

Loea



The networks of today carry more mission critical data than ever before. The availability of this data is often the difference between success and failure, or even life and death. Wireless has proven to be a cost-effective and easily-deployable redundancy option in these network environments.

Applications

- Network Redundancy
- Temporary Networks
- Emergency Response
- Portable Communications Vehicle Deployment

Benefits

- Rapid installation and deployment without the need for cabling
- Continuous network uptime in event of disaster
- High bandwidth up to and exceeding 1Gbps
- Quick response to emergency situations

Application Brief

The Problem

The networks of today carry more mission critical data than ever before. And the availability of this data is often the difference between success and failure, or even life and death.

Examples may include a bank which processes financial transactions over a network. Or, a hospital which uses remote X-ray images for critical and time-sensitive patient diagnostics. Or, an emergency response team requiring temporary network connectivity at a natural disaster zone.

In these and many similar cases, the need for highly-available, redundant networks becomes apparent.

As a result, many businesses have developed comprehensive disaster recovery plans to virtually guarantee uninterrupted network connectivity in the event of a network catastrophe caused by electrical power failures, underground cable cuts, equipment malfunctions or natural disasters (such as fires, floods earthquakes, hurricanes and others).

Most Enterprise businesses have used slow T1/E1 leased lines or low-speed RF solutions as network backups. For higher bandwidth some companies install multiple fiber runs. But this can be expensive and cumbersome due to environmental constraints and rights-of-way issues.

In disaster areas or emergency locations, temporary voice and data networks are often needed in areas where cabling simply does not exist.

Wireless has proven to be a cost-effective and easily-deployable option in these environments. But, concerns of low bandwidth, interference, spectrum saturation and weather impact make most traditional wireless technologies unacceptable.

A new high-bandwidth, high-availability, highly-secure yet highly-cost effective wireless solution is required.

Disaster Recovery Solutions

The Loea Solution

Loea's millimeter wave radio products are the ideal solution for disaster recovery – from corporations needing backup connectivity from a fiber cut to emergency response teams requiring network connections to help save lives.

With the performance of fiber (1.25Gbps) and the flexibility of wireless, Loea's high-bandwidth point-to-point solutions can be rapidly and easily deployed in the event of man-made or natural disasters.

Loea's products are often used as alternative, redundant paths to traditional cable or leased lines between two locations. When these cable or fiber runs are broken, the Loea failover radio immediately becomes the primary data path. Or, vice-versa, in the event of Loea wireless signal loss, the cabling acts as a redundant path. The end result is a high-availability network regardless of potential interruption type.

With a compact size and optional ruggedized travel cases as an option, Loea's products can be kept in the centralized IT department or a storage closet until a needed. And, since the products are wireless, they can be rapidly deployed on roofs, carts, tripods or any temporary location at a moment's notice whenever and wherever needed.

Based on proven millimeter wave technology used by the military, Loea's products are highly secure and unaffected by most weather conditions including fog.

Using upper radio frequencies for transmission (70/80GHz), a simple, web-based licensing process reduces the potential for interference and spectrum saturation issues facing lower, unlicensed frequencies. And, a very narrow beamwidth (0.4 degrees) ensures that data is not easily intercepted.

Loea is helping corporations and emergency response teams remain connected despite network catastrophes or environmental factors with millimeter wave wireless solutions.

Loea App Brief

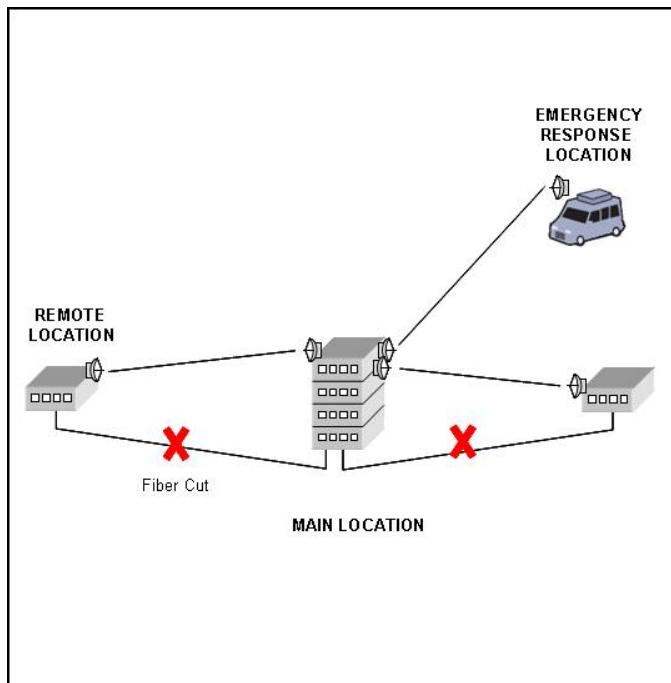
Disaster
Recovery
Solutions

Benefits

Loea's millimeter wave wireless solutions are ideal for maintaining network connectivity in disaster situations. Benefits include:

- Rapid Installation – can be installed in hours.
- Expanded Reach – easy deployment to locations where environmental or geographical obstacles make fiber runs or leased lines unavailable.
- Redundancy – acts as back-up or failover to ensure network availability.
- Reduced Costs – avoids excessive monthly leased line fees
- Improved Network Performance – removes throughput constraints and interference issues facing licensed microwave and unlicensed RF.
- Minimal Weather Impact – works in environments where FSO technology is impacted (fog).
- Enhanced Bandwidth – increases network capacity with Gigabit speeds.
- Greater Control – eliminates dependency on leased lines for connectivity.

Configuration Example



Loea Products

Loea products have been used as a vital communication link for some of the world's leading Enterprise, Carrier and Government customers.

Based on 70/80GHz millimeter wave technology (also referred to as E-Band), Loea offers the highest-performing, highest-availability wireless solutions available on the market today.

And by leading the successful petitioning of the FCC for commercial use of these frequencies and spectral bandwidth, Loea products will be able to reach up to 10Gbps throughput in the very near future.

Loea solutions are ideal for point-to-point connectivity between buildings, campuses and remote locations – eliminating the need for time-consuming and cumbersome fiber runs.

Unlike other wireless technologies that have performance limitations due to bandwidth, weather and distance, Loea's products provide full-duplex 1.25Gbps throughput with 99.999% availability at link distances exceeding 1km. And Loea's use of upper radio frequencies coupled with its narrow beam width (0.4 degrees) make it one of the most secure forms of wireless transmission today. No other wireless technology can make such a claim.

All Loea millimeter wave solutions include:

- 2 Radios
- 2 Antennas (2-foot diameter for maximum range)
- 2 Radio Mounts and Steering Mechanisms
- Installation and rooftop hardware are not included

About Loea

Loea Corporation is the pioneer of the 70/80 GHz wireless domain and the product, quality and technology leader.

Loea was the first company to release and deploy successful product in the 71-76 and 81-86 GHz bands and has been on the leading edge of technology creation in this space for over 10 years. Loea successfully petitioned the FCC to gain access to this spectrum for commercial use in 2001 and was first to receive commercial FCC approval in July 2005.

Loea is headquartered in Honolulu, Hawaii. R&D and manufacturing locations are located in Kahului, Maui, Hawaii and West Hatfield, Massachusetts.



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