CPA Practice**Advisor**

One of the unexpected benefits I've received by visiting so many tax and accounting firms in 2006 was solving day-to-day technology problems that seem to be present in most firms. The key technologies that I've observed not installed properly at firms this year include surge protection and UPS, cabling, multiple monitors, backup systems, firewalls, and security systems. These technologies are all fairly well established, and the rules and understanding of how to deploy most of these technologies have been consistent for more than 10 years. More recent changes in how to set up firewalls and security with greater protection would be the exception to this statement. So please listen carefully to my first point in this month's article: Check your existing technologies to make sure that they have been installed properly. Every firm I have been to in 2006 has these problems. I was so shocked by this trend of improper implementation that I have actually created a series of articles on how to do these basics properly. I suspect your firm has these issues and others, as well. But in this article, I am only going to address the key issues of technologies for your auditors.

Technology tools to make audit teams more productive have become easier to use and more sophisticated at the same time. The key issues for field auditors include the following:
1) Connection to other auditors and sharing files and equipment in the field,
2) Connectivity back to the office and to the Internet,
3) Security of data and their equipment, and
4) Maintaining productivity while in the field.

A cookbook of products to consider will be provided later in this article,

to it as networking for accountants as opposed to networking for techies. Colligo allows configurations for use in the office and field, and emulates several server technologies to make connections work easier and correctly.

- **Connectivity back to the office and to the Internet**
  Some firms have gone so far as to prohibit connection to client networks as well as the use of wireless and WAN data cards. I understand this from a security risk perspective, but it is a killer for an auditor's productivity.
  I prefer to run appropriate levels of protection in firewalls, virtual private networks (VPN), and encryption for wireless. WAN cards have become fast enough that we can create our own links without using a client's network, and this also keeps us from dealing with belligerent IT departments that don't want outsiders to connect to their LANs. The downside is that not all markets have the true high-speed access of WAN cards available.

- **Security of data and their equipment**
  With the high-profile headlines of data theft as well as identity theft, firm laptops are great targets for criminals. I prefer to use a product like PGP Universal Series 200, which encrypts the entire laptop drive, any USB used, and any e-mail that is sent. Additionally, I prefer to have all wireless connections using 802.11i or WPA2 encryption along with a VPN encryption. If all of these encryptions are in place, hackers will have to break through several levels of security to get to any communication. The encryption used by PGP has yet to be broken, so the theft of a laptop with an encrypted hard drive should not produce any useable data for the criminal.

- **Maintaining productivity while in the field**
  The issue here is driving up realization while producing a better end product, and not giving the extra profitability away in future audit engagements. We know it is painful, or in some cases impossible, for auditors to carry all equipment listed below to a remote engagement via an airplane. Consider

shipping

need to review for successor or superior technology when you are ready to make your purchase.

What technology tools in both hardware and software can make your auditors more productive?

1. **Hardware**
   - Laptop — A larger screen is better, and both wireless LAN and WAN built in is better. HP, Toshiba, Lenovo, Dell, Apple.
   - Cell phone/combination PDA — It's better to have remote e-mail access in these devices, as well. This is needed less if the soft phone below is included. Treo 700, Blackberry, HP iPaq. Add software like PDAnet if high-speed connectivity is not included with your phone.
   - High Speed WAN Card — This is to connect the audit team to high-speed cellular service. Novatel Merlin S620 on Sprint.
   - Wireless Firewall — It's better if it supports the high-speed WAN card as well as hard wired connections. Kyocera KR1.
   - Production-quality portable scanner or a multi-function scanner/printer (MFP). Canon DR-2580C, Fujitsu fi-5120C, Fujitsu ScanSnap S500 or HP 4315.
   - A second monitor when the engagement is going to keep people out for more than two days. ViewSonic ve710b, Planar 1500.
   - Encrypted USB for backup of files on a regular basis. Lexar JumpDrive Secure II, JumpDrive TouchGuard SAFE PSD S1100 or use of the encryption software listed later in this article.
   - Network Attached Storage (NAS) — This is a larger disk device to save and share all files from a single location. Maxtor Shared Storage Drive H01P200 (or larger).
   - Surge protection to share the limited power available. APC PNOTEPROC6 for in-line protection, a PER8T to share with all.

- Optional keyboard in case the auditor wants to work from a large keyboard.

  appropriate
  tips.
  - Roller style of bag — You'll want one that can hold all of the above and make them easier to move. TravelPro Platinum 4 #9422 or Wenger Patriot.

2. Software

- Audit Engagement Management Software — CaseWare Working Papers, Engagement CS or ProSystem fx Engagement.
- Practice Aides — PPC eTools advisement/template software.
- Research software — CCH, RIA, BNA.
- Specific audit tools — ACL, IDEA, ActiveData, AuditMaster, ProfitCents, etc.
- Productivity software for word processing, spreadsheets and e-mail — Microsoft Office.
- Software to create *.PDF files — Adobe Acrobat.
- Peer-to-peer networking software to make field connections and sharing easier — Colligo WorkGroup.
- Encryption software to protect your hard drives, USB and e-mail — PGP Universal Series 200.
- Backup software to copy all files easily — Second Copy.
- Softphone software that allows your remote auditor to connect to your VoIP phone system directly. This is typically supplied by your VoIP vendor.

3. In the office

- Remote access to the server including files, document images, and e-mail — Citrix or Terminal Server.
- Scheduling software, possibly covered in your workflow solution — XCM Solutions.
- Voice over IP (VoIP) phone system — Cisco, Avaya, 3Com, InterTel.
- Confirmation letter solution — Capital Confirmation.

- Audit budgeting software — Excel, Practice CS, ProSystem fx Practice

into electronic files — Fujitsu fi-6700 or Canon DR-7080C.

With this selection of hardware and software products, you have a formula for success. However, as an audit manager, IT manager or firm administrator, you must help your auditors picture how this equipment will work for them. Preparation before leaving the office will be a necessity. An auditor should carry all of the necessary files to the field on their laptop or NAS, with all supporting documentation scanned in advance, and organized in the engagement management software. All of the appropriate equipment can be transported in a wheeled bag.

When the audit team arrives on the first day of the engagement, they can set up their tools either together or separately depending on the client-designated workspace. Complete setup should take place in less than 15 minutes. The setup process would be as follows:

You are now ready to begin running the engagement management software using files on a laptop or on the NAS. Make sure that the shared resources are not connected via the audit manager's machine since the manager will frequently move from one audit engagement to another, and could easily take key needed resources with them when they leave.

Only a few of the software and hardware tools named earlier are beyond what a typical auditor carries today. The new tools include the following: WAN card, second monitor, peer-to-peer networking software, encryption software and a Softphone. The total cost of additional hardware and software to make field auditors more productive is roughly $300 for software and $1,200 for hardware. Ongoing costs for the WAN card are currently around $60 per month. Most audit teams will gain enough billable time in the first engagement to justify these expenditures, plus your firm will be better protected with all data off-site

encrypted. Using the right technology tools will increase the realization across

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