LANSA Case Study

Plantion manages mega operation with small IT team

Plantion, based in Ede in the Netherlands, is one of the most modern and environmentally friendly flower auction and horticulture trade centers in the world. Plantion offers a wide assortment of flowers and plants at its daily auction and via intermediary services. Plantion uses a LANSA-based in-house developed system to manage grower information, incoming produce, integration with the auction system, compensation to growers, plus the invoicing and distribution to customers.

Plantion

Ron Nieboer, Application Development Manager at Plantion, says, "Our development workbench has progressed naturally with LANSA. We initially used it for IBM i development, but it has expanded to include Windows applications, PDAs and touch screens. LANSA's single skill set concept and productivity, combined with the robustness of the IBM i, allow us to manage a complex and time critical mega operation with a very small IT team."

Reliability and Availability

Plantion, a co-operative owned by growers, is the result of the 2008 merger between 'Bloemen Veiling Oost Nederland' and 'Veiling Vleuten'. But it wasn't until March 2010, when Plantion opened its new €72 million building in Ede, that the two organizations fully merged from an operational point of view. Plantion's new 60,300 m² location includes an auction hall with three projected clocks and 400 buyer desks, and a 10,800 m² logistics center with 21 loading docks. Because of smart building design and energy management, Plantion is enjoying 64 percent less CO2 emissions than the two former sites added together.

Plantion's growers deliver €250,000 worth of products on a daily basis. These get auctioned in a 2.5 hour time span every weekday morning, starting at 6:00am. During the auction Plantion's IT systems need to process 4,000 sales transactions per hour. In addition, Plantion acts as an intermediary for negotiated trade between growers and buyers.

All the financial and distribution logistics are handled by a LANSA-based in-house developed system called LVS.

Peter Bakker, Director Operations at Plantion, explains, "Our first and foremost priority is system reliability and availability. The auction system, from Aucxis in Belgium, and the LANSA-based distribution system exchange transactions in real-time. If either of these systems were down, slow or inaccurate – especially during the auction – it would stop

Plantion's auction hall has three projected clocks and 400 buyer desks.

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several hundred buyers and over 100 staff from doing their work. Customers would lose their trust in us and may decide to move to a neighboring auction for their purchases."

Another challenging factor, according to Bakker, is the price pressure in the very competitive horticulture industry. "There is no room for inefficiencies anywhere in our company or in the delivery chain. It means that all our divisions, including IT, need to be proficient and cost effective."

Before the merger one of the two auction companies was already using the LVS solution. "After careful consideration, the LVS solution was the preferred option for the merged operation," says Nieboer. "The main reasons to move forward with the LANSA and IBM i LVS solution were its proven stability, low cost of ownership and its easy customization."

The Auction Solution

The vastness and sophistication of Plantion's LANSA-based LVS system is best illustrated by looking at the processes it manages, starting from the delivery of goods by the grower to the processing of customer payments.

In the afternoon or evening before the auction, growers send EDI transactions to provide an overview of the produce they plan to deliver. These transactions are processed by LVS and communicated in near real-time to the Windows-based Aucxis auction system. Prospective buyers have internet access to the auction system, allowing them to preview what is going to be auctioned the next day.

When the flowers arrive in the 9,390 m² receiving area, inspectors use PDAs that run a Visual LANSA-based application to confirm the delivery and to record any quantity or quality differences with the expected delivery. Differences are immediately communicated to the auction system through LVS.

At the auction, the clock starts at a high price and rapidly swings down. The first buyer to push the button gets the goods. Buyers in the auction hall have a keyboard on their desk, while remote internet buyers can bid via the Aucxis KOA module, which very smartly manages that the internet and local bids are sequenced correctly. Each auction transaction is transmitted in real-time to the LVS for further processing.

The flowers arrive and go in front of the clock on what is called a CC-container, a standard trolley in the industry. When a buyer purchases a batch of flowers, it usually comes together with the rental of the trolley. LVS sends a transaction to a Windows-based package (Avalanche) that keeps track of the trolley balance of growers and buyers.

Buyer organizations can subscribe to receive real-time EDI messages to their office with details of relevant auction transactions. This allows the person who is bidding for the buyer to continue to focus on the clock for his next purchase. Growers can request similar EDI updates informing them immediately about the proceeds of auctioned batches.

At any time during or after the auction, buyers can walk to one of the many touch screens in and around the auction hall to print their loading-list. The touch screen application, developed with Visual LANSA, is multilingual and allows for left and right handed operation.

After the auction LVS sends EDI invoices to the buyers. All customers have an agreement with Plantion that their account will be automatically debited on the auction day. LVS transmits these debit transactions to Plantion's bank.

Negotiated Trade System

Plantion's turnover in the negotiated trade is nearly equal in value to the auction turnover, but the nature of the transactions is very different. Plantion's mediation service is often requested for the larger deals, where a buyer or grower doesn't want to be dependent on the unpredictability of the auction clock.

Plantion's mediation solution is developed with Visual LANSA and deployed in client/server mode with rich-clients, a DB2/400 database and a large number of remote server calls to existing functionality on the IBM i. The Windows and IBM i applications share business rules and other components through LANSA's Repository.

Buyers can use one of the many touch screens around the auction hall to print their loading-list.

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Single Productive Workbench

Plantion's in-house IT team is a team of three, consisting of Nieboer plus two infrastructure people. Nieboer manages application development and integration, with the help of a systems integrator (Ilionix) in project peak times. Nieboer says that the amazing level of productivity in development and maintenance is largely due to good application design and to LANSA. "The speed with which we can develop and maintain in LANSA is absolutely amazing and a major contributing factor to the low cost of ownership of our systems," he says.

Nieboer feels that his development workbench has expanded and progressed naturally with LANSA. Starting with LANSA for iSeries in the mid eighties for native IBM i development and deployment. Then moving to Visual LANSA for productive Windows-based development, initially still with IBM i deployment, but later with Windows deployment. All new development is graphical client/server, but some of the older applications are still in 5250 style. Nieboer may reface these programs or gradually modernize/redevelop them, but says this has a very low priority. "The older applications perform well and there is no problem mixing and matching deployment platforms as we can develop, maintain and integrate them from the same workbench."

Web and Windows

Nieboer foresees that interfacing with external parties and internal applications will become more important in the near future, and is investigating available Business Process Integration (BPI) tools. "It's reassuring to know that LANSA is offering a very practical BPI solution with their Composer product," Nieboer says.

"Another upcoming development is to release more information to the outside world by providing customers and growers with Web access. Customers can already preview deliveries and buy online via the Aucxis KOA module, but we want to provide access to account, distribution and statistical information as well. For that we can stay within the Visual LANSA workbench."

Nieboer expects that more functionality may move to Windows in the future, but that the database will remain on the IBM i, because of the platform's stability and scalability.

Bakker concludes, "The company merge has provided us with better economies of scale, but even so, we continuously strive to improve our price-performance ratio even further. Our efficient setup with a small and competent in-house team, assisted by a large system integrator for project peak times and second line support, provides a lean yet robust IT environment."

Company and System Information

- Plantion, a cooperative owned by growers, is a one-stop-shop knowledge and trade center for flowers and ornamental plants. For more information visit: www.plantion.nl
- The LANSA-based LVS system integrates with the Aucxis auction system (www.aucxis.com) and with the Avalanche CC-container system (www.today-it.nl), both Windows and SQL server based.

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