



Reliable Synchronization of Mission Critical Data Over Poor Connectivity

Introduction

Ross Maritime is a shipping agency headquartered in Mobile, Alabama that specializes in streamlining the passage of passenger and commercial vessels through the Port of Mobile, the ports of the Gulf Coast, and further. We specialize in logistical solutions to meet a vessel owner's needs, including everything from agency services to freight forwarding.

Compliance and Safety

Our critical use case for Resilio was compliance. The nature of our work requires close coordination with a myriad of government agencies, from US Customs to the individual Port Authority that oversees each harbor. Each public agency and private ship management company requires careful tracking of documents like customs forms, cargo manifests, and passenger logs. It's absolutely essential that this sensitive data is kept secure and updated.



No More Driving

Before Resilio we were limited to physical means like USB thumb drives to move data back and forth between vessels, port facilities, and our central office. This was insecure, unreliable and incredibly cumbersome and time-consuming. Employees spent hours driving back and forth between ports, sometimes late at night or on the weekend depending on when vessels were arriving or departing.

To move beyond the manual movement of physical media, we needed a solution that could utilize a wide array of onboard communications options while at the same time recognizing that any one or all of these communication channels may be unavailable at any moment. The solution needed to be incredibly fast and fault-tolerant. But it also needed to be easy to use by those onboard the vessels tasked with maintaining compliance. In our search for a solution, cloud services were out of the question in light of the often poor connectivity, where uploading to or downloading from the cloud is difficult or impossible.

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We also regularly are entrusted with sensitive personal and financial data as part of our operations and needed a solution where such data existed at rest exclusively on our own private infrastructure.

Brent Nevison is the CEO of Wolverine Investigations, an IT consulting firm whom we retained to help us in our search. Brent recognized that Resilio's P2P technology provided a more secure alternative to the public cloud and a more reliable means of moving critical data over unreliable satellite, cellular or point to point connections between vessels when in range. He introduced us to the product, saying that "Resilio would keep Ross Maritime fully compliant and would be very easy to use for those onboard the vessels. All of the required documents would be available in an easy to access folder constantly and automatically kept in sync with shore facilities, while at the same time delivering on the security and reliability aspects required."

Resilio offered an ideal solution. It's fully cross-platform, so we run an instance on a central Linux server in our main office, windows servers in ports and can even sync between Android tablets as endpoints as they move about the vessels. For each of these platforms, Resilio is able to switch between any available communication channel reliably depending on availability. Furthermore, the Resilio solution offers a wide array of job types, include a full Sync option that can utilize vessel to vessel communication channels to move critical data in a "store and forward" fashion from ship to ship and then to shore. This is incredibly useful for some vessels that spend long durations away from high bandwidth communication channels but are occasionally in range of other vessels' point to point communications.

In all cases, we can easily push new documents or formats from the server to the endpoints, and when an employee updates a bill of lading or other documents in the field, they don't need to do anything, the data is automatically synced back to our central office.

Incredibly Fast

Underneath this easy to use solution is technology custom-built for wide-area maritime communications. The protocols involved are able to utilize channels at the highest possible speeds regardless of type, including point to point HF, UHF, satellite, long-range wifi and LTE channels.

With this powerful platform fully deployed across the entire fleet, Resilio allows our IT staff to look beyond compliance and towards the future digital transformation of transportation as the same solution can accommodate much larger data sets and be utilized to deploy more capable applications across the fleet in real-time.

With Resilio, all data, no matter how large syncs reliably even when connectivity is poor. Furthermore, Resilio is efficient, only moving the blocks of data that have changed to minimize usage on expensive metered connectivity. It is the perfect platform to deploy modern digital applications at sea.

Conclusion

While our digital future is bright, compliance and safety are mission-critical today. By eliminating physical media and USB sticks, Resilio has saved man-years in lost productivity and provides the peace of mind that our data will both be accessible and secure.



For More Information

For more information about Resilio Connect, please visit <https://www.resilio.com> or contact sales@resilio.com

About Resilio

Resilio's proprietary core technology has moved more data than any other file distribution protocol in existence. Having demonstrated global scalability over billions of endpoints while routinely moving Exabytes of data, Resilio leveraged this technology to build a unique enterprise-grade solution that is both easy to use and secure. Trusted by 1,000s of customers across 6 continents, Resilio's proven technology and world class support are ready to deliver on your enterprise data needs.