an EnerSys company

City of Tampa

SMALL CELL CASE STUDY

Case Study Specifications
Location: Tampa, Florida
Product Application: Small cell densification
Components: AlphaGateway SMG and small cell radios

OVERVIEW

Small cell deployments across the globe increased by 43% last year to meet the rising need of both consumer data and voice services. In total, 1.7 million small cell units shipped in 2016. With this demand, a new player in small cell has emerged in the Citizens Broadband Radio System (CBRS). CBRS uses TD-LTE to provide a wireless voice and data service at the 3.5GHz spectrum.

However, the spectrum is not sold to operators in large blocks covering wide geographic areas, nor is it a completely unlicensed free-for-all, such as Wi-Fi. Instead, its use is individually requested and assigned on a case-by-case basis. Then, where it is no longer required, it is returned for use by others.

The nature of the technology behind CBRS is low range, but it has powerful low latency signal propagation. Due to this, it is most effectively utilized in small cell urban deployments.

THE ENABLING TECHNOLOGY

The **Alpha Strand-Mount Gateway** (SMG) enables you to access clean, reliable, redundant electrical power and high speed broadband to deploy small cell radios up to 100 meters away from the AlphaGateway SMG.

OBJECTIVES

Provide a powering solution that:

- Powers small cell urban deployments
- Enables high speed, persistent communications backhaul
- Has the mounting flexibility to maximize urban densification

SOLUTION

The AlphaGateway SMG is the perfect partner to enable these small cell radio deployments by utilizing the nearly ubiquitous HFC network available in urban environments. With the nature of the core spectrum technology of CBRS being high power, but relatively low range, the SMG supplements that with the ability to efficiently mount the small cell devices in a multitude of locations. This solution provides the CBRS technology with unmatched levels of versatility and scalability.

BENEFITS

- The mounting flexibility of the AlphaGateway SMG provides the freedom to mount in virtually any location in the city
- Connecting to the HFC network ensures clean, reliable, power and high speed backhaul for small cell deployments
- Utilizing the AlphaGateway SMG along the HFC network allows for future deployment and scalability of small cell radios

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