

Loea



Credit card data, customer account information and financial transactions often need to be shared between bank branches and other remote locations. Ensuring privacy in these point-to-point networks becomes a major challenge. Emerging financial applications also make bandwidth a key network requirement.

Applications

- Transaction Processing
- Branch Building Connectivity
- Video Surveillance
- Disaster Recovery

Benefits

- Secure transmission of data between remote locations
- High bandwidth up to and exceeding 1Gbps
- Rapid installation and deployment
- Enterprise-wide information access
- Safe, secure environments

Application Brief

The Problem

Financial institutions require high-performance and highly secure solutions for connecting bank branches and other remote locations.

Credit card data, customer account information, financial transactions and similar sensitive material often need to be shared between locations. Ensuring privacy in these point-to-point networks becomes a major challenge. And with new graphical and video-based financial applications emerging (such as live streaming video surveillance), bandwidth becomes another network requirement.

Until recently, fiber or leased lines were the predominant methods for connecting disperse financial locations. High recurring monthly lease fees and difficulty trenching fiber has resulted in wireless technology as an alternative.

An intruder on any network – wired or wireless – could access the corporate network, classified applications and customer databases. But by sending data through the air, wireless networking, in general, increases the potential for eavesdropping or security breaches.

Unlicensed wireless technologies used today (including Wi-Fi bridges) are highly suspect from a security standpoint. Although DES and AES encryption schemes are often used, these have proven to be vulnerable to attacks. A wide radio frontal beamwidth coupled with signal leakage on the sides and back of the radio increase the chance of signal interception.

Free space optics is also considered for point-to-point branch connectivity since it provides the capacity of fiber with the flexibility of wireless. But weather and fog make FSO an unreliable option considering the time-sensitive nature of financial transactions.

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

Financial/Banking Solutions

The Loea Solution

Loea's millimeter wave radio products are ideal for financial institutions such as banks seeking to securely transmit classified data between locations.

Instead of using traditional leased lines or low-security unlicensed radio frequency solutions to connect remote locations, financial companies can now link via a high-capacity, highly secure wireless point-to-point solution.

With data throughput of 1.25Gbps, Loea's solutions are more than capable of handling bandwidth-intensive network traffic.

And, since products are based on proven millimeter wave technology used by the military, networks are highly secure.

A very narrow beamwidth (0.4 degrees) ensures that data transmission cannot be easily intercepted unknowingly.

Transmission is at the upper radio frequencies (70/80GHz) – bands only recently approved for commercial use – which greatly reduces the potential for attacks using off-the-shelf products.

A simple, web-based licensing process ensures a link is formally registered and minimizes interference and spectrum saturation issues facing lower, unlicensed frequencies.

When coupled with third party wireless security devices, a Loea link becomes virtually impenetrable.

From a cost savings standpoint, 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 connect new locations and branches.

Loea App Brief

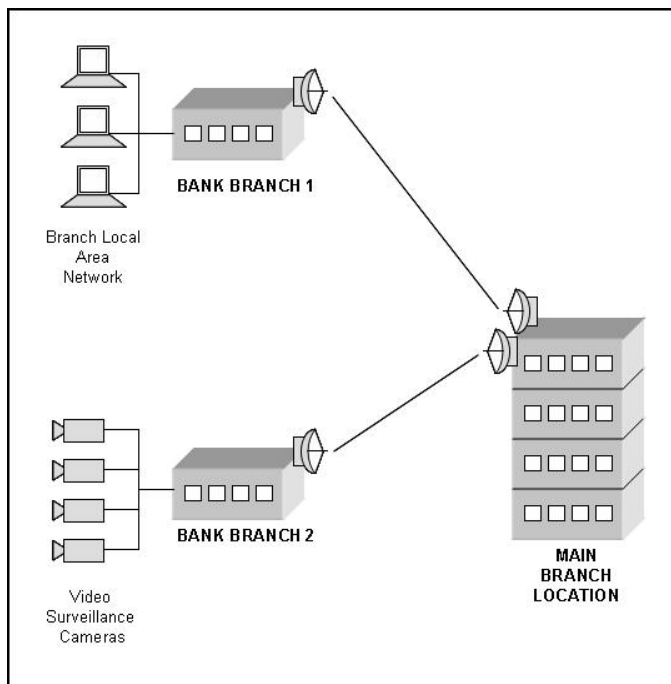
Financial/
Banking
Solutions

Benefits

Loea's millimeter wave wireless solutions are helping financial institutions securely transmit confidential data and bandwidth-intensive applications between branch locations. Benefits include:

- 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.
- 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.



Loea Corporation
Pacific Guardian Center
733 Bishop Street, Suite 1717
Honolulu, HI 96813

More info:
www.loeacom.com
(858) 646-5543 or (808) 521-4908
loeainfo@loeacom.com