# U.S. Outdoor and Indoor DAS Forecast, 2018 – 2023: *How will DAS continue to support LTE and 5G?*

Market Study
Third Quarter 2019

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# Abstract

All of the talk these days is about 5G. Will distributed antenna systems, indoor and outdoor, have a role in the 5G world? Absolutely. But just as the architecture of radio access networks (RANs) will change as operators move from LTE to 5G, so too will DAS change.

*iG*R splits the DAS market by indoor and outdoor and then further divides the indoor market into commercial buildings and residential (multiple dwelling units or MDUs). *iG*R's oDAS forecast grows out of its "outdoor small cell" model and market study, while its iDAS forecast grows out of its "indoor small cell" model and market study. This market study highlights the DAS-specific portions of those models and market studies.

This market study provides a brief overview of the different types of small cells, including DAS, and the benefits and challenges around iDAS and oDAS deployments. It then provides an explanation of the methodology used to create the five-year forecasts for actual iDAS and oDAS nodes and systems. The iDAS forecasts are further divided into commercial buildings and residential MDUs.

Key questions addressed in this market study include:

- What is an outdoor small cell? What are metrocells, RRHs and oDAS?
- What is an indoor small cell? What are femtocells, picocells and iDAS?
- What is a DAS?
- How does DAS fit into operators' evolving networks?
- What are the issues with deploying DAS in the U.S.?
- What is the role of CPRI with iDAS and oDAS?
- How is DAS changing/evolving?
- Where are DAS nodes most likely to be located? What's their role?
- How many DAS nodes and systems are likely to be deployed in the U.S. between 2018 and 2023?
- How is the forecast of the number of DAS nodes and systems split by location – outdoor, commercial buildings and residential buildings?
- How is the forecast of the number of DAS nodes and systems split by spectrum category – sub 6 GHz (non CBRS) and CBRS?

Who should read this market study?

- Mobile operators
- Infrastructure OEMs
- Small cell product and solution vendors
- Backhaul service providers and equipment OEMs
- Financial analysts and investors.