

## A window into the world of surveillance

At the heart of all security systems is the security employee, who monitors the feeds day after day in security centres across the globe. These people are the ones staring at screens for a large part of their day. It's this that makes monitors an important part of a security solution – if guards can see better, they can act faster. Cutting-edge, fit-for-purpose monitors can help to make the security centre much more effective – and the operators happier!



The first thing to think about is the resolution of the screens in the centre. On the one hand, there's not much point in having hi-res cameras if the system has very low resolution screens to watch the footage on. On the other, resolution is one of those metrics, which can actually be less effective when it gets too high. Hikvision monitors go all the way up to 4K Ultra HD, offering the most exquisite image details and more workspace compared to 1080P to achieve better work efficiency.

Screen refresh rates are another factor – if they are too low, they can cause headaches for those watching. Aside from not being pleasant for the operators, low refresh rates and flickering can also distract them from what's happening on their feeds.

But it's not just the screens themselves. How they are positioned, how many are placed together and what they are used for also make a difference to the operators. For example, if the screens are mounted high up on a wall, and operators have to incline their head for long periods of time to see them, this can cause neck and back problems.

The viewing angle is important too – how much of the screen can be seen at one time (and how many 'feeds' should there be on one screen)? Hikvision monitors offer up to 178° viewing angle and allow operators to capture every detail.

It's important to think about the needs of operators in the specific control centre. What are they looking at? Are they monitoring all the time, or reacting to something specific? Do they need to find something on the screen? These are the kinds of question that lead to a security centre build that really works.

Research by the International Ergonomics Association\* in 2015 showed that changing some of these elements really affects users and therefore effectiveness. When specs were changed to create what could be seen as a poorer overall image quality, the effectiveness of operators actually improved.

In essence, the key to a successful security centre is to build a solution to fit with the activities of the operators involved. Are they monitoring constantly? What are they looking for? Are they proactively searching for something after an event? Are they concentrating on a detail like number plates? The list goes on, and it's these 'human' questions that form a solid core of any requirement. Of course, this means that any solution needs to be completely flexible, offering all kinds of screens sizes, decoders, smart video management tools and easy-to-install brackets. Hikvision has developed monitors to fits a wide range of scenarios. Using these, the operators can make the most of the technology to really help them to do their jobs effectively.

Of course, there are also other elements to the story – not least cost. How long will these screens last? How soon do they need to be replaced? Hikvision monitors outlast normal monitors by more than 50% - lasting 50 – 60,000 hours, compared with 20 – 25,000 hours. That's an important factor to consider when you remember that a monitor has to last 24/7 in many security centres, compared with around 10 hours per day in a home.

Industrial panels deliver longer service life, making monitors perfect to deliver reliable performance in this security environment. In fact, the entire design of Hikvision monitors supports long-term operation, including power systems, screen and main board.

It's estimated that most people can only concentrate on a specific area (like a screen) for around 20 minutes. This becomes especially relevant for roles where keeping an eye on footage is a key task. In a security centre, it's crucial that operators can maximise effectiveness, so they don't miss anything. There are a number of considerations when building an ideal security centre, but monitors are a central one. With operators' eyes needing to seek out issues every day, these 'windows to a secure world' need to be as fit-for-purpose as they can be.

*\*Human Factors Guidelines for CCTV system design – International Ergonomics Association 2015*  
<https://www.iea.cc/congress/2015/837.pdf>