With a focus on “designing the products of tomorrow,” NXP Semiconductors N.V. (NXP) supplies semiconductors for embedded applications in the connected vehicle, end-to-end security, and smart connected solutions markets. Research and development (R&D) is a primary focus for the company, with approximately 14% of annual turnover earmarked for R&D, and engineering design teams in 23 countries.

Rapid growth and numerous mergers and acquisitions brought complexity to NXP’s business processes, creating an environment comprised of thousands of IT components, applications, infrastructure services, and service providers. As responsibility for IT lay with local support teams, staff would approach local engineers to resolve problems or order equipment—for example, a new notebook.

NXP addresses legacy operational complexity to streamline and consolidate IT processes

NXP needed to streamline IT worldwide and ensure its activities were organized to support the business and, in particular, the R&D IT process.

“We wanted our IT groups to work in the same way—as a single, global operation,” explains Sebastiaan Laurijssen, Senior Director, IT Infrastructure Services, NXP. “To deal with the dynamics of our business, we needed to orchestrate and implement proper change control of our environment.”
Thanks to ServiceNow, we’re no longer waiting on people or processes. Everything is orchestrated using intelligent automation, big data, and machine learning.

Sebastiaan Laurijssen, Senior Director, IT Infrastructure Services, NXP

NXP seizes an opportunity to transform the R&D process with ServiceNow

NXP selected ServiceNow as its platform for IT service management, with an ITIL-based suite for the monitoring and control of IT operations.

The company initially implemented ServiceNow’s monitoring, problem analysis, and incident registration modules. It then deployed its discovery, asset management, and configuration management capabilities.

Following the implementation of ServiceNow for IT service delivery, Sebastiaan identified an opportunity to reimagine NXP’s infrastructure for research and development.

NXP’s design infrastructure consists of a complex application landscape for the development of new products, supported by a vast computing environment. Nine data processing centers with thousands of servers are used to simulate how the hardware and software of new products behave under different conditions.

“Because R&D is critical for NXP, the pressure on our department is enormous,” explains Sebastiaan. “We operate in a highly competitive market in which technological development is exceptionally fast. Our customers want to be at the forefront. They must be able to develop and market new products quickly, and we have to be part of that.”

ServiceNow helps NXP automate and streamline complex R&D processes, making them traceable and repeatable

For Sebastiaan, ServiceNow is indispensable for the management and orchestration of R&D, creating a continuous process for new product development with the support of data analytics and test and release automation.

According to Sebastiaan, development processes should be traceable and repeatable, with minimal disruption. “Autonomous IT operations and total quality are our ultimate goal,” he says. “In this respect, the IT infrastructure doesn’t just facilitate primary work processes, but manages the entire process and automates it.

“If you accurately define and register every step in the IT design process, you can trace errors and optimize the process for the future. ServiceNow allows us to analyze why things happened, predict what might happen, and provide guidance to staff.”

Using the Now Platform, NXP orchestrates every process so that everyone knows exactly what to do, minimizing the risk of errors. If incidents do occur, the system will work to resolve them immediately, helping to ensure the business continues to operate unimpeded.

“The Now Platform is open and enables us to orchestrate work processes in a flexible manner,” says Sebastiaan. “We can easily connect to other systems that are important for work processes and make R&D IT data available through the Now Platform.”

ServiceNow accelerates NXP product development while reducing IT costs

“Thanks to ServiceNow, we’re no longer waiting on people or processes,” says Sebastiaan. “Everything is orchestrated using intelligent automation, big data, and machine learning.”
ServiceNow plays a major role in streamlining and accelerating NXP’s R&D activities while also supporting IT service management. The Now Platform brought a predictive quality to product development that helps NXP meet its customers’ high expectations.

“By automating IT service management, we substantially reduced our IT operating costs worldwide,” says Sebastiaan.

He adds that ServiceNow’s impact on R&D has also been positive: “Any downtime leads to delays and therefore sizeable losses. Every minute we gain can be invested in design cycles, and we can immediately convert that gain into market value in terms of faster product development, shorter time to market, and enhanced productivity.”

**ServiceNow becomes a strategic IT partner for the future**

Looking ahead, NXP wants to take more advantage of ServiceNow expertise in areas such as machine learning and intelligent automation.

“ServiceNow is constantly evolving its platform to make work predictive and reduce risk,” says Sebastiaan. “One of the company’s strengths is that it involves customers in its own product development, allowing the platform to be optimized together. Because of this, we see ServiceNow as a strategic IT partner.”