



Market Roundup

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HP Introduces New Storage Developers Program

By Charles King

HP has announced an initiative that aims to facilitate partner development of technologies based on the Storage Management Interface Specification (SMI-S). SMI-S is expected to be ratified by the Storage Networking Industry Association (SNIA) this summer. The goal of the HP SMI-S Developers Program is to accelerate adoption of SMI-S-based solutions, and to give HP's partners a head start in developing storage management applications that interoperate with HP storage arrays including HP StorageWorks Virtual Array (EVA), Extended Platform (XP), Virtual Array (VA), and Enterprise Modular Array (EMA) families. The program offers qualified partners access to SMI-S-based HP array interfaces as well as technical and marketing support. In addition, a software developers' kit includes early versions of array providers and device management software, sample code examples of SMI-S-compliant interfaces, and supplementary documents. Open and free to qualified HP partners, the program's membership currently includes AppIQ, BMC, CreekPath, Storability, and Veritas.

Like any standards-based IT initiative, the SMI-S has been a long time coming, but with the first version of the specification released in April and ratification expected by SNIA members later this summer, this means a standardized method of developing storage management solutions that work across heterogeneous devices appears nearer at hand. The requirements of such an effort, however, are enormous, especially for storage hardware vendors that hope to capitalize on SMI-S capabilities to drive future sales. Since storage management is rich in ISVs that work with products from multiple hardware vendors, making it as easy as possible for them to develop SMI-S-enabled solutions is a first order of business. The base concept of HP's SMI-S Developers Program is to ensure that when SMI-S capable applications do come to market, versions for HP StorageWorks products will be readily available and well represented.

While HP's new program is a smart strategic business move that should be good for the company and its myriad storage software partners, what does it mean for storage customers? To our way of thinking, any effort that fundamentally advances the notion of storage management simplification deserves support. Additionally, the realities of the storage market are such that such advances are likely to arrive piecemeal depending on the efforts of individual vendors, the strategic value they place on such solutions, and the tactical advantages they see in their pursuit. Practically speaking, the availability of commercial standards-based storage management solutions is still some ways in the future, and will likely be clouded by issues such as vendor/ISV cooperation and backward compatibility. However, future goals can only be reached by taking action in the present. To that end, we see HP's SMI-S Developers Program as evidence that the company intends to pursue standards-based storage management solutions by easing the way for the ISVs that will be critical to the company's future success.

Missing the Point on Browser Innovation

By Jim Balderston

Netscape founder Marc Andreessen was quoted this week noting that innovation in browser technology had been at a standstill for five years and would probably not see much change during the coming half-decade. Andreessen told an audience in London that Netscape had a host of ideas to change browsers, and derided the idea that bookmarks

and back-button functionality constituted reasonable Web navigation options. Netscape's browser, which was obtained by AOL when the company bought Netscape for \$4.2 billion in 1999, appears to be disappearing, as AOL recently settled a case with Microsoft over browser issues and signed a seven-year contract to offer Microsoft's Internet Explorer to AOL members.

While the innovative changes happening in browser technologies, especially in newer, smaller form factors fundamentally contradict Andreesen's assertions, we also think that his comments represent an interesting misinterpretation of what innovation is and how the market responds to innovations of all kinds. We would agree that browser navigation is relatively simplistic, with back buttons, bookmarks, histories, and the like, but we see that simplicity as one of the very reasons browsers — and the World Wide Web they help users navigate — took off so quickly in the public's mind. In short, history has shown that innovations of any type tend to be adopted more broadly and rapidly if they are relatively easy to comprehend. Value perception and adoption rates are inexorably intertwined. The simplicity of the browser is the very reason that users have taken to the World Wide Web and that its complementary offerings of email and IM have been adopted so enthusiastically.

But we have another bone to pick here with Mr. Andreesen. We have always thought that browser share and the so-called browser wars garnered much more attention than they ever merited. Contentiousness about browser innovation at this point is largely akin to arguing over the type of wire one prefers for phone call transmission. Andreesen, and many others we are sure, seem to be arguing that the impacts of the Internet on daily life are somehow hampered by the lack of innovation in the browser software. We would argue the opposite. The browser — in all its simplicity — has unleashed a chain reaction of changing behaviors, economics, business models, and communications that has yet to reach its final stage as a change agent. The browser was, after all, a means to graphically display and navigate the fledgling World Wide Web that heretofore had been the domain of a small number of techno-priests whose knowledge and experience far outstripped the great unwashed, those same masses of users that now have adopted the Internet as a significant part of their lives. We believe those waves of change will continue with or without Mr. Andreesen's blessing, and the effect of the relatively simple innovation he now derides will continue to be felt for years to come.

DARPA Selects IBM, Cray, and Sun for HPCS Phase II

By Charles King

The Defense Advanced Research Projects Agency (DARPA) announced this week that IBM, Sun Microsystems, and Cray — teamed with New Technology Endeavors (NTE) — have been selected as the three contractor teams for the second phase of the High Productivity Computing Systems (HPCS) program. The goal of the program is to provide a new generation of economically viable, scalable, high productivity, peta-style computing systems in the 2009-2010 timeframe that will fill a gap in computing between current high performance computing (HPC) technology and the future promise of quantum computing. IBM received \$53.3 million for their PERCS (Productive, Easy-to-use, Reliable Computing Systems) approach that adapts system layers to application requirements, enhancing system efficiency, ease of use, and commercial viability. Sun received \$49.7 million to continue work on its integrated systems approach known as Hero, which provides a simplified architecture, and novel programming tools to boost user productivity, enhance numerical precision, increase system security, and support legacy software. Cray/NTE received \$43.1 million to develop their HPCS concept Cascade, which incorporates hardware and software innovations including new processor architectures and processor-in-memory technologies to enable higher productivity for sustained peta-scale computing. The second phase of the HPCS program will last for thirty-six months, and will be led by MIT's Lincoln Laboratory in Lexington, Massachusetts.

The peta-style (i.e., more than one quadrillion calculations per second) focus of DARPA's HPCS program may qualify as the rarest of air in modern computing capabilities, but bleeding edge innovation has always been so. When considering such programs, one should remember that today's PCs offer performance far in excess of what the supercomputers of a mere ten years ago were able to deliver. The recent considerable increase in supercomputing and HPC technologies in commercial settings suggests a simple truth regarding technology: if a tool is available, affordable, and workable, people will find or make a use for it. The DARPA program also provides an interesting, practical rebuttal against those who wish to trim the influence and involvement of the federal government. With its six+ year time line, multi-vendor cooperation, and hundreds of millions in research monies

required, HPCS and the commercial products it eventually aims to enable would never stand a chance of existence let alone success without government support.

That said, does the DARPA announcement offer any particular food for thought? First, there was a pair of minor black eyes for HP and SGI, who rounded out the original five vendors in Phase I of HPCS and were left behind for Phase II. This culling process was planned all along, but is still painful, especially for HP, which leads the Top500.org list in number of total systems. Given IBM's history in the supercomputing space and the company's aggressive efforts in HPC development, their inclusion in Phase II is not especially surprising. The same cannot be said of Sun and Cray. Sun has never been a major presence in supercomputing (the company only has nine systems on the Top500 list) and Cray is considered by many to be a company whose best days are in the past. If anything, the contractors chosen to lead Phase II of DARPA's HPSC program prove that talent and innovation can appear anywhere. It will be interesting which two will be chosen in thirty-six months to proceed to Phase III.

You Want WiFi with That?

By Jim Balderston

McDonalds announced this week that it would be offering high-speed wireless Internet access at seventy-five of its ubiquitous fast food restaurants in the San Francisco Bay Area. The company said that for six weeks, users can tap into the wireless network for free if they purchase a Big Mac Extra Value meal or pay \$4.95 for a two hour session. The announcement to offer such services comes after the company's pilot program in New York with ten locations began in April. The company also plans to offer similar deals in other metropolitan areas, including Chicago, and in more restaurants in New York. Under the terms of the new offering, a customer would ask a McDonald's employee for a password to log onto the network. The wireless systems are designed to operate only inside the building. Participating McDonalds will be designated by an "@" symbol on the Golden Arches.

Where to begin? It's fascinating that McDonalds – which has made a science out of moving people quickly in and out of their eateries – now seems ready to offer a reason for people to plunk down for two hours at tables and chairs designed largely to accommodate the posteriors of pre-adolescent bipeds while discouraging adult loitering and lingering. It is truly remarkable to watch a well-established company utilizing the Internet as a catalyst for what might be viewed as a risky change-of-business model. The revolutionary aspects of the Internet continue to accrue, here in the humdrum, overly well-lit environs of the nation's largest fast food chain. We have always maintained that the Internet's true revolutionary nature would be fully realized when the technology disappears into the mundane routine of daily life. What could be more routine than answering in the affirmative that you would, indeed, like to supersize that Big Mac meal?

McDonalds apparently believes that offering wireless access will expand and enlarge its existing customer base. While wireless access in eateries is not a brand new concept, it has been largely isolated in high-end coffee shops or likeminded establishments that cater to a crowd that would not be caught dead in a McDonalds without at least one child but more likely an entire adolescent soccer team. In short, McDonalds is attempting to shift its demographic appeal northward to the ubiquitously sought-after customers from higher income brackets. Can McDonalds force wireless users to scarf down a Big Mac and do so in sufficient numbers to make these trials a success? Probably not. Will the company expand its menu to offer more palatable fare to its more affluent wireless-equipped patrons? Perhaps. There is no doubt that the company will closely watch consumer response to the WiFi offering, and in all probability respond with food and/or pricing changes. In short, McDonalds is opening a whole new market research effort to expand its clientele up the economic food chain using the Internet as the lure and prize for walking into Ronald's house. Viva la revolution!