



Introducing Ladybug RIBS!
Hold the barbeque sauce, I'm talking about our
Rural Internet Business Services!

Overview of RIBS 2021

Ladybug RIBS

With the internet, the world has become much smaller and companies are branching out across the country or even the globe.

The need to have a single network isolated from the internet is crucial to managing your data and resources securely. The task becomes complicated when it is necessary to connect third party cloud applications using different providers and in different locations. Add another layer of complexity when dealing with rural locations. This is possible through the Internet and IP technologies, and that's where our RIBS comes in.

RIBS is a multi prong approach that gives you secure communication between your locations, applications and for those in rural areas, better uptime, redundancy, and a more robust connection.

Each prong, or rib, is a stand alone service but when layered together with our technology, they give you infinite options to expand around the world!

Finally, a business class solution that works in both rural and metropolitan locations.

Game Changing Technology

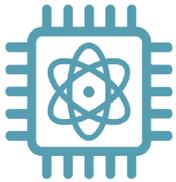
Our RIBS runs on a platform based on MSTN technology and is a readymade Autonomous Traffic Management System (AS), which allows you to spend network resources efficiently, while having all the necessary tools to manage and monitor, diagnose and control all the processes occurring on the network in real time.

MSTN technology is designed using a completely new architecture that overcomes all existing shortcomings and limitations of traditional network solutions. It can be used simply to create a robust connection in a single rural location or to build complex network that spans the globe!

This unique technology allows you to configure Autonomous Systems that have a lower implementation cost, but the same quality and security as more expensive enterprise grade network options.

Finally, a flexible, enterprise grade service priced for small to medium businesses that can be customized to fit your needs and scale easily as you grow!

What's so great about RIBS?



PERFORMANCE

It runs in the OS core, which gives much better performance compared to other solutions running on the user space level.



SUMMATION

Ability to combine multiple channels in the capacity summation mode and/or in the backup mode (hot and cold).



DYNAMIC RING

Dynamic port switching in case of UDP session freezing (real WAN networks).



TUNNELS MONITORING

Monitoring the quality of tunnels working in real-time (proprietary designed BTest module).



LOOP PROTECTION

Availability of built-in effective protection against various types of L2 loops.



UDP / ICMP TUNNELING

The tunnel can work over the UDP and ICMP protocols



FRAGMENTATION

The packet fragmentation algorithm is designed to overcome anomalies in the operation of the transport WAN network (Internet).

What's so great about RIBS?



SECURITY

Own mechanism of network indexes assignment



ENCRYPTION

A proprietary encryption algorithm that allows you to achieve high performance with a low-end processor



INTEGRITY

Guarantee that packets are still in order (in which order the packets went into the tunnel -in the same order the packets left the tunnel)



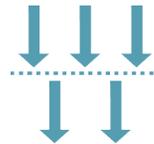
CONTROL SYSTEM

Monitoring and control based on modern Web 2.0 technologies.



AUTOMATION

Automated deployment and operation of secure networks of any scale.



DUP FILTERING.

Filtering DUP (duplicate) packages.



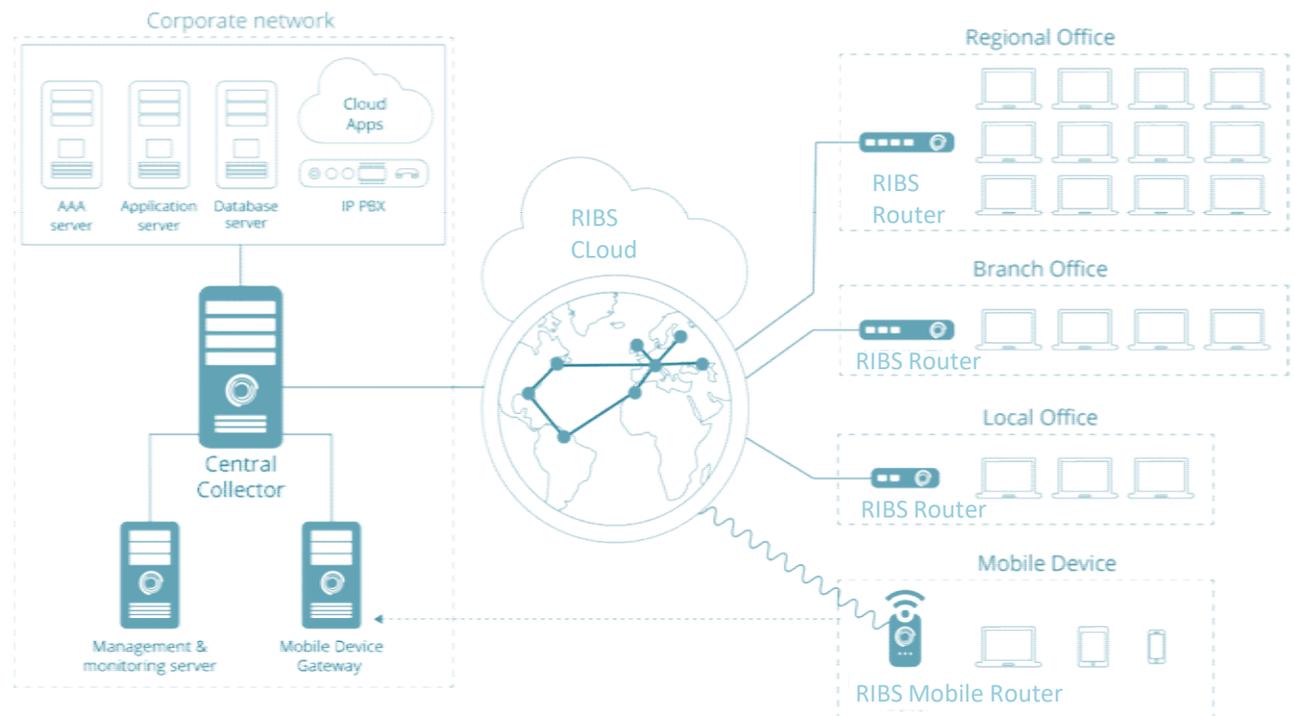
NAT SUPPORT

Works with all types of NAT

Technology transforming global networks!

The RIBS platform includes:

- Technology for creating the L2 Ethernet tunnels over WAN (Internet/Intranet)
- Transparent summation of transport channels and protection of data during transmission via unsecured network, with automatic filtering of route announcements and transmission of Ethernet traffic with arbitrary 802.1q marks.
- The resulting L2 Ethernet transport is capable of transmitting packets using VLAN 802.1Q (single TAG, QinQ) technology or without this technology (Untagged).
- Tunnel-forming equipment control and monitoring tools.



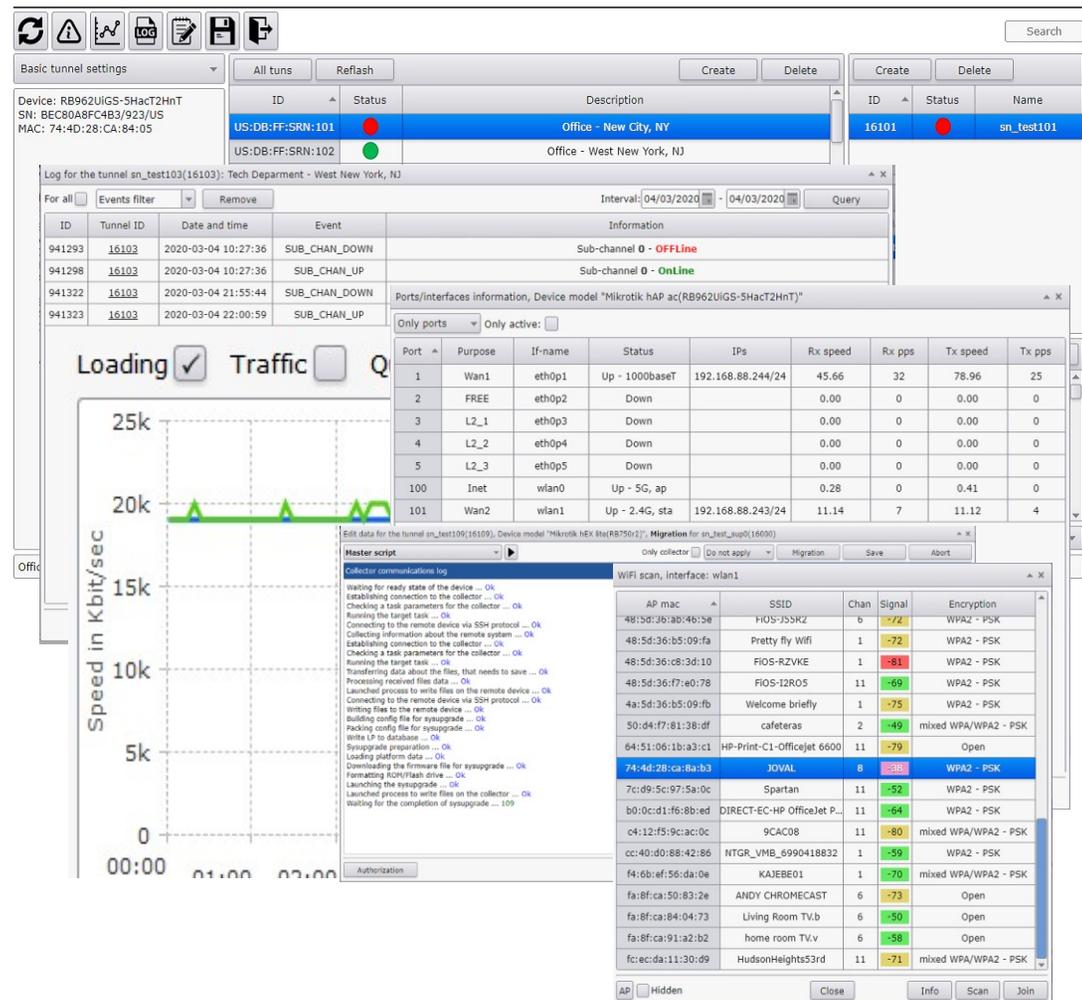
Control and Monitoring System

Using the AS, devices in remote branch offices can send traffic to other devices, cloud applications and other locations through a tunnel organized by MSTNT protocols over networks, even from multiple ISPs.

The AS is managed centrally using cloud technologies, which simplifies the delivery of WAN services to remote offices and allows real-time assessment of the quality of tunnels and their load with useful data. If the operator's transport network is overloaded, the AS redirects traffic to less overloaded segments of the network, and the monitoring system immediately alerts the personnel responsible for the problem network segment and provides the collected data about the failure.

The management and monitoring system allows network administrators to centrally manage the network. We can configure, and monitor communication channels in real-time, making your network adaptable and scalable.

And Ladybug is always here to support your staff and your network!



Improve your Connection!

RIBS Platform can significantly improve connection quality!

RIBS uses Aggregation for more bandwidth, reduces packet loss and minimizes jitter, giving you the best connection possible! If one channel falters, the system will roll seamlessly to another, so you have built in failover/redundancy for the best uptime.

This means a more robust connection, even in rural locations!

Non RIBS Platform



Delay 53-54 ms

Max Loss 14.0%

RIBS Platform

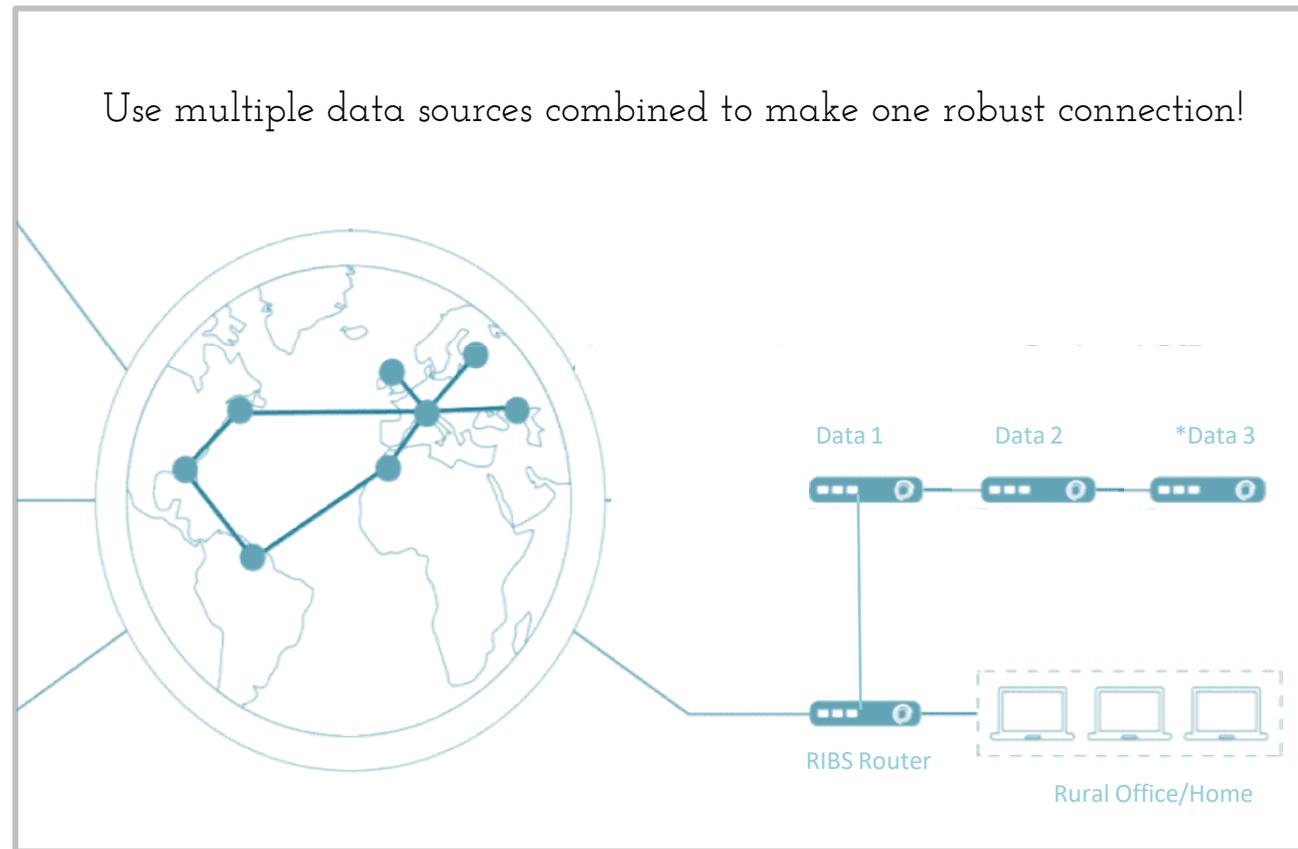


Delay 53-54 ms

Max Loss 1.7%

Sample Configuration: Rural Location Workstation

- Aggregation provides maximum bandwidth!
- When one channel falters, system rolls seamlessly to the other channels providing failover/redundancy!
- Highly customizable! We can design it to use all lines equally or set them up as failover.
- Less jitter and packet loss means virtual applications run flawlessly in even the most remote locations!

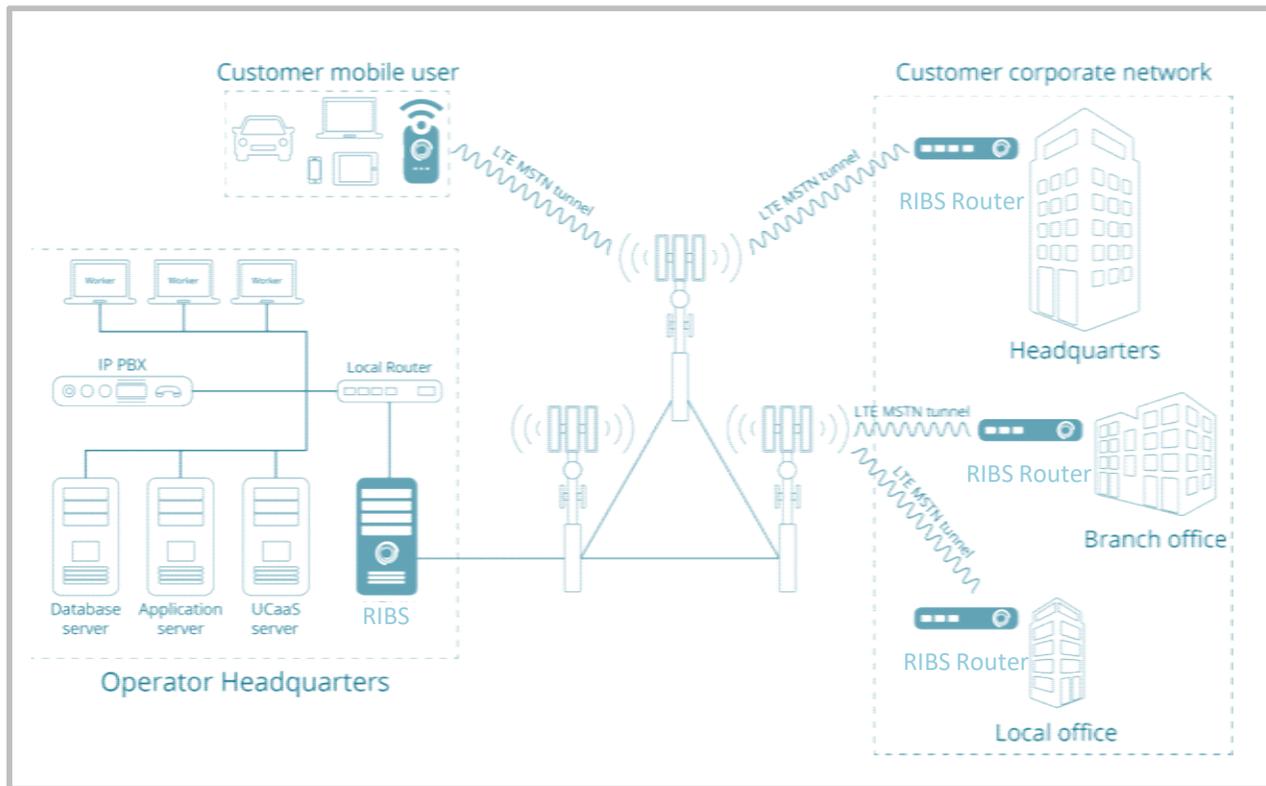


*Additional data sources are optional

Sample Configuration: Operator Subscriber Autonomous System - OSAS

- Aggregation provides maximum bandwidth, with built in failover/redundancy options giving you the best performance!
- Highly customizable! We can design it to do all the subscriber needs it to do!
- If necessary, the OSAS has the ability to connect to the RIBS virtual network.

Each OSAS is provided with a registration ID in the registry of Autonomous Systems and a certificate is issued describing the OSAS service.



Use Cases:

Some of our favorite use cases so far!

Use Case 1:

Observatory

An observatory in the desert rents telescopes to people all over the world. They log in and point the scopes and then download the pictures the next day. Using 2 LTE Data lines, RIBS was used to provide direct connection to the network for their customers as well as a more robust connection that could handle the data flow demands. It also provides failover options so that when one line falters, the owner doesn't have to drive in the middle of the night to fix it.

Use Case 2:

Virtual Events Coordinator

Mark wanted to leave NYC for the mountains of Colorado, but his business was to host Virtual Events for groups of 5-50 people. He was struggling with applications like Blue Jeans and Teams in the mountains. We used his existing Verizon line and added an AT&T LTE line, and using RIBS he was able to handle the larger groups and even run the heavier applications without issue.

Use Case 3:

Critter Cam

A kind hearted lady in North Carolina wanted to live stream so folks could enjoy the wildlife on her property. Not only was she very limited on data connections, the amount of data this project would use was a challenge, too. We used 3 LTE data lines, two set up as primary sharing the main load, and one as a failover so that when one of the primaries ran out of data, the stream would continue while she swapped out the sim cards. The reduction in Jitter and Packet loss allows her to maneuver the cameras remotely without dropping the connection or stuttering in the video.

https://www.youtube.com/watch?v=xNpfL_qgXKc

How fast can I get some RIBS!

We can usually move as quickly as you'd like us to. Most of the system is in place, we just have to choose the right equipment and then customize it to suit your needs, so we can have smaller project up and running within days!

The first step is for us to understand the scope of your network and what you need from it. The complexity of the project will determine how we work together and the timeline.

For fairly simple projects, we can do a proposed bid that you can buy via invoice. It takes about 7 days to get the equipment to you and 1-2 hours to install. We'll monitor the system the first 7-10 days to make changes to it and make sure it's at optimal performance.

For complex projects, we'll need to work with you to understand your needs. Once we do that, we'll draw up a proposal and give you the cost for a Proof of Concept.

Once you approve the PoC, we'll move forward with the install. We'll use the PoC to work out the kinks and if you agree, we'll move forward with a full roll out plan.

Why Choose Ladybug?

Our only goal is to make sure you get the services you need! RIBS can work with a wide range of equipment and any data connection. Ladybug is device/data agnostic, so we have no agenda to sell you things you don't need or want!

We are a small, female owned business that knows what it's like to deal with large companies that prefer enterprise size deals over small to medium sized deals.

We value all our customers and we know our success depends on yours! You won't feel the transition from prospect to client!

Face it, technology is not reliable! Ladybug Business Solutions is the reliable part of the equation. We're always here to help and keep you connected.

