The Snow Centre - Hemel Hempstead, UK

Winter all year round
With the perfect slope, the perfect snow, the perfect location; The Snow Centre in Hemel Hempstead is Britain’s newest indoor snowsports destination. Designed to deliver the alpine conditions every skier and snowboarder dreams of, guests can enjoy a huge 160m main slope as well as the largest indoor lesson slope in the UK. Both slopes are over 30m wide and maintained with the perfect snow surface. The Snow Centre employs some of the most highly qualified and talented instructors and coaches in the UK, with courses suitable for first timers on the snow, enthusiastic intermediates or even a budding Olympian. The centre is a British Association of Snowsports Instructors (BASI) centre of excellence.

Off the slopes, The Snow Centre offers team building and corporate hospitality experiences in three air-conditioned conference rooms holding up to 32, 45 or 55 people. Each conference room includes projector, TV & DVD, WiFi, refreshments and full disabled access.

The project is the brainchild of David Surrey who first built a plastic outdoor ski slope on the same site in 1978. Over the next 30 years, the original Hemel Ski Centre grew to become one of the best dry slopes in Britain. The construction, led by McAlpine, for the new state-of-the-art facility started in 2008 and cost around £23 million to build. The final 25,000 square foot site opened in May 2009 with car parking for 250 vehicles and receives up to 10000 visitors per week during peak times. The Snow Centre has attracted a number of high profile guests including World Cup skier Ed Drake, blind speed skier Kevin Alderton, Ski mountain biker Fin Paton and Olympic skier Alain Baxter.

Protecting the piste
With such a large and prestigious venue, security is critical to The Snow Centre’s operations. From the first meetings with the architects and the construction firm, due care and consideration was given to how The Snow Centre could be secured effectively and discreetly both indoors and outside. One major area of concern is the „Snow Box“, which contains the two main slopes and 80 tons of snow kept at minus 2 Celsius. The box is lined with a special insulating membrane, which makes running new cables a complex and expensive undertaking. Any CCTV cameras within this area would need to work reliably at low temperatures while offering good quality even with the glare from the perfect white snow.

As David Surrey, Commercial Director for The Snow Centre explains, „The CCTV system needed to be both high quality and reliable with the ability to cover the entire Snow Centre from the Snow Box all the way through the car park and main gate. We had worked with Switchnet on an earlier project and had selected them as our primary IT contractor for The Snow Centre’s IT and AV systems, so we turned to them for advice.”

Converged network design
Switchnet is a leading networking services integrator specialising in the development and support of networking infrastructures as well as a highly respected MOBOTIX AMP partner. The firm prides itself on being vendor agnostic and maintains CCTV and networking expertise across a number of
different manufacturers. With this independence in mind, in early 2008, the Switchnet project team evaluated the proposed Snow Centres architectural plans and had several meetings with the facilities managers. Based on the requirements of The Snow Centre, Switchnet came up with a MOBOTIX based design using 40 cameras including 4 within the Snow Box.

“The Snow Centre had no legacy infrastructure, a good IP network and requirements for high quality images and sound across indoor, outdoor and cold climate conditions,” explains Gregg Pike, Operations Director for Switchnet, “In this environment, MOBOTIX was the natural choice.” The design for the CCTV system would utilise the mixed Gigabit Ethernet and Fibre optic infrastructure that Switchnet planned to install to support IT, telephony, wireless internet and IP-TV throughout The Snow Centre.

“The decentralised concept used within the MOBOTIX platform allows us to run the CCTV system high resolutions and with fast frame rates without overloading the network,” explains Pike, „With image processing performed inside the camera, The Snow Centre was able to save a considerable sum of money by not having to deploy a control room full of powerful video servers while staff are able to view the CCTV images from any network connected PC.” With a design approved, work on installing the network and CCTV at the site began in late 2008.

Effectively and discretely secured by MOBOTIX

Deterring unwanted guests

However, around Christmas of the same year, The Snow Centre building site was hit by a number of incidents of vandalism. Fearing delays to the project, the building contractor McAlpine turned to Switchnet for help. The response was a high mounted MOBOTIX CCTV camera with night vision lenses, which recorded footage of teenage intruders’ in the site a few nights later. The footage was passed to the local Police who warned the offenders with clear photographic evidence and the vandalism stopped.

Reliability even in the cold

The build project progressed smoothly with MOBOTIX cameras installed in the Snow Box in March of 2009. „One of the key features of the MOBOTIX cameras is their ability to operate at low temperatures,” explains Pike, „The cameras in the Snow Box don’t require any heaters or protective housing and the quality was exceptionally high.”

All 40 cameras are monitored from a security station within The Snow Centre using MxControlCenter software. By using a decentralised CCTV concept, The Snow Centre has required only a modest investment in its security station infrastructure while benefiting from sophisticated video and alarm management with an integrated layout manager to help operators quickly zoom in
on areas. After a brief period of training, The Snow Centre facilities and security teams quickly adapted to its use and are able to respond to incidents quickly.

In fact, shortly after The Snow Centre opened in May of 2009, the MOBOTIX system was used for such an incident. During a busy session, a fire alarm was triggered prompting The Snow Centre to be evacuated. After the ‘all clear’ was given by the fire brigade, the facilities managers were able to replay events across the entire centre and located an unsecured control point at a low level that had been activated by a small child.

“The system allowed the facilities team to quickly evaluate the incident,” explains Pike, “and the control point was moved to a higher point on the wall to stop false alarms in the future.”

Flawless operation
Since the opening of The Snow Centre, the MOBOTIX CCTV solution has performed flawlessly. The installation is discreet yet offering 100% coverage over all public accessible parts of the facility.

“The safety of our guests and staff is of paramount importance to us,” comments Surrey, “Our investment in MOBOTIX and diligence of our facilities and security teams ensures that we are able to protect everybody both on and off the slopes.”
MOBOTIX has developed and manufactured IP video systems, video management and analysis software in Germany since 2000.

MOBOTIX stands out for its **high level of reliability**. All outdoor cameras are subjected to a stress test for temperatures between -30°C and +60°C (-22°F and +140°F). Without additional components, without heating or cooling and with no moving parts (for example auto iris), they are virtually maintenance free.

MOBOTIX delivers a **perfectly matched package**, starting with the microSD card for storage management and HD audio (microphone and speaker) with VoIP telephony through video analysis, a professional video management system and motion detection software reducing false alarms.

The **decentralized architecture** means that a central computer is not required and the network load is minimal. The intelligent cameras from MOBOTIX process and store image data themselves, trigger events and, in the event of remote access, manage the frame rate and resolution depending on the available bandwidth.

The **6MP Moonlight sensors** and complementary **thermal imaging technology** ensure reliable detection of moving objects, even under the most challenging light conditions and over long distances. As a result, it is possible to cover large areas with just a few cameras. Less power cabling, less IT infrastructure and fewer additional light sources are needed. MOBOTIX cameras are powered using standard PoE and do not require more than 4-5 watts.

An intelligent IP video system from MOBOTIX allows you to **reduce total costs**. The investment pays for itself after a short time and the free-of-charge software and updates ensure it is a future-proof investment.

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