

# Distributed Antenna Systems (DAS): Market Outlook and Forecasts for DAS Solutions 2017 - 2022

<https://marketpublishers.com/r/D6E78035FAFEN.html>

Date: February 2017

Pages: 152

Price: US\$ 1,995.00 (Single User License)

ID: D6E78035FAFEN

## Abstracts

Since the inception of commercial wireless technology, network operators have strived to obtain the maximum number of users. Consequently, there has been a constant struggle to maintain the quality of service for increasing number and usage of cellular systems. In addition, as wireless service expands to areas outside of metropolitan areas, people may be located in isolated places where regular base transceiver stations (BTS) is not a viable option. This is particularly obvious in indoor use of the communication services in densely populated areas and buildings where the building may have many floors underground or formed of steel structure in addition to high-rise buildings.

A promising solution to solve all of these issues is to deploy a Distributed Antenna System (DAS). The DAS will typically consist of group of antennas physically connected to a controller that is connected to the carrier macro cell. DAS will serve as a repeater to the nearest BTS and extend its broad range of service to very narrow areas where there is a great demand in wireless services. DAS also improve overall capacity and represent a complementary solution to other optimization technologies such as small cells and self-organizing networks (SON).

This research provides analysis of the DAS market, including carrier WiFi, small cells, and SON market drivers, challenges, and opportunities. The report evaluates leading companies in the DAS ecosystem and their solutions. The report provides a analysis of the underlying technology supporting DAS solutions including SON technology and how

it is crucial to the success of DAS. The report includes a global and regional assessment of the market size and forecasts for the DAS market from 2017 to 2022.

Target Audience:

- Mobile Device Vendors
- Mobile Network Carriers
- Service Bureau Companies
- WiFi Infrastructure Vendors
- Distributed Antenna Vendors
- Wireless Infrastructure Vendors
- Small Cell Infrastructure Vendors

## Contents

### 1 OVERVIEW

- 1.1 Introduction to DAS
- 1.2 DAS Role in Wireless Network Infrastructure
  - 1.2.1 DAS Benefits to Mobile Network Operators
    - 1.2.1.1 Improved Coverage and Quality of Service
    - 1.2.1.2 Increased Capacity
    - 1.2.1.3 Capital Cost Reduction
    - 1.2.1.4 Speed to Market
  - 1.2.2 DAS Deployment and Operational Challenges
- 1.3 DAS Technology
  - 1.3.1 DAS Operations
    - 1.3.1.1 Active and Passive DAS
    - 1.3.1.2 DAS Signal Controllers
    - 1.3.1.3 Multi-Signal Combiner Systems
  - 1.3.2 DAS and Small Cell Technology
    - 1.3.2.1 Microcell Solutions
    - 1.3.2.2 Pico/Metrocell Solutions
    - 1.3.2.3 Femtocell Solutions
    - 1.3.2.4 WiFi
    - 1.3.2.5 Small Cell Capacity
    - 1.3.2.6 Small Cell Cost vs. DAS
  - 1.3.3 DAS and Self Organizing Networks
    - 1.3.3.1 DAS and SON Coordinated Coverage and Quality
    - 1.3.3.2 Beyond SON and DAS for Optimized Networks

### 2 DAS ECOSYSTEM

- 2.1 DAS Ecosystem
  - 2.1.1 DAS OEMs
    - 2.1.1.1 Key Players
      - 2.1.1.1.1 SOLiD
        - 2.1.1.1.1.1 Business Overview
        - 2.1.1.1.1.2 Services
        - 2.1.1.1.1.3 Recent Developments
      - 2.1.1.1.2 Microlab, FX
        - 2.1.1.1.2.1 Business Overview

- 2.1.1.1.2.2 Services
- 2.1.1.1.2.3 Recent Developments
- 2.1.1.1.3 Andrew
- 2.1.1.1.4 Tyco (TE Connectivity)
- 2.1.1.1.5 Corning
  - 2.1.1.1.5.1 Business Overview
  - 2.1.1.1.5.2 Services
- 2.1.1.1.6 Dali Wireless
  - 2.1.1.1.6.1 Business Overview
  - 2.1.1.1.6.2 Services
  - 2.1.1.1.6.3 Recent Developments
- 2.1.2 Wireless Service Providers
  - 2.1.2.1 Key Players
    - 2.1.2.1.1 Boingo Wireless
      - 2.1.2.1.1.1 Business Overview
      - 2.1.2.1.1.2 Services
    - 2.1.2.1.2 China Mobile
      - 2.1.2.1.2.1 Business Overview
      - 2.1.2.1.2.2 Services
      - 2.1.2.1.2.3 Recent Developments
- 2.1.3 Distribution
- 2.1.4 Cable Contractors
  - 2.1.4.1 Key Players
    - 2.1.4.1.1 DAS Simplified
      - 2.1.4.1.1.1 Business Overview
      - 2.1.4.1.1.2 Services
      - 2.1.4.1.1.3 Recent Developments
- 2.1.5 DAS Integrator
  - 2.1.5.1 Key Players
    - 2.1.5.1.1 AT&T's Antenna Solutions Group
      - 2.1.5.1.1.1 Business Overview
      - 2.1.5.1.1.2 Services
      - 2.1.5.1.1.3 Recent Developments
    - 2.1.5.1.2 American Tower Corporation
      - 2.1.5.1.2.1 Business Overview
      - 2.1.5.1.2.2 Services
    - 2.1.5.1.3 Axell
      - 2.1.5.1.3.1 Business Overview
      - 2.1.5.1.3.2 Services

- 2.1.5.1.3.3 Recent Developments
- 2.1.6 End-User Customers
- 2.2 DAS Deployment and Operational Challenges
  - 2.2.1 Regulatory Issues
    - 2.2.1.1 DAS Regulations
    - 2.2.1.2 Vagueness of Current Legislation
  - 2.2.2 Deployment Issues
  - 2.2.3 Technical Issues
    - 2.2.3.1 DAS Multiple Service Offerings
    - 2.2.3.2 Supporting Future Requirements

### **3 KEY DAS COMPANIES AND SOLUTIONS**

- 3.1 Enterprise Connectivity
  - 3.1.1 Key Players
    - 3.1.1.1 iBwave
      - 3.1.1.1.1 Business Overview
      - 3.1.1.1.2 Services
      - 3.1.1.1.3 Recent Developments
    - 3.1.1.2 TCS
      - 3.1.1.2.1 Business Overview
      - 3.1.1.2.2 Services
      - 3.1.1.2.3 Recent Developments
- 3.2 Public Safety
  - 3.2.1 Key Players
    - 3.2.1.1 Crown Castle
      - 3.2.1.1.1 Business Overview
      - 3.2.1.1.2 Services
      - 3.2.1.1.3 Recent Developments
- 3.3 Healthcare
  - 3.3.1 Key Players
    - 3.3.1.1 Alcatel-Lucent
      - 3.3.1.1.1 Business Overview
      - 3.3.1.1.2 Services
    - 3.3.1.2 Legrand
      - 3.3.1.2.1 Business Overview
      - 3.3.1.2.2 Services
      - 3.3.1.2.3 Recent Developments
- 3.4 Transportation

### 3.4.1 Railways

#### 3.4.1.1 Key Players

##### 3.4.1.1.1 CommScope

###### 3.4.1.1.1.1 Business Overview

###### 3.4.1.1.1.2 Services

###### 3.4.1.1.1.3 Recent Developments

##### 3.4.1.1.2 InSite Wireless

###### 3.4.1.1.2.1 Business Overview

###### 3.4.1.1.2.2 Services

###### 3.4.1.1.2.3 Recent Developments

### 3.4.2 Airports

#### 3.4.2.1 Key Players

##### 3.4.2.1.1 TE Connectivity

###### 3.4.2.1.1.1 Business Overview

###### 3.4.2.1.1.2 Services

###### 3.4.2.1.1.3 Recent Developments

### 3.4.3 Street Stations

#### 3.4.3.1 Key Players

##### 3.4.3.1.1 iWireless

###### 3.4.3.1.1.1 Business Overview

###### 3.4.3.1.1.2 Services

###### 3.4.3.1.1.3 Recent Developments

### 3.5 Sports

#### 3.5.1 Key Players

##### 3.5.1.1 Essentia

###### 3.5.1.1.1 Business Overview

###### 3.5.1.1.2 Services

###### 3.5.1.1.3 Recent Developments

##### 3.5.1.2 Optical Telecom

###### 3.5.1.2.1 Business Overview

###### 3.5.1.2.1.1 Services

###### 3.5.1.2.2 Recent Developments

##### 3.5.1.3 FoxCom

###### 3.5.1.3.1 Business Overview

###### 3.5.1.3.2 Services

###### 3.5.1.3.3 Recent Developments

##### 3.5.1.4 Westell

###### 3.5.1.4.1 Business Overview

###### 3.5.1.4.2 Services

- 3.5.1.4.3 Recent Developments
- 3.5.1.5 Comba Telecom Systems Holding
  - 3.5.1.5.1 Business Overview
  - 3.5.1.5.2 Services
  - 3.5.1.5.3 Recent Developments
- 3.6 Entertainment
  - 3.6.1 Key Players
    - 3.6.1.1 Crown Castle
      - 3.6.1.1.1 Business Overview
      - 3.6.1.1.2 Services
      - 3.6.1.1.3 Recent Developments

## **4 DAS FORECASTS 2017 – 2022**

- 4.1 Combined DAS Market 2017 - 2022
  - 4.1.1 Combined DAS Market Revenue
  - 4.1.2 Revenue by Segment
  - 4.1.3 Revenue by Types of Coverage
    - 4.1.3.1 Indoor DAS Market Revenue
  - 4.1.4 Revenue by Ownership
  - 4.1.5 Revenue by Vertical Industry
  - 4.1.6 Revenue by Technology
  - 4.1.7 Revenue by Region
    - 4.1.7.1 Revenue by North America Country
    - 4.1.7.2 Revenue by Asia Pacific Country
    - 4.1.7.3 Revenue by Europe Country
    - 4.1.7.4 Revenue by Middle East & Africa Country
    - 4.1.7.5 Revenue by Latin America Country
- 4.2 DAS Equipment Market 2017 – 2022
  - 4.2.1 Market by Types of Coverage
    - 4.2.1.1 Indoor DAS Equipment Market
  - 4.2.2 Market by Ownership
  - 4.2.3 Market by Vertical Industry
  - 4.2.4 Market by Technology
  - 4.2.5 Market by Region
    - 4.2.5.1 Market by North America Country
    - 4.2.5.2 Market by Asia Pacific Country
    - 4.2.5.3 Market by Europe Country
    - 4.2.5.4 Market by Middle East & Africa Country

- 4.2.5.5 Market by Latin America Country
- 4.3 DAS Application Market 2017 – 2022
  - 4.3.1 Market by Types of Coverage
    - 4.3.1.1 Indoor DAS Deployment Type
  - 4.3.2 Market by Venue
  - 4.3.3 Market by Vertical Industry
  - 4.3.4 Market by Technology
  - 4.3.5 Market by Region
    - 4.3.5.1 Market by North America Country
    - 4.3.5.2 Market by Asia Pacific Country
    - 4.3.5.3 Market by Europe Country
    - 4.3.5.4 Market by Middle East & Africa Country
    - 4.3.5.5 Market by Latin America Country
- 4.4 DAS Service Market 2017 – 2022
  - 4.4.1 Market by Types of Coverage
    - 4.4.1.1 Indoor DAS Service Market
  - 4.4.2 Market by Ownership
  - 4.4.3 Market by Vertical Industry
  - 4.4.4 Market by Technology
  - 4.4.5 Market by Region
    - 4.4.5.1 Market by North America Country
    - 4.4.5.2 Market by Asia Pacific Country
    - 4.4.5.3 Market by Europe Country
    - 4.4.5.4 Market by Middle East & Africa Country
    - 4.4.5.5 Market by Latin America Country
- 4.5 DAS System Deployment 2017 – 2022
  - 4.5.1 DAS System Deployment Unit
  - 4.5.2 Units by Coverage
    - 4.5.2.1 Indoor DAS Unit
  - 4.5.3 Unit by Ownership
  - 4.5.4 Unit by Vertical Industry
  - 4.5.5 Unit by Technology
  - 4.5.6 Unit by Region
    - 4.5.6.1 Unit by North America Country
    - 4.5.6.2 Unit by Asia Pacific Country
    - 4.5.6.3 Unit by Europe Country
    - 4.5.6.4 Unit by Middle East & Africa Country
    - 4.5.6.5 Unit by Latin America Country
- 4.6 DAS System Structure



- 4.7 DAS System Deployment Costs
- 4.8 DAS Life Cycle
- 4.9 DAS Quality Metrics: User Feedback
  - 4.9.1 Deployment Challenges
  - 4.9.2 Deployment Barriers
  - 4.9.3 DAS System Proposal Metrics

## List Of Figures

### LIST OF FIGURES

- Figure 1: DAS Technology Realization and Solutions Benefits
- Figure 2: DAS Relative to Overall Wireless Networking Infrastructure
- Figure 3: In-Building Coverage with DAS
- Figure 4: Outdoor DAS Coverage
- Figure 5: DAS Signal Controllers
- Figure 6: DAS Network Topology
- Figure 7: CPRI Connected Small Cells
- Figure 8: Micro Cell Coverage
- Figure 9: Femto/Pico Cell Architecture
- Figure 10: DAS vs. Small Cells in Different Buildings
- Figure 11: SON Capabilities
- Figure 12: SON Business Drivers
- Figure 13: SON Architecture

## List Of Tables

### LIST OF TABLES

- Table 1: Global DAS Revenue by Segment 2017 - 2022
- Table 2: Global DAS Revenue by Coverage Type 2017 - 2022
- Table 3: Global Indoor DAS Revenue by Type 2017 - 2022
- Table 4: Global DAS Revenue by Ownership Type 2017 - 2022
- Table 5: Global DAS Revenue by Vertical Industry 2017 - 2022
- Table 6: Global DAS Revenue by Supporting Technology 2017 - 2022
- Table 7: Global DAS Revenue by Region 2017 - 2022
- Table 8: North America DAS Revenue by Country 2017 - 2022
- Table 9: Asia Pacific DAS Revenue by Country 2017 - 2022
- Table 10: Europe DAS Revenue by Country 2017 - 2022
- Table 11: Middle East & Africa DAS Revenue by Country 2017 - 2022
- Table 12: Latin America DAS Revenue by Country 2017 - 2022
- Table 13: Global DAS Equipment Revenue by Coverage Type 2017 - 2022
- Table 14: Global Indoor DAS Equipment by Revenue Type 2017 - 2022
- Table 15: Global DAS Equipment Revenue by Ownership Type 2017 - 2022
- Table 16: Global DAS Equipment Revenue by Vertical Industry 2017 - 2022
- Table 17: Global DAS Equipment Revenue by Supporting Technology 2017 - 2022
- Table 18: Global DAS Equipment Revenue by Region 2017 - 2022
- Table 19: North America DAS Equipment Revenue by Country 2017 - 2022
- Table 20: Asia Pacific DAS Equipment Revenue by Country 2017 - 2022
- Table 21: Europe DAS Equipment Revenue by Country 2017 - 2022
- Table 22: Middle East & Africa DAS Equipment Revenue by Country 2017 - 2022
- Table 23: Latin America DAS Equipment Revenue by Country 2017 - 2022
- Table 24: Global DAS Application Revenue by Coverage Type 2017 - 2022
- Table 25: Global Indoor DAS by Deployment Type 2017 - 2022
- Table 26: Global DAS Application Revenue by Venue 2017 - 2022
- Table 27: Global DAS Application Revenue by Vertical Industry 2017 - 2022
- Table 28: Global DAS Application Revenue by Supporting Technology 2017 - 2022
- Table 29: Global DAS Application Revenue by Region 2017 - 2022
- Table 30: North America DAS Application Revenue by Country 2017 - 2022
- Table 31: Asia Pacific DAS Application Revenue by Country 2017 - 2022
- Table 32: Europe DAS Application Revenue by Country 2017 - 2022
- Table 33: Middle East & Africa DAS Application Revenue by Country 2017 - 2022
- Table 34: Latin America DAS Application Revenue by Country 2017 - 2022
- Table 35: Global DAS Service Revenue by Coverage Type 2017 - 2022

Table 36: Global Indoor DAS Service Revenue by Type 2017 - 2022

Table 37: Global DAS Service Revenue by Ownership Type 2017 - 2022

Table 38: Global DAS Service Revenue by Vertical Industry 2017 - 2022

Table 39: Global DAS Service Revenue by Supporting Technology 2017 - 2022

Table 40: Global DAS Service Revenue by Region 2017 - 2022

Table 41: North America DAS Service Revenue by Country 2017 - 2022

Table 42: Asia Pacific DAS Service Revenue by Country 2017 - 2022

Table 43: Europe DAS Service Revenue by Country 2017 - 2022

Table 44: Middle East & Africa DAS Service Revenue by Country 2017 - 2022

Table 45: Latin America DAS Service Revenue by Country 2017 - 2022

Table 46: Global DAS System Deployment by Coverage Type 2017 - 2022

Table 47: Global Indoor DAS System Deployment by Type 2017 - 2022

Table 48: Global DAS System Deployment by Ownership Type 2017 - 2022

Table 49: Global DAS System Deployment by Vertical Industry 2017 - 2022

Table 50: Global DAS System Deployment by Supporting Technology 2017 - 2022

Table 51: Global DAS System Deployment by Region 2017 - 2022

Table 52: North America DAS System Deployment Unit by Country 2017 - 2022

Table 53: Asia Pacific DAS System Deployment by Country 2017 - 2022

Table 54: Europe DAS System Deployment by Country 2017 - 2022

Table 55: Middle East & Africa DAS System Deployment by Country 2017 - 2022

Table 56: Latin America DAS System Deployment by Country 2017 - 2022

Table 57: Indoor vs. Outdoor DAS Structure

Table 58: Deployment Costs of DAS System

Table 59: DAS System Deployment Life Cycle

Table 60: DAS System Deployment Challenges identified by Users

Table 61: DAS System Deployment Barriers identified by Users

Table 62: DAS System Proposal Metrics identified by Users

## I would like to order

Product name: Distributed Antenna Systems (DAS): Market Outlook and Forecasts for DAS Solutions 2017 - 2022

Product link: <https://marketpublishers.com/r/D6E78035FAFEN.html>

Price: US\$ 1,995.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/D6E78035FAFEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

