The most enduring postal networks and structures are those which have developed over long periods of time. However, from time to time, it is worth taking a closer look and embarking on a little re-engineering to bring costs down, to comply with CO2 footprint regulations or perhaps because new business models require new approaches. This is where the Siemens Postal Solutions consultants from Constance come in, bringing their extensive knowledge and broad experience to the drawing board.

Alternative post scenarios, just a click away

The best way to optimize the postal supply chain? With experience.

Nothing is more certain than change, according to the writer Kurt Tucholsky, and the world of postal distribution is no exception. The move from physical to electronic mail is leading many postal operators to rethink their organisational structures and infrastructures. For Klaus Hoffmann, head of the Postal and Logistics Consulting Department of Siemens Postal Solutions in Constance, two key objectives stand out from the rest: ‘cost reduction and improved service quality’. These are conditioned by competition and the prevailing economic situation and most definitely ‘cannot be achieved merely by installing a new machine or a new software program’, Hoffmann stresses. ‘At this point in time, we must not get bogged down in the minutiae, but must take a good look at the process as a whole,’ says the Siemens consultant.

And the proof is in the pudding – under Hoffmann’s watchful eye, postal operator productivity has increased significantly, leaving little room for doubt.

(Continued on page 4.)
Siemens Infrastructure Logistics adapts to the change in structure, supported by three pillars

Into the future, alongside our customers

Mobility is key in this day and age, and Siemens Mobility Division is an excellent example of this phenomenon. As technologies develop, so does business and society, and this development also extends to company structures, as it should. Siemens Infrastructure Logistics (IL) is no exception, meeting this change head on and putting its best foot forward.

Siemens has now combined six technologically oriented business units, which previously operated under the umbrella of Siemens Infrastructure Logistics, into three market- and customer-oriented units:

- Postal Solutions, which covers all postal activities,
- Logistics & Airport Solutions, which covers all the logistics and airport activities, and
- the blanket Customer Service unit, which covers the installation, service and maintenance of automation solutions.

Forecasting specialists and trend researchers currently have their hands full ‘measuring’ and predicting the future.

A solution-oriented organisation: the best customer support

In this situation, postal operators and logistics specialists need, above all, vision and a holistic assessment of their development potentials. In other words, what are needed are solutions, not technologies. And even if technology does have a crucial role in a solution (indeed, sometimes it is an innovative approach which makes the difference), the customer usually does not want to hear about special software modules or system components. What is required is the type of experience offered by Siemens consultants and engineers. Starting with the big picture, they analyse the...
facts, compare them with their own experience and then develop a suitable response. In short, they create a tailor-made solution to meet the customer’s needs.

It is precisely for this reason that Siemens Infrastructure Logistics has been reorganised, to combine the know-how from previously separate areas into one unit so that holistic solutions can be developed, ones which suit customers on the road to success. This concept is reflected in the name of the Siemens units: Postal Solutions (PS) and Logistics & Airport Solutions (LS). The areas are divided on an objective basis; Siemens customers always come first. Thus, while the responsibility for parcel sorting products is with the LS unit, Postal Solutions remains the customer contact for projects for postal operators.

In practice

The other factor in the solution is the technology. It is only as good as the specialists who take the many parts and components and put them together into a whole at the end of the supply chain, eventually handing it over to the customer. This is where Customer Service (CS) comes in. It ensures that the solution continues to meet customer expectations for many years to come. It is CS’s quality performance that ensures Siemens solutions are easily accessible and efficient. This is the only way that the projected profitability can be achieved.

Along with the three new units, Siemens has also introduced a blanket Department of Innovation Support. This ensures that customers and businesses can rely on the constant development of innovative solutions. While Siemens Infrastructure Logistics develops with the demands of the market, companies benefit from Siemens’ new, forward-looking solutions.

Three IRVs for China

The mail centre in Beijing is now complete. More than 120,000 square feet are now available for mail sorting at the two-storey Beijing Complex Mail Centre (BCMC). The new building replaces the local post offices which were previously dispersed throughout Beijing and, as the largest centre of China Post, it eclipses all other centres in the Chinese postal service. Siemens AG will be supplying the most important part of the equipment in the postal centre in Beijing – three integrated reading and video coding (IRV) systems with directly connected 2-level sorters, including the automatic reading and video coding systems. Experience was not the only deciding factor in Siemens’ favour – Beijing Post was the first post office in China to install letter sorting machines from Siemens in 1990 and ordered additional machines about eight years later.

The short delivery time promised by Siemens was also particularly attractive in Beijing and fitted in well with the strict project plan of Beijing Post. The high throughput and high quality of the Siemens products also guarantee improved performance during sorting. This is necessary to cope with the large volumes of mail in Beijing.

First contract with India

In Delhi and Calcutta, letters will soon be delivered at lightning speed. India Post recently signed a contract with the Mobility Division of Siemens Ltd. India, the main purpose of which is the automation of the Delhi-Calcutta mail route. Within the next 14 months, Siemens will be setting up high-tech sorting systems in these two Indian cities.

The planned systems will automate the sorting of letters and parcels up to 20 kg for standard dispatches. The Final Sorting Machine (FSM) will be used for standard letter processing as well as the integrated reading and video coding (IRV) systems. The highlight for India Post is the IRV system, with its intelligent software, which not only reads any font, but also handwriting, Greek and Arabic. And, what is most important is that it also understands the local language, Hindi.

With this equipment, the mail centres in Delhi and Calcutta will be able to process 55,500 letters per hour.

In each case, Siemens will also be installing a multi-product sorter (MPS) capable of sorting parcels up to 20 kg.
Postal supply chain: Planning – Simulation – Optimization

When the postal and logistics consultants from Siemens roll up their sleeves and get to work, they always look at the big picture, the entire postal distribution process: from the first beginnings, with the planning and setting up of the logistics networks, to the finishing touches, when the optimized process or supply chain is successfully put into operation. Find out how Siemens supports the entire supply chain process – from analysis to delivery, from start to finish.

‘We are not just engineers who offer a machine full of cure-all features, nor general consultants who make recommendations and then abandon ship,’ explains Klaus Hoffmann, describing what makes his Postal and Logistics Consulting Department a cut above the competition. He emphasises, ‘We explain how each part fits into the whole and are with postal operators every step of the way, until the project draws to a close, and when everything can be calculated down to the last cent, we reveal the savings made by optimizing the supply chain.’ The supply chain specialists from Siemens are keen to ensure that enough attention is given to the start of a re-engineering project. ‘It is difficult to compensate for carelessness at a later stage.’

1. Take constraints into consideration

An essential first step in starting an optimization project is to analyse the constraints. According to Hoffmann, there were a few surprises along the way, such as the works council suddenly appearing on the scene once the new machine was up and running and demanding that employees be reclassified, a step which had been forgotten. From this, one can see the importance of not only clarifying the objectives to be attained, such as cost and quality, but also knowing what possible hurdles may arise in realising the desired aims. The fundamental principles should also be established. Project heads need to know in advance whether, for example, sorting centres need to be consolidated or relocated, later moving on to organising personnel and planning logistics.

2. Collect facts – without leaving anything out

A simple example: if you only know the total surface area of a house, you’ll never be able to pick out the right furniture. As Hoffmann puts it, ‘The more we know about the situation, the better the plan.’ Siemens does not re-invent the wheel over and over again in order to collect all necessary data from the supply chain: a computer program for collecting data ‘remembers’ all the facts and tests for consistency and plausibility during data acquisition. In the end, the figures are fixed – the volume to be expected in any particular season, when a letter is to be in the mailbox of the recipient, the mail flows, whether there is first- or second-class mail, or what extra steps must be incorporated in the process for insured or registered mail.

3. Modelling: fifteen years’ experience in success stories

Once there is an extensive amount of file data, including forecast data for future volumes, the planning process may commence. The tools that Siemens has at its disposal are ‘like a gold mine for any further plans’ says Hoffmann, going on to say, ‘It is a toolkit which has been assembled from approximately 15 years’ experience.’ The tools, which have been developed especially for postal operations (or, more commonly, the workflow), make it possible to visualise the letter, large-format mail or parcel flows exactly. With one click, the program also calculates the cost of the process. Take a closer look, and it identifies the places where the supply chain can be optimized. Whereas consulting firms or universities without postal experience have to dedicate large amounts of time to modelling, Siemens employees merely input the factors specific to the customer, and the initial plan is ready. ‘This alone can save many months of development work, tests and optimization loops,’ boasts Klaus Hoffmann, confidently. He remembers an example from an actual case, when Siemens took over a project that had been stonewalled for two years by the modelling process. ‘After just a few weeks, we delivered results,’ says Hoffmann, lightly.
Planning now relies on the facts and optimized procedures. According to Hoffmann, ‘They are typically top-down, i.e. from searching for locations for the sorting centres to tactical and strategic planning of networks and transport systems, on to the development of processes in the sorting centres.’

Planning includes the following steps:

- Site allocation is based on a scientific method and determines the optimum network for sorting centres and post offices from more than 100 possible parameters.

- Site allocation provides the jumping-off point for the tour optimizer. It provides the optimum routes and stop overs based on facts such as the vehicle fleet, mail flows and stipulated time frame.

- The process models optimized by Siemens are used to form the blueprints for the sorting centres. ‘But this is in no way an automatic process,’ stresses Hoffmann. ‘The creation of the sorting strategy, and the operational concept it comes from, requires a wealth of experience.’ It is just this experience that the Siemens specialists bring to the project.

- Other tools include the process optimizer (static optimizer), which determines the cost of system parameters such as the arrival and dispatch profiles, transport time, resources, and mail volumes to be processed, taking into account possible build-ups and cost requirements for each process, if necessary. The layout optimizer ensures the shortest possible transport routes without crossovers (layout optimizer), which guarantees the specific desired benefits.

Finally, Siemens selects a tool from its toolbox to make the planning flexible and easy to understand – without the need of a prototype. This is the simulation. In practical terms, it tests whether the process really runs like clockwork from start to finish and meets the client’s expectations. In the words of Hoffmann, ‘If you can monitor the process of the mail flow on the screen and can see that the times and volumes on the schedule have been met, the gasps of amazement are guaranteed.’

Even more effective is the use of simulation to test various scenarios at the touch of a button – each time with a realistic representation of the material flow, information flow, machinery and personnel, and costs. It is therefore easier for the client’s decision makers to decide between two or three centres or to choose sorting scheme 1 or 2. ‘There are several ways to find the optimum postal supply chain,’ says Hoffmann, ‘but there is one vital factor: the solution must be found quickly and efficiently, and then implemented.’ This is what Siemens stands for.

Statement

‘A first in process transparency’

Working together with the experts from Siemens, Ukrposhta has successfully and thoroughly analysed the supply chain and processes for mail processing. The industrial expertise of Siemens, its consulting methodology and its specialised tools added a level of transparency to all our business processes unlike anything seen before – both in terms of quality of service and costs. We were amazed at the improvement that could be achieved and how effective the proposals were for optimization. The Siemens simulation function left us confident that the measures recommended were appropriate and that they would lead to real and significant improvements once implemented.

We have implemented the recommended changes in our logistics network based on the Siemens project, and the test results from the measures already implemented have exceeded all our expectations. In addition to qualitative improvements, we have also been able to save more than 10% of the total cost incurred in the supply chain. The new logistics network will now form the basis for further improvements in automating processes.
A future scenario for E-forwarding

Letters of the future: around the world in seconds

Ryan Bingham travels by plane 322 days a year. Aeroplanes, hotels and company visits are his world. The mobile motivational speaker is only at home every few weeks and has, in fact, managed to clock up ten million bonus air miles. George Clooney plays the restless manager in the award-winning film *Up in the Air*. In the following future scenario, it is Simon Parker who jets around the world.

The Hollywood comedy with George Clooney pushes mobility to the extreme, but in reality, this lifestyle trend plays an increasingly important role in a globalised world. Scientific studies predict that the need for mobility worldwide will increase, and the same conclusion has been drawn by the 'Delivering Tomorrow – customer expectations in 2020 and beyond' study carried out by Deutsche Post DHL. Among the reasons for this increase are the creation of megacities and technological developments, such as Internet-based communication systems.

Mobility is also an important factor for post and offers the following scenario for 2015. Much like the film character Ryan Bingham, Simon Parker’s range of activity extends beyond the United States to the entire world. After landing in Moscow, he climbs aboard the Velaro high-speed train and races to St. Petersburg at 350 km/h. On the journey, the mobile manager not only looks through his e-mails but also his letters. He actually is not very fond of paper mail, although the printed word still plays an important role. Today, the overcrowded mailbox is no longer an issue for the enthusiastic bachelor. Important messages no longer give him the slip, even though he only spends 43 nights a year in his apartment.

In 2015, there will be hardly any difference between physical and electronic mail. Simon Parker merely types on his latest-generation mobile phone and the little screen presents a list of all his incoming mail, including letters, printed material and parcels, regardless of where it has come from.

In the peace and quiet of the hotel in St. Petersburg, Simon Parker can peruse the mail that has arrived so far. This ingenious system, called Trust-Ebox, shows the addresses of the senders on screen. One look and he can see clearly that some of the business letters can be dealt with by his colleague Brenda at headquarters in the US. One click of the mouse is enough and the postal service takes care of dispatch to the required destination.

However, it is not always so easy. Sometimes, letters can only be processed correctly once you know what’s in them, but this is no problem for Simon Parker. He clicks on the relevant correspondence and asks the Trust-Ebox service to view the contents. This takes just a few hours: the post office opens the letter concerned, scans the contents and he can read it on the screen word-for-word the very next morning. Taking into account the delicate nature of Simon Parker’s work, this could seem tricky, since the correspondence must remain confidential. After all, his con-
versations in the company involve letting people go. But, Simon Parker, globetrotter, is not worried. His post is protected, since the new letter-forwarding function uses secure routes on secure servers to guarantee mail integrity. Access to his digital postbox is also only possible via secure transmission.

However, during the flight to Bangkok, a mail item appears which his high-tech mobile is not able to process. These are prepared letters from company headquarters that have to be signed by hand, therefore an e-mail with the usual digital signature won’t do. Annoying, but there is still paper! But Trust-Ebox also helps in this case. Simon Parker can simply have the documentation sent directly to his hotel in Bangkok via a logistics service provider. Once it has arrived at the airport, the Suvarnabhumi Airport Express takes it to the Makkasan city railway station in Bangkok. Once Parker has frantically completed several company visits and attended a few business lunches, his physical post has arrived at the hotel after just a few days and is then signed and sent by return mail back to the company headquarters.

On the connecting flight to Los Angeles, Mr. Parker is surprised by a letter from his girlfriend, Alex. She has sent him a love letter, which appears on his mobile in digital form. That’s a nice surprise for our world-travelling motivational speaker, who later arrives at his apartment to find the handwritten original from his beloved in his mailbox. Even better, thanks to the Trust-Ebox service! 

Airport rail link in Bangkok

Interview

Professor Dr. Horst W. Opaschowski is the scientific director of the Foundation for Future Issues in Hamburg and author of Deutschland 2030. Wie wir in Zukunft leben [Germany 2030. How we will live in the future], Gütersloh, 2009.

Mobility, going beyond all boundaries

Will we still be sending handwritten love letters by post in 2020?
A handwritten letter will still be the most romantic and convincing declaration of love in 2020. Handwritten love letters may not be dying out, but they are getting less common!

How much will electronic communication govern our daily lives in 2020?
SMS and chatting will characterise electronic communication for the next generation. In the long term, this will be to the detriment of substance and quality.

What role does the digital divide play in society? How can it be overcome?
Education, education, education. This is the only way to overcome the digital divide in the long term.

Will we be travelling more often in 2020 than today? Will mobility increase?
Mobility will go beyond all boundaries in the future – spatial, temporal, psychological and social. Mobility by car will only be a small part of it.

Will rural migration play a significant part in 2020?
A second great wave of rural migration will take place in 2020: ‘back to the city,’ particularly among the older generation.
Reader Survey

SILOG News on the test bench.
We want your opinion

Now that SILOG News has been fluttering onto your desk with information on automation for post, courier, express and parcel services for three years, we want you to tell us what you think of the Siemens newsletter. Perhaps you remember a particular story, or an exclusive technology has captured your interest. Put your answer on the attached reply card, because three attractive prizes are waiting for the first three to get here.

Mail connects people, and not just in terms of its global transport flows. ‘Mail’ can be found in every country in the world, albeit in very different forms. For example, remember the SILOG News article about the Tibetan postman who scaled by scooter and on foot mountains straight from The Lord of the Rings?

Like the post, SILOG News travels into all regions of the world, showing what Siemens Postal Solutions has to offer in technology, design and bright ideas, in six languages: German, English, French, Spanish, Italian and Chinese.

In customer newsletters from Siemens, you can read not only about the technical developments in postal automation, but also about trends in postal organisation or strategy.

Perhaps you read the report in SILOG News 1/2008 on the compact sorting systems installed in German postal centres? Maybe you were impressed by the special edition covering the comprehensive modernisation project for Swiss Post at the end of 2008, or the mid-2009 issue on cargo and parcel output, which described new and further developments in parcel and material handling solutions at Siemens? Not forgetting to consider matters of greater import, such as the interview with climate expert Claudia Kemfert, which revealed that green measures in the company can be both economically and environmentally beneficial.

But we still have some very important questions for you. Did you find our choice of subject matter interesting? What else would you like to see? Simply fill in the enclosed card. You could be one of the lucky winners!

We look forward to your answers.

Editorial Team

A fresh east wind: cross-border sorter for Romania

The new Siemens EXB120 crossborder sorter at FAN Courier in Bucharest is expected to go into operation by the autumn of 2010. FAN Courier, the market leader in courier services in Romania, decided to automate its new hub on the northern outskirts of Bucharest just before Christmas and equip it with the EXB120 sorter from Siemens. Eight feeders and 66 output chutes are being installed.

The EXB120 solution for Bucharest will achieve a throughput of around 9,000 items per hour, which in the future will be increased to 17,000 items per hour.

During the decision-making process, FAN Courier, which bases its success largely on the provision of premium services, gave very high priority to quality and reliability. The selection criteria for the Siemens automation solution more than fulfilled the requirements: outstanding performance, including OCR technology, local services with high availability and a help line. Therefore, there is nothing to impede the success of this year’s Christmas business for the Romanian courier.

Corporate Information

Published by
Siemens AG
Industry Sector
Mobility Division
Infrastructure Logistics
Postal Automation
Bücklestr. 1-5
78467 Konstanz - Germany
Tel. +49 (0)7531-86-01
Fax +49 (0)7531-86-2421

Responsible for content
Dr. Gerhard Ehliker, Siemens AG, Konstanz
Printed in Germany
Your direct line to us:
postalkonstanz.industry@siemens.com
© Siemens AG 2010

The information in this brochure merely contains general descriptions and performance features, which may not always be applicable in the described form in an actual application or which may change as a result of further development of the products. The desired performance features shall only be binding if they have been expressly agreed in the conclusion of contract.