



NXP streamlines product innovation and development

Set up in 1953 under the name Philips Semiconductors, NXP is a world-leading semiconductor company for embedded applications in the connected vehicle, end-to-end security, and smart connected solutions markets.

The company employs 44,000 people in more than 35 countries, with annual revenues in excess of US\$6 billion. With a focus on “designing the products of tomorrow,” research and development (R&D) is a primary focus for NXP, with around 14% of annual turnover earmarked for R&D and engineering design teams active in 23 countries.

However, rapid growth and numerous mergers and acquisitions had created an enormous flow of change on NXP’s business processes. This gave rise to an environment consisting of thousands of IT components, applications, infrastructure services, and service providers.

“Responsibility for IT lay with local support teams that had their own engineers. For support, members of staff had to approach the local IT department, whose services they could enlist for getting problems solved or for a new notebook, for example,” explains Sebastiaan Laurijsse, Senior Director, IT Infrastructure Services at NXP.

NXP was faced with the challenge of streamlining IT worldwide and ensuring its activities were organised more efficiently to support the business and in particular the R&D IT process.

“We wanted all IT groups to work in the same way, as a global operation,” says Laurijsse. “To deal with the dynamics of our business, we needed to orchestrate and put in place proper change control of our environment.”

A global IT service delivery platform

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

The company started with monitoring, problem analysis, and incident registration. Then it implemented the ServiceNow management suite with modules such as discovery, asset management, and configuration management.



Highlights

World-leading semi-conductor company orchestrates R&D and IT service delivery to improve quality, reduce risk, and drive down costs

Headquarters

Eindhoven, Netherlands

Geographies

Europe

Employees

44,000

Business

Manufacturing and engineering

Challenges

- A sprawling IT environment, with thousands of IT components, applications, infrastructure services, and service providers
- Enormous pressure to support a complex application landscape for the design and testing of new products
- No definition of the IT design process, leading to errors and a lack of insight to optimise the future design process

Solutions

- ServiceNow® IT Operations Management
- ServiceNow® IT Service Management

Results

- A single integrated platform for the delivery of global IT services to 44,000 employees
- A faster and more efficient R&D process orchestration and automation
- Reduction of IT operating costs on a worldwide scale

Creating an effective R&D IT infrastructure

Following the implementation of ServiceNow for IT service delivery, Laurijsse quickly saw the opportunity to reimagine NXP's infrastructure for research and development.

NXP's design infrastructure involves a complex application landscape for the design of new products, supported by an enormous computing environment. Nine data-processing centres with thousands of servers are used to simulate, for example, how a product behaves under all kinds of different conditions.

It's not just about hardware testing either. Software is also comprehensively tested as NXP's products are incorporated into electronic products with the aid of application programming interfaces (APIs).

"R&D is critical for NXP so the pressure on our department is enormous," says Laurijsse. "We operate in a highly competitive market, in which technological development is exceptionally fast. Electronic goods have a very short lifecycle, particularly in the consumer market where suppliers are bringing new products onto the market with lightning speed."

"For our customers, it is vitally important to be at the forefront in the technological field. They must be able to develop and market new products quickly, and we have to be part of that," adds Laurijsse.

Seamless orchestration of R&D IT processes

For Laurijsse, ServiceNow is an indispensable platform for the management and orchestration of the R&D process, creating a continuous process for new product development with the aid of big data analytics, along with test and release automation.

"It is important for our development processes to be traceable, repeatable, and for there to be as few disruptions as possible," highlights Laurijsse. "Autonomous IT Operations and Total Quality are the ultimate goal. In this respect, the IT infrastructure does not just facilitate the primary work processes, but manages the entire process and automates it."

Laurijsse adds: "If you accurately define and register all steps of the IT design process, you can analyse the whole process, trace errors, and further optimise the design process in the future. ServiceNow allows us to set down what happens, analyse why things have happened, provide the ability to predict what might happen and inform us on what staff have to do."

Using the Now Platform,, NXP orchestrates all processes so that everyone knows exactly what to do and the chance of errors is reduced. If incidents occur, the system will work to resolve them immediately, ensuring the business continues to operate unimpeded.

"The Now Platform is open and enables us to organise and orchestrate work processes in a flexible manner. We can easily connect to other systems that are important for the work processes and we can make all R&D IT data available through, or via the Now Platform," said Laurijsse.



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– Sebastiaan Laurijsse,
Senior Director IT Infrastructure
Services, NXP

Guaranteeing quality for business success

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ServiceNow is playing a major role in streamlining and speeding up R&D activities at NXP, while supporting IT service management. The platform has also brought a predictive quality to NXP's product development, to consistently meet customers' high expectations.

"Thanks to the far-reaching automation of IT service management, we have been able to substantially reduce IT operating costs worldwide," says Laurijsse.

"The impact on our R&D process has been very positive," adds Laurijsse. "Any downtime leads to delays and therefore very 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, a shorter time-to-market, and therefore enhanced productivity."

Looking ahead, NXP wants to take advantage of ServiceNow's advanced capabilities in machine learning and intelligent automation.

"ServiceNow is constantly evolving its platform to make work more predictive and reduce risk in IT operations," says Laurijsse. "One of its strong points is that the company involves its customers in its own product development, meaning we can optimise the platform together. For this reason, we regard ServiceNow as a strategic IT partner."

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