



Xceedium Relies on MySQL Embedded Server's Resilience and Performance for Its High-Risk User Security Appliance



Security

OS: Hardened Linux

Hardware: Intel-Based

“Our customers are in the defense, government, financial services, healthcare and retail industries. With MySQL, Xceedium GateKeeper can meet their demands for resilience, maximum performance and scalability. We’ve been impressed not only with the MySQL product, but also with Sun Support’s efficiency and expertise, which enabled us to get things implemented in days rather than weeks.”

Kern Weissman

Sr. Director of Product Management
Xceedium

Xceedium Overview

Xceedium is the premier provider of entitlement management solutions that reduce the complexity and cost of controlling high-risk users. Employing unique and patent-pending technologies, the Xceedium GateKeeper™ line of hardened appliances enables companies to actively manage high-risk users by automating compliance reporting, managing outsourcing risk, providing secure and efficient access to remote infrastructure and controlling vendor access. Xceedium’s customers have the highest security requirements and range from governmental agencies such as The US Department of Defense Medical Health Services to financial services firms like E-Trade.

The Business Challenge

The term “high-risk user” refers to IT administrative personnel, internal or outsourced developers, and vendors who require enhanced levels of access to an organization’s IT infrastructure. Traditional security products are application-focused, such as e-mail and CRM, designed to control end-user access to that specific application using VPN technology (IPSEC and SSL). They provide essentially two levels of control: a user is either allowed in to access specific resources, or locked out. Once inside, a technical user could roam or “leapfrog” from an authorized to an unauthorized area, gaining relatively unrestricted access to other servers, data and the whole infrastructure. Once initial access is granted, the organization not only loses all access policy enforcement, but also visibility into and accountability for these user activities.

This is problematic for a number of reasons. According to a CERT survey, “A recent profile of insider attacks showed that a company is most vulnerable from technical users—internal and external. 86% of insider attacks were by either previous or current full-time employees in a technical position within the organization.”

This threat is compounded by the fact that over 60% of all companies are currently using some form of outsourcing and that percentage is growing rapidly. Finally, the increasing number of compliance regulations such as HIPAA, PCI, SOX, and GLBA all further drive the need for better controls over high-risk user activities, including audit trails and reporting.

The Xceedium logo features a large, stylized 'X' followed by the word 'ceedium' in a bold, sans-serif font.

Xceedium Gatekeeper Provides High Performance and Reliability

The Xceedium GateKeeper appliance provides a solution to this clear need for more granular, user-based security controls. Using unique access methods and patent-pending technologies, Xceedium GateKeeper provides organizations with the following capabilities:

- **Compartmentalization** – The ability to limit specific users' access to authorized resources only, without allowing the endpoint (PC / Laptop) to gain a footprint on the critical network.
- **Containment (LeapFrog Prevention™)** – Prevents users from moving from authorized to unauthorized areas within the critical IT infrastructure
- **Continuous activity monitoring with real-time alerting** – Enables organizations to respond in real-time, minimizing or even eliminating the impact of security threats.
- **Remediation** – Xceedium GateKeeper will automatically lock-down access to anyone in violation of a policy.
- **Detailed tracking/recording** – All user events and activities are tracked and recorded down to the session-level, making a user's "trail" fully auditable.
- **Comprehensive, centralized reporting** – Detailed reports can be generated on all events, activities and sessions.
- **Out-of-band access control** – The ability to prevent "back door" access through serial ports, KVM (key board, video, mouse) over IP, and intelligent power control by locking them down or compartmentalizing users' access, recording all activities relating to these out-of-band access methods.

The MySQL Solution

Choosing MySQL

The Xceedium GateKeeper appliance is a data-driven solution: it continuously generates, analyzes, stores, and reports on user activity data. With this in mind, Xceedium rigorously analyzed and tested MySQL, PostgreSQL, and SQLite to determine which database would best meet their needs, particularly in the areas of performance and resilience.

- **Performance** – For Xceedium, it was critical to find the database that allowed them to fully utilize the resources of the appliance to achieve maximum performance. "We liked the balance of write and read performance with MySQL," said Kern Weissman, Senior Director of Xceedium Product Management. "We found that MySQL's out-of-the-box performance was better than PostgreSQL's, and when each was tuned and optimized, MySQL's performance lead increased. In assessing SQLite, Xceedium found that its write performance was good but its read performance and

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Kern Weissman

Senior Director of Product Management, Xceedium

ability to respond to query optimizations significantly lagged behind MySQL.

- **Resilience** – Kern and his team subjected the contending databases to highly adverse conditions. "Robustness and resilience are critical for us because our products are not open systems. Xceedium GateKeeper is actually used in theater [live combat zones] and may not be shut down cleanly. The product must come back up regardless. MySQL was the best at self-repair, with the ability to fix any corruption and come back after induced crashes. We just couldn't break it."

The Benefits of Using MySQL

Kern identified the following as the main benefits of using MySQL Embedded Server within their Xceedium GateKeeper appliances:

- **Support** – "The fact that MySQL offers a more formalized way to get information and support is very important; it enables us to be highly responsive to our customers. Sun's acquisition of MySQL gave us an even greater sense of security."
- **Product Flexibility** – "Because of MySQL's pluggable storage engine architecture, we are assured that if we need to change from MyISAM to a transactional engine, we can do that. This gives us technology and investment protection – we won't have to throw away any work in the future."
- **Ease of Development** – "Most of our engineers were already familiar with MySQL. We could draw on existing expertise, saving us the substantial investment in time and money it would have required to come up to speed on another database."
- **Ease of Administration and Maintenance** – "We only touch our appliances when we do another release, so maintenance is and must be simple. We've never had to do anything more than this once-a-release form of maintenance on MySQL."

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 customers don't have to hire dedicated DBA resources
- **Make reporting and analysis easy** using a cost-effective open source reporting solution 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 world's most popular open source database software. Many of the world's largest and fastest-growing organizations use MySQL to save time and money powering their high-volume Web sites, business-critical systems and packaged software – including industry leaders such as Yahoo!, Google, Alcatel-Lucent, Nokia, YouTube and Zappos.com.

For more information about MySQL Embedded Server, please go to www.mysql.com/oem

To contact MySQL online or via telephone, please go to www.mysql.com/contact



The World's Most Popular Open Source Database