



## Growing Hand-In-Hand With The Internet Generation

By D Magazine JUL 2000

From the simplest silicon address chip, to chips that handle complex networking protocols, Dallas Semiconductor is growing hand-in-hand with the Internet generation and its technology. Trie company is at the core of the equipment that runs the world's networks and connects it to the Internet. One way Dallas Semiconductor has achieved this status is through 1-WireR chips which are available in the form of an iButton?, a portable data carrier armored in steel that can be worn to provide convenient, yet secure, access to buildings, machines, information, money, and die Internet. Dallas Semiconductor recently teamed up with Richardson-based Fossil to create attractive accessories such as watches and key rings that allow iButton users to wear their electronic credential on the accessory that best tits their lifestyle. By touching a Blue Dot receptor, which is a simple reader mounted to a door or attached to a PC, an employee with an iButton is allowed secured access.

"Each chip is given a unique address that communicates to whatever it is trying to enter," says Michael Bolan, Vice President of Product Development and Marketing. "This works really well for companies that deal with a lot of keys, such as car dealerships or apartments. Each key is assigned a unique address that is embedded in the chip. Once each key is programmed into a computer, you never wonder where the keys are again. You can always pull up the company web site and know exactly who has what key and what doors they've accessed."

The iButton chip is also convenient for employees who want to work from home, but who need the same equipment they use in the office. By having a unique ID number in their iButton watch or ring, they can securely access their work computer from home.

A special version of the iButton, the Java?-powered cryptographic iButton, speaks the popular Java programming language and contains complex cryptographic circuitry that encrypts and decrypts messages sent over the Internet. The U.S. Postal Service has approved the crypto iButton as a postal Security Device for its PC Postage program that allows people to buy postage online and print it directly from their own printers. It is currently deployed nationwide in E-Stamp'sR Internet postage system.

In a further step that enables machinery to talk over the Internet, Dallas Semiconductor has developed T1NI? (Tiny InterNet Interface). This small (1.25 by 4.05 inch) board can enable any piece of electrical equipment to upload information to a web browser, bringing much closer the day when everything that plugs into the wall can be connected to the network. TINI will allow homeowners 10 check and control the operational status of their homes from anywhere in the world via the Internet.

Dallas Semiconductor has experienced tremendous success with its iButton, with more than 37 million chips in use worldwide. The 1-Wire chip inside the iButton is also available in traditional plastic computer chip packaging; almost 300 million of these unique chips have been sold to date.

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