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Businesses require constant connectivity to the Internet, and mobile access everywhere

Many advances have taken place in the outdoor cellular networks to improve coverage, capacity and performance. But providing this same quality experience inside a building requires an an in-building wireless connectivity system such as distributed antenna system (DAS).

Business Needs

Underground locations, building materials and new energy efficiency codes may limit or obstruct the cellular towers' broadcasted radio frequency signals causing slower data transfer, poor voice quality or shorter mobile device battery life.

What is a DAS?

A DAS is a network of separated antenna nodes connected to a common source via a transport medium that provides wireless service within a geographic area or structure. There two major types:

- A single wireless provider DAS system which provides services for a wide range of wireless capabilities and technologies on a single wireless provider's licensed bands and frequencies.

Benefits

- **Optimize communication.** Provide a robust high quality indoor mobility user experience to improve productivity and customer satisfaction.

- **Enhance building value.** Facilitate reliable data transfer rates and coverage by bringing carrier signals directly into buildings.

- **Flexible.** Support a single or multiple wireless providers.

- **Safety.** Deliver accurate 911 location information.

- **Future ready.** Support the frequencies that wireless providers predominantly use or will be using as network evolutions continue.

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- A neutral host DAS solution which provides services for a wide range of wireless capabilities and technologies. It is a single system that can support multiple wireless providers, bands and frequencies.

AT&T DAS Components

Each building is unique so there is not a "one size fits all" DAS available. The DAS OEM selection and design depend on the physical characteristics and layout of the building as well as the needs and number of tenants and users.

The DAS generally consists of the following components; Signal Source, Headend, Remote Units, Fiber Optic, Ethernet or Coaxial Cable, Antennas.

- **Signal Source** – The AT&T signal source provides the FCC assigned frequencies to be distributed over the DAS. The Signal Source is connected to the Headend.

- **Headend** – The interface and heart of the DAS that directs wireless carrier radio frequencies to and from the Remote Units.

- **Remote Units** – If required the RUs amplify the radio frequencies from the Headend to the Antennas or from the Antennas back to the Headend.

- **Antennas** – Provide the radio frequency coverage patterns that allow AT&T subscribers to access the AT&T network to send or receive data.

- **Fiber Optic, Ethernet or Coaxial Cables** – Provide interconnection between the DAS elements and either one or a mixture is used depending on the OEM used.

AT&T Distributed Antenna System
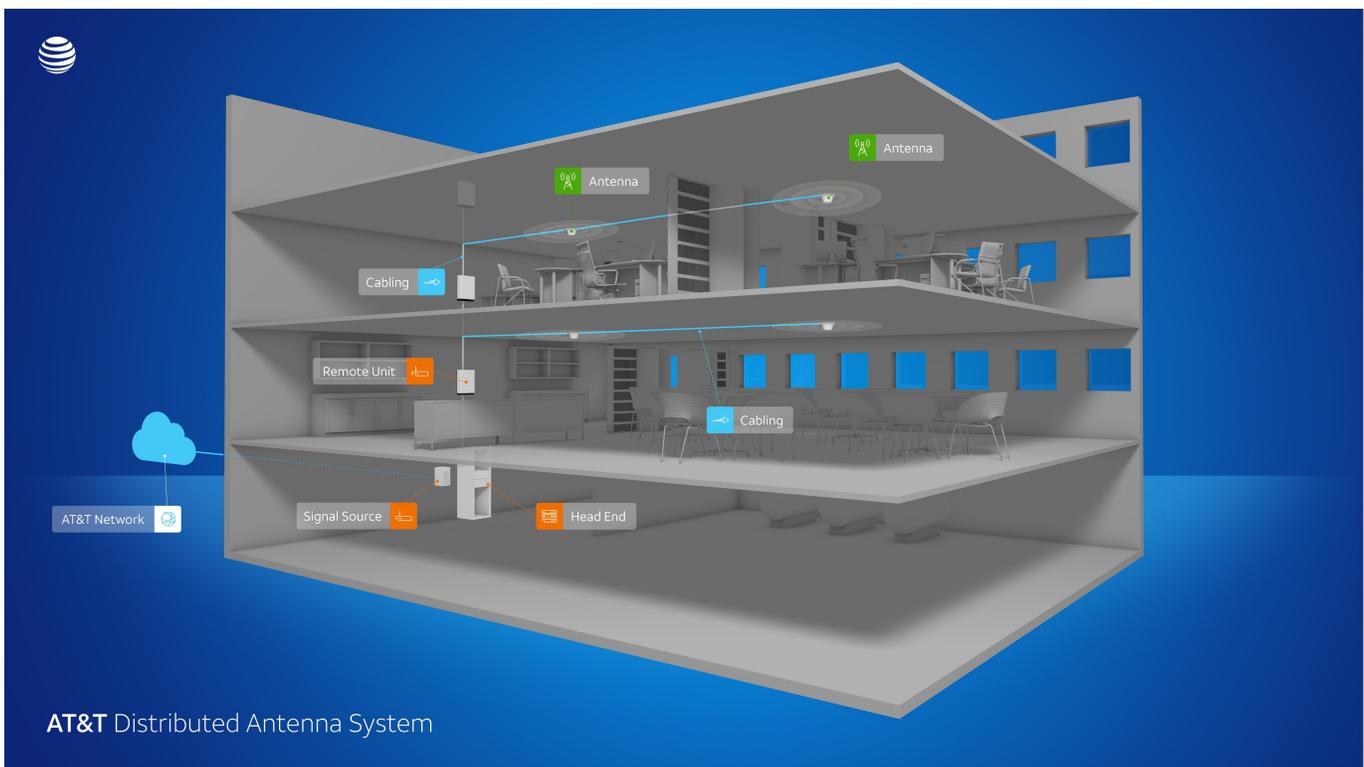
For more information contact an AT&T Representative or visit www.att.com/das

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