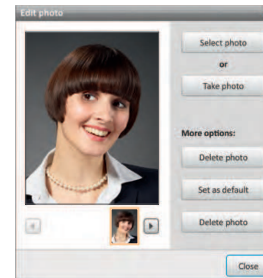


Usability: the new standard in security systems.

{ The revolution that took place several years ago on the consumer market is breaking into the field of security management. Intuitive user interfaces with attractive apps and widgets are the standard of the future, usability is the latest buzzword. Nedap has put these into practice with its new AEOS 3.0 security management system. }

By Mischa Hoyink

Picture: thanks to AEOS receptionists can smile and mean it.



Receptionists who use smartphones in their spare time, swiping from app to app on touchscreens with great ease, can hardly be expected to use a 1990s-style security management system at work. Their motivation to learn how a system works and to use it consistently depends on whether that system meets them halfway. Put differently, a system that demands far too much knowledge will not be accepted by the 'smartphone generation.'

Radical simplification.

"We visited places where receptionists worked and counted how many screens they had to use in our old AEOS system," says Nedap sales director Arjan Bouter. "We came to a staggering total of 248 screens. Who was watching over them to make sure they were all being used correctly?" Nedap's solution in AEOS 3.0, Bouter says, was to radically cut back the number of screens. "We reduced those 248 to just 4!"

Achieving usability is a challenge when dealing with a system that integrates a vast number of functionalities like AEOS does. Nedap had to work out how all those functionalities could remain accessible for end users while drastically simplifying the graphical user interface. All the while, the architecture had to remain open, scalable and robust. Not to mention future-proof. In AEOS 3.0, all these characteristics were brought together into one integrated system.

Defining personas.

Nedap pulled it off by analyzing the different types of employees who use AEOS and narrowing them down to four extremely detailed user roles, or personas. These are: the receptionist (the 'heavy user' in Nedap's definition), the security guard, the security manager and the system administrator. In AEOS 3.0, each of these four personas has role-specific widgets with which to manage their daily tasks. Users see only those widgets that provide the functionalities relevant to their role. The great thing about

widgets is that they can be used not only on a monitor, but also on a tablet or smartphone. This means that a security guard can take a tablet along while doing rounds, to see what needs to be done at a particular door.

This simplification was a sharp turnabout from the trend towards increasing complexity that had dominated security management systems for a long time. Developers were primarily focused on expanding their system's performance. The race was on to collect more and more data for security purposes and for the management of processes. It was very "impressive", says Arjan Bouter, "but what was forgotten was the fact that people's ability to absorb all that information did not keep pace with the system's capacity. Because of non user-oriented interfaces, end users like reception staff, guards and even managers ultimately became overwhelmed. Some processes became so slow and inefficient that users sometimes just skipped them, which obviously compromises security."

Interaction Design.

The key was to redesign AEOS in such a way that users would feel no need to skip steps. So Nedap knew the challenge it faced, and decided to tackle it from the discipline of Interaction Design. Arjan Bouter: "In creating AEOS 3.0, we focussed entirely on the graphical user interface, the crucial point where the user interacts with the system." Interaction designers are concerned with the function, behaviour and final design of products and systems. They cooperate closely with application engineers to link what the user wants to the technical capabilities of the system.

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Usability reviews.

Interaction designers make frequent use of test users to steer their development. During the redesign of AEOS 3.0, test users were asked to try the new interface while their reactions to the system were monitored. Users were filmed and asked to talk about what they were doing. The designers monitored not only the number of mouse clicks needed to perform a particular task, but also the emotions the user experienced while interacting with the application. This allowed them to analyze when users made mistakes or got stuck. This feedback made it possible to fine-tune the interface and to make small but important changes to everything users see, hear and feel.

The tweaking process at the heart of Interaction Design resulted in a system so intuitive and user-friendly that users can start using AEOS 3.0 with hardly any instruction. As users of previous versions of AEOS know, this is a vast change from what it used to be. According to Bouter, turning to Interaction Design was a good decision: "It was worth it. Even though we are not the only ones in the industry doing this, we are certainly a pioneer in the field. For the time being, we are way ahead of the competition. It is going to be a while before anyone is going to catch up to us."

Usability = security.

The advantages of a usability-based system are obvious. Bouter explains that a system that can be learned as easily as AEOS 3.0 reduces the need for training, saving an organization time and implementation costs. Work itself gets done more efficiently when employees are using such an intuitive system, which in turn means the organization can provide service with a higher degree of professionalism.

Most importantly, "usability ultimately reduces mistakes and increases security", says Bouter. "If you like working with a system, you won't be tempted to skip procedures that are too complicated or tasks that take too long. And an interface that helps prevent human error contributes to a higher degree of security in your organization."

Picture: AEOS 3.0 has an attractive, intuitively usable interface.

"Usability ultimately reduces mistakes and increases security."

