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Dell To Outsource More under New Supply Chain Scheme

Dell is overhauling the way it designs and manufactures its products, and one result of this effort will be greater use of ODMs and EMS companies.

The company, which built its reputation on a configure-to-order model of direct selling, intends to reduce its reliance on the direct model and supply fixed configurations or limited configurability for major segments of Dell's market that don't need a CTO product delivered just in time.

As part of this overhaul, the company will move from a supply chain built for maximum customization to multiple supply chains. With these choices, Dell intends to have an optimal supply chain delivering the total lowest landed cost for any customer demand. Where customers don't need the customization of a CTO offering, "we'll have more and deeper partnerships with ODMs and EMS companies, where they can satisfy the needs of our customers with a total lowest landed cost that allows us to be price competitive, while we're making satisfactory margins," said Mike Cannon, president of global operations at Dell, during the company's analyst meeting held this month.

He admitted that to some degree Dell is copying the supply chain of its competitors. "Where there's a low-cost supply chain that's been in place [and] our competitors are enjoying it, I

want that supply chain if that's the best way to satisfy the needs of the customers at the right cost point," said Cannon. But he added that Dell is still keeping its capabilities in cycle time and customization that differentiate it from competitors.

The retail market offers an example of where Dell's CTO supply chain was inadequate. "A good deal of that market works with manufacturing in low-cost geographies, surface transportation of the product," said Cannon. With products selling for lowest landed cost, "that market won't pay for CTO," he said. In the past, the company tried to satisfy the retail market with its CTO supply chain but applied to build-to-forecast requirements. That was inefficient, said Cannon.

The new supply chain strategy will contribute part of the \$3 billion in annualized cost savings that Dell plans to achieve over the next three years. But the largest opportunity for cost reduction comes from changing Dell's ap-

proach to product design. Instead of relying on a product design to which features can be added to raise the selling price, Dell is designing platforms for specific price bands. As a result, the company is increasing the number of platforms to match particular customer and price segmentation. The new approach reduces the total cost structure at each price segment. Formerly, extra cost would be built into a base design to allow for configurations at higher price bands.

More platforms mean more design work. Yet Dell plans to bring its R&D expenses down as a percent of revenue. How can this be? The answer to some degree is that Dell does not intend to do all of this work itself.

"Where we can get a partner to do a particular design for us, and they can do it as well as we could do it, we're going to let them do it," said Cannon.

From this comment, *MMI* can infer that Dell will outsource some portion of its platform design work. This

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would be one way of making good on the company's promise to have more and deeper relationships with ODMs and EMS providers.

According to reports out of Taiwan, Dell is already making good on its promise. Two published reports have **Flextronics** teaming up with motherboard house **Micro-Star International (MSI)** to work on a consumer desktop PC program for Dell. One source, *Digitimes*, which cited a Chinese-language newspaper, said the joint effort will result in the production of desktops for Dell, while the other, *CENS.com*, reported that the partnership is intended to supply Dell with motherboards.

But the two sources do not agree about another piece of outsourcing business from Dell. They report that **Compal Electronics** will manufacture low-cost PCs for Dell. Compal, for its part, acknowledged media reporting of an order from Dell, but had no comment via a posting on the Taiwan Stock Exchange.

Dell may well have started last year shifting to a new model that includes supply chains delivering completed products through the use of ODMs or EMS providers. The two Taiwanese sources reported in June 2007 that **Hon Hai Precision Industry** (also

known as Foxconn), the world's largest EMS provider, had received orders to manufacture desktop PCs for Dell.

When asked about the foregoing reports out of Taiwan, a Dell spokesman told *MMI* that the company does not disclose the names of its partners.

Still, it is well known that Dell is a customer of both Hon Hai and Flextronics. Reportedly, Compal is one of Dell's notebook ODMs.

A Polish web portal recently posted a report that Flextronics will set up a logistics center in Lodz, Poland, to support Dell, which operates a new manufacturing site in Lodz.

With Dell partnering more with outsourcing providers, it stands to reason that the company will be less dependent on its own factory network. "The Dell manufacturing model in the past has been pretty much everything winds up going through a Dell factory," said Cannon. In some cases, a product also goes to a merge center. The company uses outsourcing partners to supply subassemblies at various levels.

As the first step in optimizing Dell's North American network of plants, the company has decided to close its desktop manufacturing facility in Austin, TX. "That work is being shifted to other sites in our North

American network where we have been underutilized," said Cannon during the analyst meeting. At another point in the meeting, he explained that the decision had nothing to do with the productivity of the plant's employees. "Those people had amazing productivity. It's just that for those desktop products a lower-cost supply chain will satisfy the needs of the customer, and we need to be migrating in that direction," said Cannon.

When Cannon joined Dell last year after four years as **Solelectron's** president and CEO, he found that Dell had underestimated the capabilities of its supply chain partners. "I think because we were so inwardly focused on our own model, we didn't fully appreciate the fact that, hey, those industries [EMS and ODM] have made tremendous progress over the years in scale and capability to be terrific partners that we should rely on to do more for us."

Dell's CTO model has been the gold standard by which other just-in-time manufacturers measured their cycle times and inventory control. But the case of Dell shows that even a highly efficient OEM model can still lose customers to an outsourced supply chain delivering lowest landed cost.

World Markets

HP To Increase EMS Work in Vietnam

HP reportedly plans to have more contract manufacturing done in Vietnam, lending credibility to Vietnam as an EMS location. Two Vietnam news sources reported this month that HP will partner with the **Foxconn** group to set up a computer assembly plant in Northern Vietnam. These reports cited remarks by HP executive vice chairman Todd Bradley, who was visiting the country. The venture with the Foxconn group, which is anchored by **Hon**

Hai Precision Industry, will give HP a second Vietnam site where it has products contract manufactured. **Jabil Circuit** already makes inkjet printers in Ho Chi Minh City for HP (Sept. 2007, p. 6).

The HP-Foxconn factory will produce computers for both the domestic market and for export, according to the Vietnam sources. They said that HP will handle system design, while Foxconn will take charge of manufacturing and technology transfer.

Wistron joins parade to Vietnam

Vietnam is living up to its billing as this year's new hot area for plant in-

vestment, especially for Taiwanese companies in the outsourcing space (Jan., p. 2). The latest Taiwanese company to be identified as a future manufacturer in Vietnam is ODM **Wistron**. In a statement made to the Taiwan Stock Exchange on March 31, Wistron said its board of directors approved a \$10-million investment in **VNCap** to expand production capacity. The investment in this offshore unit indicates that Wistron plans to locate a plant in Vietnam, according to two newspapers in Taiwan. In choosing Vietnam for added capacity, Wistron joins the likes of Hon Hai with its \$5-billion investment plan, **Compal Elec-**

tronics and, according to one report, monitor ODM **Innolux Display** (Dec. 2007, p. 1).

In early March, the Chinese-language *Economic Daily News* stated that Wistron is partnering with LCD supplier **Chi Mei Optoelectronics** to enter Vietnam. In response to this report, Wistron said new overseas sites were still in the evaluation and planning stage.

IMI Eyes Vietnam

In the outsourcing space, you don't need to be a Taiwanese company or a top-five EMS provider to be interested in Vietnam. **Integrated Microelectronics, Inc.** (IMI) of the Philippines

hopes to establish a manufacturing presence in Vietnam, but has not finalized its plans. The Top 50 EMS provider is looking for the right location and checking whether the global OEMs already in Vietnam are willing to do business with IMI.

Double-Digit Inflation

Although Vietnam's labor costs are significantly lower than those in China, inflation in Vietnam could eat into this advantage over time if Vietnam does not bring its inflation under control. Last year, inflation ran at 12.6%, and one bank is projecting a 13.8% rate this year, reported *Thanh Nien News*.

er outsourcing potential than the more mature communications infrastructure and IT markets. Still, a three-plus percentage point gain in one year points to growth well above the industry average.

From *MMI's* annual Top 50 survey, the newsletter obtained sales percentages by market segment for 45 out of the Top 50 providers. Sales percentages by segment are tabulated for each company on pages 4 and 5. Of those companies, 42 supplied the necessary sales breakdowns in the three largest categories: consumer electronics and mobile phones; communications infrastructure; and computing, storage and peripherals. (Beyonics, Hana Microelectronics and TT electronics did not provide sufficient data.) Sales in each of the three categories were computed for each of the 42 companies and totaled via spreadsheet. Combined sales from the remaining nontraditional segments were then obtained by subtraction.

For the second year in a row, consumer electronics and mobile phones made up the largest segment with 30.9% of revenue produced by the 42 companies analyzed. This is nearly the same as the segment's 30.4% share of sales generated by 45 Top 50 providers in 2006 (April 2007, p. 1). Based on these results, the consumer and mobile segment grew at about the industry's average in 2007.

Next in size was the communications infrastructure segment at 26.3% of sales. In 2006, the segment's share amounted to 24.2% of 45 providers' sales. The share gain was less than the 2.1 percentage points indicated here because in one case a computing-related sales percentage listed in the 2006 analysis probably should have been reported as comm infrastructure (this shrinks the share gain by about 0.7 percentage point).

In an ironic turn of events, the computing-related segment, which gave contract manufacturing its start, was

Market Data

Nontraditional Segments Gain Share

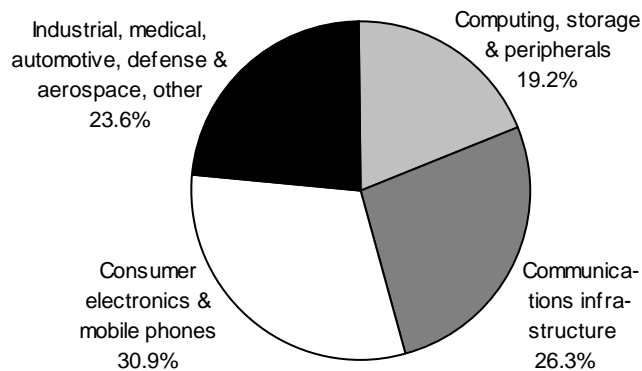
Trying to get a handle on nontraditional EMS segments is not easy. A number of the largest EMS providers do not supply a full breakdown of their sales across the industrial, medical, automotive, defense and aerospace, and miscellaneous categories. Although this lack of data prevents an accurate assessment of each segment, it is still possible to figure out how much business came from the combination of these segments in 2007 for a large group of *MMI* Top 50 EMS providers, including those who don't break down their sales completely.

When the analysis is done, one finds that 2007 was a stellar year on the whole for the business that came from these nontraditional segments.

Together, the industrial, medical, automotive, defense and aerospace, and miscellaneous (other) segments represented 23.6% of the \$83.7 billion in sales generated by 42 Top 50 EMS providers last year. These categories are lumped in a pie wedge in Chart 1. By comparison, these segments amounted to 20.2% of sales from 45 Top 50 EMS providers in 2006 (April 2007, p. 1). Thus, on a combined basis these nontraditional segments gained about 3.4 percentage points of market share by this analysis. (The share gain is not exact because the two groups are not identical.)

An increase in market share means that the four nontraditional segments plus miscellaneous together grew faster last year than the EMS market as a whole. Of course, this is not surprising. Nontraditional segments are supposed to have great-

Chart 1: Market Mix for 42 Top 50 EMS Providers in 2007



the smallest of the three major segments in 2007 for the group of 42 Top 50 providers. This IT segment, defined here as comprising computing, storage and peripherals, accounted for 19.2% of the group's revenue. *MMI* believes that the size of this segment in relation to the other two major segments indicates a certain lack of emphasis on computing-related business among the companies analyzed. What's more, compared with the 2006 analysis of 45 providers, IT's share dropped by more than five percentage points (factoring in the aforementioned business that was wrongly classified in 2006).

Still, when the effect of Hon Hai Precision Industry, the world's largest EMS provider, is taken into account, the computing-related business becomes a much larger segment with a greater market share. Unfortunately, Hon Hai does not break down its sales by market segment. But let's do a what-if exercise. It's not unreasonable to assume that Hon Hai's computing-related business is around 50% of sales. Could be more, could be less. But if one adds 50% of Hon Hai's estimated 2007 sales to the computer-related segment, its share increases to 31.1%. In reality, with Hon Hai the IT-related segment joins the consumer and mobile sector as the two largest EMS business areas.

As stated earlier, it is not possible to pin down the sizes of the remaining nontraditional segments without full sales breakdowns from the largest providers. However, if one excludes the four largest companies in this analysis plus six other companies that do not provide the necessary breakdowns, one can obtain a picture of market segmentation for the remaining subgroup of 35 companies. This picture will not be representative of the entire EMS industry, but it will shed some light on how the nontraditional markets compare with one another.

Within this subset of 35 providers, the industrial segment is by far the

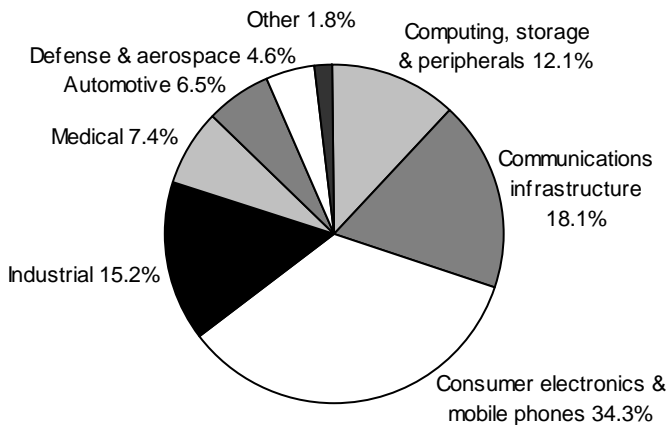
Market Percentages for 45 of the Largest EMS Providers in 2007								
Organization	Computing, storage & peripherals	Comm. infrastructure	Consumer & mobile	Industrial	Medical	Automotive	Defense & aerospace	Other
Flextronics	14	31	44	*	*	*		11
Jabil Circuit (FY)	20	25	29		17 ¹	5		4
Sanmina-SCI	44	28	11	*	8	*	*	9
Celestica	19	42	22	*			*	7
Elcoteq		20.6	79.4					
Benchmark Electronics	53	15		19	13			
Venture	18	18		49 ²	*			15
USI (Universal Scientific Industrial)	45.6	16.7	25.6	*		*		12.1
Plexus		50 ³		15	21		14	
Zollner Elektronik	24	4	2	23	8	21	3	15 ⁴
SIIX	15.4	1.9	48.5	9.1		25.1		
Nam Tai Electronics			100					
3CEMS Group	15	29	15	15	8	18		
Kimball Electronics Group				21	41	34	4	
Jurong Hi-Tech	5	5	74	1	1	1		13
Elite Industrial Group			96	3	1			
Fabrinet		94		2	1	3		
Beyonics Technology	*	*	87	*	*	*		13
VIDEOTON Holding	10	4	22	19	2	41	2	
Enics				100 ⁵				
Alco Electronics	3	2	90			5		
TT electronics**		14		12	3	60	11	
Orient Semiconductor Electronics	30	10	30	25		5		
Integrated Microelectronics, Inc.	34	15	20	18	3	9		1
CTS Electronics Manufacturing Solutions	29	22		22	9		13	4
PartnerTech		20		54	18		8	
Surface Mount Technology (Holdings) Limited	23.7		13.7	34.8		21		6.7 ⁶
Neways Electronics International		3		57	26	6	5	3
WKK Technology	~30	~10	~30	~15	~5	~5	~5	
V.S. Industry	1		96	2		1		
ASTEEL		30		50	10	5	5	
Creation Technologies	3	22		37	14	5	3	16 ⁷
Flash Electronics	15	75		10				
EN	20	15		45	6	14		
ElectronicNetwork								
Suntron				55	5		40	
Hana	30	30			10	30		
Microelectronics**								
Connect Systems International	5	10	2	59	10	12	2	

* Included in other. ** Percentages correspond to EMS + other significant sales. ¹ Includes instrumentation. ² Includes printing and imaging (28%) and retail store solutions. ³ Includes some computing-related products. ⁴ Measuring technology. ⁵ Includes medical and instrumentation. ⁶ Office appliances. ⁷ Includes safety and security (13%).

Organization	Computing, storage & peripherals	Comm. infra-structure	Con-sumer & mobile	Indus-trial	Med-ical	Auto-motive	Defense & aero-space	Other
EPIC Technologies				31	49	12	4	4
Kitron		28		19	22		31	
EPIQ			16.7	4.8		77.7		0.8
DRS Technologies							99	
BreconRidge		70		10			20	
SMTC	16.8	15.1		68.1				
LaBarge				17	5		50	28 ⁸
VTech Communications	3	12	45	32	4	4		

⁸ Includes natural resources (26%).

Chart 2: Market Mix for 35 Top 50 EMS Providers in 2007



largest nontraditional business. (The consumer and mobile sector is sometimes included with nontraditional areas but not in this analysis.) With a

15.2% share of subset sales, industrial business was more than twice the size of any other segment on the nontraditional side. See Chart 2. This is a business area that is well developed among mid-sized providers. The medical and automotive segments were close in size at 7.4% and 6.5% respectively. At 4.6% of sales, defense and aerospace business proved to be the smallest identifiable segment, as one might expect.

Brief Look at Some Q1 Results

Benchmark Electronics. Q1 sales of \$684 million missed the company's guidance of \$700 million to \$725 million. Benchmark saw a greater than anticipated decline in its computer business, and a high level of quarter-end shipments, normally expected for this segment, did not materialize. But the provider's non-GAAP EPS of \$0.34 did meet its expectation. Sales decreased 9.1% year over year, while non-GAAP net income was down 15.8%.

Benchmark has revised its 2008

revenue outlook downward. The company now expects revenue for the year to grow at a more moderated pace of 2% to 5%, compared with the previous expectation of 5% to 8% growth. However, Benchmark is maintaining its estimate for EPS growth in the range of 15% to 20%.

Celestica. First-quarter revenue of \$1.84 billion was flat when compared with the year-earlier period. But GAAP and adjusted EPS improved from a year ago. GAAP earnings amounted to \$0.13 per share compared with a loss of \$0.15 a year earlier, while adjusted net earnings came in at \$0.15 per share versus a loss of \$0.04 a year ago. Adjusted net earnings exceeded the company's Q1 guidance of

\$.06 to \$0.11. Add up these segment percentages, and one finds that the four nontraditional areas accounted for one third of the sales of this subgroup, whose 2007 sales ranged from \$229 million to \$5.5 billion and totaled \$23.7 billion. For this slice of the industry, business from the four nontraditional areas outweighed that gained from the traditional IT-related and comm infrastructure sectors combined.

Analysis of market segment percentages from the Top 50 survey also shows that a surprising number of companies obtained a majority of their sales from one segment. Out of the 45 Top 50 providers tabulated, *MMI* counted 19 companies who derived more than 50% of their 2007 sales from one segment. Six companies gained over half their revenue from the consumer and mobile segment, and another six relied on the industrial segment for a majority of their revenue. The number of companies with over 50% of their sales in the comm infrastructure and automotive segments was three and two respectively. Such concentration was also found in one provider's computing-related business and another's defense and aerospace segment.

\$0.06 to \$0.11.

On a sequential basis, Q1 sales were down 17.0%, but gross margin rose by 30 basis points to 6.3%. Non-GAAP operating margin held steady at 2.7% versus the prior quarter.

Jabil Circuit. For its fiscal Q2 ended Feb. 29, Jabil reported a net loss (GAAP) of \$24.0 million, down from net income of \$13.9 million in the year-earlier period. This decline was principally caused by restructuring charges that were about \$41 million higher than in the year-earlier period. Sales for the period rose 4% year over year to \$3.1 billion. Core operating margin stood at 2.2%, up from 1.9% for the year-ago period, but below 3.6% achieved in the prior quarter on

higher sales of \$3.4 billion.

Jabil's revenue outlook for the second half of its fiscal 2008 is about 7% below its previous estimate. The company attributed this decrease to a softening macroeconomic environment. Jabil lowered fiscal 2008 revenue guidance to \$12.6 billion to \$12.8 billion, which amounts to a \$500-million reduction at the midpoint. The provider now expects fiscal 2008 core EPS of \$1.00 to \$1.16 versus the prior guidance of \$1.20 to \$1.50.

Plexus. The provider reported a return on invested capital of 23.4%, as defined by Plexus, for its fiscal Q2 ended March 29. Plexus earned GAAP EPS of \$0.48 on sales of \$451 million for the quarter. Gross margin was 11.4%. Revenue was down 1.6% from the prior quarter. Sequentially strong performance in the company's wireline/networking and industrial/commercial sectors offset modest weakness in its medical sector and a significant \$29-million reduction in revenue from its large unnamed defense customer. Revenue guidance for fiscal Q3 implies that Q3 revenue will be down from Q2, but factored in is a \$25-million sequential reduction in revenue from the large defense customer as its production orders have essentially been completed.

For fiscal 2008, Plexus expects revenue growth in the range of 16% to 18%, implying a strong finish to the year.

Sanmina-SCI. For its fiscal Q2 ended March 29, revenue from continuing operations, excluding the company's PC business that is being sold, amounted to \$1.82 billion versus \$1.78 billion in the prior quarter and \$1.79 billion in the year-earlier period. The company posted a fiscal Q2 GAAP loss from continuing operations of \$39.9 million, attributable to restructuring charges recorded in the quarter. Non-GAAP earnings from continuing operations were \$14.5 million, or \$0.03 per share, compared

with a net loss of \$19.1 million for the same period a year ago. Sales in the multimedia, medical, defense and aerospace, and industrial sectors were up from the prior quarter. Non-GAAP gross margin from continuing operations equaled 6.9%, down about 50 basis points sequentially as a result of start-up costs and changes in revenue mix.

News

U.S. Expansions

While restructuring programs have taken a large amount of EMS capacity out of the U.S., this fact doesn't preclude some providers from adding facility space in the U.S.

Plexus (Neenah, WI) is expanding floor area for two U.S. operations. The company's operation in the San Jose, CA, area will move from its current 36,000-ft² facility to a larger plant with 46,000 ft² located about eight miles away. Plexus will also add a 48,000-ft² facility adjacent to its existing 141,000-ft² facility in the Chicago, IL, area.

Plexus' Chicago-area operation has seen increased demand from customers, particularly in the medical sector. The enlarged footprint there will position the operation to support current customer demands and further revenue growth in after-market, configure-to-order and distribution services for North American end-customers.

The larger San Jose-area facility will accommodate better operational flow, an improved work environment and investments in manufacturing technology to better serve customers in this geographically important market.

In Pennsylvania, two EMS providers are investing in new plants. Pittsburgh-based **JEC Technologies**, a U.S. Government 8(a)/SDB certified EMS company, plans to start construction of a 46,500-ft² facility in Forest City, PA, by summer. **Dynamic Man-**

ufacturing, another EMS provider in Pittsburgh, has broken ground for a 14,000-ft² building in Slate Lick, PA. The company plans to move its operations to the new location.

More space in Europe... Following talks with Japan's **Sanyo**, Top 50 EMS provider **VIDEOTON Holding** (Székesfehérvár, Hungary) has leased 3,700 m² in Marcali, Hungary, where the provider will produce electronic components. VIDEOTON plans to start production there next month with 40 to 50 employees and employ 100 to 150 workers by year end... **Briton EMS** (Bedford, UK), which recently invested in a new SMT facility, has increased its total manufacturing area to 22,000 ft².

Parker Buys Vansco

Parker Hannifin (Cleveland, OH), a large player in motion and control technologies, has acquired **Vansco Electronics** (Winnipeg, Canada), which designs and manufactures rugged electronic equipment for OEMs in heavy equipment industries. Vansco has an EMS capability that is part of this acquisition.

The company will become part of the global operations of Parker's hydraulic technology business, where there is an increasing need to supply electronic control of hydraulic circuits.

Vansco gained some notoriety in the EMS industry when it acquired **Preco Electronics'** EMS operation in Morton, IL, in 2005.

EMS divestitures... **Flextronics** (Singapore) has sold the Multi Vendor Division of **ServiceSource Europe** to its management. The MV Division supplies computer spare parts to third-party computer maintenance companies for out-of-warranty repairs. The bulk of the ServiceSource Europe business, which provides warranty service parts and logistics for major brands, stays with Flextronics. This

business came to Flextronics as part of its **Solelectron** acquisition in 2007. Flextronics has also sold an after-market services operation in Sydney, Australia, to **Infinet**, according to an online report from *ARN*, a publication for the Australian IT channel.... Top 50 provider **PartnerTech** (Malmö, Sweden), which previously announced a restructuring plan (Dec. 2007, p. 7), has sold its PCB assembly operations in Ätvidaberg, Sweden, to **KA Elektronik**, a local manufacturer. But PartnerTech has retained its plant there, which specializes in system integration. In addition, the provider has sold its PCB assembly plant in Åbo, Finland, to plant management. PartnerTech still runs a factory in Åbo on behalf of a customer and kept a product development function there.

More transactions... **Codan**, a communications equipment maker based in Australia, recently acquired **Minelab Electronics** (Adelaide, Australia), a metal detection and electronics business. Part of this acquisition is an EMS provider, **Parketronics**, which will be operated as a stand-alone business unit of the Codan group.... **TES Electronic Solutions** (Langon, France), a design and manufacturing services provider, has acquired **Assystem's** Quimper (France) Design Center. With this move, TES can supply mechanical design and product certification in addition to the company's existing competencies.

Alliance... **Prism**, an EMS company in St. Ives, UK, is offering higher volume production through a new alliance with a South African EMS provider.

New business... Last month, *Dow Jones Newswires* reported that **Hon Hai Precision Industry** (Tucheng City, Taiwan) will be the sole contract assembler of a new version of **Apple's** iPhone.... U.S. PC vendor **MPC** (Nampa, ID) has entered into a five-

year contract with Flextronics' computing business, under which Flextronics Computing will perform procurement, supply chain management, manufacturing, assembly and testing for MPC at Flextronics' facility in Juarez, Mexico. Transition of MPC's operations from its Nashville, TN, manufacturing site to the Flextronics facility is expected to be completed by Dec. 31, according to an SEC Form 8-K filed by MPC. In addition to purchasing certain materials and inventory in Nashville, Flextronics agreed to buy certain manufacturing equipment for \$1 million in cash. The new contract follows a December 2007 agreement under which Flextronics Computing would provide MPC with supply chain consulting and materials procurement services (Dec. 2007, p. 6). Also, **SARS** has engaged Flextronics to build an LPG (liquid propane gas) tank monitoring system.... According to *The Gazette* (Colorado Springs, CO), **Sanmina-SCI** (San Jose, CA) will manufacture a high-capacity disk drive system for **Xiotech** (Eden Prairie, MN) at Sanmina-SCI's plant in Rapid City, SD. Developed in Colorado, the system was originally earmarked for Sanmina-SCI's former operation in Fountain, CO, the paper reported.... **Spirent Communications** (Sunnyvale, CA), a provider of performance analysis and service management solutions, has chosen **Celestica** (Toronto, Canada) to manufacture a line of telecom test and measurement systems. The two companies collaborated in the creation of a new low-volume, high-mix model for Spirent. Celestica's Thailand facility will manufacture the Spirent products as well as provide direct fulfillment services to Spirent customers throughout Asia and Europe.... **LaBarge** (St. Louis, MO) has been awarded a \$3.5-million contract from **Northrop Grumman** to continue to produce electronic equipment for an infrared countermeasure system, designed to

protect military aircraft from infrared-guided missiles.

Hon Hai said to be planning software park investment... According to reports published by *Digitimes* and *CENS.com*, Terry Guo, Hon Hai's chairman, said his group intends to invest in a new software park planned for the city of Kaohsiung in southern Taiwan.

People on the move... John Walsh has been hired as president of **Sypris Electronics** (Tampa, FL), a provider of EMS, engineering services and information assurance products to the defense, aerospace and homeland security markets. Walsh previously served as corporate executive VP of strategy, technology and development for **Ducommun** and president of **Ducommun Technologies**, a wholly owned subsidiary. Sypris Electronics is a wholly owned subsidiary of publicly held **Sypris Solutions**.... The Annual General Meeting of **Elcoteq** (Luxembourg) re-elected the seven current members of its board and added a new member, François Pauly, who is general manager of private bank **Sal. Oppenheim Jr. & Cie S.C.A.**.... Björn Wigström will take over as CFO of Top 50 EMS provider **Kitron** (Billingstad, Norway) effective June 1.... Thomas de Petra has been named CEO and president of **Winland Electronics** (Mankato, MN). He assumed this role on an interim basis following the January 2 departure of Lorin Krueger, Winland's former CEO and president. The company's board is also headed by de Petra, who has been chairman since October 2006.

Minor correction... The March edition on page 4 contained a minor error in the statement that Hon Hai added some 4.1 percentage points to Top 50 growth in 2007. Hon Hai's contribution should have been listed as some 4.2 percentage points.

OEMs in a Cost-Cutting Mood

As the U.S. economy's woes begin to take their macroeconomic toll on product demand, OEMs largely relying on internal manufacturing will be reminded once again of the drawbacks of a fixed-cost model, which drags down margins when volumes drop off. Cost pressures will also increase on OEMs who do embrace outsourcing, causing them to take a closer look at their product costs, *MMI* believes.

It is somewhat ironic that in lean times outsourcing's variable cost model takes on greater appeal even though EMS providers may suffer through short-term softness in customer demand. Inquiring minds now want to know whether the putative U.S. recession will usher in a new wave of outsourcing just as the high-tech downturn of 2001-2002 did. The answer in part depends on how bad conditions become in the various end markets. The worse things get, the greater the appeal of outsourcing.

What's more, the EMS industry of today is somewhat different from what it was at the turn of the century. The industry now obtains a greater portion of its new business from nontraditional end markets, principally the medical, industrial, automotive, and defense and aerospace segments. This month's article on page 3 shows how these markets are gaining market share as a group. But OEMs in one segment, defense for ex-

ample, may be more insulated from a recessionary slowdown and under less pressure to outsource than those in another segment such as automotive. Outsourcing may take on varying degrees of urgency, depending on the segment. It's hard to predict how outsourcing will progress in each of the segments, but it's probably safe to say there will not be a uniform response across these markets to a U.S. recession.

OEMs already committed to outsourcing will also seek cost savings to counteract the effects of a recession. Because they've eliminated fixed manufacturing costs, they will focus on other aspects of product cost, *MMI* submits. Since much of that cost is tied up in materials, these OEMs will want to squeeze as much cost as possible out of their BOMs. This cost cutting frame of mind will present a fundamental question to more and more OEMs. Can I save money by having my EMS provider control more of my materials spend? Or does it work the other way around?

Unfortunately, there are two schools of thought on this subject. Giving an EMS provider more control over a customer's sourcing, including its approved vendor list, enables a provider to obtain the lowest prices, according to one view. By this thinking, a provider can get volume discounts from component purchases aggregated over multiple customers.

AVL control also allows a provider to substitute a component or design in a part for which it can get better pricing.

The other school says, no, an OEM is better equipped to control the sourcing of a large share of the materials spend. Since the OEM specifies components at the design stage, it has the leverage to negotiate with suppliers, this school argues. Plus, the OEM knows exactly what was paid for components in the BOM. There is no possibility of hidden variances in what was paid versus what was quoted.

Whether outsourcing or not, cost-conscious OEMs will have options in the current climate.

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