



## Delivering Flawless Event Connectivity Using MetroLinq

The Bonnaroo Music and Arts Festival is an annual four-day music festival developed and produced by Superfly Presents and AC Entertainment. Since its first year in 2002, it has been held at what is now Great Stage Park on a 700-acre (2.8 km<sup>2</sup>) farm in Manchester, Tennessee, USA. The festival typically starts on the second Thursday in June and lasts four days. Main attractions of this festival are the multiple stages featuring live music with a diverse array of musical styles.

Source: [https://en.wikipedia.org/wiki/Bonnaroo\\_Music\\_Festival](https://en.wikipedia.org/wiki/Bonnaroo_Music_Festival)

## Challenges

**65,000+**

**Participants**

**4000+**

**Working Staff**

**250+**

**Vendor connections**

**250+**

**Media company connections**

**8000+**

**Connected devices**

While many cities of 70,000 people have network infrastructure in place, few of them were built from nothing in 25 days. The Bonnaroo Festival site has the same telecommunications requirements of any large metro area: voice services, life safety data transmission, individual business who need internet access for payment processing, public wifi, and finally, office buildings with their complement of devices including access control, lap tops, printers, and handhelds. Every aspect of festival requires rock solid and fast network connectivity. For the last 14 years, festival promoters have chosen Yellow Dog Interactive Media, Inc. to serve as the technical producers of all aspects of the site network and for the last 2 years, Yellow Dog has chosen Ignitenet's metrolinq product line to support network operations.

"We utilize mixed media transport topology including fiber and wireless backhaul," said Thomas Porter, president of yellow dog. "The ability for us to leverage the 60Ghz band with it's speed and interference advantages has been a game changer."

## Solution

MetroLinq 60GHz mmwave equipment from IgniteNet was chosen to provide wireless expansion/extension of the existing fiber network. In temporary events with many guests, it is really important to have the backhaul of the network separated from other frequencies in order to avoid interference. 60GHz is a perfect solution not only because it operates in an interference-free band, but it also is readily absorbed by oxygen which greatly reduces self-interference as well as provides extreme channel re-use. The 60GHz band also provides an enormous amount of spectrum which enables delivery of high bandwidth connections that cannot be obtained in other bands. Reliable and fast internet connectivity is essential to ensure that the event goes smoothly for the organizers and visitors but also to ensure security during event.

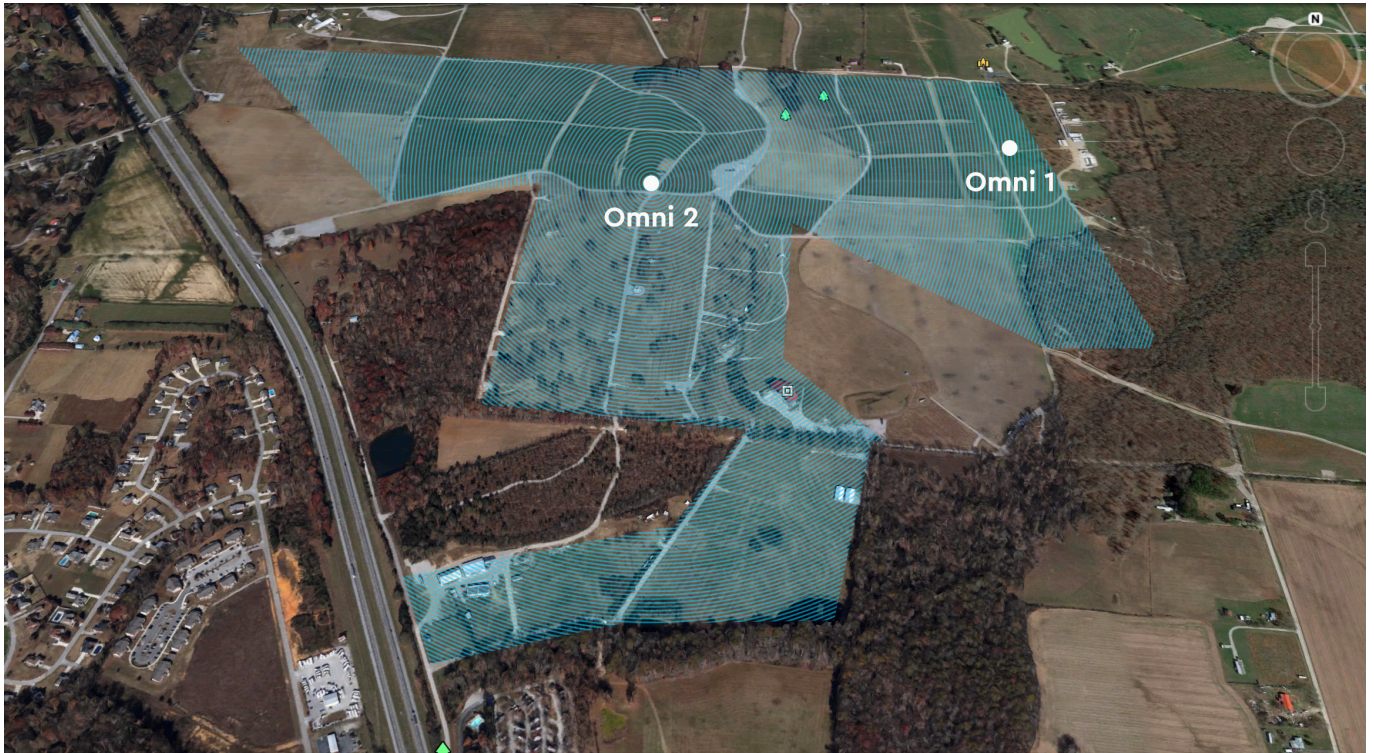


MetroLinq devices are also very easy to deploy rapidly with minimal network planning which allows operators to rollout multi-gigabit networks on demand. All devices come with an integrated 5GHz radio which may be used as failover if the 60GHz connection is temporarily impeded due to adverse weather conditions. The innovative, tri-band radio design of the MetroLinq base-station gives operators the ultimate tool for building multi-purpose networks which integrate backhaul, fixed access as well as Wi-Fi access using the same equipment. Additionally, the MetroLinq platform is cloud-enabled, greatly simplifying configuration, monitoring, and troubleshooting of the network from any location.

## Network rollout

MetroLinq 10G Omni devices were located at optimal positions to cover the event grounds and bring service to all corners of the park. Using MetroLinq 60-19 and MetroLinq 60-35 clients allowed the most distant areas of the park to be covered. Each of the client locations had multiple Wi-Fi access points hardwired to the MetroLinq equipment. Since some of the locations had fiber, MetroLinq was used to extend the existing fiber network. Utilizing the 60GHz frequency for this extension allowed the 5GHz spectrum to be available fully for Wi-Fi access, improving the number of connections and speed, ultimately increasing user satisfaction. The ultra-reliable, secure, and high-speed network also helped to ensure smooth coordination and communication between staff providing security, and coordinating services during the festival.

## Network diagram



## Summary

The performance numbers speak for themselves. MetroLinq 10G Omnis passed more than 2.5 TB (terabytes) of data throughout the show. The 60GHz wireless backhaul part of the network was responsible for 40%+ of the total traffic generated during Bonnaroo festival, “The MetroLinq performance was very extraordinary considering that the 60GHz network was sitting outside the fiber-based core of the network. If a guest was using public Wi-Fi, there was a 50% probability that the traffic was going through the 60GHz mmwave wireless backhaul,” said Thomas Porter of Yellow Dog Interactive Media.

IgniteNet MetroLinq equipment is field-proven to be a perfect solution for temporary setups that require high reliability, high capacity, and also simplicity when deploying the network. The products are a great fit not only for events but also for disaster recovery scenarios where mission critical data needs to be transmitted and other unlicensed band solutions cannot work due to interference on traditional 2.4GHz and 5GHz bands.