



CASE STUDY: MICROWAVE SATELLITE TECHNOLOGIES

airFiber Answers the Call for a High-Performance Backhaul Solution

Microwave Satellite Technologies (MST) deploys Ubiquiti™ airFiber® as a reliable, high-performance network backhaul.

airFiber delivers a superior combination of throughput and efficiency at a cost-effective price point.

MST uses Ubiquiti UniFi® products to deliver Wi-Fi connectivity to large-scale events.

Covering the New York metropolitan market, MST is a wireless, PtP (Point-to-Point) carrier of voice, data, and video services under the brand name, NuVisions. The first WISP (Wireless Internet Service Provider) in Manhattan, MST focuses on commercial, hospitality, education, and healthcare vertical markets, with customers ranging from Fortune 100 to SMBs (Small-to-Medium-sized Businesses) to exclusive, high-rise residential buildings. MST offers quick provisioning of new services and features 99.999% uptime for carrier-grade reliability. MST owns and controls its own IP transport network, so it can rapidly expand without relying on third-party providers.

REVOLUTIONARY AIRFIBER TECHNOLOGY

From the silicon chip up to the innovative dual-antenna architecture, the Ubiquiti Research & Development Team designed airFiber to create a high-performance network backhaul that delivers superior throughput with efficiency. airFiber provides excellent price-to-performance value and operates in the worldwide, license-free, 24 GHz frequency, so it can be deployed quickly. airFiber is the technology MST uses to provide bandwidth to Maritime Parc, New Jersey.

“Our airFiber link survived Hurricane Sandy and remained operational except for a power outage. Wired operators were down for weeks.”

Alan Kurian, CTO

The airFiber link to Maritime Parc was resilient during Hurricane Sandy. The only time that the link went down was when the remote side lost power* for two days after the hurricane had passed; the power utility had shut down the power due to nearby flooding. When power on the remote side was restored, the airFiber link came back online without any intervention from MST.

* MST had battery backup onsite; however, its runtime is 6-8 hours.



MST technician installs Ubiquiti airFiber radio



AIRFIBER IN NEW JERSEY AND NEW YORK



airFiber radio at Trump International, New York (planned link)



airFiber radio at Maritime Parc, New Jersey

MST AIRFIBER LINKS DIAGRAM

MST sends bandwidth from 31 River Court, New Jersey to Maritime Parc, and is also planning additional airFiber links:

Source	Destination	Distance
31 River Court, New Jersey	Maritime Parc, New Jersey	1.33 mile (2.14 km)
Maritime Parc	71 Broadway, New York	1.54 mile (2.48 km) (planned)
71 Broadway (Downtown Manhattan)	Trump International (Midtown Manhattan)	4.5 miles (7.24 km) (planned)
Jersey City*	Downtown location*	2 miles (3.22 km) (planned)

* Not shown in map image.



Map of airFiber links (active and planned)

CHALLENGING LOCATION OVERLOOKING THE MARINA

Overlooking the Liberty Landing Marina, Maritime Parc is a restaurant and event center that is beyond the reach of the local wired service provider. With Maritime Parc's previous service provider, phone calls were constantly dropped, and the poor service hampered the efficiency of Maritime Parc's operations. MST took over and upgraded Maritime Parc's services using airFiber. Now calls are clear, and data transmissions are fast and reliable.

MST developed a link budget and installed the airFiber link in an hour (approximately half an hour per side). Relying on cellphones and wireless two-way radios, the MST technicians aligned the airFiber radios in under 15 minutes. Targeting a signal level of approximately -53 dBm, they used the LED displays for initial alignment and directly connected laptops for peaking. Because the process was so quick, the MST technicians double-checked the alignment and then verified that the alignment was indeed correct.

"MST used airFiber to effectively connect voice and data to Maritime Parc when no other service provider could or would."

Ryan Schmid, Senior Network Engineer

FUTURE NETWORK UPGRADES

MST will upgrade additional backhaul links to airFiber and plans to use airFiber for a new commercial building deployment.

For event Wi-Fi, MST deploys UniFi. At a recent event, MST installed three UniFi Access Points to support 200 seated attendees in the main conference room and additional attendees in various meeting rooms. Peak usage was 100 simultaneous Wi-Fi sessions.

Visit NuVisions by MST at www.nuvisions.net

For more deployment case studies, visit: www.ubnt.com/customers

