

# NetHopper 2.0

**EXHIBIT**  
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### *NetHopper 2.0*

#### **First true web browser for Newton**

It's a cliché to write about the incredible rate of change on the Internet. However, when it comes to Newton devices accessing the Internet, there hasn't been much to report. The source@hand email-based text retriever from info@hand and AllPen's NetHopper 1.0 Mac OS-reliant web browser make up the whole category of commercially available access software. The well publicized reason for this dearth of tools was the lack of a TCP/IP stack for the Newton, enabling direct PPP or SLIP dial-up access to the net via an Internet service provider (ISP). This stack is the sine qua non of net connectivity; no stack, no Internet.

#### **NIE!**

Apple finally released the stack, which was dubbed the Newton Internet Enabler, or NIE for short. The first application to take advantage of the enabler is drum roll please NetHopper 2.0. Essentially unchanged from version 1.0, which I reviewed in Pen Computing #9 last April, the new version of NetHopper depends entirely on the NIE to do its business, and the golden stack is bundled with the product.

NetHopper 2.0 is a text-only World Wide Web browser, turning raw HTML coded documents into formatted screens of text on your Newton. Netscape Navigator it is not, but the MessagePad isn't a fully-featured computer, either. Due to the memory and display limitations of the current MessagePad, graphics are just too unwieldy to display. Other fancy HTML tricks like frames are also unsupported by this version of NetHopper. You get the basics: text and links to other documents on the web. We'll all have to adjust our rampaging expectations until Apple releases new MessagePads with fire-breathing StrongARM processors, grayscale or color displays, and lots more memory. Within the current Newton hardware limitations, however, NetHopper does a terrific job.

#### **Vertical applications**

If you work mostly with textual information this will be less of a limitation than you might think. Technical maintenance specialists in the field, for example, could use NetHopper 2.0 to access customer histories, repair instructions, or directions to a work site. Another ideal candidate for the NetHopper approach is filling out web-based forms, such as the popular package tracking form at the FedEx web site. Searching through card catalogs, scanning through UseNet newsgroup articles, executing trademark searches; all could be

## Performance

NetHopper 2.0 requires a device running Newton 2.0. While it will run on a MessagePad 120, Apple and AllPen strongly suggest you use a MessagePad 130 because of its additional system heap memory. At press time, Apple said it planned to offer a version of NIE tuned specifically for the MessagePad 120, which may be out by the time you read this. My testing was on the MessagePad 130 using a Megahertz XJ2288 PC Card modem capable of 28.8Kbps throughput. Due to the lack of a Newton driver, though, I had to use the Hayes-Compatible setting, making it impossible to determine the connection speed. I believe it was connecting at 14.4Kbps, based on my previous experiments using this modem. On this assumption, NetHopper's performance was surprisingly good. Loading and interpreting a typical index page took around ten seconds, though one particularly ambitious site I visited overwhelmed NetHopper and crashed my Newton. It was some consolation to see that NetHopper had put up an alert declaring that this problem was a "known bug". Apparently, NetHopper encountered an unusually large and complex web object and choked on it, but AOL's wimpy browser does this, too.

## Features

NetHopper may ignore graphics out of necessity, but other big-browser features are part of the mix. You can make bookmarks as you browse for later access from a menu, though editing them later is limited to deleting them individually or as a group. NetHopper also gives you control over your display font and size, though you cannot assign these characteristics based on HTML tags such as Largest Heading. You may jump to a specific URL at any time using the menu command. NetHopper even offers a terrific popup menu of commonly used Internet address character strings, such as "http://" and ".com". This menu is activated, like the standard punctuation menu, by tapping the insertion caret. Great feature! You can set a maximum cache size for storing web pages, each of which will occupy around 5K. I lowered the default cache size of 250K to 50K with no ill effects. You can even elect to show the cache contents at any time, and a simple tap can take you to any stored item for immediate viewing. The cache can be cleared manually if desired.

## Routing

Any web document can be routed in a variety of ways. You can print, fax, email, or even beam a document. The manual recommends you choose to perform these operations after you have exited from NetHopper, due to potential memory limitations. Routed web documents remain in the Out Box until you want to deal with them.

## First of a new category

NetHopper is an exciting first offering in a whole new category of Internet-enabled software for the Newton platform. Expect to see a bumper crop of email clients, web browsers, and many other interesting and useful Internet tools emerge from this fertile platform in the months ahead.

*Cost/Contact: US\$99.95 AllPen 408-399-8800*

*Email: [NetHopper@allpen.com](mailto:NetHopper@allpen.com)*

*Web: <http://www.allpen.com>*

*Newton memory: NIE 213K-254K, NetHopper 278K*

*System needs: Newton 2.0 (MP130 recommended)*

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