



Have Server, Will Travel

by IAN WESTMACOTT, Technical Editor

The VoyagerIli mobile computer system from the newly formed Tadpole-RDI may be mobile but it's no laptop. With a 300-MHz processor and up to 1 GB of main memory, this system is more like a server than a workstation.

Tadpole-RDI VoyagerIli Mobile Computer

Tramping off to a trade show or presentation to demonstrate a new product; traversing mountain sides and jungle valleys to service equipment or collect data; battling city traffic with the corporate strike team for site sup-

port, training or sales; crisscrossing the globe with point-of-sale or mobile command post applications; high-pressure systems and data disaster recovery. There are many situations that call for robust and powerful mobile computing resources. If you're in such a position,

then the 100% SPARC-compatible VoyagerIli mobile computer system from Tadpole-RDI is for you. Tadpole Technology has been in the mobile UNIX market since 1992, when it introduced the SPARCbook 1, a SPARC-based laptop computer. Today, Tadpole markets the SPARCbook 3

based on Hewlett-Packard Co.'s PA-RISC processor, to its mobile UNIX offerings.

But the VoyagerIli is not a laptop. It has no monitor, keyboard or pointing device. It does not run on batteries and it doesn't have a docking station. The VoyagerIli is not for computing on the road, but for computing once you get there. With a 300-MHz UltraSPARC-Ili processor, 20 GB of removable disk capacity and 256 MB to 1 GB of main memory, this system is more like a server than a workstation. However, the VoyagerIli weighs only 10 pounds and is just 13.2- by 10.5- by 4.5-inches in size—not your typical UNIX server.

The VoyagerIli's target market is applications that require UNIX server functionality and performance in a portable form. Using removable disk packs, disk sets may be created for sales meetings, presentations, service and support, or any needed configuration. Whenever you have to hit the road, slide in the applicable disk pack, put the VoyagerIli in its case and you're on your way. At your destination, attach any Sun Microsystems Inc. or PC-compatible monitor, keyboard and mouse, and you have a SPARC/Solaris server correctly configured for your needs. And, according to Tadpole, the 300-MHz system delivers approximately 12.1 SPECint95 and 12.9 SPECfp95.



The Tadpole-RDI VoyagerIli, with a 300-MHz UltraSPARC-Ili processor, 20 GB of removable disk capacity and up to 1 GB of memory, is designed for applications that require UNIX server functionality and performance in a portable form.

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family of laptops and the ALPHAbok, a Digital Equipment Corp. Alpha-based laptop. With the acquisition this year of competitor RDI Computer Corp., the newly formed Tadpole-RDI has added the UltraBook, an UltraSPARC-based laptop, and the PrecisionBook, a laptop

Product Review

Configuration

Tadpole sent us a VoyagerIli equipped with 512-MB DRAM and 20 GB of storage, together with an optional wheeled carrying case. The unit itself is flat-black, .0625-inch aluminum with removable rubber feet. The front panel sports power, Power-On Self Test (POST) and run/stop LED indicators, a recessed reset switch and SCSI, Ethernet and (four) disk activity LED indicators. The two removable disk pack bays are also on the front panel. The rear panel includes power and run/stop switches, 10/100BaseT, Sun keyboard/mouse, PS2 keyboard, PS2 mouse, one RS232, one Centronics and one Ultra SCSI, SCSI 2 interface ports, two Type I/II (or one Type III) PCMCIA card slots and one 33-MHz, 32-bit PCI card slot.



Our unit came with an optional ATI 3d Charger PCI video card (occupying the PCI slot) and Solaris 2.6 Server pre-installed. Two disk packs were provided, with two disks each for the maximum of four internal disks (external SCSI disks are also supported). Using IBM Corp.'s Travelstar 5GS 5.1-GB drives, a total of 20 GB of internal removable storage is supported, using Ultra DMA with a transfer rate of 33 MB/s.

The run/stop switch either runs or stops the operating system when the unit is powered on (using the SPARC suspend feature). The run/stop indicator LED, together with the POST LED, indicate what state the unit is in at all times, without having to connect a monitor. They indicate, for example, whether there has been an error during the POST and if the operating system is running or has been stopped. Unfortunately, the run/stop LED on our unit was not functioning. We also found it odd that the Ethernet activity LED indicates *any* network activity, not just activity involving the unit, so it is just about always flashing, making it difficult to determine when the unit is actually using the network.

Inside the box, the Tadpole motherboard is mounted midline with some

components connected from above and others below. Both the top and bottom panels of the box are removable with four screws. The only user-serviceable components are the memory and the PCI card. Eight SIMM slots accommodate standard 128-MB modules in pairs. The unit is cooled by four fans on one side and a vent on the other.

The vent extends to the base of the unit and internal electronics are exposed, so you will want to avoid spilling any liquids near the unit.

The documentation covers both hardware use and troubleshooting, and standard Solaris use and administration tasks. VoyagerIli systems include a one-year, return-to-factory hardware warranty and a 90-day software support warranty. Tadpole also sells extended warranties. Tadpole provides phone numbers and an email address for technical support. A faulty power supply on our first unit gave us occasion to contact support by email and we received a personal response within two hours.

Performance

We were tempted to toss the VoyagerIli out our lab window to see how it handled the impact. However, we were relatively certain that would end our review, so we resisted the temptation. According to Tadpole, stress tests indicate VoyagerIli can handle up to 0.5 G vibrating acceleration and up to 1 G nonvibrating acceleration, while shock tests indicate the unit can handle up to 10 G operating shock and up to 60 G nonoperating shock. Although the documentation lists natural disasters, mining and geological surveying as possible application areas for the VoyagerIli, in our opinion the unit is not rugged enough for such environments. With the large vent interstices exposing electronics, unsealed joints and lightweight aluminum casing, we suspect the unit would not fare well in the wild.

There are plenty of applications that do not require extreme ruggedization, however, and here the VoyagerIli will do well. Its small size is impressive, even in its optional carrying case, which has room for an optional mini keyboard.

The whole package would fit in an airplane overhead compartment and isn't much larger than a standard laptop briefcase. Although the VoyagerIli weighs only 10 pounds, the wheeled carrying case weighs roughly another 10 pounds, and with peripherals and/or documentation you will probably end up with a 20- to 30-pound package. We recommend the carrying case to save your arm some discomfort on long trips.

While, overall, we were impressed with the design and engineering of the VoyagerIli, we did encounter several design and quality control problems. In addition to the malfunctioning run/stop LED and power supply problem, the disk packs did not fit quite right on one of our units and one of the screws holding the top panel was incorrectly machined. In addition, the removable rubber feet were too easily removed—so that just removing the unit from the case would cause them to fall off. However, as a first attempt at this form factor, Tadpole-RDI should be commended, and we expect manufacturing will work out the glitches. ✍

VoyagerIli Mobile Computer System

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Best Feature

A truly portable server.

Worst Feature

Not as rugged as we expected.

Price

Base system: 300 MHz, 128 MB, 4 GB and no graphics (TTY only) costs \$9,455.
Configured system: 300 MHz, 512 MB, 20 GB and ATI 3d Charger costs \$16,510

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