



Reinvent conservation today to create a future in which animals roam free

Why Connected Conservation makes sense

South Africa is home to nearly 80% of the world's remaining rhinos. With populations being decimated by poaching, by 2025 there's a real chance the rhino could be extinct. A private game reserve took the lead in finding a technology-based way to deter poachers.

How focusing on people protects wildlife

Partnering with Cisco, we designed a solution connecting multiple types of technology. It tracked the movement of people, identifying those with dubious intent, helping to pre-empt harm to the animals.

What connected conservation technology achieves

Innovative application of IT infrastructure, managed services, data analytics, multiscreen communication, secure network and data flow, a point-to-point reserve network, CCTV cameras, and biometric scanning have reduced the number of incursions into the reserve by 68%.

'In a connected world, linking technology and conservation with people has given us an opportunity to create a safe haven for species. It has allowed us to proactively protect species by implementing workable solutions in a harsh environment like the bush. Working closely with Cisco, we've established a reliable, secure reserve area network that is being replicated in other reserves in and around Africa.'

Doc Watson, Senior Executive Vice President, Cisco Alliance, NTT



Challenge

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Every day, hundreds of staff, suppliers, contractors, security personnel, and tourists enter and exit the reserve. Being in such a remote location, this activity wasn't properly monitored. Only basic IT infrastructure and access control, manual security processes, and very limited communication existed.

An end-to-end solution was introduced, proactively stopping people entering the reserve illegally. If an incursion took place, the solution triggered an alarm in the control center. An alert with exact coordinates for the incursion was sent to armed rangers' mobile devices, who patrol both on the ground and in a helicopter.

Solution

How focusing on people protects wildlife

Partnering with Cisco, we designed a solution connecting multiple types of technology. It tracked the movement of people, identifying those with dubious intent, helping to pre-empt harm to the animals.

The innovative application of multiple technologies dramatically reduced the number of incursions. These technologies included IT infrastructure, managed services, data analytics, multiscreen communication, secure network and data flow, a point to point reserve network, CCTV cameras, and biometric scanning.

Preventing incursions is possible only if you are able to observe the boundaries of the reserve comprehensively. This was achieved using a point-to-point reserve area network (RAN), creating a high-security perimeter 'net'. CCTV cameras and biometric scanning extended the reserve's IT infrastructure into remote areas.

Wi-Fi and local area networks at each gate allowed communication between security personnel and game rangers both on the ground, and in the air. Connectivity to the national database of poaching suspects and backing up of reserve generated data to a secure cloud service-enabled real-time data analysis.

Outcome

What we achieved with an intelligent solution

Innovative application of IT infrastructure, managed services, data analytics, multiscreen communication, secure network and data flow, a point-to-point reserve network, CCTV cameras, and biometric scanning have reduced the number of incursions into the reserve by 68%.

Poaching in the reserve dropped by 96% in its first year. And, in 2017 and 2018, there were zero rhinos poached. In addition, we've helped reduce incursions into the reserve by 68%.

We're building on three years of success of the Connected Conservation programme under the Dimension Data brand.

Our vision is to eliminate all forms of poaching, globally, through continued innovation in intelligent technology, expanding the solution in southern Africa into the Kruger Park, and protecting more vulnerable land and water species in more countries.

With the expansions into Africa, the aim is to bring together national and private park management, sharing info and tactics to safeguard more species across various terrains.

Which technologies?

- a secure park area network
- data collection and analysis via CCTV/ biometric scanning
- Wi-Fi and local area networks at each entrance
- LORA technology throughout the reserve
- seismic sensors and/or magnetic sensors on the reserve periphery

Which services?

- Technical Services
- Managed Services
- cloud services

Which partners?

- Cisco