



KACE™ Relies on MySQL to Deliver Mission-Critical Systems Management Solution



Hardware Appliances

Database: MySQL Embedded Server

Operating System: FreeBSD

Languages: PHP, C, C++, C#

Hardware: 2 Xeon Quad Core (2 Ghz), 2 and 4 GB

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Dave Kloba, Vice President
Strategic Engineering Initiatives, KACE



KACE Overview

KACE is the leading systems management appliance company, with more than 400,000 nodes managed globally. Its award-winning KBOX™ family of appliances delivers easy-to-use, comprehensive systems management capabilities providing PC and Server Lifecycle Management for mid-sized organizations. KACE has over 750 customers across all continents and industries -- from Allianz, to Barneys, to Hitachi Medical Systems. KACE was named a 2008 “Cool Vendor in IT Support” by Gartner and won the 2008 “Best System Management Solution” CODiE award.

The Business Challenge

KACE targets the needs of mid-sized enterprises with 100 to 10,000 computers in their environment. These companies typically have a handful of IT administrators who are systems administrators, network administrators, and security managers who often spend time taking help desk calls. “We call this the wearing-many-hats-phenomenon,” said Dave Kloba, Vice President of Strategic Engineering Initiatives at KACE. “Because our users don’t have the luxury of being dedicated to a single function, they crave tools that not only do the job but are intuitive and simple to use and with which they can be productive right away.” Before KACE, mid-sized enterprises’ only option was to use complex, software-only systems management solutions that focused on the needs of large enterprises requiring highly skilled administrators for clearly defined functions.

KACE developed its KBOX appliances to meet the needs of the under served mid-market, with product goals of:

- **Ease-of-use** Using the appliance form factor, KBOX deployment is as easy as “rack and stack and turn it on,” whereas complex software solutions can take months to deploy. KACE engineers will not add another function unless they can also make its usage highly intuitive. For example, the KBOX products’ UI has only two levels of drill-down to set or turn on any function despite the extensive number and variety of capabilities available in each functional area.
- **Comprehensive** Many KACE customers have called KBOX their Swiss Army knife of systems management: it provides all they need to manage the full computer lifecycle, from the initial provisioning and build out of machines, to ongoing maintenance tasks like inventory and asset management, software distribution, remote control, reporting and alerts, security management and remediation -- including patch management. It even includes an integrated Helpdesk with user portal.
- **Affordable** The TCO of competitive software alternatives include not only high licensing fees but also hardware, database licenses, consulting, and training costs. By design, KACE has not just reduced but eliminated most of those costs to offer the lowest total cost solution.

The MySQL Solution

Alternatives Considered

KACE's black box approach required an embeddable database to use in its KBOX appliances that could be relied on to deliver their solution goals. They found it in MySQL: "MySQL embodies what we're trying to do with our appliances – it just works," said Dave Kloba. They had thought about using another open source database but discarded that option when they considered the amount of time it would take them to become proficient users and developers. In addition, they found that the high-end databases, like Oracle, had too many features while the low-end databases, like SQLite, had too few. What finalized their decision – and shortened the process, was their first-hand experience with MySQL. The original engineering team had come from Web services companies; they knew MySQL, knew it could perform, and had been very happy with it.

Use of MySQL

KACE uses MySQL in all of its KBOX appliances, including their virtual appliances. KBOX remote agents live on desktops, servers – whatever is being managed – and reports health data back to a MySQL database embedded in the appliance. KACE relies on MySQL for all data collection and storage, and Jasper Reports for MySQL for scheduled and ad hoc reporting.

MySQL Benefits

Paralleling KACE's product goals, Dave Kloba identified the following as the main benefits of using MySQL in their KBOX appliances:

Ease-of-use

- One of KBOX appliances' new features is the ability to deliver, install and uninstall software on systems depending on the user's role in the organization.

This is accomplished by generating a separate MySQL instance for each group. Because KACE engineers could easily create separate database instances, there was no need to change the applications' code, making them more efficient in their development. The fact that all groups' data are kept in separate MySQL instances provides much greater data security without also requiring more development work or end-user tasks.

- The small amount of weekly maintenance required for KBOX products has been sufficient for any MySQL maintenance.
- When KACE recently did a hardware refresh for its appliances, they also upgraded their MySQL database version. The migration was quick and easy and KACE did not have to change any of its application code.



"KACE appliances are all about lowering TCO and MySQL is a big part of that."

Dave Kloba, KACE Vice President
Strategic Engineering Initiatives

Comprehensive

- The breadth of ancillary product support for MySQL, such as applications and tools, has made Dave and his team more efficient, saving KACE both product-development cycles and money.
- KACE uses the FreeBSD operating system in its KBOX appliances. The fact that MySQL supports not only FreeBSD, but also over 20 other platforms was an important factor in their selection of MySQL. It gives KACE the freedom to choose whatever platform they decide is best for their products and customers.

Affordable

- "KACE appliances are all about lowering TCO and MySQL is a big part of that." By including MySQL as part of their out-of-the-box systems management appliance, KACE customers don't need to buy database licenses, install, or do any database-specific maintenance or management. In addition, KACE reduces its costs by 90% over proprietary databases.
- Because of MySQL's popularity, KACE has been able select from a very wide pool of engineering candidates and has not had to invest in often costly database training for their developers nor wait for them to come up to speed.

MySQL Remains KACE's Database of Choice

KACE first developed the KBOX appliances with MySQL five years ago. In those five years, MySQL's low-cost, ease-of-use, and reliability have enabled KACE to quickly establish their solution as the most innovative and one of the best systems management offerings in the industry. Says Dave, "We don't have to worry about using MySQL, it's rock-solid. KACE customers want their KBOX products to just work and MySQL always just works."

MySQL Embedded Server for OEMs, ISVs, and VARs

MySQL Embedded Server is a full-featured, zero administration database that enables ISVs and OEMs to bring their applications and solutions to market faster. MySQL's small footprint, zero administration and support for 20+ platforms gives ISVs and OEMs ultimate flexibility to ship a highly reliable SQL compliant, transactional database with just about any software application or hardware appliance.

MySQL Embedded Server enables OEM/ISV/VARs to:

- **Reduce COGS and improve profitability** by embedding a cost-effective database without artificial license restrictions on CPU, memory, and servers
- **Bring applications to market faster** by embedding a proven database rather than building and maintaining a proprietary database in-house
- **Deliver a differentiated solution** that can capture, store and report on data with speed and granularity by embedding a full-featured, relational database
- **Win competitive comparisons** using a SQL compliant, relational database with superior performance and reliability
- **Deliver a Zero Administration solution** so that their customer don't have to hire dedicated DBA resources
- **Make reporting and analysis easy** using a cost-effective open source reporting solutions like Jasper for MySQL: OEM Edition.

MySQL Embedded Server is Ideally Suited for:

Software Applications

- Network & Performance Management
- Monitoring Systems
- CRM & ERP
- Educational Software
- Email, Anti-spam software
- VoIP & Online Messaging
- Healthcare & Practice Management
- Biotech

Hardware Appliances

- Networking Equipment
- Routers & Traffic Controllers
- Security Appliances
- Retail Kiosks
- Point-of-Sale (POS) Systems
- Diagnostic Instruments
- Sensory Devices
- And more...

About MySQL

MySQL is the most popular open source database software in the world. Many of the world's largest and fastest-growing organizations use MySQL to save time and money powering their high-volume Web sites, critical business systems, and packaged software. At www.mysql.com, Sun provides corporate users with commercial subscriptions and services, and actively supports the large MySQL open source developer community.



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