Customer case
Vanheede Environment Group

inetum.

With Inetum and HPE sustainably moving towards a circular world

Vanheede Environment Group is revolutionizing recycling and leading the charge towards a circular economy and a sustainable future. The company is becoming increasingly more digital and connected, deploying IoT and AI to develop smarter and more efficient processes — relying on a unified, security first, and AI enabled network to achieve this. Vanheede continuously invests in advanced technologies and processes to push the boundaries of what is possible. To do so, the company relies on ICT partner Inetum, which has taken the entire HPE Aruba Networking architecture under its wing and is now responsible for managed services. The collaboration with Inetum goes back many years and has grown into a stable and reliable partnership.

Customer centric sustainability

Vanheede Environment Group is a family owned waste management company headquartered in Belgium and operates in several European countries. It provides a host of services from collection and sorting to recycling and disposal for both household and industrial waste. The company operates over 2400 different waste streams with the objective of recycling at least 80% of what it collects. It currently produces over 580,000 tons of new primary materials, and more than 73,000 MWh of green energy through recycling each year and strives to continuously increase quality and yield through the optimization of its sorting and production processes.

The European waste management and recycling market is worth several hundred billion USD per year, and Vanheede is a major player who wants to increase its value and impact on this market as a sustainability leader. The company's vision is clear — driving the circular economy through sustainable solutions. To achieve this, Vanheede focuses on three strategic pillars: sustainability, customer centric solutions, and innovation. Vanheede continually invests in cutting edge technologies and processes to push the boundaries of what is possible.

"Sustainability is in our DNA as a company, and we need to stay relevant in an increasingly fast changing world," says **Ken Richings**, ICT operations team lead for Vanheede Environment Group. "One of the tools for achieving enhanced sustainability is the smart deployment of digital assets in the right place at the right time. And always with the end customer and our employees in mind."

Revolutionizing recycling

As a business, Vanheede needs to demonstrate sustainable finances too. Process streams and operations need to be increasingly more efficient, and costs must be optimized. Developing and providing bespoke services to each customer needs to come with clear metrics and measurability. This is where Vanheede wants to drive a recycling revolution by making customers and the community more involved and invested in the sustainability journey. "Our primary concern will always be to minimize our impact on the environment. We need to encourage the community to follow certain preventive policies, and this requires certain investments on both sides," says **Richings**.

Vanheede continues to invest in monitoring and quality assurance sensors (IoT), and automated machines and processes. This increasingly digital environment requires high quality connectivity, round the clock availability, and uncompromising security. "As an increasingly connected enterprise, we require a robust, secure, and easy to maintain and manage network infrastructure," **Richings** asserts.

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> **IT PROJECT MANAGER**
> **VANHEEDE ENVIRONMENT GROUP**

Data driven processes drive more value

Vanheede is in constant pursuit of optimal customer experiences. The right technology and innovation for the right challenge is what the company believes in. "We are on the alert for what is technically evolving and look at how this can create value for us as a group," says **Richings**. He continues, "We commit to turning the right insights into changing patterns and to being data driven."

One of the innovative directions for Vanheede is the use of Artificial Intelligence (AI) in improving process quality. The company's clients are increasingly encouraged to pre sort their waste in dedicated containers. Vanheede is using cameras on its collection trucks, armed with AI enabled image recognition software, to monitor the quality of the sorting at the client site. This information can then be uploaded to the Vanheede network back at base.

With this, reliable reports and analytics can then be shared with the clients on the quality of their sorting and recommendations can be given. This allows Vanheede to empower its clients and involve them in improving the quality of the value chain towards achieving a more circular and sustainable world. In this way Vanheede can also reduce its own costs while delivering even more value to the community and reducing its impact on the environment.

Always-on and secure connectivity as the foundation

Connectivity serves Vanheede as a foundational layer for a wide range of applications — communication and collaboration, information access, integration of OT, supply chain & logistics, and security. "Always on and secure connectivity is crucial to supporting our ongoing development and the growth of digital assets within the Group," **Richings** points out.

To achieve this, the team needed to ensure readiness through the deployment of the latest standards in wireless connectivity, backed up by a robust wired network infrastructure. At the same time, the team wanted to harmonize the design and management of its network across all its sites.

The aim was to define and apply a simplified and scalable network design template which would allow the IT team to gain more productivity and be able to focus on innovative projects, such as the secure test and deployment of new recycling and waste management technologies and solutions. Further to this strategy, Richings and his team wanted to take simplification to the next level by using the same physical network for both IT and OT environments.

Inetum and HPE Aruba Networking Central

At the heart of Vanheede's network lies HPE Aruba Networking Central, a cloud-native management and services platform that provides an overview of the entire network and makes it easy for the IT team to monitor and adjust everything from a single point. The AI features provide valuable insights and recommendations for configuration changes needed to improve performance.

Richings: "The entire HPE Aruba Networking architecture was designed, implemented and managed in collaboration with our ICT partner Inetum and provides us with a unified approach to deploying, managing and securing the wireless and wired network through a common network access policy. Inetum provided the necessary expertise during the rollout of the project, from consulting and advice to installation, and is now also assisting us with managed services so that everything continues to run smoothly and efficiently."

Anthony De Smet, Technical Consultant Network & Cybersecurity at Inetum, further explains, "Vanheede is now able to deploy and automate the configuration of new switches or access points much faster, which is particularly valuable in remote locations. They can easily segment the network. Users and devices are automatically authenticated and assigned to the correct roles and with the correct access levels."

"HPE Aruba Networking Dynamic Segmentation and the Zero Trust framework give us the flexibility and confidence to now use the same physical network for our OT environment - this means significant cost savings while allowing us to secure our people, processes and data," **Richings** continues.

The shape of future innovation

For Vanheede, the sky is the limit. The company could consider increasing the range and coverage of its outdoor environments to enable trucks to upload or download data much more rapidly and even from a wider perimeter. Richings: "The HPE Aruba Networking unified infrastructure has been a sound strategic choice. It will even allow us to consider adding HPE Athonet private 5G to the mix of our connectivity platform. This gives us plenty of headroom for growth and innovation."

Transforming itself further as a full partner in the circular economy, Vanheede intends to continue the deployment of innovative services for all its stakeholders, and consequently, it sees a proliferation of connected devices on its network. "I am confident that the HPE Aruba networking architecture combining robustness, Zero Trust Security, and AI insights will help us achieve our ambitious goals," reflects **Richings**.

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