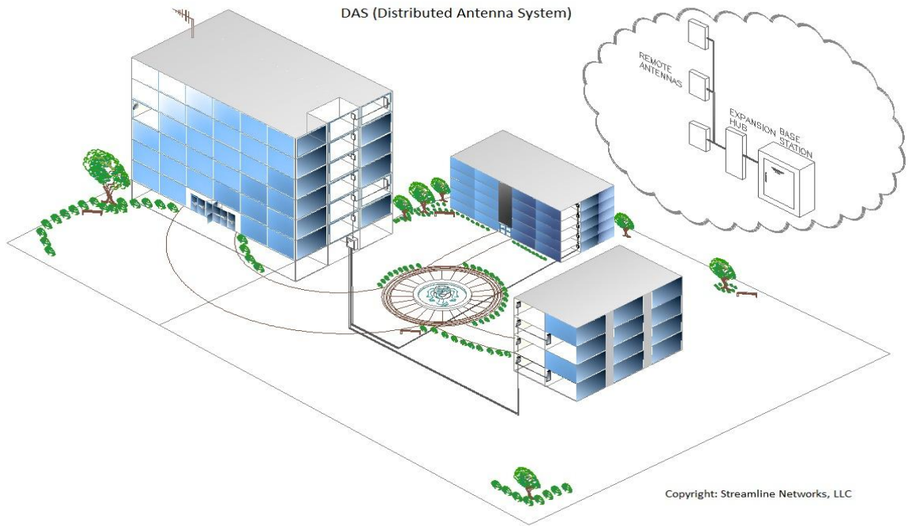

DAS Explained

Cell towers—the structures so familiar to all of us, typically consist of one or more antenna arrays or “macrocells”—usually one array or macrocell per carrier. Antenna or “microcells” commonly seen on the tops of poles or buildings are typically utilized to add or supplement macrocell capacity in areas with a high density of mobile or wireless device users. “Picocells,” like WiFi access points, serve even smaller areas. In a DAS, any or all of these technologies may be incorporated to re-broadcast a variety of wireless signals throughout a very defined indoor or outdoor space. These signals may include multiple wireless carrier service, public radio, and WiFi as well as a variety of other radio frequencies like those used in medical telemetry devices.

A DAS can connect to cellular carriers via wired connection to a carrier base station or wirelessly via donor antenna. Public safety signals connect similarly. “Source signals” are combined, filtered and amplified for distribution. From there, a combination of fiber and coax cables convey signals to remote multi-band antenna strategically placed where expanded coverage is needed. An indoor DAS can also continue outdoors for improved reception in common spaces. Since a properly-designed DAS system can carry all wireless traffic, these systems very effectively **streamline the process of managing wireless communications** and provide uninterrupted indoor and outdoor connectivity.

Streamline Networks, LLC
AN EMEGC COMPANY

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Streamline Networks, LLC
AN EMEGC COMPANY

Streamline Your Wireless Communications

We Are Communications Industry Experts…

specializing in designing and installing neutral host distributed antenna systems (DAS).

leveraging over 2,000 successfully completed wireless installations spanning 15 years.

with 12 years experience providing in-building solutions to meet single-carrier coverage needs.

having an in-depth understanding of the major national cellular carriers to ensure user needs are properly coordinated with carrier requirements.

with dedicated project managers and engineering teams to manage the process from needs assessment through commissioning to ensure clients can focus on core business activities and that operations are not interrupted.

with in-house general and electrical contractor capabilities to compliment cellular integration. Installations performed by our own on-staff technician teams.

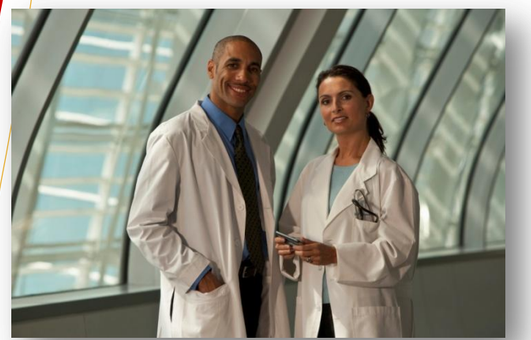
Ensuring that all installations meet nationally recognized criteria: BOCA, National Fire Protection Code, National Electrical Code, as well as Wireless Regulatory and permitting requirements.

INDUSTRY SOLUTIONS

- HEALTHCARE – IN-BUILDING/CAMPUS
- HOSPITALITY – SINGLE PROPERTY/CONVENTION CENTER
- ENTERPRISE – IN-BUILDING/CAMPUS
- COMMERCIAL – MIXED USE/MALLS
- PROPERTY MANAGEMENT – SINGLE/MULTI-TENNANT
- UNIVERSITIES – CAMPUS-WIDE, DORMS, ARENAS
- GOVERNMENT
- NEW CONSTRUCTION

DAS-ENABLED WIRELESS TECHNOLOGIES

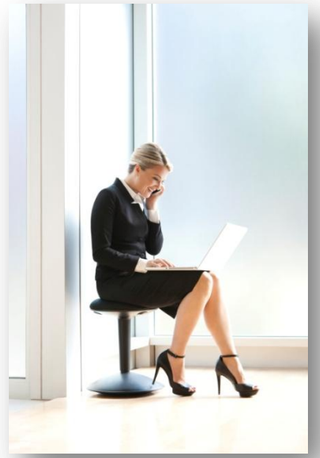
CDMA	CDMA200	UMTS
GSM	TDMA	WIMAX
IDEN	GPRS	WLAN
HSPA	EVDO	
LTE	EDGE	
WIFI	802.11	



Exploding Wireless Demand

CONNECTED TO THE WIRELESS WORLD – EVERYWHERE AND ALL THE TIME

Demand for wireless access to voice and data services by mobile device users is exploding. This rapid growth is being driven by new technologies, advancements in smartphone and other mobile devices and their functionality, a growing universe of innovative mobile applications and the increasing ease and utility of remote data access. At any moment, we expect to be able to connect and stay connected to the larger world around us and through that connection, interact in a wide variety of ways, particularly when indoors. This rapidly growing demand for steady, stable wireless connectivity means that property owners, managers, businesses and other employers who ensure access to high quality indoor wireless services will create opportunities for themselves to capture a competitive advantage. Resolving internal wireless issues is thus not only a means of maintaining the attractiveness of facilities; it is also a way to ensure the ability to leverage new and innovative marketing and business strategies.



The Problem…

RADIO FREQUENCIES INDOORS

Cellular providers are meeting the demand explosion outdoors by adding capacity in the form of multiple combinations of new macrocells, microcells and/or rooftop antennas. However, cellular signals are radio frequencies (RF), and unfortunately, construction materials inhibit RF penetration indoors from outdoor networks. So, as demand explodes, frustration due to a lack of access to wireless services indoors will become more pervasive. No matter the type of facility, more and more owner/operators will have to recognize and address this penetration/reception problem to maintain a high quality of experience for facility users be they guests, tenants, residents, patients, students, faculty or staff.

The Solution…

DAS—FOR CONSISTENT COVERAGE

A Streamline Networks multi-carrier, “neutral-host” DAS provides facility owner/operators with the most flexible solution for providing universal cell carrier and wireless access indoors. Our systems are designed to form a strong wireless “communications backbone” capable of enabling WiFi and public safety as well as cellular connectivity. A Streamline DAS isn’t strictly for indoor applications, though. It can also serve the purpose of extending coverage into outdoor areas where either aesthetics or ground space are a concern (in other words, where a tower is neither desirable nor practical).

Please contact us to find out how you can…

Streamline Your Wireless Communications.

PROFESSIONAL SERVICES

Consulting and Assessment
Carrier Engagement/Marketing
Needs Assessment
Engineering Scope Development
Project Management

TURN KEY PROCESS

Needs Assessment
Scope Development
Site Survey
System Design
Procurement and Logistics
Installation
Acceptance Testing
Commissioning
Maintenance

ECONOMIC EVALUATION

A Streamline DAS for your site can be more affordable than you think. With leasing and financing options available, let Streamline help you evaluate your situation and develop the best approach.