

Innovation News



Protecting sensitive data

■ Digital Immobilizer

Did you read the recent news story about the government employee who lost his laptop filled with extremely sensitive data? If your reaction to this is: "Which one? There are so many," then you're probably all too aware of the ease with which information can fall into the wrong hands – if they can access it. And with password-cracking programs becoming more sophisticated all the time, computer security, too, has to get better.

Enter moses. Not the biblical patriarch, but the Mobile Security Enterprise Solution developed by NETFOX AG, a company headquartered in the Europarc Dreilinden in the Berlin suburb of Kleinmachnow. moses is a small, yellow USB stick without which sensitive data cannot be accessed. Not only do you have to have moses on board, but there's a password involved. Only when the correct password has been entered can files be opened.

But any system is subject to human error: What if you've left your moses in your other pair of pants? Easy enough: a one-time substitute key is available from NETFOX by telephone or internet, so long as you are able to answer a few predetermined security questions.

Not only can moses provide you with access to data, it can also shut you out. If an employee is causing trouble, the security administrator can simply shut off that particular computer from the network. NETFOX can also arrange for one-time passwords for use in internet cafes or other low-security environments.

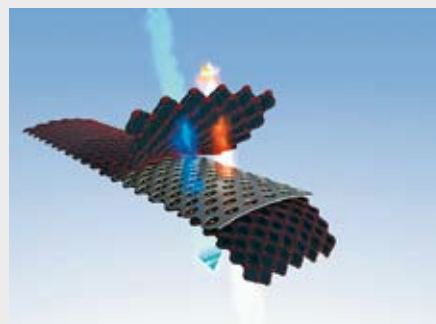
moses is being adopted by everyone from the Eberswalde Forest Service to the Robert Koch Institute in Berlin, although for the moment it's only available for Microsoft's operating systems. The best solution, of course, is not to lose your computer. Failing that, though, a solution that fits in your pocket is the next best thing.

■ Rainy Weather, Dry Feet

In a wet climate, soaked feet in rainy weather are just one of life's little inconveniences that most people wish would just go away. Happily, thanks to the BASF chemical company and a Hamburg firm called Iqtex, shoes that keep feet dry – even in wet weather – are in the shops.

At the center of this innovation is a new ventilation element introduced by Iqtex and based on BASF's "Luqua-fleece," a superabsorbent non-woven material that circulates air in the shoe. Moisture closes the super-absorbent fleece's pores. When the shoe dries, the pores open, allowing the fleece to circulate air again.

Iqtex now manufactures this material, and the Swiss shoemaking firm Dosenbach-Ochsner is already incorporating it into its Elefant children's shoe line, while the German Baak shoe company is using it in industrial safety shoes.



Estuary of Aconcagua river near the Chilean city Concon, acquired by CHOMA (RapidEye 5) on Nov 9, 2008

■ Accurate Earth-Scanning

The sky has eyes. In an age where anybody with a computer has access to applications like Google Maps, this is hardly news, but Earth Watch (the market calls it "Earth Observation") satellites' potential for providing us with vital information is getting stronger all the time. Brandenburg-based company Rapid Eye's fleet of satellites, launched by the Russian Dnepr rocket on August 29, 2008, is a case in point. Five identical satellites equipped with five identical cameras, follow each other in polar orbit 630 kilometers above the Earth, scanning its surface as they go. Accurate to a surface resolution of 6.5 meters, constantly transmitting data from five spectral bands, they can provide up-to-the-minute readings on, for instance, the degree to which crops have ripened. Storm damage, crop identification and prognosis, pest infestations, drought and flood information, and other environmental information is updated on every pass of each satellite.

Rapid Eye AG was founded by Kayser-Threde GmbH in Brandenburg with support from the DLR Space Agency. The state of Brandenburg and the German Federal Ministry of Economics and Technology helped with financial support. The firm has created 100 new jobs in the region and will grow to 140 in 2009. The public-private partnership is just the latest German contribution to the growing field of satellite-provided information services.

Cross section of super-absorbent fleece. When dry, the open pores of the fleece allow air to circulate.