Development of a truly mobile workplace

Scalable infrastructure that is future proofed

Simpler management

More efficient use of manpower (agents)

New IT architecture gives Antwerp Police Department a head start on its digital highway

To get all crucial data from multiple search sources to the intervention team quickly during an intervention, Antwerp Police Department developed its own platform and app FOCUS. Because police services are on standby 24/7, the underlying infrastructure of this platform must also be able to guarantee stability, speed and scalability. With an eye on security with the sensitivity of the data on top of mind, Antwerp Police Department called on the solutions and services of VMware and HPE.

Creating a safe city with better technology

The core business of Antwerp Police Department is the same as for any other police departments in the world: creating a safe city environment and protecting the freedom of its citizens. In the vision of the Antwerp Police Department, technology plays an important role. "We want to be a progressive organization that is different from the classic police services. Technology allows us to realize our mission - maintaining order and creating a safe urban environment - in a much faster, more efficient and flexible way," explains Stijn Haemhouts, deputy director ICT at Antwerp Police Department.

Antwerp Police Department is one of the Belgian police forces. It focuses its activities on the territory of Antwerp. The mission is to protect the freedom of citizens in a safe urban environment. *www.politieantwerpen.be*

INDUSTRY
Government (Police Force)

HEADQUARTERS
Antwerp, Belgium

ABOUT HPE
HPE is a global, edge-to-cloud Platform-as-a-Service company built to transform businesses by helping them to connect, protect, analyze, and act on all the data and applications wherever they live, from edge to cloud. *www.hpe.com*

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VMWARE AND HPE TECHNOLOGY SUPPORT ANTWERP POLICE DEPARTMENT'S VISION
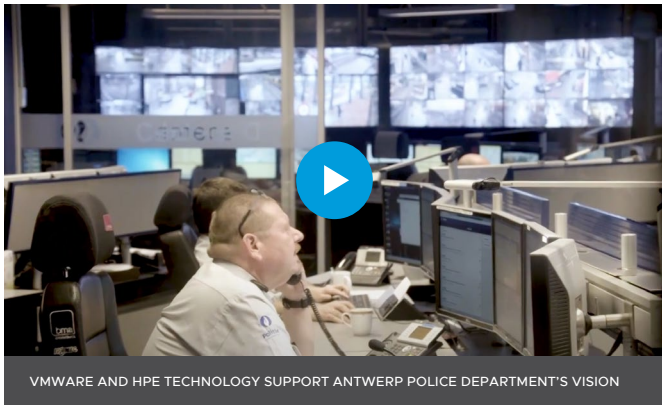
More police on the streets

The area that Antwerp Police Department must manage is large. This is partly due to the port of Antwerp, which is the second largest in Europe. A few years ago, the city council decided that the police had to be more visible on the streets. On the one hand, this means that officers are more approachable by citizens, but on the other hand, the increased visibility and preventive nature also shows a positive impact on crime rates.

"In theory, 'More police on the streets' is an obvious objective," explains Stijn Haemhouts. "Police patrols now work in 12-hour shifts instead of 8-hour shifts as in the past. The patrols now also stay on the job, whereas they used to come back to the police station after 6 to 7 hours to process their paperwork. Then, of course, they must have the necessary tools available in the field." To achieve this, a 'mobile office' project was launched. This involved setting up the police vehicles as a digital workplace where the officers could carry out their paperwork: drawing up official reports, looking up data, etc....

The main challenge for the ICT service is to correctly summarize all the information available to the officers, and to get it to the people in the field in a flexible and efficient way so that they can benefit from it. "In the past, our agents would drive to an intervention blind, as it were. For example, they received a call for domestic violence, but they knew nothing of the history, whether weapons were registered at that address, whether the person had been reported, whether there were any dangerous dogs present, etc. By being able to provide all this information at the time of the call, they are better informed and better able to handle the incident correctly. So, they drive to the intervention with a different mindset," says Stijn Haemhouts.

Police vehicle becomes a mobile police station

In order to achieve this, the ICT department of Antwerp Police Department developed - in addition to the VDI solution for the mobile office - a new digital platform (with accompanying app): FOCUS. This combines the sometimes 20 to 40 search sources and databases of the various police departments (federal, local, state security) but also of other city services

and emergency services or tax authorities. Whereas the intervention officer used to have to search through all these sources separately, he now gets all the information in one app in a structured and well-organized way.

Of course, this requires an up-to-date IT infrastructure. For this purpose, Antwerp Police Department called on the services of HPE and VMware. "Important to us were scalability and continuous availability. Criminals don't stand still, so our IT has to be available 24/7," says Stijn Haemhouts, who also indicates that the ICT service works according to a 'continuous improvement methodology'. "Instead of replacing the applications every few years or giving them a gigantic update, we now continuously add new or improved functionalities in an agile way." To make this possible, the ICT department opted for a new server infrastructure from HPE (HPE Synergy solution) after an analysis of the market. The choice considered not only the technological specifications of the hardware, but also the service model. "And we are very satisfied with the HPE service model," says Stijn Haemhouts.

"These HPE systems ensure that the Focus platform can upscale at any time. Users know that they can get the data they need quickly and work in a stable IT environment. And with less complexity for the IT team," says Bert Smet, Solution Architect and Digital Workplace Practice Lead at HPE Belgium.

"Thanks to VMware Horizon we can now deliver all necessary information via our FOCUS platform to the agents in the field. As a result, it now takes barely 3 minutes to be on the crime scene while it used to be 6 and more."

STIJN HAEMHOUTS
DEPUTY DIRECTOR ICT
ANTWERP POLICE DEPARTMENT

VDI in the police car

The second part of the solution was the software. Antwerp Police Department has been working with VMware for years. Initially (around 2010) this was for the virtualization of the physical servers. Stijn Haemhouts: "At the time, the solutions and strategic vision of VMware were a better fit for our needs and requirements than the previous solution (Citrix). By turning the police vans into a mobile workplace, the next step was desktop virtualization (with VMware Horizon View). With the new infrastructure, we are now focusing on automation and orchestration of the servers and the IT environment." For this, Antwerp Police Department uses VMware vRealize

Operations and VMware vRealize Automation. "I think - except for a few components - we are now using the full VMware stack," says Stijn Haemhouts.

The collaboration and implementation went very smoothly. "From determining a high-level design to a detailed architecture, we are very satisfied with the collaboration, despite the limitations due to the global pandemic. The people from both HPE and VMware showed a lot of flexibility. The result of working with HPE and VMware is that we can now offer a very professional and flexible architecture and IT services to our people in the field who really need it. Because society is very much digitized, so governments are also having to become digital at a very fast pace. I think that Antwerp Police Department is also a frontrunner in the landscape in this respect."

Faster and well-informed on the spot

The result is a strong FOCUS platform, running on HPE Synergy frames in combination with VMware vSAN storage, that quickly delivers the necessary info to the intervention teams. VDI (the latest version of VMware Horizon View) is used as a part of the Mobile Office Solution to create a fully secured workstation in the police vehicles "VDI remains important in this project. Focus is used for conducting (live) information without using the backend tools. But if these backend tools are necessary the VDI solution can be used. We could also have opted for a cloud application, but as a police department, we are subject to strike privacy regulations so we can't just store all the data in a cloud environment."

Thanks to the FOCUS platform on the new infrastructure, response times have improved dramatically. For a high priority incident, it is now just under three minutes, whereas before it was a multiple (8 to 10). "Purely because the information is captured better and processed more efficiently, but also because our underlying processes of police operations have changed and improved. We now know better which teams are closest and available. The underlying infrastructure is a very important factor here to be able to execute our vision and ambition."

Better capacity management

The main technological advantages of the architecture are that it is highly scalable and can be deployed immediately. Management is also simplified: IT staff no longer must click 100 times, screw servers into racks. Upscaling - or downscaling - is now done by scripting. "Using DevOps, we can quickly spin up servers, services, containers and structures when they are needed or spin them down when they are not needed. Because capacity management is also very important," says Stijn Haemhouts.

Looking ahead

In the future, the Antwerp Police Department will be offering even more services internally. So, the infrastructure will have to be even more reliable and scalable. The new platform also lends itself to external expansion to other police districts at home and abroad, but also to other security services such as fire departments and judicial services. The cohesion and integration of all these partners will be the major added value of the future. "In terms of infrastructure, this means that all those parties must, of course, be able to connect to a central platform."

The police department now also has more data available thanks to sensors on the combis. That forced the organization to move away from classic storage. "We are switching to storage virtualization (vSAN) to have even more flexibility about the way we are going to store our Tier 2 data. It's about a stretched vSAN cluster spread across the two data centers, which again improves the flexibility and continuity of our systems. In addition, we are sitting on huge sets of existing data, which is the new gold. For that, too, we have established a partnership with HPE, particularly for the underlying hardware. Those are very powerful machines that allow to run very elaborate algorithms, especially Artificial Intelligence and Machine Learning ops. We already have some specific use cases in testing phase and are getting very concrete results, where before we used to need six to seven strategic analysts. I think this is the future of our business", concludes Stijn Haemhouts.