# Case Study

## CBTS brings in-building wireless connectivity to aviation manufacturer

## Client

### Aviation manufacturer

The client is a world-leading manufacturer and service provider for jet engines. From the turbo supercharger to the world's most powerful commercial jet engine, our client has a long history of powering the world's most robust and innovative aircraft capabilities in the world.

| Challenge | CBTS solution | Results |
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| • The client needed to reduce telecommunication expenses, increase employee mobility, and streamline teleconferencing capabilities.<br>• Their in-building cellular coverage was unreliable and weak.<br>• The client needed a multicarrier DAS solution for both employees and vendors.<br>• Client needed a solution that wouldn't require a large capital investment. | • CBTS designed, installed, and now supports a custom Distributed Antenna System (DAS) within all buildings on the company's manufacturing campus.<br>• DAS can support all national cellular carriers.<br>• DAS program development and support costs are billed on a fixed monthly basis to provide predictability for the client's expenses. | • With minimal capital expenditures, all buildings on the company's manufacturing campus now have strong in-building cellular connectivity with zero unplanned outages.<br>• CBTS experts provide 24x7x365 monitoring, management, and dispatch for the client's new solution.<br>• Employees now have the ability to stay connected wherever they are on the manufacturing campus.<br>• The solution is ready for 5G when it becomes available. |

## Challenge

As part of a new cost-cutting initiative, the company launched a "mobile-first" campaign throughout its footprint aimed at reducing overall telecommunication expenses by eliminating redundant desk phones. However, the company was struggling to implement the initiative at its manufacturing facility due to poor in-building cellular coverage.

The company needed an in-building solution that would provide highly reliable, multi-carrier cellular connectivity for any type of cell phone on its five million square foot manufacturing campus. In addition, the solution needed to be adaptable to the various sizes and floor levels of each of the buildings on the campus, and be connected by a single network.

The company was not in a position to incur a large capital expenditure for the new solution and was looking to CBTS to provide design, installation and ongoing support, 24x7x365. Additionally, the customer required operational reporting metrics on a monthly basis so the value proposition could be affirmed.

## CBTS solution

CBTS designed and installed a custom Distributed Antenna System (DAS) on the company's manufacturing campus utilizing an industry-leading managed service model that is billed monthly at a predetermined rate.

The DAS solution is a neutral host network designed to support two national cellular carriers, with the ability to add additional carriers in the future. The solution requires a "head-end" location, housing the DAS front-end components that connect via fiber optic cable to the low powered remote hardware and associated antennas throughout each building.

The solution is also 5G ready, meaning it will continue to provide outstanding in-building cellular connectivity with little modification as 5G becomes more and more available.

## Results

Ten buildings across the company's manufacturing campus are realizing very strong in-building cellular connectivity with zero unplanned outages and 24x7x365 monitoring. Our experts provide regular reports to the client to guarantee that the solution is delivering a positive return on investment. In addition, the company has begun removing desktop phones, and the workforce is now able to move freely about the campus in true mobile fashion, thus driving cost reductions and efficiency gains.