

# Caveat Emptor

BY TIM KRIDEL, STAFF WRITER

**Although the pre-owned T&M market is a place where anyone can hang out a shingle and call himself a dealer, a savvy buyer still can get a good deal without getting taken.**

**R**eliable test and measurement (T&M) equipment is critical for keeping your network in top shape — and keeping subscribers. That much you know. What you might not know is how to decide when to choose used and refurbished gear or how to determine whether a dealer is reputable.

Pre-owned equipment is no longer just for small or start-up carriers on limited budgets. Large, established carriers are looking at used and refurbished gear as a way to reduce the cost of ownership, cut non-revenue-generating overhead and meet needs that vary according to projects. And depending on the manufacturer's inventory, a new piece of equipment might not be available for immediate delivery, whereas used

or refurbished gear is ready to ship at a moment's notice.

"It's more cost-efficient to look at the pre-owned equipment," said Mana Naghibi, market analyst for T&M equipment dealer Telogy. "The products are becoming obsolete so quickly that it's hard for companies to keep up with the technology. When they stock up their inventories with the new equipment, their return on investment is much lower than it can be if they're looking at the used equipment."

Obsolescence is a factor when deciding which types of equipment can be bought used. Given how rapidly wireless technology is evolving, some carriers won't consider pre-owned equipment outside of general test, while others will use it primarily to stock their backup-equipment pools.

"We're seeing a growing interest among larger companies that often will supplement their new equipment with some refurbished in order to stay within budget," said Bonnie Rash, Hewlett-Packard spokesperson for the refurbished T&M equipment division.

## What's the Difference?

Don't assume that used and refurbished mean the same thing. There is a difference, inside and out. Depending on the dealer, used equipment isn't always calibrated, nor is it touched up to replace parts such as missing knobs or broken gauges. Refurbished equipment, on the other hand, is about as mechanically and cosmetically close to new as you can get.

Good-quality refurbished equipment can offer savings of 30% to 40%, Naghibi said. But price alone shouldn't be the only factor. Unless you have the equipment and know-how in-house to repair T&M gear, service after the sale

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should be a consideration. Some dealers compete on price alone, while others emphasize service.

Another issue is whether the dealer simply buys and sells equipment or also has an in-house lab to test and repair equipment. A dealer that outsources those operations might not be able to ensure quality as much as one that has those operations in-house. And if a unit is under warranty and has to be returned for repair, shipping it to a third-party lab can add delays.

"You have to price your risk," said John Holloran, executive vice president & COO of new and pre-owned-equipment dealer Tucker Electronics. "It's really no different than any other business. You get what you pay for."

### Appearances Can Be Deceiving

For buying pre-owned equipment, the Internet can be a mixed blessing. On one hand, it provides a convenient way to browse dealer inventories anonymously. On the other, a professional-looking web site is no guarantee that the dealer is legitimate.

"On the Internet, anyone can look like an established, reputable firm," Holloran said. "Never has it been more important to know about the supplier with whom you are dealing."

One fraudulent tactic is to copy a dealer's on-line catalog or entire web site, make a few cosmetic changes and then post it under a different company's name. That's what happened to Metric Equipment Sales, and vice president Charles Nelson advised carriers to investigate dealers they don't know.

"It might be some guy operating out of his bedroom who, from looking at the Web,

looks quite substantial," Nelson said. "It behooves the buyer nowadays to do a little research beyond just looking at the price on the web page." Added Holloran, whose company suffered a similar impersonation, "It's kind of like the wild, wild West."

Fortunately, dealers of pre-owned T&M equipment are few, and that makes it easier to assess reputations.

Talking with colleagues and others in the wireless industry is one way to find out what experiences they've had with dealers. Other approaches include call-

covered under original warranty. "So I think our customers feel that they get a really high-quality piece of equipment with Hewlett-Packard behind it," Rash said.

A warranty is even more important when buying from a company that isn't the equipment's original manufacturer.

"The legitimate companies will at least offer a 6-month warranty as well as a 5- or 10-day right of refusal," said Metric's Nelson.

The right of refusal means you can return equipment that doesn't meet your needs.

"The right of refusal is critical," said Tucker's Holloran. "Only by actually having the equipment in front of you to examine and test can you be certain that you are buying quality reconditioned equipment."

National Institute of Standards and Technology (NIST) traceability is another important criterion because it helps ensure that the equipment was calibrated according to standards that the NIST says are state-of-the-art.

"If something is traceable to NIST, that's the equivalent of a consumer product saying it's been UL tested or has the Good Housekeeping Seal of Approval," said Michael Newman, NIST spokesman.

NIST traceability shows that the dealer understands an important process in ensuring

pre-owned equipment is in calibration.

"No one should buy reconditioned equipment from a supplier who cannot certify calibration traceable to NIST," said Tucker's Holloran.

One way to check for NIST traceability is to request a calibration certificate, which most dealers can provide for a nominal fee.

"If they haven't looked into the calibration certificates, then they're not getting value for their money," said Telogy's Naghibi. ■

## Out With the Old

The wireless industry is evolving rapidly. So it shouldn't be any surprise that test and measurement (T&M) equipment is evolving rapidly, too.

In wireless, where the shift from AMPS to digital cellular and PCS has created a tight market for digital signal generators, carriers don't want to pay for protocols and features they don't use. But they do want the ability to upgrade equipment via software, and that option is something manufacturers can provide more readily because the price of memory remains low.

Manufacturers also have trimmed the time it takes to get new gear to market to as little as six months. Today, even when a new model makes its debut, its successor is already on the drawing board. That change is the result of rapid evolutions in the industries served by T&M equipment manufacturers.

"When new products are coming out that fast, test equipment has to follow," said Galen Wampler, president of Prime Data, which tracks the T&M-equipment market.

ing the local chamber of commerce in the dealer's area and simply being alert to warning signs when talking with a dealer. Advised Metric's Nelson: "When they transfer you to the shipping department, if it's the same guy who answered the phone, you've got an idea of how big the company is."

### Added Insurance

Once you've chosen a dealer, there are additional ways to make sure the equipment you get is what you need and want. One is a warranty. Hewlett-Packard, for example, offers a minimum 1-year full warranty on parts that were