Success Story:

HiSilicon Technologies Co., Ltd

Customer Profile: HiSilicon Technologies Co., Ltd. is a leading chipset solution provider for telecom network, wireless terminal, and digital media. Founded in 1991 as the ASIC Design Center of Huawei Technologies Co., Ltd., HiSilicon became an independent, wholly owned subsidiary of Huawei in 2004. The company provides end-to-end chipsets and solutions to more than 200 global operators in more than 100 countries. It has created more than 120 chip designs and has shipped 150 million chips.

Challenge: HiSilicon designers rely on sophisticated electronic design automation (EDA) tools from Synopsys®, Cadence®, Mentor Graphics®, and other EDA vendors to accelerate chipset design. The servers that manage licenses for these tools reside at Huawei's headquarters in Shenzhen, China. Because design teams span the globe — with people in Beijing, Shanghai, Silicon Valley (USA), and Sweden — ensuring license availability is a critical concern. If an issue on the license server prevents a designer from checking out a license, the impact can be huge: In addition to losing an entire day of work, a delay in getting access to an EDA tool could also cause the designer to miss a critical deadline. The company needed to improve license server availability and gain better visibility into EDA software license usage.

Solution: To provide streamlined management of its various license servers, HiSilicon installed FlexNet Manager® for Engineering Applications. This advanced concurrent license management solution provides a single console view that enables organizations to be proactive in resolving license availability issues, managing license server administration, and optimizing software license utilization to reduce costs.

Benefits: Initially, the primary benefit will be faster response to license server issues, less down time and fewer denials of service, which will enhance productivity and allow designers to meet tight deadlines. Ultimately, because the staff will have detailed usage analysis, including peak usage and denials of service for its expensive technical applications, the company will be able to reduce licensing costs and more accurately forecast future licensing needs.

"FlexNet Manager for Engineering Applications gives us a proactive, systematic, and comprehensive solution for managing our EDA software licenses. We are achieving a higher level of management compared with the manual, reactive approach we used in the past, which involved waiting for issues to arise and then trying to resolve them. Now, with FlexNet Manager, license availability is improved, as is design team productivity."

Wu Xiao
CAD Engineer,
HiSilicon Technologies Co., Ltd.

FLEXERA SOFTWARE®
FlexNet Manager®
for Engineering Applications

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Designing and marketing application-specific integrated circuits (ASICs) is a fiercely competitive business. The industry is characterized by intense pressure to constantly shrink design cycle times. HiSilicon designers rely on EDA tools to help them develop new chip designs quickly and efficiently. These tools are often costly, so managing licenses effectively is critical to containing development costs.

HiSilicon designers use a variety of tools from leading EDA vendors — Synopsys, Cadence, MentorGraphics, Agilent, Springsoft and others — to maintain high productivity and meet tight project deadlines. In many cases, the company has acquired multiple solutions from these vendors. For example, HiSilicon uses more than 30 applications from Synopsys.

Every one of these EDA vendors uses the same technology to protect their intellectual property and prevent unauthorized software use. That technology is FlexNet Publisher® from Flexera® Software. More than 20,000 commercial applications utilize FlexNet Publisher's FlexEnabled licensing to ensure that the number of licenses in use at any given time does not exceed the maximum allowed by the contract terms.

Companies that purchase those EDA tools also need a license management solution to ease license server administration and optimize their concurrent licenses. To that end, HiSilicon implemented **FlexNet Manager for Engineering Applications**, which streamlines license management for applications that use FlexNet Publisher as well as other licensing technologies.

With this solution in place, the overseas staff has the ability to resolve issues with license servers more quickly and avoid downtime. It also provides better visibility into license usage and ultimately will enable them to optimize license utilization and reduce software costs.

Background
When HiSilicon designers need to use a particular EDA tool, a license is automatically requested from the appropriate license server, which resides at Huawei headquarters in Shenzhen, China. If there's an issue with the server or if all licenses are already checked out, the designer can't use the tool. This is known as a denial of service. Consequently, productivity comes to a halt. The business impact can be serious. With time zone differences, it can translate into losing up to a full day of productivity. Worse yet, there's the risk that the designer will miss a project deadline.

Prior to implementing FlexNet Manager for Engineering Applications, HiSilicon was managing its license servers using home-grown scripts to poll the servers every 30 to 60 minutes.

With the number of applications and users growing, manual processes were no longer adequate. It was becoming difficult to ensure that all license servers were operating properly. Moreover, if a server went down, it was taking too much time to perform a restart.

HiSilicon needed a more automated way of managing EDA license utilization and keeping servers running reliably. This would provide overseas design teams with ready access to EDA tools and ensure a high level of productivity.

The obvious choice was FlexNet Manager for Engineering Applications. With this advanced solution, HiSilicon can centralize license management across all EDA software solutions, regardless of the licensing technology used.

HiSilicon selected the Flexera Software solution for three primary reasons:

- The solution's comprehensive, visual license management system allows overseas users with different user authorities to manage their own licenses.
- Tight coupling between the Flexera Software licensing technology (FlexNet Publisher) and software license optimization solution (FlexNet Manager for Engineering Applications) provides

more accurate tracking and reporting than other solutions on the market.
- The rich feature set exceeded HiSilicon's requirements for license server administration and concurrent license optimization.

Phase 1: Improved Management
HiSilicon is currently rolling out the capabilities of FlexNet Manager for Engineering Applications. Overseas site administrators now have administrator accounts that allow them to self-manage the licenses and license servers for the EDA applications used at their design locations.

"We have already achieved our first goal, which was to enable overseas users to perform basic management of their licenses," said Wu Xiao, CAD engineer for HiSilicon Technologies. "And we can already see that FlexNet Manager has a lot more features that will be very useful for us."

Xiao noted that, after implementation, staff members discovered features that they didn't know were available in FlexNet Manager for Engineering Applications. For example, the solution helps the staff easily manage expired licenses for application features, eliminating a lot of manual effort.

The staff expects to see an increase in productivity due to a reduction in the number of support tickets submitted by overseas users. In time, the company estimates it will improve productivity by up to 10 percent or more, with FlexNet Manager for Engineering Applications.

Phase 2: Usage Reporting and Optimization
The next phase involves taking advantage of detailed usage analysis and reporting that permits more precise alignment of license purchases to meet business needs. For example, reports show how many licenses are in use at any given time—revealing peak usage, and how often denials of service occur.

With the information provided by FlexNet Manager for Engineering Applications, HiSilicon can optimize license counts, reduce denials of service, and perhaps conduct an application remix to optimize licenses based on individual design team usage. The end result is the ability to minimize denials of service for designers without overbuying expensive EDA software licenses.

About FlexNet Manager for Engineering Applications

FlexNet Manager for Engineering Applications delivers the most complete and meaningful insight into application usage to efficiently manage concurrent licenses, reduce denials and optimize spend.

It centralizes usage monitoring, management and reporting to deliver savings of 30% or more on software costs, simplify license server administration, reduce denials of service and demonstrate compliance with vendor agreements for over 20,000 FlexEnabled, LUM and third-party concurrently licensed applications.

FlexNet Manager for Engineering Applications enables organizations to gain unprecedented insight into application usage trends, and accurately forecast future needs. It is part of the FlexNet Manager Suite for Enterprises, the Software License Optimization solution used by hundreds of enterprises to gain control of hardware and software assets, maintain license compliance and reduce spend.

About Flexera Software

Flexera Software helps application producers and enterprises manage application usage and increase the value they derive from their software. Our next-generation software licensing, compliance, security and installation solutions are essential to ensure continuous licensing compliance, optimize software investments and future-proof businesses against the risks and costs of constantly changing technology. Over 80,000 customers turn to Flexera Software as a trusted and neutral source for the knowledge and expertise we have gained as the marketplace leader for over 25 years and for the automation and intelligence designed into our products. For more information, please go to: **www.flexerasoftware.com**

Next Step:

For more information, visit www.flexerasoftware.com/FNMEA or contact a Flexera Software representative.

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