



## NIASSA NATIONAL RESERVE | MOZAMBIQUE

Niassa National Reserve is nestled within the unspoilt wilderness of northern Mozambique. It is underdeveloped, remote and difficult to access. It is also beautiful and home to an abundance of impressive wildlife. The reserve plays host to many dramatic large animals including leopards, lions, zebras, wildebeest and elephants to name a few. This sadly also means there is an ongoing issue with poachers.

As Mozambique's biggest conservation area covering an area of approximately 42,000 km<sup>2</sup>, the Niassa National Reserve accommodates the largest proportion of the country's wildlife. Finding a solution to the problems caused by the poachers was a high priority. Kinetic Six became involved in the project to deliver a wide-area radio network across the Niassa National Reserve (NNR).



### ABOUT KINETIC SIX

Kinetic Six has a mission to deliver market-leading secure telecommunications products and services to consumers, business and governments. Established by former UK Special Forces Communicators, Kinetic Six employs a mix of multi-national former military, intelligence services and commercial experts, while building on the proven reputation for delivering excellence.

Dedicated to providing the best secure and robust communications solutions, threat detection, support and asset tracking solutions to our clients, Kinetic Six operate in the government, security, and wildlife conservation sectors.

## ABOUT THE PROJECT

Kinetic Six were tasked with providing a wide-area radio network across the Niassa National Reserve – Mozambique, which is exactly what they did. With each repeater site linked via Point-to-Point they provided an all-informed network which allowed data backhaul to the operations room. It improved situational awareness and helped to aid the reduction of poaching, through enhanced communications across the park.

## THE KINETIC SIX APPROACH

The solution was to deploy a network of Point-to-Point links across the high points located within the boundary of the reserve. These were to route the data across the area of operations and back to a central operations room.

## CAMBIUM LINK PLANNER

The LINKPlanner tool from Cambium Networks is a specialist application created and used to design networks. It makes it possible to carry out robust scenario planning. This is achieved by plugging in many variants such as geography, distance, antenna height, transmitter power and many other factors involved in calculating the most optimum system performance. The use of LINKPlanner by Kinetic Six helped to identify the most cost effective and most efficient network design, essential in such a challenging project.

## END RESULTS

All links were successfully aligned. The most challenging link was from the Point-to-Point hub across the park to Mount Yao, which involved aligning a 117Km link, using Cambium PTP670 with a 2ft dish attached. Kinetic Six managed to achieve a phenomenal link speed of over 50Mbps. Shortly after this radio network installation was complete, Fauna & Flora International ran the following headline “Down to zero – No elephants poached for whole year in African park – June 2019”. With this outstanding technical achievement, Kinetic Six played a vital part in the conservational efforts for Niassa National Reserve.

