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TAKE NOTE

TODAY'S NOTEBOOKS TAKE
MOBILITY TO THE MAX.

**ADDED SECURITY,
MANAGEMENT
AND POWER ADD TO
NOTEBOOK POPULARITY.**

Whether you're looking to outfit new employees with notebooks, migrate desktop users to notebooks or refresh two- or more-year-old notebooks, there's never been a better time for your company to buy mobile technology. »»»

Just about any notebook computer you buy today, from “ultra-light” to “desktop replacement,” will have more than enough power to handle the mainstream office and Internet productivity applications most business users require.

Productivity-building features in today’s business notebooks include a growing range of security and management options, making them an even better fit for your company’s IT infrastructure.

Current notebook amenities include dual-core processors, built-in 802.11 Wi-Fi wireless LAN connectivity and bright displays up to 17-inch diagonal. Also adding value are built-in or added-on cellular wireless wide-area networking, batteries that can last up to a full day and options like solid-state disk drives (SSDDs).

Tablet and tablet-convertible notebook formats let employees work productively in a wider range of circumstances where using the keyboard is inconvenient or impossible.

» MOBILE USAGE MULTIPLIES

More businesses, like consumers, are turning from desktop to notebook computers, and are equipping field-oriented users with notebooks, for mobility and flexibility inside and outside of the office.

“We’re seeing the acceptance rate continue to grow, and the percentage of new business computers that are notebooks continues to climb steadily,” states Leslie Fiering, Research Vice President at the tech analyst firm Gartner.

Notebook sales for business are growing about 20 percent quarterly and desktop sales are declining, according to market research firm IDC. Shipments of business notebooks will exceed desktop shipments by late 2008, IDC predicts. And the gap will continue to widen.

“There’s a growing acceptance that workers have to be productive outside the office — while traveling or working from home one day a week, to working for an hour or two in the evening or weekends,” notes Fiering.

“We’re also seeing notebooks as part of a disaster-recovery plan,” adds Fiering. “If an office is closed for some reason, with a notebook computer provided by the company, workers can remain productive. If someone has a home computer, it may not have the corporate applications or the necessary security.”

» TIME WARNER CABLE

Insurance, legal and healthcare are particularly moving to notebooks to spur greater mobility as well as productivity. And so are firms in other industries.

For example, at Time Warner Cable’s Central Texas Division, the service technicians, manning nearly 400 service trucks, no longer rely on dispatch staff for time-consuming data entry.

Instead, the firm’s field techs use Panasonic Toughbook notebooks to communicate directly with computer-based central dispatch applications, over wide-area wireless connections.

Time Warner Cable is the second-largest cable operator in the US. Its Central Texas Division is that area’s

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cable TV leader, serving nearly a half-million customers in more than 40 communities.

“We wanted to minimize the amount of phone time our dispatch staff had to spend taking down data and entering it,” says Doug Bender, workforce management supervisor at Time Warner Cable, Austin, Texas.

Bender’s staff relies on the C-COR Mobile Workforce Manager (MWM) suite of field-service management tools. “However, we still needed a way for our remote people to access MWM,” he recalls.

“We choose Panasonic Toughbooks for their ruggedness and durability,” he adds. “Our techs are in and out of our vehicles and customers’ homes all day and the notebooks get quite a workout.”

Since the switch was made from call-in to computer, “Our remote productivity has increased significantly,” states Bender. “We’re seeing each tech handle three to four more jobs per day, that’s hundreds more across the division on a daily basis.

“And the call volume to dispatch has dropped dramatically, our dispatchers can focus on spending time on routing and other work, rather than having to complete orders being phoned in.”

The firm’s field techs also use their Panasonic Toughbooks for a wide range of other programs including service verification, testing and also accessing tools on the main network, according to Bender.

All but two of the nearly 400 Panasonic Toughbooks that Bender’s group purchased are still working — one was broken in an accident and the other was damaged in a fire. Still, the equipment is getting old enough that it’s time to consider a refresh, notes Bender.

One of the front runners for the replacements is Panasonic’s new CF-19 Convertible Tablet PC, says Bender. “We are looking to refresh our inventory with a more advanced machine to keep up with customer needs. We also like the increased ruggedness of the CF-19.

“Other amenities we use include the EVDO wide-area cellular LAN option. We’ll be able to upgrade to WiMAX,” says Bender. “The CF-19 also has security features like support for hard drive encryption, which we’re considering using.”

» SECURITY FIRST

Business notebooks often carrying sensitive documents and databases. This, coupled with the ability to access company servers via Virtual Private Networking (VPN), means it is more important than ever for IT to purchase and provide notebooks with security.

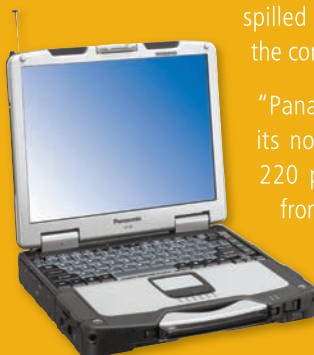
Fujitsu, HP, Lenovo, Panasonic and other leading notebook vendors are offering security options on their business notebooks



PANASONIC TOUGHBOOKS: TOUGH ENOUGH

"Research indicates that the number one cause of notebook problems is being dropped while carried," says Kyp Walls, director of product management, Panasonic Computer Solutions Company. "Second is being spilled on and third is being knocked off a desk or table while in use."

Panasonic's business line of Toughbooks is designed to sustain a 1-foot drop — and the hard drive a 2.5-foot drop, thanks to shock mounting. What's more, the machines are rated to take up to 6.75 ounces of liquid spilled on the keyboard, versus the common two ounces.



"Panasonic has also designed its notebooks to handle up to 220 pounds of pressure, like from bags put on top of them in an airplane's overhead bin," Walls says.

ranging from full-disk encryption to built-in biometric fingerprint readers.

"We're seeing a lot of movement to provision notebooks with whole disk encryption, via third-party utilities like Check Point's Pointsec, PGP and Utimaco SafeGuard Easy," reports Brian Krause, security specialist with CDW.

"We're also seeing more interest in RSA SecurID or Aladdin eToken for physical two-factor authentication to secure VPN access or even logging onto the notebook," he adds. "And we're seeing interest in built-in fingerprint scanners as a notebook option."

"Our ProtectTools Security Manager, standard on all our business notebooks, provides an umbrella of technology to keep business users and their data secure," says Shab Medina, product marketing specialist, HP Business Notebooks.

HP's basic strategy, according to Medina, is "access protection against unauthenticated users, data protection to protect your hard drive and network protection against attacks from online sources."

Authentication can be via passwords, smartcards or biometrics, says Medina. "We build in full-drive encryption as a standard option on both Windows XP and Vista. The device-access manager can provide fine-grained access to data, like letting a user access data but not copy it to removable media.

"And our BIOS [Basic Input/Output System] has a 'disk sanitizer' feature. So at the end of a machine's lifecycle, before you get ready to discard or resell, you can do a Department of Defense-grade disk sanitizing, to ensure the data that was on the disk cannot be salvaged."

"We use Trusted Platform Module (TPM) v1.2 — a microcontroller storing passwords, keys and digital certificates — on our motherboards, for added security," says Kyp Walls, director of product management, Panasonic Computer Solutions Company. And we load Computrace's agent into the BIOS, so it comes factory-installed. And on our new 7-series Toughbooks, we're offering an optional fingerprint scanner."

Currently, hard drive encryption/decryption is done by software, impacting notebook performance. But starting in early 2008, the next generation of secured hard drives will be able to perform this task, using chips built directly into drives' controllers, notes Howard Locker, director of new technology for Desktop and Mobile Systems at Lenovo.

In addition to offering encryption on all notebooks, Lenovo is adding remote key management for the encryption, according to Locker. "The actual credentials are set from the network, so if a user forgets their credential, or something happens to the user, you can reset the key, rather than being unable to use the machine."

Built-in fingerprint readers are becoming popular, notes Locker. "It lets you force users to have long, complicated passwords but not need to remember them," he says. The passwords get passed through by the fingerprint reader and our Password Manager. It becomes similar to a single sign-on. Whenever a user had to enter a password, like to use the VPN, they now do a fingerprint swipe."

Not surprisingly, notebook vendors are also building in more physical protection, for security and productivity. After all, it's

hard to be productive when your computer isn't working. And out-of-office machines can't be serviced as readily.

» MAKING NOTEBOOKS MORE MANAGEABLE

Lenovo, like other notebook vendors, provides management features on its business-class notebooks to reduce IT administrative support requirements. "Over 90 percent of hard drive problems are not physical problems," says Lenovo's Locker.

"Most problems are recoverable if you have a stable image. Our Rescue and Recovery tool puts snapshots of a full-image backup onto a hidden partition on the hard drive," he says. "And we have another partition with Windows PE, the Windows Preinstallation Environment, which a user can boot to and do recovery from."

"Even if a sector on the drive goes bad, if you can restart the machine, it will rewrite the drive." In addition, says Locker, "We include a Lenovo version of LANDesk, which is optimized around the hardware and features in our ThinkPad notebooks and desktops, to handle software patch management, asset inquiries and other tasks."

Management features on HP notebooks, through built-in HP and Symantec Altiris components, include patch management, software and image deployment, software and hardware inventory, and automated ticket generation, according to Sarah Bussell, manager, Product Marketing, HP.

Additionally, notebook vendors are taking advantage of Intel's Advanced Management Technology (AMT 2.5) and vPro. Intel AMT 2.5 is a pre-OS environment that lets IT identify hardware and software, diagnose, patch and even do a restore when the OS won't boot — versus needing IT staff at the machine.

As long as a notebook with Intel AMT and vPro is on the network and has AC power, IT can even boot it out of "off," "standby" or "hibernation," from a remote management console, without the user being there. This can prove helpful for applying patches and doing other standard management updates to unattended machines.

Another emerging notebook feature is the use of Solid-State Hard Drives (SSHDs), which use RAM similar to USB flash drives instead of spinning disks. SSHDs improve the reliability of a notebook's storage — typically the component most likely to fail due to physical activity. This is especially true in environments with a lot of vibration or other jolts, since there are no moving parts.

SSHDs also use less power, weigh slightly less and offer some performance improvements. However, SSHDs are significantly more expensive — one can add several hundred dollars to the cost of a notebook.

Currently, SSHDs are only 32GB. This is more than sufficient for a full Windows install plus typical applications, but short of the 60 to 120GB capacities of today's notebook hard drives. "We feel our customers will want 64GB, which should be available in early 2008," says Lenovo's Locker.

But whatever notebook model or models IT provisions staff with, there's no doubt that users will be working more productively and securely. ♦

NOTEBOOK ACCESSORIES FOR ADDED PRODUCTIVITY AND SECURITY

The right accessories make today's business notebooks even more useful and secure. Here's a quick checklist of available products:

- **APC Universal Notebook Batteries (UPB70 or UPB90)** — Designed to extend notebook runtime by 3 to 5 hours and recharge mobile devices
- **APC Universal Notebook Power Adapter (UPA9)** — Allows power-up from wall, plane and car outlets
- **Kensington WiFi Finder or WiFi Finder Plus** — Finds available Wi-Fi networks and SSIDs (Service Set Identifiers) before booting the computer
- **Polycom Communicator USB Portable Speakerphone** — Allows for Skype and VoIP (Voice over Internet Protocol) notebook capabilities
- **at&t MoGo Mouse** — Wireless mouse that stores and recharges in the PCMCIA slot
- **CardScan Executive Business Card Scanner** — Allows for contact database update as business cards are collected
- **NeatReceipts Scanner** — Provides expense report completion without the possibility of lost receipts
- **Targus Travel USB 2.0 4-Port Hub** — Makes for easy connection of peripherals
- **Kensington sd200v Notebook Docking Station with Video** — Handles two external displays
- **Belkin Flip 2-port KVM Switch** — Connects notebook to external keyboard, mouse and display
- **Kensington ComboSaver Combination Notebook Lock Ultra** — Locks notebook computer down

Protect your notebook from bumps and jarring with one of today's convenient, stylish notebook cases, roller bags or backpacks from APC, Kensington or Targus. Consider the Targus 14-inch Ultra-Lite Corporate Traveler with Air Protection, Targus Rolling Notebook Backpack or Kensington Contour Active Notebook Vertical Messenger Graphite.

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