

Sevel's data center

forms basis for daily production of 1,200 commercial vehicles

The SEVEL car factory at Atessa (Italy) is a joint venture between FCA and Groupe PSA, producing 1,200 light commercial vehicles every day. The assembly is guided by an informatics system which is capable of guaranteeing a reliability of 99.995%. Legrand Data Center Solutions has supplied numerous components necessary to realize the data center that coordinates all the sites' activities.

EFFICIENCY AND PRODUCTIVITY

The SEVEL product lines are active 320 days a year and make about 300,000 vehicles annually. The plant can make more than 17,000 different vehicle versions. According to Site Manager Angelo Coppola, the "small vans" of the past have nowadays become "cars with a large loading capacity" and must thus be equipped with every day comforts. Although daily production is 1,200 vehicles, the production is not sufficient to satisfy the demand. The company managers are continuously searching for solutions to maximize efficiency and productivity.

necessary information also arrives at the production lines, where in a few minutes completely different product versions are assembled – each of which is traced and monitored over its entire path on a site where more than 6,000 people work. >

FROM ORDER TO ASSEMBLY

As soon as a purchase order is signed in any European concessionaire, the data and technical specifications are entered in the company management system; a computing tool which can define the necessary supplies of raw material and plan the production order. All the



Poalo De Nardis (IT manager) and Floriano Monteduro (Legrand Data Center Solutions)



DEMANDING CHALLENGES

All this cannot take place without the support of the most innovative computer solutions, required to work without interruption. The term “always” is a real sort of obsession for Paolo De Nardis (ICT Manager at SEVEL) and his staff of experts. The ICT division is thus responsible for the entire data center. Or better, the “brain” of the factory. In recent years, the ICT department has been faced with ever more demanding challenges: to answer the need for greater productivity and to deal with the growing amount of data to be collected and managed locally. The real processing must stay close to the point where the data themselves are produced and the information is used, following Edge Computing logic.

COLLABORATION

FCA entrusted the creation of a new data center to N&C Telecomunicazioni. Making a new ultra-reliable data center in a few weeks was an enormous challenge, explains Gianluca Giannuzzi of N&C Telecomunicazioni. “We needed to find practical solutions to guarantee the operating continuity of the plants. At a complex and special site like Atessa and with the pressure of having to complete the work quickly, the collaboration with the SEVEL ICT team and with a vendor like Legrand Data Center Solutions was crucial.” Gianluca Giannuzzi also enjoyed the completeness of the Legrand Data Center Solutions portfolio. “This allowed us to find all the necessary data center solutions in just one company. Furthermore, at a plant like Atessa, where we had to work particularly quickly and through the summer, having a single representative provided extra added value. In our case, this was Floriano Monteduro.”

TWO MIRROR DATA CENTERS

Within a few months, the collaboration led to setting up two physically distant data centers (mirror and hot redundant) with the UPS segregated in rooms sealed off by fireproof walls and doors. Legrand Data

Center Solutions’ proposal included power supply, the equipment’s electronic protection, racks, air-conditioning systems, monitoring and structured wiring solutions. This allowed the team to reduce implementation times – without ever having to compromise. The idea was to create two mirror data centers, with balanced loads – capable of guaranteeing the correct operation of the production lines even if one of them was not performing correctly. An objective reached respecting all the technical requirements which characterize the data center with the highest level of reliability possible today.

ENERGY EFFICIENCY, RELIABILITY AND CONTINUITY

FCA and N&C Telecomunicazioni chose to make use of the technology of the Minkels active cooling “direct expansion” and the Minkels aisle containment solution. These energy efficient aisle containment allow for the clear separation of hot and cold air. Resulting in a PUE (Power Usage Effectiveness) of 1.3. One of the lowest values attainable today, especially in a region of Italy with high environmental temperatures. Energy efficiency is only one of the indispensable requirements, however. Reliability and continuity of power supply must not be neglected. The team has thus developed a solution which features the 2N redundancy of each individual component and a check of the electrical and environmental values. The team chose for the Legrand InfraRack electric panels with the “BTicino TiFast” system, with hot hooking and unhooking of the individual thermal-magnetic circuit breakers. Gianluca Giannuzzi from N&C Telecomunicazioni explains: “The installation could be completed quickly, easily making even very complex electrical wiring in small spaces”. Expansion and maintenance are simplified and can be safely carried out – even inside live racks.

AVAILABILITY OF DATA OF 99.995%

As well as redundancy, the ICT engineers needed to be constantly informed about the status of each individual parameter, so that they can act proactively. The choice was therefore made to integrate the Raritan PDU PX3. These innovative power distribution units measure in real time both the connected electrical loads and the microambient variables, such as temperature and humidity – communicating them also remotely through the Ortronics structured wiring network. The entire energy efficient data center now has an availability of data of 99.995%. This means a maximum interruption of only 48 minutes a year! ■

PRODUCTS IN USE

The main Legrand Data Center Solutions products in use are:

- Active cooling
- Caging
- Aisle containment and cabinets
- Air conditioning
- Structured cabling
- PDUs
- Electrical panels
- Automatic circuit breakers and auxiliaries

Resulting in an energy efficient and reliable data center!

