Hewlett Packard Enterprise

YARN TO SATISFY ALL THE NEEDS OF A CUSTOMER WITH A HIGH-PERFORMANCE IT INFRASTRUCTURE

Noyfil, a company belonging to the Italian multinational RadiciGroup, is overhauling its application support infrastructure with the aim of enhancing the way in which the special yarn production process is managed

The Noyfil case breaks away from the typical approach in the manufacturing sector, where there is a tendency to adopt the "if it ain't broke, don't fix it" mentality. The rationale for this attitude is the level of investment—which can run into the millions—that is required when upgrading production facilities, which have a much longer service life than IT infrastructures, which need to be replaced before they become obsolete. However, with relatively moderate investments, it is possible to achieve a quantum leap in performance and ease of management.

Special, environmentally friendly yarns taking the textile and fashion industry by storm

Noyfil, which has been on the market for almost 50 years, now specializes in the production of continuous polyester yarn. Based in Stabio, in the Swiss canton of Ticino, the company is part of the Fibers Area of the RadiciGroup, an Italian multinational that aims to offer a diversified range of products with a reduced environmental impact in the yarn sector and contribute to the revival of the textile and fashion industry, one of the sectors hardest hit by the pandemic, in the name of the circular economy.

Noyfil, a production company located in Switzerland, produces specialized yarns made with special additives using new technological developments in a well-established polyester fiber market. This all begins with an increasing volume of recycled polyester fibers made using post-consumer bottles or plastics/microplastics recovered from lakes and seas. The company uses the pellets formed from crushed bottles to produce the polymer in-house, and then spins it into thousands of different colors with special properties such as anti-bacterial, anti-UV, and flame-retardant, used in weaving and clothing to prevent fabrics from catching fire.



INDUSTRY: MANUFACTURING REGION: SWITZERLAND AND ITALY SOLUTION: OVERHAUL OF IT INFRASTRUCTURE

VISION

Build a modern, high-performance IT infrastructure to support the production process

STRATEGY

Involve HPE and 4IT Solutions in the implementation, overcoming the previous infrastructure still in place

OUTCOMES

- Increased performance and flexibility for business operations
- Reduced complexity and easy management of the IT infrastructure thanks to the elimination of machines and unified control
- Implementation in a timeframe compatible with production needs

HPE DIGITAL GAME CHANGERS

In addition to promoting recycling, the company strives to reduce waste in production processes and use alternative sources of energy in accordance with the Group's strategy.

RadiciGroup is involved in multiple areas of production, working with a variety of materials including chemicals, technopolymers, fibers, and nonwovens. It has 3,000 employees in 15 countries around the world, 100 of whom are employed at the Noyfil plant; the Group closed the 2020 financial year with consolidated sales of EUR 1,019 million.

High-performance infrastructure solution for controlled production

The large number and diverse range of spinning lines make it possible to offer a high degree of flexibility to satisfy all market requirements. Integration with the production line of color masterbatch allows you to have complete control over the entire process, from the study of the product to the production order.

"In the context in which the company operates, the efficiency, performance and reliability of the IT infrastructure that supports services relating to the production process are strategic," emphasizes Matteo Ubertis, IT Manager at Noyfil. "This is the case for automated warehouse databases, factory supervision applications, production management and active cycle management." The only aspect that is not managed is accounting, which is provided by the headquarters for organizational reasons.

In line with the Group's IT strategies, Noyfil uses solutions created on an ad hoc basis on account of the specific needs of the company. The information system, for example, was developed by a small Italian software firm using an SQL Server database engine, taking into account the company's needs; the same approach was followed for the factory supervision solution and the automated warehouse, produced by a German vendor but adapted to Noyfil's real-life operations.



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- MATTEO UBERTIS, IT MANAGER AT NOYFIL

Preventing problems before they occur

"The factory's IT infrastructure was designed by HPE and incorporates a VMware® solution—this is something we were happy with as it enabled machines more than six years old to work at reasonable performance levels without any particular problems," recalls Ubertis. "We did, however, think a better approach would be to prevent problems before they occurred."

The decision to opt for a modern, high-performance infrastructure coincides with the owner's policy of keeping control of data and applications in house, especially when they are essential for managing and controlling production, which is largely based on automated systems and warehouses. The intention to replace the previous infrastructure which, despite having proved its worth, was no longer holding water when it comes to meeting development needs and the more stringent guarantees of operational continuity, with a future-oriented one is therefore a step in this direction.

A production-friendly infrastructure that's a breeze to manage

With the support of its partner 4IT Solutions, the company's IT department carried out an analysis of what the market was offering, with a particular focus on HPE products, which had performed well in various areas (from servers to switches). Noyfil ultimately went with HPE SimpliVity, a solution already adopted by another company in the Group (Radici Chimica), which instantly made it possible to go from the previous five machines to two hyperconverged servers with internal disks. The reduction in hardware alone has simplified the whole operation, reduced the possibility of disruption, and led to fewer aspects to be managed. Instead of using one server for the VMware component and another (with a different program) for the storage aspect, a single access point was created from which the storage servers, network, backups, etc., can be managed. The transition from virtual storage based on mechanical disks to the HPE SimpliVity all-flash approach also triggered an immediate improvement in performance. "We felt like we'd been transported to another planet with a solution that was more modern, more powerful, more effective and more straightforward than the previous one" explains Ubertis. "It was like stepping out of a hatchback and hopping into a race car. Activities run more smoothly and quickly, and everything works better."

The benefits that have been achieved in the aftermath of the technological overhaul are management simplification, improved performance and, above all, flexibility, which is on a whole other level compared to the previous solution which, with RAM and storage close to full capacity, was beginning to reach limits that would make future developments difficult, if not impossible.

A stress-free transition

Before the summer break, 80% of the company's activities were already running on the new infrastructure and, for those services that cannot be interrupted in a factory operating on a continuous 24-hour cycle, the production downtime was used to make the transition with all the necessary peace of mind. A potential future development would be to boost reliability by creating a second room where one of the two servers could be relocated or, alternatively, to procure a third server, which Ubertis hopes would be based remotely, to be used as a basis for replication and developing a disaster recovery plan.

"The most difficult part of my job is convincing the people who hold the purse strings," says the IT Manager. "The solutions we use are so transparent and work so well that the people who use them are often unaware of the potential risks and the sheer amount of work required to uphold such stringent quality standards."

Another typical problem when it comes to manufacturing is a mentality that often does not consider the fact that IT investments are several times smaller than the millions of euros that come into play when an industrial factory is set up.

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The benefits of the HPE SimpliVity solution are also felt by those of us who manage the systems. Maintenance and management activities are now simplified and largely automated thanks to a much more user-friendly management console, and IT staff can now focus on more important tasks as their time isn't taken up by routine jobs."

- STEFANO PAPALEO, PROJECT MANAGER & SOLUTION ARCHITECT AT 4IT SOLUTIONS

Speaking of mentality: "In manufacturing companies, there's a tendency to just leave things well alone if they aren't broken," explains Ubertis. "Although this might make sense in some cases, when IT services are centralized, as they are in VMware infrastructures, it's important to prevent problems before they occur. That's why I'd recommend that my colleagues overcome their passiveness and face change head on: they won't regret it in the end."

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