

Work faster, work smarter

High tech products require a high spec supply chain that can accommodate the constant development of new products while providing a quick and secure service. How have supply chains adapted to keep up and what must be done to improve flexibility? **Lucy Tesser** reports.



High tech supply chains are a complicated business. Products are high value so security is paramount, and lifecycles are short so speed to market is imperative. The fact that products are constantly changing and being reinvented means supply chains have a tough job keeping up.

Mobile phones illustrate this point well, says Ian Veitch of Yusen Logistics, as the number of mobiles per household is continually rising, with the “fashion life” of a phone now just four months.

“The optimum supply chain must balance inventory levels with time from manufacture to market, taking into account point of origin, value and market demand,” he says. “The objective is always to realise sales revenue as quickly as possible, reducing logistics cost and speeding product from manufacturer to point of sale.”

He points out that the lead time for mobile phones from China to the UK market is now just 2.5 days.

“Removing stages from the supply chain enables the cycle time between point of UK entry and availability of stock to the manufacturer’s sales team to be minimised even further,” he adds. “Delaying the final configuration enables essential ‘future proofing’ against continuous innovation for new application launches, in the face of constant downward pressure on prices.”

Benefits

Michelle Campbell of RedPrairie says work orders can be used to simplify the production process by highlighting which parts are needed at what time. One of the benefits of this is that companies can configure phones according to individual retailer specifications. Plus, those shipping electronic goods to a number of different countries don’t have to assemble all products separately prior to being shipped out – the majority of the item can be built and then at the last minute the necessary country-specific parts such as plugs can be added at the point of shipping.

This also helps to keep inventory down and improve traceability, plus if there are any issues and a product has to be recalled the problem can be easily diagnosed.

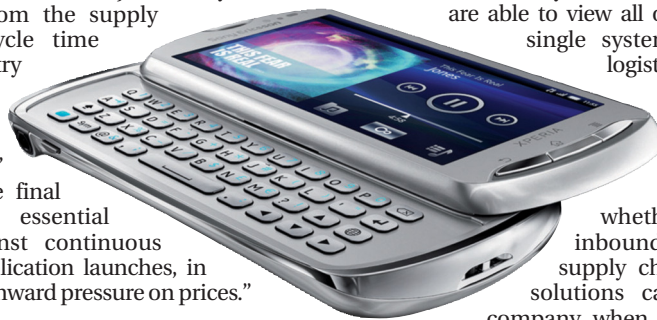
Campbell says: “Often with electronics there will be a batch of plugs, for example, that need to be recalled. If you know which batch number it is and which finished goods it has been used in it is possible to be much

more specific and accurate with recalls.” Meaning companies don’t need to waste time and money recalling products unnecessarily.

RedPrairie’s planning and optimising system can also be used to reduce costs by using carriers and developing more optimised routes. “If you’re importing something it could on some occasions be better to go straight to store X and bypass the distribution centre. It lets you be proactive,” she says.

One of the key requirements of a smooth-running global supply chain is visibility. If this transparency is lacking the flow of goods could easily be compromised if circumstances suddenly change – something which a number of companies experienced in the aftermath of the Japanese earthquake earlier this year and the Eyjafjallajökull volcano before it.

Mark Brannan, international business development director at AEB, says: “It is important that companies are able to view all of their warehouses in a single system and to manage all logistics processes outside of those warehouses –



**Sony Ericsson’s
Xperia Pro.**

whether relating to the inbound or the outbound supply chain...Visibility software solutions can proactively alert a company when delays and disruptions occur, provide users with information on their supply chain options and enable them to assess alternatives.”

If inbound flights from the US are cancelled for example, Brannan reckons the user can look at sourcing the same product via another supply chain route, in say Scandinavia, by using road and ferry transport.

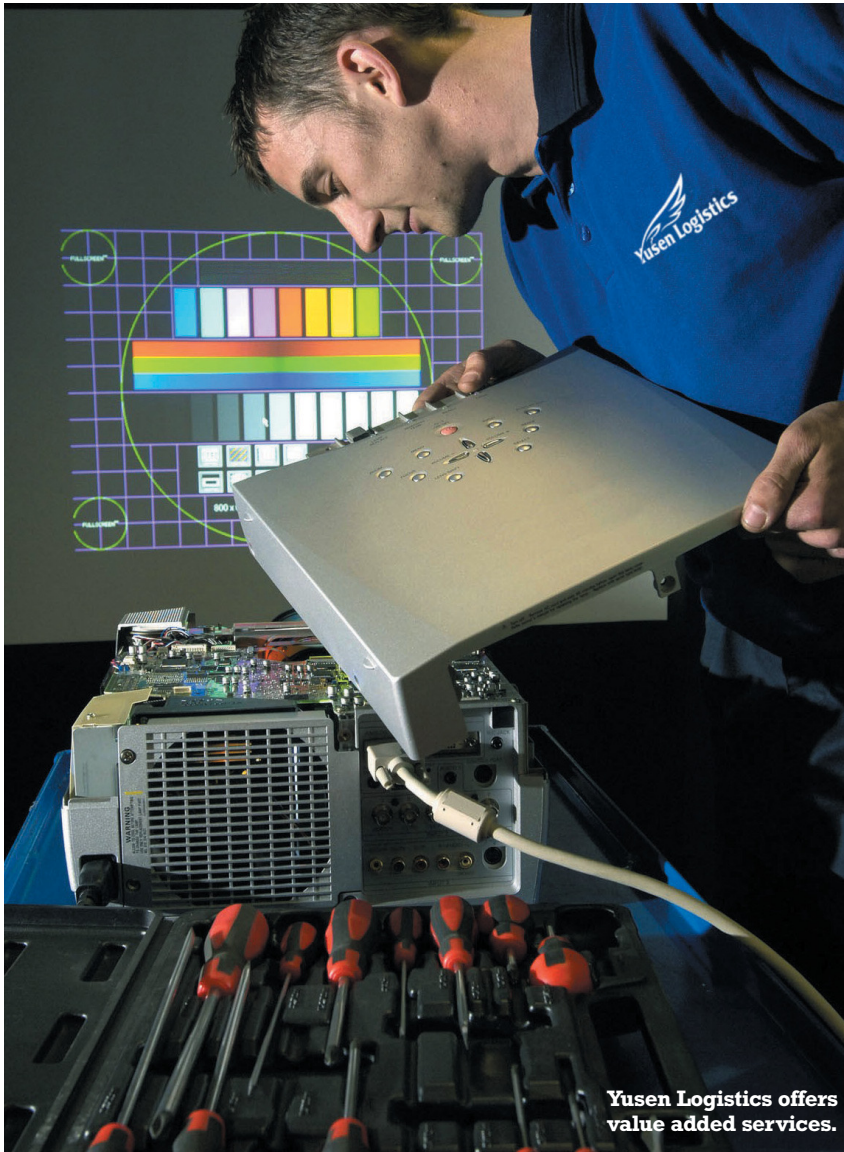
“The system could even be set to automatically trigger a replacement order from an alternative supplier by an alternative transport route based on the incident that has occurred, and without losing any time or requiring user interaction,” he adds.

Nathan Pieri, senior vice president of marketing and product management at Management Dynamics, agrees. He says: “Such events are a reminder of the importance of having a ‘plan B’. A scenario-based planning tool can help supply chain teams quickly and accurately evaluate alternative sourcing and distribution strategies to



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Yusen Logistics offers value added services.

optimise total landed cost while assessing the impact of trade regulations.”

Mobile phone maker, Sony Ericsson, blamed supply chain constraints caused by the Japanese earthquake for the 50 million euro (£44 million) loss it experienced during the second quarter of 2011.

During the three months to 30th June 2011 just 7.6 million units were shipped, a 31 per cent decrease year-on-year due to the drop in volume caused by the lack of supply of critical components.

Bert Nordberg, president and chief executive of Sony Ericsson, says: “We estimate that the impact of earthquake-related supply chain constraints on our portfolio was close to 1.5 million units, with most of the effect in the early part of the quarter.”

It has been suggested that the supply chain disruption caused by the recent spate of natural disasters and disruptions has been exacerbated by the economic downturn which caused many companies to downsize, reduce inventory and cut the number of suppliers used to source certain components.

Cathy Humphreys, UK country manager at Inform, says: “Businesses are more likely to be caught out when an unforeseen crisis occurs if they have adopted very lean models. Although reducing waste is highly desirable as it lowers costs, it can prove significantly more expensive when inventory is unavailable.”

To combat this, Humphreys recommends developing more accurate requirement plans which conform to lean principles while buffering the supply chain from risks and potential emergencies.



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Ian Veitch

“Inventory planning should be optimised, and volatility risk in supply as well as demand variation considered as important factors when determining lean levels,” she adds.

Mark Brannan of AEB says: “Given the heavy reliance of many companies on electronics products from a single country, many now have to consider whether they have had ‘all their eggs in one basket’. It’s clear that the disaster in Japan and the Eyjafjallajökull ash cloud, in particular, have been a wake-up call for many involved in the supply chain industry.

“Supply chain risk mitigation now needs to be a top priority for companies. Companies can significantly reduce insurance premiums by identifying and minimising risks in their supply chains, and monitoring those risks throughout the entire logistics process using visibility tools.”

Another realisation in the aftermath of the disaster in Japan was the need to have a much clearer understanding of the inter dependency of vendors lower down the tiers in the supply chain, says Ian Veitch of Yusen.

He also reckons the situation has encouraged some companies to investigate and implement dual sourcing of certain critical components – in particular chips.

Kim Sainsbury, head of business development EMEA at DHL, refers to the silicon chip shortage a few years ago which he says was so severe that people were breaking into offices and stealing chips out of computers.

“It’s all about balance,” he says. “You can’t always calculate the shortage but you can calculate the damage. Recent events will make customers see that.”

As well as being highly complex, high tech supply chains are forever changing to keep up with new technology.

Evolving

Glenn Lindfield, senior vice-president contract logistics for Kuehne + Nagel North-West Europe, says: “It’s a very evolving market place and that brings additional challenges. The way people operate is changing and supply chains have to keep up. We haven’t topped out yet. There is no end to it. The rate of inventions is increasing.”

The speed at which products are being developed is having a significant impact because as the cube changes big changes also have to be made to storage and handling processes.

Grahame Barrows, general manager for high tech business development at Kuehne + Nagel, says: “The size of product is interestingly having a play. We have a contract with one of the main TV manufacturers and when it started they filled a dedicated warehouse of considerable size. Now they use just 30 per cent of the warehouse as the size and shape of the product has totally changed.

“It demonstrates that strategic review sessions for roadmap planning are crucial. You also have to be sharp and wise about any capital investment. If you invest in automation, for example, product sizes could change and you could get bitten.”

As technology develops the role of a logistics operator is changing too. Barrows says: “In the mobile sector we used to have an active part in value added processes such as software flashes but these are now done OTA [over the air] or customers can download them themselves.”

Instead, companies like Kuehne + Nagel are focusing on different added value services such as reverse logistics and disposition services.

Similarly, Nicola Couse, commercial director of Unipart Technology Logistics, says: “In the technology sector, reverse logistics is almost a bigger headache [than forward logistics] because of the sheer amount of product being returned or needing repair.”

Plus it is a significant cost so is becoming increasingly important within the sector, particularly as products lose value so quickly. As such, Couse reckons many companies now focus much more heavily on reverse logistics whereas previously the main concern had always been improving market share.