



Connected automation: Inpeco puts machines at the center of Business Intelligence

Cisco's Connected Machines approach to industrial production is synonymous with reliability and traceability, and enables the development of innovative data-based services.

“The transition from automation to automation connected by Cisco technology has allowed us to raise the value of our solutions to higher levels of safety and efficiency.”

Francesco Ciuccarelli, CIO, Inpeco

Reliability, traceability and Business Intelligence: machines connected to the net can talk to us and enable us to make use of data to optimize operations, achieve total control of production and design new services based on the reliability of accurate information collected in the field. Inpeco is a trailblazer in the domain of connected automation. Thanks to the Cisco routers embedded in the systems it designs and builds for clinical laboratories all over the world, the company has verified all the advantages of the Connected Machines approach, to the benefit of quality of care and patient health.

The challenge

- Guarantee the reliability of their systems
- Enable customers to obtain complete traceability of test tubes, to assure the quality of the services offered
- Develop new services by collecting the data generated by the machines



Inpeco designs and develops automation and processing systems for clinical laboratories. The systems manufactured by Inpeco enable a complete and completely automated approach to the management of biological samples, eliminating the risk of human error and ensuring full traceability of the test tubes, with advantages for the validity of test results and the protection of patient health.

The company is based in Lugano and comprises the production plant in Val della Torre (Turin) where part of its R&D is carried out, a subsidiary plant in Verona and a dedicated research center in Pula (Sardinia), for a total of 500 employees. Today Inpeco's automated laboratory systems have a global reach, thanks to its partnership with two major international brands.

Case Study | Inpeco

Headquarters:
Lugano (Switzerland)

Sector: Industry

The data collected by Inpeco using the Connected Machines approach are fundamental for the research and development of new automated systems.

La soluzione

· Cisco Connected Machine

Smart systems for automation

Inpeco's systems are designed to operate interconnected to the net. "This allows us to remotely monitor their functioning in the laboratories of our customers", explains Francesco Ciuccarelli, CIO, "to anticipate eventual anomalies and to proactively program remediation, either remotely or on-premises."

Inpeco's objective is to guarantee its customers the maximum reliability and thus the efficiency of the diagnostic process in order to safeguard people's health. "Equipping our systems with connection devices has also allowed us to capitalize on the huge amount of data the machines are able to collect during their operations and use it to further improve the solutions we design."



All the value of data

The basic infrastructure that enables the systems designed by Inpeco to connect to the net is the Cisco Connected Machines platform, a solution comprising a portfolio of digital technologies based on the IoT approach that allows the machines to be rapidly integrated into the network and enables the potential of data to be exploited to the full.

“Our solutions are equipped with Cisco routers that communicate with a central hub in a system appropriate to a laboratory environment,” said Ciuccarelli. “The result is a smart infrastructure of connected devices and objects, where interconnected machines share information and allow it to be analyzed and put to effective use, making the processes more efficient.”

Inpeco’s twin objective was to field a connection infrastructure that could guarantee maximum reliability for laboratory activity, thereby safeguarding patient health, and obtain feedback from the systems so their performance could be monitored more precisely, in order to be able to intervene with maximum efficiency and simultaneously reduce costs.

In the service of business

Not surprisingly, one of the principal advantages its implementation has achieved is the speed with which Inpeco staff can solve problems remotely, in the case of end user service or planned systems maintenance, with significant optimization of personnel assignment.

“The ability to intercept any anomaly by preventively monitoring the state of the machines, combined with analysis of the data they transmit, enables our customers to avoid production bottlenecks and allows us to save on the costs of on-premises services by our engineers,” Ciuccarelli added. “A centralized system of management and control enables us, for example, to release software updates from a single secure central repository, rather than from sources or tools that can generate security problems.”

Results

- Maximum reliability of the systems thanks to planned interventions and proactive monitoring
- Increased quality at all stages of the analytics process, enabled by complete traceability
- Unlimited benefits from the interconnection of the lab systems with other company systems thanks to data availability



Traceability is synonymous with efficiency

Finally, utilizing an infrastructure composed of interconnected automation systems enables innovative services based on the techniques of Business Intelligence, the Big Data generated by the laboratory workflow and other statistics on system performance. For Inpeco, all this translates into additional input for research and development, with a single goal: to constantly improve their products.

Because of the benefits it has already obtained, Inpeco is now investing in connectivity solutions that will optimize internal processes on the Smart Logistics model, again from a Connected Machines perspective, to extend traceability to warehouse management and material handling as well.

“The transition from automation to automation connected by Cisco technology has allowed us to increase the value of our solutions with higher levels of safety and efficiency,” Ciuccarelli concluded, “improving the processes and producing valuable data that will be fundamental for the development of new services.”

For More Information

To learn more about the Cisco architectures and solutions featured in this case study, go to: www.cisco.com/c/en/us/solutions/industries/manufacturing/connected-machines.html

For more information on Inpeco, please see www.inpeco.com



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