

DATABASE

TRENDS AND APPLICATIONS

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In My View



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The Importance of Industrial Strength Data Access

To build by stable and secure applications and Web sites that deliver excellent service, every part of a system must be robust, supportive of data and transactional integrity, and consistent in its behavior. IT decision makers choose the highest-quality equipment to provide responsive, reliable capabilities for their organization. They should apply the same yardstick of quality when it comes to data-access middleware.

Best-of-breed middleware delivers scalability and performance that's a match for top-of-the-line servers. Premium-grade data access middleware has specific attributes performance and scalability, broad connectivity and platform support, security, reliability and compliance with standards.

Performance and scalability – Superior data-access middleware includes multiple capabilities for boosting query performance, including caches and connection pooling. Middleware should support tuneable data access performance, such as adjusting network packet size. For scalability and high availability, it

should be multi-threaded and thread safe, with capabilities for client load balancing and failover to alternate servers.

Multi-platform flexibility – Middleware should support heterogeneous databases, types and features and interoperable SQL. This flexibility should extend to support diverse applications. It should operate with multiple computing platforms and applications with diverse architectures – scaling successfully from workgroup to the enterprise and the Internet.

Security – Data-access middleware should fit into a defense-in-depth strategy for network security and database security, with secure communications and secure code. It should also integrate with multiple solutions for authentication and authorization, including three-factor authentication.

Reliability – To facilitate development and debugging, data-access middleware should include trace and spy tools. It should be standards-compliant and reliable. Another measure of quality and reliability is whether it enjoys industry support. For example, more

than 300 software companies embed DataDirect middleware components in to over 400 commercial products.

The future of premium-quality data-access middleware looks promising. Technology companies are looking to embed sophisticated analytics and business intelligence capabilities in distributed applications. Distributed processing is becoming more pervasive and with it, the need to access disparate databases. Other influences driving the demand for industrial-strength middleware to access disparate databases include integration services, enterprise information integration; and aggregation for service-oriented architecture and Web services. Heightened awareness of regulatory compliance, traceability and recordkeeping requirements are also playing a role. Well-built applications require premium-quality data-access middleware.

In his work, "Middleware in Action: Industrial Strength Data Access," Ken North tackles the complexities of distributed processing and the importance of best-of-breed middleware. www.KNComputing.com