning and optimisation of your DAS with start-to-finish simplicity

Automatic documentation that includes bill of materials, system configuration file, interconnect diagrams, rack elevation drawings according to power/thermal loading specs, and commissioning records

Built-in monitoring for measuring network quality, monitoring interference and passive intermodulation (PIM) and conducting detailed uplink/downlink spectrum analysis

Remote configuration tools that enable operators to re-sectorize and access auto-leveling functions from anywhere in the world or right at the headend

Smart alarms that provide useful information that details impact to service quality—keeping troubleshooting from turning into a prolonged hunt for the problem and helping your people work more efficiently

ION-U low-power remote antenna unit

ION-U high-power remote antenna unit

i-POI® subracks

Signal distribution subrack
· Low power
· High power

Sector matrix subrack

Power distribution subracks

ION-U master unit

ION-U BY THE NUMBERS

UP TO

25% reduction in DAS harware costs

50% less space required for the headend

75% less specialized labor required

ION®-U: It really is that simple

Because ION-U builds the intelligence right into the solution, you don't need to hire the intelligence to install it

You can immediately realise greater productivity from your own staff, as well as greater efficiency from the deployment process itself—because ION-U's built-in guidance means minimal errors and delays.

Plug-and-play by the numbers—and colours

- ION-U's design tools let you generate a bill of materials to streamline configuring and ordering
- When the components arrive, colour-coded numbers make it a simple matter to plug in and power on
- Match the colour, match the number and you're done
- Any errors are instantly flagged so you can address the problem immediately

Connect correctly with step-by-step guidance

- ION-U's intuitive, step-by-step cabling wizard makes it easy to connect correctly
- Each headend connector lights up to tell you where the next cable goes—at both ends
- It even tells you which piece of colour-coded cable to use
- For use with both RF interconnect and fiber cable
- solutions, it acknowledges each successful connection in real time

Automatic end-to-end setup and commissioning

- ION-U's automatic setup and commissioning wizard handle the leveling, frequency variation calibration, interference and PIM checks, cable integrity checks and other testing for you
- No remote site visits, no heavy or costly test equipment, and no expensive specialists needed
- You can run the wizard directly from the headend, or remotely from anywhere

The simple way to perform optimisation

- ION®-U's optimisation process helps you minimise
- capacity-reducing sector overlap in real time
- You can illuminate all sectors at the same time with internal test signals and measure interaction between those sectors, across all bands, all at the same time
- Best of all, this can all be done in minutes—from the headend or from anywhere in the world via remote administration


Visibly more intelligent

- ION-U provides complete end-to-end fault detection and total network visibility, right down to individual operators, nodes and bands
- Intelligent service-level alarms deliver more critical information than network-level alarms, so your technicians can be more productive when responding to problems
- Parametric trend analysis helps you plan for the future— a big part of ION-U's promise as the DAS built around you and the way you need to work

With ION-U, there's simply no comparison

ION-U finally delivers the full capacity potential of DAS with an exceptional degree of simplicity, speed and savings. And, just as importantly, it offers the scalability, quality, consistency and spectrum efficiency to let your DAS perform its best for every user, everywhere, every time.

When every moment of lost time means more lost revenue, ION-U is the obvious choice for your next DAS deployment—and every DAS deployment.
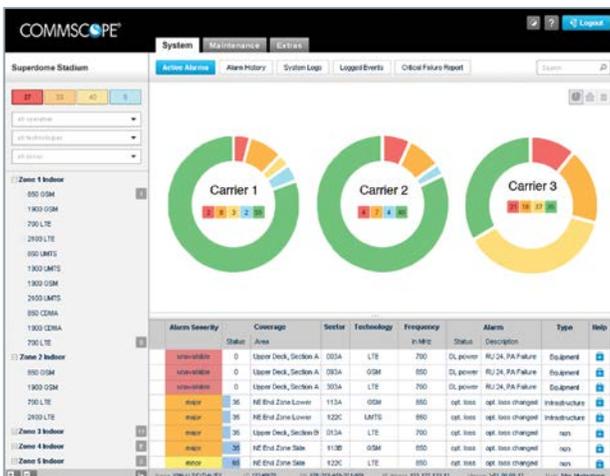
CommScope pushes the boundaries of communications technology with game-changing ideas and ground-breaking discoveries that spark profound human achievement. We collaborate with our customers and partners to design, create and build the world's most advanced networks. It is our passion and commitment to identify the next opportunity and realize a better tomorrow. Discover more at commscope.com

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