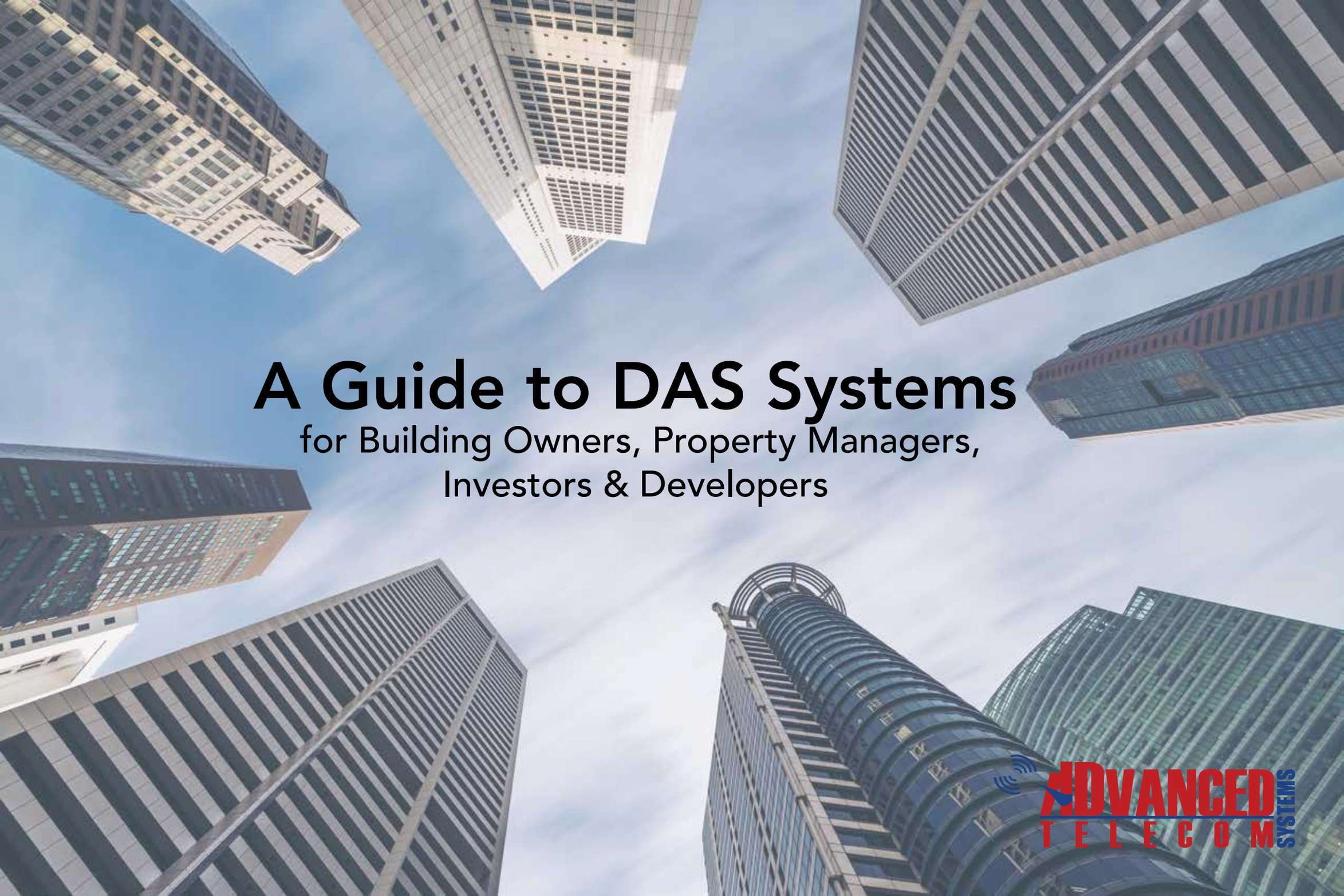

A Guide to DAS Systems

for Building Owners, Property Managers, Investors & Developers

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Stay Connected

Cellular DAS
(distributed antenna systems)

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Why Property Developers, Investors, Owners and Managers should care about DAS

The trend of doing business by using all kinds of apps that require major band-width over smartphones has transformed everyone's expectations as we've moved to an "always-on" way of life. For many business people, a smartphone is their only means of communication so they'll remember if they can't make calls in your building. If you're the owner of the property or a long-term tenant, you know this is bad for business.

We've all been there. Pick almost any multitenant building, hotel, or office tower and try to get a strong cell signal while inside it. People usually end up going to a window, where they pick up whatever remnants of their carrier's signal make it through the glass. And good luck if the windows have been treated with low-E film, which blocks virtually all signal from coming inside.

That used to be just an inconvenience. But today, practically everyone not only has a smartphone but everyone relies on it for the majority of their voice communications. And those cell-hungry business mobile applications that used to be just nice-to-haves are turning into critically important, frontline business apps. That means getting solid cell reception when tenants are inside is something landlords and real estate developers are being forced to take seriously.

"It's becoming more of a trend to ask why there isn't service and there are several big-time real estate players that are just now waking up and realizing that this in-building wireless thing is real," said Scott Gregory, Director of Marketing at Distributed Antenna Systems (DAS) equipment vendor SOLiD, Inc. **"They're saying, 'If we don't get on-board, our properties will lose value,' and that's a major consideration."**

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Stay Safe
Public Safety DAS
(distributed antenna systems)
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Building Owners Can't Ignore Public Safety Concerns Anymore

Good cell phone reception isn't the only concern for building owners. The importance of public-safety communications is at an all-time high. How many disasters, attacks and other critical situations do we hear about on the news every day? In every one of those situations, the outcome is often determined by how well first responders can communicate with one another and with people inside of the building.

First responder communication occurs over the 700/800mHz frequency. The same factors that block cellular signal in a building can cause interference for the 2-way radios and other critical communication tools used during emergencies.

In response to communication issues following 9/11 and concern for public safety, Congress created FirstNet with a mission to develop, build and operate the nationwide, broadband network that equips first responders to save lives and protect U.S. communities.

Building and fire codes are being revised and updated to include DAS technology as a viable extension of the public-safety communications network indoors. Many jurisdictions have already passed strict rules for new and existing construction.

What does this mean for building developers and property owners?

It means a last minute visit from the Fire Marshall informing you that your building needs public safety coverage and the withholding of occupancy permits until the problem is fixed.

The public-safety issue circles back to cellular signal. First responders can only respond to an emergency if they know it is happening. An estimated 80% of 911 calls are originated from inside of a building. If cell signal is blocked, it causes a safety hazard for everyone.

"If you can't call us, we can't help you."

Chief Alan Perdue, Fire Chief, Greensboro, North Carolina (ret) And Executive Director, Safer Buildings Coalition

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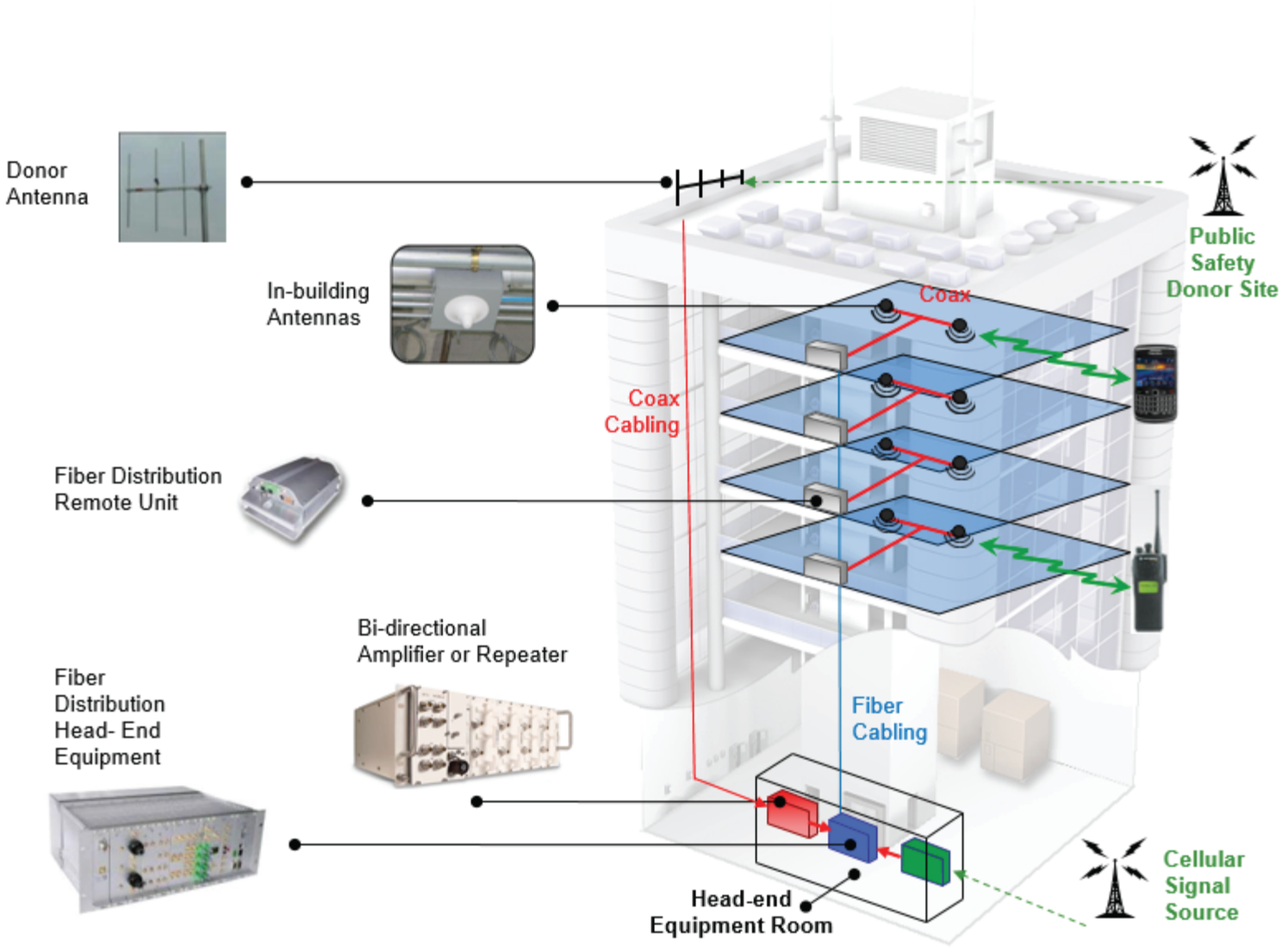
How A Distributed Antenna System (DAS) Works



The cellular radio frequency (RF) signal source is fed into a DAS head-end. The signal source may be: 1) a base transceiver station (BTS) for cellular, public safety or both, that is co-located at the DAS head-end, or 2) a bi-directional amplifier (BDA) co-located with the head-end and is fed by a directional antenna, called a donor antennat that picks up the outside signal from a nearby macro-cell site.

The DAS head-end converts the RF to an optical signal for transmission over fiber optical cable that connects to DAS remote units.

The DAS remote unit then converts the optical signal back to RF and connects to one or more indoor antennas that are strategically located or distributed throughout the building.

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New Construction Projects

We are frequently asked the question: “Will my building need a DAS?” Unfortunately, there is no way to know whether cell signal will be a problem until a building is constructed. This poses a problem for developers and building owners when budgeting for a new project. If you don’t plan ahead, you could find yourself facing high prices at the last minute with a deficient budget.

In response to this frequent problem, Advanced Telecom Systems created a unique solution. We frequently provide our customers with two separate quotes. The first is for the pre-wire phase, which includes the cabling, connectors and indoor antennas. Our pre-wire quote anticipates the worst-case scenario; every carrier will need boosted on every floor of the building. We then send in our highly trained installers to build the DAS infrastructure while the building is still under construction. Our customers who utilize this option save 40-50% on labor costs.

The second quote anticipates the worst-case scenario as well: DAS equipment to boost every carrier on every floor of the building. Once the building is constructed, we send in one of our engineers to test indoor signal. From there we can determine which carrier coverage is deficient and what equipment will actually be needed. If all of the DAS equipment initially quoted is not needed, GREAT! Our customer saves money. If it turns out that everything in the initial quote is necessary, our customer has already budgeted for it and there is no last minute surprise.

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Partner With Us

For over 17 years, Advanced Telecom Systems has provided its customers with cost-effective solutions to keep them connected and safe. Our turn-key solutions are available for any size project and can be designed for new and existing construction. We offer a wide variety of products and installation options to meet any budget while keeping quality and service at the center of our business.

We offer 100% free site surveys and estimates at no obligation to you. If you have any existing or upcoming projects you would like to discuss, please give us a call today.

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