

Turning the rhino poaching tide with the help of surveillance tech.

Rhino sanctuary stays one step ahead with perimeter protection.



Organization:

The Rhino Pride Foundation Sanctuary

Location:

Limpopo, South Africa

Industry segment:

Tourism

Application:

Safety and security, perimeter protection

Mission

According to data from the International Union for Conservation of Nature (IUCN) Species Survival Commission's African Rhino Specialist Group (AfRSG), incidents of rhino poaching in Africa has increased year-on-year for the last six years. In South Africa alone, a rhino is killed every eight hours, according to Savetherhino.org. Moreover, poachers are embracing sophisticated technology and no longer make use of traditional poaching methods, to increase the efficacy of their illegal and nefarious operations. On the other side of the technology coin though, IUCN states that heightened law enforcement operations boosted by increased use of technology has led to a slow-down in the increase in poaching incidents annually.

Consequently, Axis Communications stepped up to play a part in the conservation tale by assisting South African National Parks and other organisations in combatting poaching and helping to ensure that all five rhino species thrive in the wild for future generations.

Solution

The first port of call for this assistance was The Rhino Pride Foundation Sanctuary located in Limpopo. The Sanctuary has a large perimeter to secure. The sheer immensity of the perimeter boundary called not only for advanced thermal detection but for an analytic that could act as the first line of defence and give the rangers the ever so crucial early detection system that they need.

Furthermore, no infrastructure and network was in place, meaning that Axis had to come up with a design to provide network connectivity by using solar panels. Seven of these solar panels were installed along with three AXIS Q1931 and four AXIS Q1941 Thermal Network Cameras. In addition, AXIS Perimeter Defender, a flexible scalable video analytic application, as well as the company's AXIS C3003-E Network Horn Speaker were also included in the setup.

“Axis Communications is very excited to be part of this journey to preserve our wildlife. We are very committed to this cause and hope our technology can assist in curbing the poaching epidemic that we are dealing with.”

Roy Alves – Country Manager at Axis Communications.

Result

The mountainous terrain that borders the reserve no longer poses a threat to the security of the premises. Previously this open area posed a threat and potential risk area for poachers to gain access to the reserve. Thanks to the installation of Axis thermal network cameras and the early triggers from the AXIS Perimeter Defender application, even complete darkness cannot offer poachers a place to hide.

Helping to save one of South Africa's big 5 from extinction

The Rhino Pride Foundation Sanctuary, a rhino sanctuary and orphanage, offers visitors the opportunity to see rhinos in their natural environment. The reserve prides itself with its mission statement "to contribute to wildlife conservation through sustainable utilization thereof with uncompromising concern for the welfare of the animals". Sadly, the need has in recent times arisen for rhinos to be protected as they are an endangered species, thanks to a thriving black market for rhino horn in the East, as well as innovative, relentless poachers.

Criminal syndicates have become more and more sophisticated in terms of their tactics and equipment. Thus meaning the reserve required new high-tech approaches to help bring the perpetrators to justice and more effectively protect the rhinos. In order to turn the mountain-sized challenge of patrolling large, harsh, and isolated landscapes, rangers employ thermal imagery cameras to remotely track illegal entry into parks as well as protected areas.

Because of the vast area that the parks normally encompass and the limited number of rangers that they have at their disposal to patrol these areas, it is virtually impossible for parks like The Rhino Pride Foundation Sanctuary to effectively serve as a deterrent to poachers without the assistance of technology.

A delicate balance of nature and technology

Thanks to Axis thermal network cameras, rangers have a very effective tool for perimeter protection that utilises thermal imaging to detect people, objects and incidents 24 hours a day, seven days a week, from pitch dark areas to a sunlit parking lot. This makes it possible to discover suspect activity before the intrusion even occurs, and enables users to visually verify what is going on before taking relevant action.

AXIS Perimeter Defender on the other hand, enables detection of multiple events occurring simultaneously in different places. It analyses detected events, dismisses non-threatening ones and notifies security staff of potentially critical situations. The end-result is accurate detection and minimal false alarms.

Additionally, Axis network horn speakers are used in conjunction with AXIS Perimeter Defender. This combination enables an operator to remotely address people and deter unwanted activity. The loudspeaker can also play a pre-recorded audio file, when it is manually or automatically triggered in response to an alarm event.

Saving time and space with 24/7 surveillance, even during blackouts

The surveillance system utilizes a battery backup for emergencies and the optic fibre network ring is also supplemented with solar power. This enables the system to function during power cuts and high risk areas to be continually surveyed and monitored during emergencies. This is paramount as it enables the rangers to act quickly to any potential threat, even before the perimeter is breached.

Thanks to the cameras and analytics the rangers have a very effective tool for perimeter protection that can be used at all times of the day. This makes it possible to discover suspect activity before the intrusion even occurs, and enables users to visually verify what is going on before taking relevant action.

