

When Only the Best Will Do.

NYC Broadband Service Provider Uses RADWIN to Deliver High-Speed Broadband Services to New York City's World Trade Center Construction Site.

With unmatched durability, reliability and performance, RADWIN's wireless broadband solutions are keeping America's most important construction project on schedule.

Overview

Rainbow Broadband Inc., a New York City-based Broadband Service Provider, was called on to deploy high-speed broadband access services at NYC's 16-acre World Trade Center site. This included connectivity to two skyscrapers, a major transportation hub and multiple on-site work trailers. The customer also needed VoIP and point-of-sale services to support a unique Subway sandwich shop which sits within 1 World Trade Center.

It was quickly recognized that for this landmark project, a highly reliable, high bandwidth communications solution would be required to keep the massive site running smoothly and meet its very aggressive construction schedule.

The Challenge

The site's complexity imposed demanding wireless requirements:

- **Mobility** – This project required support for an integrated mobile office environment that would sit atop of 1 World Trade Center along with the Subway restaurant. Communications would have to remain in continuous operation as the building rose upward to its final height of 105 stories and the mobile office and restaurant rose with it.
- **Price/Performance** – The solution would have to provide low latency, high availability, and high bandwidth to support rapid transfer of massive files such as architectural plans and blueprints in a cost-effective way.
- **Versatility** – Both VoIP and WiFi services were required to support a variety of applications, such as telephony service and point-of-sale credit card processing.

Because of the mobility requirements, fiber communications was not an option – fiber is very susceptible to being severed or damaged as the building scales up.



The Integrator

Rainbow Broadband Inc.

Rainbow Broadband is a full service provider that provides innovative technology and solutions to New York City businesses that require competitively-priced high-speed broadband, without having to rely on the incumbent carriers' infrastructure. Using HFM (Hybrid Fiber Microwave) technology, the company has developed a fast and reliable carrier class broadband network that can deliver symmetrical bandwidth at speeds up to 100Mbps, via Ethernet, to businesses which previously were limited in access due to location or cost.

www.rainbowbroadband.com

The Distributor

Winncom Technologies

Winncom Technologies is a worldwide distributor and provider of complete networking solutions that address the needs of various markets and applications.

www.winncom.com

The Reseller

Alliance Corporation

Alliance Corporation is a full-service value-added reseller of products and solutions for the Wireless industry. Alliance serves the continent's largest telecom providers, OEMs, systems integrators, resellers, and contractors.

www.alliancecomm.com

The Solution

Ultimately, Rainbow Broadband determined that microwave radio technology was the ideal solution.

After evaluating a number of competitive products, Rainbow Broadband deployed a solution using a combination of WinLink 1000 Point-to-Point and RADWIN 2000 B-Series radios. They installed RADWIN links at various locations at the construction site and used their roof-top distribution hubs where they beam bandwidth to other RADWIN radios located throughout Manhattan.

Located in lower Manhattan, the first remote hub beams signals to a construction trailer located at 1 World Trade Center. WiFi extends the connectivity to the Subway restaurant and other offices throughout the construction site. The second remote hub, located on the roof of the onsite PATH station (a rapid transit railroad), connects to 4 World Trade Center and down to the underground transportation hub being constructed.

The Result

Despite all the technical challenges, RADWIN's wireless broadband systems were able to satisfy the exacting demands of this complex construction project. RADWIN radios proved to be extremely flexible, offering uninterrupted wireless communications as the building progresses above and below ground. Additionally, the radios demonstrated outstanding durability and robustness in the field, continuing to perform despite some extreme weather conditions experienced in NYC.

This deployment is enabling America's most important construction project to proceed according to the aggressive schedule outlined by the project's management.

"The combination of RADWIN microwave technology and IP networking have enabled Rainbow to deploy converged networks almost anywhere. Here is an example of a network supporting VoIP, Internet access and dedicated lines located on the top of a skyscraper under construction. Using RADWIN technology, we are also deploying similar networks for concerts in Central Park, on piers along the waterfront for special events and on Randall's Island located in the middle of the East River for a DJ contest. None of this would have been possible just a few years ago."

Russ Hamm

President, Rainbow Broadband
NYC, USA

Why Rainbow Broadband Chose RADWIN

- » The performance of the RADWIN radios far exceeded the advertised specifications in reliability, throughput and ease of installation - whereas the competitive offerings did not meet their advertised performance specifications.
- » Reliable broadband wireless communications despite the complexity of the construction requirements - being able to rise up with the building as well as beam down to the transportation hub being constructed underground.
- » Proven in the field to be extremely durable, robust, operate in nLOS, high interference, and severe weather conditions.
- » The large number of locations required a radio that offered the most bits per hertz available. The entire throughput required was delivered through RADWIN's MIMO design without encountering any interference.
- » RADWIN products offered the best price/performance value in the industry.

About RADWIN

Delivering best of breed wireless connectivity solutions, RADWIN is committed to providing a complete offering for the Sub 6GHz domain. Recognized as the market leader, RADWIN provides competitively priced products that achieve unmatched reliability, flexibility and installation simplicity. Deployed in over 140 countries around the world, RADWIN's success is due to swift delivery of high quality wireless connectivity products that secure unrivaled performance for broadband access, backhaul connectivity, private networks and specialized broadband mobility applications.

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