The Challenge

Vitens is the largest drinking water utility in The Netherlands, delivering top quality drinking water to 5.6 million people and businesses in the provinces of Flevoland, Fryslân, Gelderland, Utrecht and Overijssel, and some municipalities in Drenthe and Noord-Holland. Vitens has an unwavering continuity objective underlying its primary task: “the production, distribution and supply of drinking water 24/7.” This objective is the foundation on which Vitens has built its reputation for quality and excellent service.

From its headquarters in Zwolle, Vitens deliver 350 million cubic meters of water annually, maintaining 100 water treatment works facilities and 49,000 kilometers of water mains. The company’s 1,400 employees strive to guarantee Vitens customers that they can trust the reliability of drinking water delivery, and that the water is of optimum quality and available at the lowest possible price. To this end, Vitens works ceaselessly to improve its services, ensure access to clean and available sources, and to continually upgrade the equipment and technology underpinning its core mission.

The Challenge – Improve Visibility Into Network Infrastructure to Strengthen Security

Because it maintains a such sprawling physical infrastructure, Vitens has long relied on powerful digital networking to connect employees and facilities, organize operations and support customer services. When Infoblox first came into contact with Vitens in 2010, the company had long relied on Microsoft servers for its DNS, DHCP and IPAM (DDI) infrastructure. The challenge with this configuration was that the Vitens networking team had little visibility into the network services and network endpoints across its many waterworks facilities and equipment installations.

Outcomes:

- Clear visibility into all network devices, appliances and operations, even as data volumes grew over time
- Advanced reporting and analytics enabled Vitens to enhance security and availability, ensure compliance and meet future requirements

Solutions:

- Network Insight
- Trinzic Appliances & Software
- Infoblox Grid
- Infoblox Reporting and Analytics
- BloxOne® Threat Defense Advanced
As Vitens began incorporating IoT devices and technologies into its infrastructure, this lack of visibility increased the company’s vulnerability to performance and security concerns. Infoblox was able to help Vitens in this regard, at first with the implementation of an Infoblox Network Insight solution, with dedicated Trinzic devices and Infoblox Grid for centralized network management and high availability. The relationship between the two companies has grown over the years, especially through the collaboration to strengthen Vitens’ security posture to address the European Union’s strict cybersecurity framework for public utilities.

A Stronger Security Posture for a New Regulatory Environment

In July 2016, the European Parliament adopted the NIS Directive, which mandates critical infrastructure providers to boost the overall level of cybersecurity within organizations that maintain critical infrastructure. The law applies to “operators of essential services” including companies in banking, health, transportation and drinking water suppliers. Given this charter, cybersecurity decision makers at Vitens continued to seek out ways to gain tighter control over its far-flung network resources and sharpen its defenses against cyberattacks. That mandate led Vitens to deploy BloxOne Threat Defense in late 2019.

The industry’s most advanced cloud network security solution, BloxOne Threat Defense enables organizations like Vitens to harden foundational DDI functions in ways that increase overall network security. For Vitens, BloxOne Threat Defense enabled the networking team to tune its entire security stack to work in unison and at scale to detect and anticipate and stop threats sooner. The effort to put this new solution in operation is led by IT consultant Igor van den Ouden, who observed that “Infoblox has been such a valued partner for Vitens all these years now because they enable us to quickly and effectively increase our network capabilities in myriad ways. We originally brought Infoblox technologies into the Vitens data center to give us much-needed increased visibility into network assets, devices and operations. Now with BloxOne Threat Defense, we’re far better positioned to cope with rising threats in the IoT era, including denial of service attacks, man-in-the-middle exploits, ransomware and advanced persistent threats.”

Attention to Customer Needs Delivers Measurable Benefits

In working with Infoblox for many years, Vitens has often relied on the Infoblox team’s expertise in emerging technologies and trends to stay ahead of the curve in maintaining an up-to-date network infrastructure. “Through our relationship with Infoblox, we’ve developed a deep understanding of the importance of network visibility and reporting, both in terms of driving performance to power our core water provisioning systems and also for maintaining strong security.

The initial deployment of Network Insight and Grid paid dividends for Vitens beyond superior visibility—it also helped IT administrators better manage network processes, validate designs, and effectively provision, troubleshoot and deliver network services. Similarly, the reporting and analytics capabilities integrated in Infoblox solution gives Vitens even more powerful tools to monitor network operations and map out further improvements to its infrastructure. “Infoblox enables us to combine centralized visibility with data-driven insight,” explained Van den Ouden. “Today, we can easily analyze, control and secure the entire network, even as data volumes have grown and our network has become far more sophisticated.”
Next Steps: Working Toward More Powerful Core DDI

Van den Ouden, who holds a seat on Infoblox’s Technical Boards, sees the relationship between the two companies continuing into the years ahead: “Infoblox’s core DDI capabilities are the critical underpinning for nearly all aspects of network optimization—operational performance, manageability, security.” Van den Ouden also sees this deep understanding of DDI as key to executing on Vitens’ central mission and informing the company’s next stage of growth. “We expect to expand on our work with Infoblox going forward, and expect to migrate completely over to Infoblox DDI and away from our legacy Microsoft implementation at some point.”

Learn more about how you can proactively detect malware and protect your users and data via DNS. Speak with an Infoblox representative or start your free trial of our BloxOne Threat Defense technology today.