Loea

Security measures are in effect to protect airports, terminals and ports from illegal activity and possible terrorists. But while these locations have the latest scanning and monitoring technologies, the networks in place today may lack the capacity needed to process this data.

Applications

- Full-Stream Video Surveillance
- Point-of-Entry Video Monitoring
- Remote Building Connectivity
- Temporary Solutions
- Disaster Recovery

Benefits

- High bandwidth up to and exceeding 1Gbps
- Rapid installation and deployment
- Area-wide video access
- Safe, secure environments

Application Brief

Transportation Solutions

The Problem

The roadways, railways, harbors and skies are busier than ever. Automakers continue to reach unprecedented sales levels. Cargo shipments arrive daily into ports. And, air travel, in particular, is at an all time high.

Travelers expect smooth – and safe – travels whether by train, plane, boat or automobile. Security measures are in effect to protect airports, terminals and ports from illegal imports, suspicious activity and possible terrorists.

While these locations are equipped with the latest scanning and monitoring technologies, the networks in place today may lack the capacity to effectively process this data.

One example is video surveillance. In cases where fiber is unavailable, leased lines or low-speed wireless links may be used. Video images are either batched or sent in compressed format from a remote location to a centralized monitoring location. The time delay associated with this form of transmission is unacceptable in high-risk areas.

High-speed networks are needed to ensure real-time, high-res video image transmission. And in locations that are difficult to cable, wireless is used.

Other examples of transportation applications requiring wireless connectivity may include:

- Real-time surveillance of hangars from central terminal
- Cargo bills of material and passenger manifests from loading docks
- Temporary disaster zones communications
- Camera images from customs to law enforcement locations

The need for a high-bandwidth, high-availability, highly-secure yet highly-cost effective network communications solution becomes apparent.

The Loea Solution

Loea's millimeter wave radio products are ideal for transporting and accessing data and video surveillance images in transportation environments.

Instead of using traditional leased lines or low-bandwidth radio frequency solutions to connect remote camera locations or remote buildings to centralized monitoring centers, companies can now link via a high-capacity wireless point-to-point solution.

With data throughput of 1.25Gbps, Loea's solutions are more than capable of handling bandwidth-intensive video feeds in real-time. Files and images that would typically take several minutes to transmit can now be transferred in a couple of seconds.

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

Transmission is at the upper radio frequencies (70/80GHz) – bands recently approved for commercial use. 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 transmission cannot be easily intercepted.

From a cost savings standpoint, Loea's solutions are one of the most cost-effective wireless solutions today. Installation can take place in the matter of a few hours – a significant reduction compared to fiber trenching. Costly monthly leased lines (approaching several thousands of dollars per month depending on location) are virtually eliminated. And since the technology is wireless, networks can be easily redeployed to new locations.

Loea App Brief

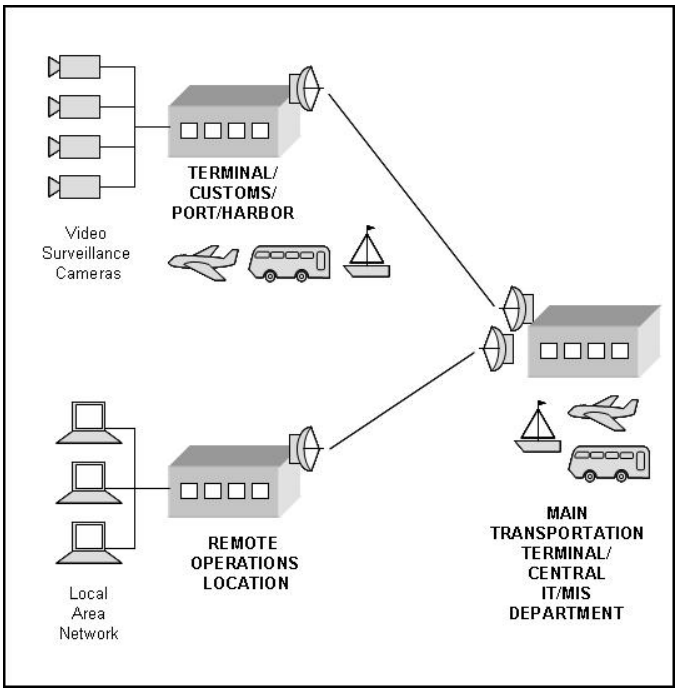
Transportation Solutions

Benefits

Loea's millimeter wave wireless solutions are helping keep roadways, airports, harbors and terminals safe and secure. Benefits include:

- Enhanced Bandwidth – increases network capacity with Gigabit speeds – ideal for video surveillance.
- Rapid Installation – can be installed in hours.
- Reduced Costs – avoids monthly leased line fees and replaces need for expensive fiber trenching.
- 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.
- Greater Control – eliminates dependency on leased lines for connectivity.
- 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).

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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