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# Market Roundup

February 3, 2006

HP: A Cool Refreshing Drink of Water  
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Linux Right  
RFID: Is It Really Anywhere?



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## HP: A Cool Refreshing Drink of Water

*By Clay Ryder*

HP has announced new power management and cooling technologies that include a modular chilled water-cooling system, a universal rack that standardizes HP server and storage platforms, and a power distribution unit management module that monitors data center environments to provide customers with a more reliable power infrastructure. The new technologies support the HP ProLiant, BladeSystem, Integrity, Integrity NonStop, and HP 9000 server families as well as HP StorageWorks MSA, EVA, and XP arrays. The HP 10000 G2 Series Rack is a standardized, unified rack that replaces seven previously incompatible racks to accommodate all HP rack-mounted server and storage products. The HP Modular Cooling System is a self-cooled rack that attaches to the HP10000 G2 Series rack, uses any data center's chilled water supply, and distributes air consistently across the entire front of the rack to cool up to 30 kilowatts of heat. The HP Power Distribution Unit Management Module provides remote monitoring of a rack PDU and offers centralized, SNMP control of all individual power distribution units via HP Systems Insight Manager and other software. These offerings represent some of the latest efforts of HP's Smart Cooling program, which the company states has been realizing annual power savings of 25%. The HP Modular Cooling System, HP 10000 G2 Series Racks, and HP Power Distribution Unit Management Module are expected to be available February 6. The Modular Cooling System starts at \$30,500, the 42U 10000 G2 Series Rack at \$1,249, and the 36U rack at \$1,199; the HP Power Distribution Unit Management Module starts at \$199.

Those who are long in tooth will undoubtedly remember the esoteric plumbing required for a vintage mainframe to be adequately cooled through a liquid heat exchange regimen. In fact, the early advancement of air-cooled mainframes was one of the key differentiators that allowed Amdahl to compete in this space against Big Blue. Since that time, we have witnessed advances in computing technologies that reduced the space and energy required to effect computing solutions. Ironically, this ability to cram more and more circuits into an ever decreasing amount of CPU real estate is bringing us back to the point where even the most creative air-cooling will not handle the task: we have hit the limits of thermodynamics. Given that the performance being cranked out by Industry Standards chips such as the x86 architecture has been largely driven by astonishing increases in clock rates, there would seem to be no end in sight in the increased generation of heat, and the commensurate increase in performance. Combined with the propensity to package computing solutions into ever denser form factors such as racks, blade centers, etc., it is clear that alternatives to air will be necessary, lest the data center servers begin a China Syndrome meltdown.

But in all seriousness, we applaud HP's tenacity in seeking a solution to this issue that will not only meet the needs of today, but for a while into the future as well. HP's decision to standardize its multitudes of incompatible racks into a single one with optional liquid cooling and remote monitoring to us is, simply, cool. Customers will likely enjoy the standardization of the racks, which could bring them some operational efficiency and standardization, and aesthetically bring some continuity to their HP-deployed wares. For those constrained by data center real estate and air cooling limitations, the water-cooled rack attachment is worthy of consideration and may prove to be a practical, if not time tested, approach to solving the limits of data center HVAC. While 10kw racks are not uncommon today, the 30kw limits of this latest endeavor should provide some breathing, or make that cooling, room for the future. Therefore, while retro-focused remarks about water-cooled databases are certain to be made, we are happy to see serious efforts being applied against the trauma of heat generation in the datacenter and observe that others in the industry are as well taking note.

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## Novell Bundles Up: How to Do Enterprise Linux Right

By *Joyce Tompsett Becknell*

This week Novell announced that it will now bundle support and training for SUSE Linux Enterprise Server. Novell hopes to differentiate itself from other Linux distributors with free training, as Novell solution provider partners—the primary channel for mid-market customers—will now offer 24/7 support and online assistance to customers. Novell believes that most SMBs turn to local solution providers for IT support. Providing a solution that integrates Linux products, support, and training gives channel partners a better solution for their customers.

Linux has been around for awhile now, lurking about the data center, and making inroads into various spaces. Generally, the younger you are (which generally implies a bit of time or desire to experiment), or the more technical experience you have (if you know UNIX, Linux is easier to pick up), the more likely you are to have played with Linux. Many SMBs, while desiring more skillful IT departments as much as any other organization, are generally more constrained by bandwidth or resources. Linux growth has generally been grass roots, with customers pulling demand rather than vendors pushing it. All Linux distro marketing aside, it's still a fairly new game in the grand scheme of OS penetration. And while Linux has a nice role to play in SMBs, if companies believe they have to purchase a new OS and learn how to use it and pay to learn how to use it... well, that becomes a bit onerous even with Linux's reputation for being accessible and affordable. So Novell looks good delivering free training, partners have another good will item to sweeten the deal, and smaller customers get some training wheels while they learn to steady themselves. Risk reduction is a good thing.

There was a period when intuitive computing was all in vogue. Marketing departments went through large swaths of random monkeys to prove that anyone anywhere could use their product in an afternoon. The truth of computing is much closer to what we have today, which is that state-of-the-art products with advanced capabilities require skilled operators. In addition, mid-market companies are often willing to explore new technologies they wouldn't otherwise consider, if it can be demonstrated that the technology can give them a competitive advantage or make them appear even larger than they are. There are many reasons for choosing Linux, but proper training and handling are required as they are for any technology. Novell's decision to offer free training implies that Novell understands this and is looking to remove one more potential gating factor from the market. It remains to be seen if the channel can leverage this offering to turn customers' heads more quickly to Linux.

## RFID: Is It Really Anywhere?

By *Susan Dietz*

iAnywhere has announced the RFID Anywhere Appliance Edition which is geared towards enabling hardware manufacturers to embed intelligence into readers. The new product provides RFID hardware manufacturers with embeddable software components to build "smart" readers that include essential security features, support for a variety of communication protocols, the ability to execute logic on-device, remote management and upgrade capabilities, and RFID reader multi-protocol support. RFID Anywhere Appliance Edition offers secure access to the device in accordance with existing network authentication policies (e.g., LDAP, Active Directory) and supports multiple protocols, including TCP/IP, HTTP(S), GPIO, and EPC Reader protocol 1.1. This will allow integration of multiple GPIO events, automatic restoration of reader configuration after being lost or corrupted, and enhanced remote management and upgrade capabilities. In addition, there is seamless integration with iAnywhere's RFID Anywhere 2.0 for management of an entire RFID network, even across multiple sites. RFID Anywhere 2.0 provides administrators the ability to manage multiple RFID devices, including data filtering and aggregation, as well as the execution of business logic. Further, RFID Anywhere Appliance Edition easily integrates with other RFID middleware applications.

Separately, Applied Wireless Identification announced that RFID Anywhere Appliance Edition would be embedded into AWID's MPR 3014 CE intelligent readers.

The cost of the reader is often a limiting factor in many technologies and applications. We haven't really seen the long awaited "year of the smart card" yet, and two major roadblocks to that year have been the cost of the reader and the lack of a universal standard. The RFID application fits nicely into the two major reasons why organizations buy IT: to make money and to save money. The nature of an appliance—simple to operate and manageable on a remote basis—has a great deal of attraction to administrators. On that basis, RFID Anywhere Appliance Edition seems to be the answer to quite a few concerns that have kept the technology from being more widely adapted.

Our concern would be the rate of expansion of RFID applications that can quickly show an attractive ROI. If the readers aren't truly cost-effective, then the technology, no matter how sexy, is not going to be widely adopted. There is also the issue of distribution channels for a smart reader. If it were coupled with a POS device for payment processing, for example, it would likely be a combination that would appeal to retailers, especially if the combo device could be delivered at the same or lower cost than the current card reader. Nevertheless, we are heartened by the continued focus on RFID on mobility by iAnywhere and its corporate parent Sybase. While the deployment of RFID everywhere is still a reality relegated to the future, the continued efforts of vendors such as iAnywhere will be essential in making this a reality.