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- Home
- Fabrication
- Money
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- Opinion
- Patents
- Profiles

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- Consumer Goods
- Defense
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- Transportation

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TECHNICAL CONFERENCES OFTEN TARGETED BY FOREIGN AND DOMESTIC SPIES

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Small Times West Coast Correspondent

ANAHEIM, CA -- At the Optical Fiber Communications Conference in Anaheim in mid-March, nearly 1,000 companies including those from the MEMS community exhibited their products and services.

Among the 37,000 attendees, foreign and domestic thieves were attempting to gather their own information, organizers and federal investigators fear.

"Two years ago, there were foreign individuals who had stolen equipment and were attempting to sell it at the OFC," said Matthew L. Puglisi, government relations manager at the Optical Society of America, one of the three scientific organizations that co-sponsored the conference.

"The theft occurred before the conference. The FBI contacted us first; they let us know what was going on and they've been in contact for the last few years. They're keeping track of what these other countries are doing."

Citing the FBI's policy not to confirm or deny any investigations, Los Angeles FBI spokeswoman Laura Bosley would not comment specifically on the OFC conference. But officials at FBI headquarters in Washington, D.C. said that within the last few years, they have assigned more agents to investigate in order to address the growing theft of trade secrets in many industries.

At this early stage in the life of the optical fiber industry, the competition is great and many companies have different ideas about component products and systems that will solve the problems of sorting voice, data and other information. In optical fiber communications, MEMS are used as switches and actuators such as mirrors that direct the laser light fired down optical fibers. The first companies to develop the best switches, actuators and other component parts will have greatest earning potential.

"We are trying very hard to overcome some of the bottlenecks," Puglisi said. "The hope is that there will be all-optical systems within the next two to three years."

Co-sponsored by the Institute of Electrical and Electronics Engineers, Inc. (IEEE) Communications Society and IEEE/Lasers and Electro-Optics Society, the conference began in 1975 as a science meeting but within the last three years it has grown at a phenomenal rate. In 1999, there were 9,000 attendees. The following year, nearly 18,000 people came to the conference. And in 2001, the number of attendees more than doubled. The figures confirm the explosive growth in the industry, said Puglisi.

Interest in stealing research secrets has grown as well.

"The FBI currently has approximately 140 theft of trade secrets cases initiated," said FBI spokesperson Steven Berry in Washington, D.C. Although theft of trade secrets is not considered economic espionage, they fall under the umbrella of the Economic Espionage of 1996. In the first three fiscal years after the law was enacted, 26 theft trade secrets investigations resulted in indictment. In the fiscal year 2000, investigations led to 27 indictments.

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Economic espionage cases involve a foreign government connection; whereas, theft of trade secrets relate to matters in which trade secrets are stolen from businesses for commercial or personal financial gain. They would not speculate as to why there was an increase in the number of cases.

In 1999, U.S. courts made the first conviction of a foreign individual under the Economic Espionage Act of 1996. The case involving a Taiwanese national was brought to the attention of the FBI by officials at Avery Dennison Corp., an Ohio manufacturing facility. Through an internal investigation of the employee, they discovered the theft of proprietary information.

Puglisi who spoke with some exhibitors about the presence of the FBI at the conference said, "The threat of international [economic] espionage sounds sexy, but in this industry you're not worth your salt if you're leaving expensive equipment around or your employees are talking." He said many exhibitors showed no greater concern for international spies than for domestic spies.

"They told me, 'It's not just the Chinese that are trying to steal the copyrighted or proprietary information and technology. It's the competitor down the street,'" Puglisi said. "Most intelligence gathering is done by buying someone a beer and talking it up. So their reaction was, 'Thanks for telling us, but that's not going to make us do anything differently.'"

Other companies shared the sentiment.

Art Holzknecht vice president of sales and marketing at Etec Inc., a Peabody, Mass., company that introduced the world's first fully automated MEMS testing machine at the conference said, "Good luck if they can figure out how our device works. It would be harder to reverse engineer it than to forward engineer and try to figure it out from scratch. We have some very sophisticated security precautions in the instruments. Anyone who tries it will have to find out for themselves how it will work -- that will be their big surprise."

At InLight Communications, a company focused on designing, manufacturing and selling MEMS optical switches, Mark A. Mentzer said that it is not uncommon for samples, devices or anything that is left out at conferences to be stolen. Several years ago at a different conference, some of his mechanical devices were removed from locked display cases. Although Mentzer was not aware of an increased emphasis on security at the show this year, he prepared a list of frequently asked questions for his staff.

"We were just being very careful about what we say and to whom we say it so that we didn't inadvertently divulge any proprietary information such as trade secrets, process knowledge and business strategies," said Mentzer.

"Many companies have recognized the risk involved in losing their trade secrets and accordingly have implemented precautionary measures," the FBI's Berry said. "Unfortunately, many other companies have not recognized the threat or have chosen to ignore the threat.

"Almost all theft of trade secrets involves a current or former employee of the victim company. For this reason, companies must view this as primarily an internal security problem that needs to be addressed at the employee/personnel level."

The FBI recommends that businesses first identify what proprietary information is specific to their companies and then implement measures that limit access to these trade secrets, he said. This could include the use of passwords, a limited access room and keeping portions of the trade secrets in separate parts of the company or using armed guards to protect valued information. Additionally, a thorough screening process should be implemented for those employees with access to trade secrets, Berry said. "Companies might also wish to consider whether trade secrets should be made available to temporary personal, consultants, sub-contractors and others who are employed by the company on a semi-permanent basis," Berry said.

More companies are asking their employees to sign non-competitor agreements and some will not even allow outsiders to view their MEMS technology without signing a non-disclosure agreement.

"The value is in the brain power behind the design and manufacturing and when it walks out the door and goes to the competitor the company might as well have been bought," said Puglisi. In some cases, he said, employers have sued people who are leaving their company even before a new company can announce the employee's hire.

In tracking economic espionage, the FBI has developed a program that notifies U.S. corporations about espionage activities in their fields. The Awareness of National Security Issues and Response Program (ANSIR) is the "public voice" for the FBI. It focuses on the techniques of espionage and routinely provides unclassified warning information via email or fax to U.S. corporate security directors and executives. U.S. corporations interested in receiving information should send their email address, position, company name, fax and phone numbers to ansir@leo.gov, or visit www.fbi.gov/hq/nsd/ansir/ansir.htm

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