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## Systems management solutions based on open standards.

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The secure manageability you need. The freedom of choice you want.

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### GETTING A HANDLE ON MANAGING YOUR SYSTEMS

To achieve its business objectives, your organization depends on you to keep desktop and notebook PCs up and running. When those systems break, getting them running again becomes a top priority — regardless of where they are. Fortunately, IT administrators can choose from a broad set of tools and technologies to remotely manage client systems that are powered on (in-band) with a responsive operating system (in-service).

But when the clients are powered off (out-of-band) or have a non-responsive operating system (out-of-service), the available management options decrease dramatically. Most currently available out-of-band management options are based on proprietary technologies limited to client systems from certain vendors. While proprietary solutions offer out-of-band management capabilities for some client systems, what you lose in flexibility and cost savings far outweighs the management benefits.

### THE RISKS OF PROPRIETARY MANAGEMENT SOLUTIONS

Choosing a proprietary client management solution can expose you to significant risks. When you lock yourself into a proprietary solution, you may end up paying higher licensing and upgrade fees because the cost of switching to a better solution is too high.

And, as you inevitably introduce new technology from other vendors to keep up with changing business needs, proprietary technologies that do not interoperate with the new solutions cause increased management complexity. What's more, since proprietary client management solutions include many features that are not necessary for day-to-day management, you may end up paying for features you don't need.

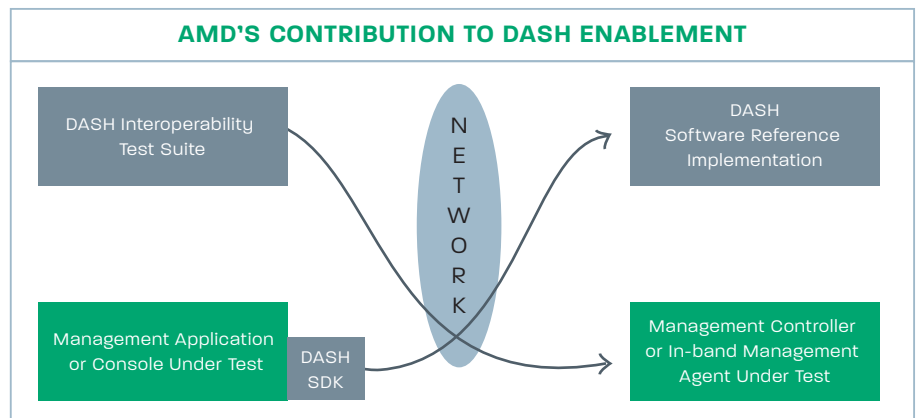
### ESSENTIAL MANAGEABILITY

To realize cost savings as well as reduce down time, IT organizations should first focus on effective in-band client system management. Once an organization has good in-band tools and best practices in place, IT can realize additional benefits by adopting clients that support essential out-of-band management capabilities.

Real-world experience shows that when it comes to out-of-band client management, the greatest time and cost savings come from being able to complete a few essential tasks — remote power control, updates and patches, remote diagnostics, asset inventory, and security — on systems from multiple vendors while they are powered off.

Until recently, the only options for out-of-band client management were monolithic proprietary solutions. Now, a new generation of open standards for client management is being developed and adopted in the market. These standards are paving the way for tools and technologies that foster interoperability and consistency among client system management solutions, especially in remote, out-of-band, out-of-service situations.

AMD collaborates closely with our partners to develop open-source DASH-related tools and technologies.





“As a founding member of the DASH working group and key contributor to the specification, AMD is pleased to see the broad adoption of DASH in the industry. AMD continues its standards leadership by developing a comprehensive set of DASH test tools, available to all vendors, to ensure DASH solutions in the market are truly interoperable and to realize the full value of DASH to IT customers.”

— Earl Stahl, Vice President of Software Development, AMD

#### COMING TOGETHER ON THE NEXT GENERATION OF STANDARDS

The DASH standard is an initiative led by the Distributed Management Task Force (DMTF) — a consortium of leading technology companies including AMD, Broadcom, Dell, HP, IBM, Intel, Microsoft, Symantec, and others.

As a DMTF board member and contributor, AMD is working to define and evolve specifications that will standardize secure management of systems independent of machine state, operating platform, or vendor. While the DASH standard covers both in-band and out-of-band management situations, many good choices already exist for in-band client management. Consequently, DASH has gained considerable momentum and acceptance as an open standard for secure out-of-band and remote management in diverse, real-world IT environments.

#### PROVIDING A STABLE, SECURE, MANAGEABLE COMPUTING ENVIRONMENT

While a key benefit of DASH is more secure desktop and notebook management, the additional advantages in time and cost savings cannot be underestimated. Remote management of more routine problems, such as system hangs and failures, is an obvious and valuable benefit.

Beyond that, DASH opens up a whole new set of possibilities, such as the potential to allow administrators to target specific machines for a software upgrade without having to boot every PC on the network to determine software inventory. DASH provides an extensible management foundation that will grow to support new manageability features and management of new platform features.

#### SEAMLESS AND PREDICTABLE INTEROPERABILITY

AMD is committed to making sure that the DASH standard is relevant to real IT needs. To that end, AMD has collaborated closely with our partners and vendors to develop open-source DASH-related tools and technologies.

They include a DASH interoperability test suite, DASH software reference implementation, and DASH console SDK. These tools help hardware, firmware, and console vendors develop and test their DASH solutions for interoperability and bring them to market more quickly.

By enabling vendors to test DASH implementation in their management applications and systems, these DASH enablement and test tools will help facilitate the availability of interoperable desktop and notebook computers from multiple vendors. This, in turn, will allow IT organizations to seamlessly and predictably manage their hardware assets within existing IT infrastructures. IT organizations also benefit by using these open-source tools to easily add DASH management functionality to their own homegrown tools and scripts, as well as for validating solutions they are planning to deploy.

#### DASH IN ACTION

Here are a few ways that DASH can simplify real-life client management tasks:

- **Remote power control** — If a user forgets to leave a computer on for service, you can power it on remotely, then proceed with maintenance tasks. Similarly, if a user forgets to turn a computer off, you can do so remotely in order to save energy.
- **Updates and patches** — Any DASH-enabled system can be updated remotely, whether it is on or off with a functioning or non-functioning operating system.
- **Remote diagnostics** — Reduce desk-side visits with a DASH-enabled console that lets you test and troubleshoot remote systems.
- **Asset inventory** — Discovery and inventory features make it easy to conduct hardware and software inventories for DASH-enabled clients, regardless of whether they are powered on or off.
- **Security** — By providing transport-level security and supporting role-based authentication and authorization, DASH gives IT administrators the flexibility to control access to network resources and protect sensitive management data.

## A SMARTER CHOICE FOR SYSTEMS MANAGEMENT

To help ensure widely available, cost-effective out-of-band management solutions, AMD is working to preserve choice and promote open standards. As demand increases for more sophisticated management tools, DASH is expected to be the most broadly supported out-of-band hardware management standard in the industry.

DASH management standards and functionality are being driven by real-world needs rather than seldom-used operations that lock you in to a limited set of proprietary hardware choices. Instead, components based on the DASH standard are designed to integrate into IT infrastructures and offer seamless and predictable interoperability.

Look for DASH-compliant AMD processor-based systems to be released from name-brand computer manufacturers beginning in the second half of 2008.

Learn more today at  
[www.amd.com/systemsmanagement](http://www.amd.com/systemsmanagement)



### About AMD

AMD (NYSE:AMD) designs and produces innovative microprocessors and low-power processor solutions for the computer, communications, and consumer electronics industries. AMD is dedicated to delivering standards-based, customer-focused solutions for technology users, ranging from enterprises and governments to individual consumers.

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