ORACLE ADVANCED COMPRESSION

- Reduces database storage requirements and associated costs
- Compresses transaction processing and data warehousing application tables
- Compresses table, file, network, and backup data
- Cascades storage savings throughout the data center

Every organization is faced with the challenge of managing rapid data growth and reducing IT costs while maintaining the highest levels of performance and availability. Advanced Compression in Oracle Database 11g not only reduces disk space requirements, it also improves application performance and enhances memory and network efficiency. In addition, it is completely application transparent and can be used with any packaged or custom application without any code changes.

Data Volume Upsurge

We are witnessing an explosion in data volumes as the average database triples in size every two years. Even though the cost of storage has been declining, enormous growth in the volume of data that needs to be retained online makes storage one of the biggest elements in IT budgets. In addition, application scalability and performance must continue to meet the demands of the business – even as data volumes continue to grow.

Oracle Database 11g introduces Advanced Compression to help organizations cope with these challenges.

Advanced Compression

The Advanced Compression Option in Oracle Database 11g offers a comprehensive set of compression capabilities to help organizations maximize resource utilization and reduce costs. It allows IT administrators to significantly reduce their overall database storage footprint by enabling compression for all types of data – regular relational data (tables), file data (documents, spreadsheets, XML and other files), network, or backup data. While storage cost savings are an obvious tangible benefit of compression, the innovative Advanced Compression technologies in Oracle Database 11g are designed to reduce resource requirements and costs for all components of your IT infrastructure, including memory, backup media and network bandwidth.

Advanced Compression Features

Advanced Compression features in Oracle Database 11g include:

- Online Transaction Processing (OLTP) Table Compression: This breakthrough compression feature compresses table data during all types of data manipulation operations, including conventional INSERT or UPDATE. OLTP Table Compression leverages a sophisticated and intelligent algorithm that minimizes compression overhead during write operations, thereby making it viable for

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highly transactional workloads.

- File Compression and Deduplication: Oracle SecureFiles in Oracle Database 11g introduces a high performance and powerful infrastructure for managing file data such as documents, videos, images, etc. Advanced Compression includes a number of features that minimize the storage requirements for SecureFiles data:

  - SecureFiles Compression – compresses the file data stored within the database. With three levels of compression available, you can choose the right level of compression based on your available system (CPU) resources.

  - SecureFiles Deduplication – intelligent technology that eliminates duplicate copies of SecureFiles. Besides reducing storage footprint, this feature dramatically improves the performance of write and copy operations involving duplicate content.

- Backup Data Compression: The storage requirements for maintaining database backups and backup performance are directly impacted by database size. Advanced Compression includes compression for backup data when you employ Oracle Recovery Manager (RMAN) or Oracle Data Pump for database backups.

- Network Traffic Compression: Advanced Compression offers the capability to compress Oracle Data Guard (standby databases) redo data as it is transmitted over the network. This reduces network bandwidth consumption and may reduce the transmission time of redo data in an Oracle Data Guard configuration.

Benefits

- Up to 4x reduction in storage costs across the enterprise – including development, test, and production environments.

- In many cases, query performance will improve due to improved disk scan rates and a reduction in the number of I/Os.

- Enhanced memory efficiency, as data in memory is in a compressed format. This allows more data to be stored in memory and reduces the number of disk I/Os, which may improve performance.

- Enhanced Data Guard and Real Application Clusters (RAC) performance due to reduction in network/interconnect traffic.

Contact Us

For more information about Advanced Compression, please visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.

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