

Uniform Administration for the Heterogeneous

> Compute Farm at NEC Electronics Europe

scVENUS system management software used in the development of semiconductors

Request

Standardization and optimization of the administration of a heterogeneous compute farm in the semiconductor development sector.

Solution

Implementation of scVENUS - a software for standardized, automated and OS independent procedures in the administration of complex networks.

Benefit

Faster service delivery to users, installation of ready-to-use systems with a simple mouse click, differently specialized administrators can fill in for another in terms of basis administration.

NEC Electronics Europe develops semiconductor solutions. In the European Technology Center (ETC) at the company's headquarters in Duesseldorf, NEC Electronics engineers implement ASIC, ASSP and ASCP designs. An IT department of ETC is responsible for the operation of the development environment and has previously worked with science + computing (s+c) on the use of Platform LSF in the compute farm. This IT department provided the knowledge of the IT infrastructure and administration processes at NEC Electronics, which helped s+c consultants to recommend an ideal solution for the further development of the administration environment, namely the introduction of scVENUS. scVENUS is a software tool for the system management of heterogeneous Unix, Linux and Windows networks. With scVENUS, the administration is widely automated and unified across the various operating systems.

Background

In NEC Electronics' compute farm, 42 nodes, each with 2 to 4 CPUs, compute the engineers' semiconductor designs. Over 120 users access this computing environment via thin clients. Solaris, Linux and Windows operating systems are in use in the server farm. Responsibilities are divided among three specialized administrators who focus primarily on one of these operating systems. Thus, filling in for each other has been

limited up to now. *"The fact that scVENUS could offer a solution to the problem of providing cover was a major factor in the decision to introduce it here,"* explains Christa Schidzik, Manager at ETC System Administration.

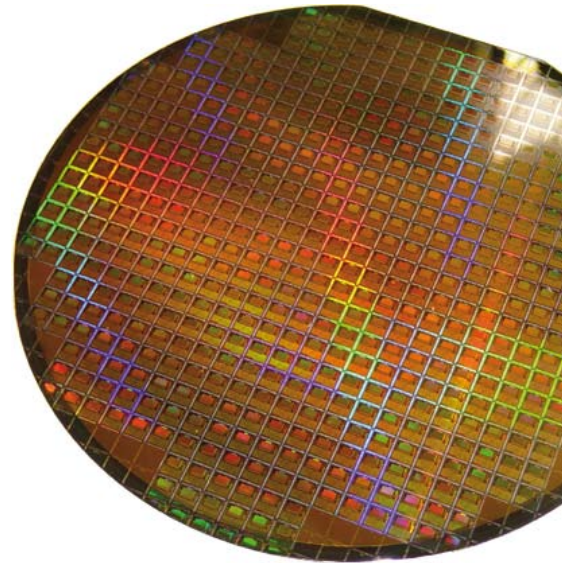


Image with kind approval by NEC Electronics Corporation (Europe)

The solution

First of all, an s+c consultant implemented an scVENUS test installation at NEC Electronics. This provided the basis for the administration of computers with a Linux operating system. Thomas Marke-Tausend, Linux system engineer, was then able to try out the software for the first time: *"I was pleasantly surprised by how quickly I could start working on my administration tasks following the installation of scVENUS and a brief*

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introduction to the software."

This was also thanks to the fact that, prior to installation, he had tried out an administration solution similar to scVENUS using tools he had programmed himself. "scVENUS is easier and more convenient as it has a graphic user interface, for example," comments Thomas Marke-Tausend. The s+c consultant's second visit was used to clarify questions that had arisen during the trial period and to transfer the software to active operations. NEC Electronics uses scVENUS for the installation and configuration of the operating system, configuration administration and inventories. Users at NEC Electronics are managed with Vintela Authentication Services from Quest; the corresponding scVENUS function was simply deactivated. Thomas Marke-Tausend also employs scVENUS as a tool for carrying out certain tasks quickly and consistently on all computers at the compute farm, such as installing the Vintela client on the servers.

The benefits for NEC Electronics

scVENUS allows the Linux administrator to continue using his own scripts for the tasks mentioned above by packing them into an scVENUS administration routine. "With scVENUS, I can now actively manage every machine from one uniform administration environment, whereas before I was dealing with 30 different scripts," says Thomas Marke-Tausend. This also benefits his fellow system engineers who work with Solaris and Windows because scVENUS conceals the differences between the various operating systems. "Although our administrators have different specialties, they are now able to stand in for one another and cover day-to-day administration," reports Christa Schidzik. For example, transferring a new Linux server to a defined active state and installing the operating system now takes just a few mouse clicks - the Linux engineer does not necessarily need to be involved. Christa Schidzik adds: "scVENUS means that our administrators can complete their work more easily and more quickly than before - that in turn benefits our users as we are able to offer them a better service."

About NEC Electronics

NEC Electronics (Europe) GmbH, headquartered in Duesseldorf, Germany, is a leading developer and supplier of semiconductor products in Europe. Committed to meeting customers' cost, performance and time-to-market requirements, the company offers solutions ranging from standard products to system-on-a-chip (SoC) solutions, as well as customized products for next-generation designs. NEC's customers also benefit from state-of-the-art manufacturing from the global production network of its parent company, NEC Electronics Corporation. Additionally, NEC Electronics (Europe) GmbH is the exclusive European sales and marketing channel of LCD modules from NEC LCD Technologies Ltd. For more information visit www.eu.necel.com

About science + computing

science + computing ag (s+c) is an independent IT services and software house for technical and scientific construction and simulation environments (CAD/CAE/CAT). s+c specializes in optimizing the layout of open and distributed computer systems and has many years of experience in the operation and administration of complex Unix, Linux, and Windows environments, and in software development for these systems. Currently s+c has 250 employees at its four locations: Tuebingen, Munich, Duesseldorf and Berlin. Audi, BMW, Bosch, Daimler, Porsche and Infineon Technologies are among s+c's customers. The company cooperates with business partners in France, Italy, Japan, and the USA.



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