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OPENEDGE RDBMS / ADVANCED ENTERPRISE EDITION

Top Data Management Challenges - Solved.

Overview

Rapid changes in today's business environment mean your tools need to both keep pace and be powerful enough to manage your intensive database needs. Progress delivers an innovative on-premise, cloud or hybrid computing and application production solution in one package—without breaking your budget or sacrificing security. Get scalable database performance, reliability and 24x7x365 availability with our relational database solution, Progress® OpenEdge® Advanced Enterprise Edition. Our comprehensive multiprocessing environment supports thousands of concurrent users and terabytes of data. If your system can't do that, it's time for a change.

HIGHLIGHTS

- ✓ Total data management with the industry's lowest cost of ownership

- ✓ High performance, availability and the ultimate in reliability

- ✓ Extensive scalability with virtually unlimited data storage capabilities

- ✓ Mission-critical production systems that scale linearly with SaaS/Cloud user demands

- ✓ Easy maintenance, even for the most complex virtualized infrastructure

FEATURES

- ✓ Quick identification and saving of data changes

- ✓ Always on, secure disaster recovery

- ✓ At-rest Data Encryption

- ✓ Multi-tenant embeddable, relational database

- ✓ Browser-based monitoring and management tools

- ✓ Flexible table partitioning

What it Does

Progress OpenEdge Relational Database Management System (RDBMS), Advanced Enterprise Edition, easily and cost-effectively grows as your business grows. It provides proactive monitoring of all critical information assets and real-time information replication to secondary servers without coding, and with operational responsiveness to business conditions. It delivers:

- Perfect linear scalability with real-world applications and over 20,000 concurrent database users, with flat sub-second response times

- Throughput of over 600,000 transactions per minute and the ability to handle virtually any transaction workload

- Optimized performance with terabytes of data cached into memory

- Unlimited data storage in a single database, accessible via a browser-based dashboard

Six-in-One Solution

The unique combination of power, flexibility and ease of operation makes the Enterprise RDBMS an ideal engine for a wide range of commercial and data processing applications. As the primary component for the Advanced Enterprise Edition, it is combined with five data management solutions:

1. Quick, Easy Change Data Capture
2. Increased Data Availability with Table Partitioning
3. Multi-Tenancy for SaaS/Cloud Deployments
4. Data Replication for Secure, Disaster Recovery
5. Proactive Database Monitoring

OpenEdge Change Data Capture (CDC)

Data powers business today, but is only effective when it is accurate. Effective data synchronization between multiple data sources and data warehouses can be cumbersome and time-consuming. OpenEdge Change Data Capture ensures more efficient ETL processes with guaranteed accurate identification, tracking and saving of all changes regardless of where they occur within the OpenEdge RDBMS. The flexible, single point of configuration for both ABL or SQL, allows you to capture how data is changed, from the tracking of the actual changes to just a notification that the data changed. If replication triggers are currently in place, Change Data Capture improves overall performance. It requires no modifications to the application making it easy to configure and go with zero application downtime.

OpenEdge Transparent Data Encryption (TDE)

Small-to-midsize businesses (SMB) are now at the greatest risk for security attacks due to lack of preparation and an inaccurate assessment of vulnerabilities. Over 60% of data breaches occurred at the SMB level in 2016, rising at an average annual rate of 10% since 2013. Protection at the source of the data is paramount to a successful security strategy.

OpenEdge TDE, our complete out-of-the-box solution, uses a standard encryption libraries and encryption key management to provide secure, encrypted data. It requires no changes to your application, user procedures, administration or management processes.

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Data encryption provides protection on disk, in backups and binary dump files, and supports several encryption ciphers (AES, DES, DES-3 and RC4), so you can balance your security vs. performance needs. In fact, applications typically execute at full speed with less than 2% degradation while encrypting/decrypting. With many government regulations requiring companies to protect, track and store data, our RDBMS helps you stay fully compliant. This includes:

- Payment Card Industry-Data Security Standard (PCI-DSS)
- Sarbanes-Oxley (SOX)
- Health Insurance Portability and Accountability Act (HIPAA)
- General Data Protection Regulation (GDPR)
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While these regulations are critical to certain verticals, all companies benefit from protecting their data. Protect as much as you want, or down to a single table, index or field. It includes both policy tools and a secure encryption key store kept apart from the database. Leveraging the authentication, authorization and auditing functionality inherent in Progress OpenEdge and the additional Advanced Business Language (ABL) security features, TDE provides seamless protection of your data.

OpenEdge Table Partitioning

Data continues to grow at exponential rates, but with OpenEdge Table Partitioning companies can greatly enhance the availability, manageability and performance of almost any enterprise database. By partitioning tables into smaller, more manageable units, database administrators use a "divide and conquer" approach to data management. Maintenance operations become focused on particular portions of tables that can be managed collectively or individually. This limits the universe of data to be manipulated, and gives administrators considerable flexibility in partition management.

Queries can be pruned to isolate index usage for a particular partition, and the index for that partition. Queries perform more efficiently because the partition has its own index, potentially spreading index contention across multiple indices, rather than having a single index bottleneck. Even better, OpenEdge AEE Table Partitioning is transparent and requires minimal changes to the application.

OpenEdge Multi-Tenant Table

A multi-tenant database provides database support to a number of separate and distinct groups of users, especially helpful when deploying SaaS applications in the Cloud. Tenant support is implemented in a number of ways, including the database layer, built-in support for multiple tenants within a single database and tenant-aware database utilities and tools.

The data administration console within OpenEdge Muti-Tenant Tables also makes it easier to manage tenants. It includes the ability to:
- Rename tenants, tenant groups and/or tenant domains
- Dump and load tenant data
- Filter and batch large datasets via an improved user interface

Tenant partition management also features drag and drop support, making management much easier.

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OpenEdge Replication

Avoid the lost revenue, tarnished reputation and customer dissatisfaction that accompany database outages or unplanned downtime by utilizing OpenEdge AEE Replication to perform near real-time data duplication for disaster recovery. AEE Replication, when combined with OpenEdge clusters and redundant hardware, works to eliminate as many points of failure as possible. In fact, OpenEdge clusters are deeply integrated with the failover software specific to the underlying operating system and offer protection from a single point of failure through two servers connected to the production database.

Response time to unplanned downtime is reduced and maintenance flexibility is enhanced with Replication Target Synchronization. This three-pronged failover approach uses two back-up databases that transition as the primary and secondary targets in the instance of a database outage. It permits both a automatic and manual configuration within the OpenEdge RDBMS allowing you to respond appropriately based on your strategic disaster recovery plans.

OpenEdge Management

With OpenEdge Management, the IT team can proactively monitor and keep your application running smoothly from anywhere, monitoring database use in real-time and proactively troubleshooting impending problems. This can happen despite peak processing demands, power users and a dependence on remote systems that provide essential data into the central complex. Taken together, it ensures customer satisfaction and meets SLAs.

Much of the OpenEdge Management asset monitoring can be automated at the task level by customizing templates and configuring alerts and notifications to monitor performance thresholds. There is also a reporting and job scheduling facility built into the software to create best practice jobs and reports to maintain your OpenEdge environment.

Key Benefits of OpenEdge AEE

Easy Installation with Total Compatibility: Build what you need because OpenEdge AEE will grow and extend as your business evolves.

Manage Compliance Requirements: Policy-based auditing services are written into the application, minimizing the performance impact while role-based credentials safeguard data integrity. Meet compliance requirements while getting the best possible performance.

High Availability: Your applications are available 24x7x365 through a three-pronged approach to database backup and protected via data replication on one or more remote, stand-by locations.

Near Real-Time Data Accuracy: Quickly track and save data changes to facilitate ease in ETL synchronization with multiple data sources. Easily configured with no application modifications required.

Lower Total Cost of Ownership: Get highly efficient data management, deployment flexibility and great scalability, all with reduced IT resources. Your database runs reliably while DBAs manage and change it online—decreasing productivity loss and customer dissatisfaction from downtime and outages.

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Summary Comparison: Workgroup, Enterprise and Advanced Enterprise

The following table shows the primary features and recommended limits of the different editions of the OpenEdge RDBMS. The host operating system and available hardware may impose lower limits:

FEATURE	ADVANCED ENTERPRISE	ENTERPRISE	WORKGROUP
Transparent Data Encryption (TDE)	✓	Add-on Purchase	X
JTA coordinated X/Open distributed transactions	✓	✓	X
ABL coordinated distributed transactions	✓	✓	✓
Audit Event Logging**	✓	✓	X
Enhanced multiprocessor support configuration parameters	✓	✓	X
Management Console for reporting and alerts	✓	Add-on Purchase	Add-on Purchase
Asynchronous I/O processes	✓	✓	X
Asynchronous checkpoints	✓	✓	X
Secondary buffer pool	✓	✓	X
Quiet point for split-mirror or snapshot backups	✓	✓	X
Cluster support for automatic failover	✓	✓	X
Horizontal Table Partitioning	✓	Add-on Purchase	X
NFS mounted data storage volumes	✓	✓	X
Type II Data Areas	✓	✓	✓
Large files for data storage	✓	✓	X
Large files for backup and data dumps	✓	✓	✓
Multi-tenant tables	✓	Add-on Purchase	X
Selectable data block size	✓	✓	X
Replication to a Slave copy	✓	Add-on Purchase	Add-on Purchase
Read-only access of a Slave copy	✓	Add-on Purchase	Add-on Purchase

**Auditing is supported in the Workgroup database but it can affect performance if used. It is recommended for use in Enterprise only due to availability of background processes.

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About OpenEdge

Progress® OpenEdge® is the leading platform for building mission-critical applications flexible enough to continuously evolve as the business does for any platform or mobile device. It enables you to easily develop on-premises, cloud or hybrid apps, deliver future-proof web UI and rapidly build cross-platform mobile apps. OpenEdge meets all your digital business needs delivering total data management for any data source with enhanced performance, minimal IT complexity and the industry's lowest total cost of ownership. To learn more, visit progress.com/openedge.

About Progress

Progress (NASDAQ: PRGS) offers the leading platform for developing and deploying mission-critical business applications. Progress empowers enterprises and ISVs to build and deliver cognitive-first applications that harness big data to derive business insights and competitive advantage. Progress offers leading technologies for easily building powerful user interfaces across any type of device, a reliable, scalable and secure backend platform to deploy modern applications, leading data connectivity to all sources, and award-winning predictive analytics that brings the power of machine learning to any organization. Over 1,700 independent software vendors, 80,000 enterprise customers, and 2 million developers rely on Progress to power their applications.
Learn about Progress at www.progress.com or +1-800-477-6473.

Worldwide Headquarters

Progress, 14 Oak Park, Bedford, MA 01730 USA
Tel: +1 781 280-4000 Fax: +1 781 280-4095
On the Web at: www.progress.com
Find us on (f) facebook.com/progresssw (y) twitter.com/progresssw (o) youtube.com/progresssw
For regional international office locations and contact information,
please go to www.progress.com/worldwide

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