

Chester Zoo is the UK's number one zoo, with over 7000 animals and 400 different species, including some of the most endangered species on the planet.

They believe that by observing we can all learn so much more about the animals, their natural habitats and what makes them so special and worth conserving. CCTV provides a natural aid in achieving this, and in ensuring the safety and security of everyone involved.

A number of CCTV systems had been installed by a variety of companies over the years and the zoo wanted to maximise the efficiency of the system by standardising the equipment. Wayne Wheatley, Security Manager at the zoo, was keen to move security from a reactive to a proactive approach. "The zoo covers a very large area, and I wanted to use CCTV to help the security team cover the most ground, in the most effective manner," he explains.

To achieve this, they decided to look for a single provider that would be able to cater to all of their needs. Having asked a number of companies to tender for the project, AGS Security was selected, based on the product offering and because AGS best understood the needs of the zoo.

With the old systems not giving them the best of coverage over the 110 acre site, the zoo wanted a comprehensive system that would provide centralised security along with behavioural monitoring for the animals.

Chester Zoo decided to maximise the efficiency of its CCTV system by bringing new and existing cameras back to a central hub which is manned by the dedicated on-site security team. The cameras allow the team to proactively manage security and safety throughout and also allows the keepers to develop a better understanding of the behaviour of the animals in their charge.



Initially, three Dedicated Micros Digital Video Recorders with a 48 camera capacity, were installed into the "Pod security centre". The DVRs contain hard drive technology which enables staff at the zoo to continue filming real time whilst also accessing past images.

This equipment allowed AGS to integrate the existing cameras and allows for further additions in the future. AGS also installed new Dennard cameras, these cameras have fully functioning 360 ° pan, tilt and zoom facilities.

Vista static vandal resistant dome cameras were also installed internally and externally throughout the site. These cameras are used to give a permanent view of an area, in this case they are used to monitor the gift shops and all money-handling areas which allow the zoo to keep an audit trail of all transactions that take place on a daily basis.

Working in partnership with one of their preferred suppliers AGS are able to offer customers a mobile demonstration unit which is installed with the latest CCTV equipment, this came in very useful during the project. It enabled AGS to define the correct positions of cameras at a particular point in the zoo, ensuring all the details were correct before installing the cameras.

As would be expected in a zoo, monitoring the behaviour of the animals was a very important component of the overall system. "The zoo is very active in the world wide breeding programme and the keepers particularly wanted to be able to learn as much as possible about how their charges gave birth," says Mr Wheatley.



“The cameras with IR functionality are an ideal tool for this as they don’t disturb the animals, but provide coverage day and night allowing us to record and learn from their behaviour.”
Mr Wheatley, Security Manager



In order to house the animals in a manner most sympathetic to their natural environment, the zoo naturally covers a vast area. With distances often exceeding 1km from camera to control room, a cost effective solution to ensure signal integrity of picture quality needed to be found.

Having explored a number of technical options, AGS decided to use NVT compression equipment. It was clear from the beginning that it would be financially unfavourable to dig trenches to lay fibre cables, especially with cameras stationed all over the zoo, so NVT technology was well suited to avoid this problem.

The zoo also requested that they would like to be able to operate the whole system from the central hub station which again can be some distance from the cameras. To ensure that the NVT equipment was the best solution to the problem, a temporary installation was devised to test the signals. This was especially useful over the monorail which, because of the electromagnetic field it generates, would have been problematic with other forms of technology.

The zoo was obviously a fascinating environment for the installers to work in, providing new challenges and novel situations on a daily basis. This meant that the work usually had to be planned round the animals and their daily schedules; the installers had to be very flexible, often going in out of hours to get the work done.

“Around 1.3 million visitors currently visit the zoo every year and this number will be set to rise with the fulfilment of these plans,” says Mr Wheatley. “The security measures will need to reflect this change which is why a proactive approach is so important.”

The zoo is very pleased with the new set up and with the work that AGS has carried out. The ability to control all the footage from just one area has allowed them to make the most of the system and allows the security team to more efficiently cover the whole park.

“There is a massively increased potential to tackle the issues of petty crime and shoplifting,” says Mr Wheatley. “Also, because of the IR capabilities of the cameras, we can now provide the zoo with extremely effective coverage, day and night and in all weather conditions.”



About AGS Security Systems

Established in 1987, AGS is a NSI NACOSS Gold accredited provider of a range of security solutions in North Wales and North West England. AGS services include: Intruder Alarms, CCTV Systems, Fire Alarm Systems, Access Control Systems and Automatic Gates/Barriers.

AGS offer a full maintenance and after sales service on all their products, along with dedicated account management and on-going customer support.

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