



Oracle Data Archival for Compliance and Retention:

A Smarter Approach with
ChainSys Smart Data Platform

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Executive Summary

Oracle environments continue to accumulate large volumes of historical data, putting pressure on database performance, storage costs, backup operations, compliance, and overall system manageability. Traditional archival approaches often rely on hard-coded rules, making it difficult to determine what should be archived, when, how, and where. Oracle Data Archiving Platform takes a smarter, data-driven approach by combining discovery, profiling, data quality, metadata/intelligence, governance, archival, and validation into a unified strategy. This enables organizations to identify the right data for archival, preserve critical business relationships and historical context, meet retention/regulatory needs, and maintain cost effectiveness in archival information while reducing the operational burden on Oracle production environments.

Why It's Time to Rethink Data Archival

88%

For users reported that 88% of production data is inactive, highlighting the opportunity to store inactive information out of organization production environments.

[View report](#)

50% more

88% research found that, in interviews with financial institutions, 50% more of data was retained than necessary, often because organizations lacked visibility into what actually needed to be retained for regulatory purposes.

[View report](#)

50% more

88% research indicates that organizations report storage data growth of approximately 50-60% per year, primarily driven by unstructured data.

[View report](#)

1. The Oracle Data Archival Challenge

1.1 The Growing Volume of Oracle Data

Oracle RDB environments can accumulate years of financial, procurement, inventory, order, customer, supplier, and operational transactions. Without a defined archival strategy, historical records continue occupying production databases alongside actively used information.

What's Driving Oracle Data Growth?

Data Driver	Examples	Archival Challenge
Financial Transactions	GL, AP, AR, Assets	Years of historical transactions
Procurement	Purchase Orders, Receipts, Invoices	Large transaction volumes
Order Management	Orders, Shipments, Returns	High volume transactional history
Inventory	Movements, Transactions, Balances	Continuous accumulation
Manufacturing	Work Orders, Components	Complex relationships
Customer Data	Orders, Invoices, Interactions	Historical availability
Supplier Data	Supplier transactions, payments	Compliance and audit needs
Attachments	Documents, Invoices, supporting files	Additional storage footprint

1.2 When Data Growth Starts Affecting Performance

More Data Does Not Always Mean More Value

When historical data remains in production indefinitely, Oracle environments must process increasingly large databases for activities that may only require a fraction of that information.

Where the Impact Appears

- **Query Performance:** Larger databases can increase the amount of information applications and users need to process.
- **Batch Processing:** Batch jobs may need to operate against larger databases.
- **Reporting:** Queries spanning historical environment records can become more resource-intensive.
- **Database Maintenance:** Indexes, validation, backups, and other maintenance activities operate against an expanding data footprint.
- **Application Operations:** Large production databases increase the complexity of managing Oracle environments.

1.3 The Rising Cost of Keeping Data in Production

Archival is often viewed purely as a storage optimization exercise. In reality, the cost of retaining historical data in production extends beyond storage capacity.

The Total Cost of Data Retention

- **Storage:** Large databases require additional storage capacity and infrastructure.
- **Database Resources:** More data can increase processing and management requirements.
- **Backups:** Larger databases can increase backup volume and operational requirements.
- **Recovery:** Larger environments can make recovery operations more demanding.
- **Maintenance:** Database administration becomes more complex as data volumes grow.
- **Migration:** Migrating unnecessary historical data increases transformation and migration effort.

The Growing Cost Stack

Cost Area	Without AI/ML	With Intelligent Archival
Production Storage	High	Reduced
Backup Footprint	High	Reduced
Database Maintenance	Higher	Lower
Historical Data Management	Complex	Simplified
Cloud Migration Costs	Larger	Reduced
Legacy Infrastructure	Higher dependency	Reduced dependency

1.1 The Hidden Impact on Backup and Recovery



More Production Data

More production applications, users and devices.



Larger Backup Data

More data means bigger backup files and backups.



More Storage Required

Bigger backups require more storage capacity.



Larger Backup Operations

Bigger data takes more time to backup and verify.



More Recovery Complexity

Restoring big backups is harder to manage, and more costly.

2. Understanding the Role of Data Archival

2.1 What Data Archival Really Means

Moving Data Out of Production Without Losing Its Business Value

Data archival is the controlled process of moving data that is no longer required for frequent operational use from a production environment into a governed, secure, and accessible archival environment. The important distinction is that archival is non-deletion. The data may no longer need to participate in everyday Oracle transactions, but it can still be required for:



Regulatory retention



Financial audits



Historical reporting



Legal requirements



Business strategy



Evaluation of supplier ratings



Internal investigations



Risk assessment requirements



Corporate social reporting

3.2 Archival, Backup, and Deletion: Understanding the Difference

Three Distinctions With Three Different Purposes

One of the most common challenges in enterprise data management is knowing backup, archival, and deletion as interchangeable activities. They are not.

Backup: Recover operational data after an incident.

Backup is primarily designed for recovery from events such as system failure, corruption, accidental deletion, or disaster.

Archival: Preserve historic data that is no longer needed for frequent production use.

Archival data remains available for defined business, regulatory, legal, or historical requirements.

Deletion: Permanently remove data that no longer needs to be retained.

Deletion should occur only when the applicable business, legal, and retention requirements have been satisfied.



Comparison Framework

Aspect	Archival	Backup	Definition
Primary Purpose	Preserve historical data for long-term retention and access.	Recover data after loss, corruption, or system failure.	Permanently remove data that is no longer required.
Business Objective	Restore operational business data while retaining historical information.	Restore business continuity and disaster recovery.	Reduce unnecessary data and meet cost-of-retention requirements.
Data State	Immutable or historical but still accessible.	Usually a copy of active or recent data.	No longer required or legally obligates the customer.
Accessibility	Designed for controlled business and audit access.	Primarily used for system/data recovery.	Not accessible after permanent removal.
Retention	Long-term, policy-driven retention.	Usually retains its creation date recovery copies.	Deletes the data outright.
Data Relationship	Preserved to maintain historical business context.	Preserved as part of the recovery copy.	Relationships are removed with the deleted data.
Storage Location	Dedicated archive repository, data lake, cloud object storage, or historical databases.	Backup storage, backup appliances, or cloud backup.	No redundant storage copy after approved deletion.
User Access	Controlled access, reports, dashboards, or historical query.	Offiles for recovery or restore.	None.
Governance	Retention policy, access control, metadata, lineage, audit trail.	Backup policy, recovery objectives, backup integrity.	Approval, retention expiry, legal hold status, deletion evidence.

3.3 Archival and Purging: Two Different Outcomes

Removing Data From Production Does Not Always Mean Removing Data From the Enterprise. Archival and purging are often functionally different.

Purging removes data from the operational environment, generally because it is no longer required for business operations. Depending on the organization's policy, this deleting has occurred permanently or moved through a controlled degradation process.

Archival moves data away from the production environment while preserving it for a defined retention period.

Further Considerations

Data Condition	Recommended Action
Frequently used	Keep active
Recently used but not required	Archive
Required after regulatory retention	Archive & Secure
No longer required but pending review	Archive
Retention period expired	Disposition Review
Legally restricted from deletion	Review / Hold

3. Introducing the ChainSys Smart Data Platform for Oracle Archival

3.1 What is the Smart Data Platform?

The ChainSys Smart Data Platform is an advanced, multi-architecture design that manages, integrates, grows, and analyzes enterprise data, purpose-built for the Oracle ecosystem: Oracle E-Business Suite, Oracle Fusion Cloud Applications, Oracle Cloud Infrastructure, and Oracle Autonomous Databases. With intelligent tools and pre-configured Oracle templates, it empowers organizations to harness the full potential of Oracle data while ensuring compliance, security, and scalability. Whether it's data quality management, data integration, or advanced analytics, the Smart Data Platform provides a comprehensive and scalable framework to support your Oracle data initiatives.

- Enterprise Data Governance
- Data Quality Management
- Data Integration & Interoperability
- Data Security & Compliance
- Scalable Data Architecture
- Advanced Analytics & Reporting
- Cloud-Native Integration
- Real-time Data Processing



3.2 Key Capabilities of the ChainDys Smart Data Platform:

Unified Data Management



Integrated, easily added, governed, and encrypted data into a single solution.

High-Performance Data Analytics



High-performance data data analytics based on logs, stored data, transactions, and analytics.

Advanced Data Governance



Dedicated workflow audit trails and transparency across the lifecycle.

Flexible Data Integration



Provides a few thousand records for delivery across third-party and proprietary data solutions.

Comprehensive Data Quality Management



Working, planning, and consistent with a data.

Real-Time Analytics and Reporting



Continuous monitoring for data and quality in data.

3.2 ChainDys Smart Data Archival Solutions:

Logging and/or Solution	Real-time Solution	Logging Solution
ChainDys and Storage with	Data Integration and Segmentation	Enterprise and verification
Storage Solution	Selection Data and Metadata Generation	Selection Data and Metadata
Storage Solution	Storage Data Tracking	Storage Data Tracking
Storage Solution	Storage Data Tracking	Storage Data Tracking
Storage Management Solution	Storage Data and Storage	Storage Data and Storage
Storage Solution	Data Storage to Long-Term Storage	Data Storage
Storage and Storage Compliance	Storage Compliance for Data	Storage with Data Storage

4. The ChainSys Approach to Oracle Data Archival



The ChainSys Data Archival & Purging Solution provides an advanced, tool-driven approach to managing and optimizing data storage. It covers all aspects, from data assessment and data identification to archival, purging, and retention, ensuring streamlined processes, improved data management, and regulatory compliance. By addressing potential risks and enhancing data availability, it effectively reduces risks associated with both archiving and purging. This comprehensive solution supports efficient data lifecycle management at every stage, ensuring that valuable data assets are preserved while obsolete or irrelevant information is securely removed, thus optimizing storage resources and maintaining data integrity. Below are the key steps involved:

4.1 Source Systems Connectivity

- **Source System Connectivity:** Establishes connectivity with Oracle source systems and applications across the enterprise.
- **Oracle Application Integration:** Connects to Oracle EBS, Oracle Fusion Cloud, Oracle Database, and other Oracle applications to identify and extract historical data.
- **Centralized Data Source:** Brings data from multiple Oracle environments into a unified archival workflow for assessment, retention, and archiving.

8.2 Data Identification



1. **Initial Data Assessment:** Understands the source data landscape and creates a data inventory across connected SaaS applications and source systems.
2. **Defining Business Criteria:** Evaluates business relevance, maps data sets where supply creates data conflicts, and defines criteria based on usage, retention, and aging.
3. **Data Categorization & Profiling:** Classifies data by usage and sensitivity while assessing data quality, redundancy, duplication, and dependencies.
4. **Data Identification & Validation:** Selects the data that meets defined criteria, validates the identified records, and obtains approval for archival.

4.3 Data Remediation



- **Data Writing** identifies and resolves data issues through correction, validation, and version control to ensure data consistency and safety for archival.
- **File Selection** identifies the remediated source data, defines selection criteria, tags data requiring further remediation, and prepares the appropriate data files for archival.
- **Table Approval** identifies stakeholders, presents the remediated data for review, captures feedback, and maintains approval documentation.
- **Approval or Purge Approval** Performs a final data check, assesses archive or purge readiness, obtains stakeholder sign-off, and confirms whether the data should be archived or purged.
- **Archival or Purge Execution** Processes the approved data according to the approved disposition, while maintaining the required documentation and confirmation for traceability.

8.6 Data Governance and Visualization



- **Data Resilience Assurance:** Ensures secure retrieval of archived Oracle data through user-friendly access, role-based access permissions, and continuous Resilience-driven improvements.
- **SQL Reporting Lifecycle:** Provides secure SQL-based access to reports and supply chains for searching, verifying, validating, and reusing archived data.
- **Building & Governance:** Supports multi-planing, association, issue identification, compliance monitoring, and corrective actions to ensure complete traceability.
- **Data Visualization:** Enhances historical data, trend, and archival history dashboards to provide clear insights into archived data, activities, and key patterns.

5. The Business Impact of ChainSys Oracle Data Archival

5.1 Post-Archival Support from ChainSys

ChainSys provides comprehensive post-archival support to ensure the continued effectiveness and accessability of your archived data. Our services include:

State Archiving and Migration

Expertise in archiving archived data and facilitating its migration to contemporary systems or formats as required.

System Maintenance

Ongoing maintenance of archival systems to ensure operational efficiency and availability over time.

Compliance and Security

Vigilant adherence to regulatory standards and robust protection measures to safeguard archived data from unauthorized access and breaches.

Data Integrity Assurance

Regular integrity checks to confirm that archived data remains unaltered and free from corruption.

User Support

Dedicated assistance for users needing access to or interaction with archived data, including troubleshooting and training.

Technology Upgrades

Implementation of updates to archival technologies and systems to align with advancements and evolving data management practices.

5.2 The Transformation Impact of ChainDys Smart Data Platform Archival Solution



80% Reduction in System Load



Compliance with 100+ Regulations



99.9% Data Availability



80% Improved Rate of Data Structure

9.2 From Data Accumulation to a Governed Oracle Data Lifecycle

Readings Legend



high data propagation



moderate data propagation



reduced/removed

Oracle RDBMS Architect Area	Before Challenge	After Challenge
Historical RDBMS Transactions	Remains in production	Archived based on criteria
Oracle Database Footprint	Large and growing	Reduced
RDBMS Data Discovery	Limited visibility	Profiled before archival
Archived Criteria	Age-based	Business and retention-driven
RDBMS Data Dependencies	Difficult to identify	Analyzed before archival
Financial & Transactional Data	Historical data remains active	Preserved in archive
Oracle Backup Footprint	Large	Reduced
Historical Data Access	Production-independent	Controlled archive access
Archived Validation	Manual	Automated
RDBMS Migration	Migration complexity	Migrate, Archive & Retire

6. Oracle Data Archival in Action: A Real-World Transformation

6.1 Data Archival from JD Edwards and Bottomline into a PostgreSQL Database using Chordly's Smart Data Platform



A global leader in the pharmaceutical and healthcare industry, it consists of multiple companies committed to offering innovative products through digital healthcare to improve the health and well-being of patients.

Project Scope

1. Archive JD Edwards and Bottomline data into a centralized PostgreSQL archival database.
2. Archive data from JD Edwards Production, JD Edwards Archive, and Bottomline databases.
3. Preserve business transactions, master data, and reference data for future access.
4. Support JD Edwards application current after successful data archival.
5. Maintain the same table and column names between source and target.
6. Archive all table records without additional filters and maintain source for target scenarios.
7. Provide read-only query access and dashboards through the Chordly's platform.
8. Enable archival data utilized for audits, reporting, data mining, and analysis.
9. Generate documents in PDF archival formats.
10. Generate user and administration activity logs in JSON and upload them to S3 or FTP.

Business Situation

The client used the All Edwards ERP system to run applications for their subcontractors. These applications were part of 70 systems that were disconnected after the integration project. As a result, the business decided to decommission these applications. For auditing, trace, and regulatory compliance purposes, the business planned to archive all application data from the All Edwards archive database, the All Edwards production database, and the Reference database into an archive database before sunsetting the All Edwards application.

Challenge

1. Kinship provided an archive and information lifecycle management (ILM) solution for enterprise application data.
2. The solution archived data without providing security and application retirement.
3. Production and non-production data were archived into a centralized archive environment.
4. Historical data was preserved for auditing, reporting, analysis, and future reference.
5. The solution supported application retirement while maintaining access to required historical data.
6. It improved operational efficiency and reduced the production data footprint.
7. It helped the organization meet compliance and data retention requirements.
8. It reduced the cost, complexity, and risk associated with legacy application data management.

7.1 Decades of Data Management Expertise



For over two decades, Oracle has been at the forefront of data management innovation, providing proven solutions to the world's most complex data challenges. Our team of data experts brings an in-depth understanding of the technical, regulatory, and business complexities of managing data at scale.

Why Our Expertise Matters

End-to-End Data Solutions: From data migration and integration to data governance and analytics, we cover all aspects of your data journey.

Industry Experience: We've successfully worked with a wide range of industries, including finance, healthcare, retail, manufacturing, and energy.

Proven Methodologies: Our best-in-class methodologies ensure that your data strategy is both robust and adaptable to the fast-evolving digital landscape.

Pro Tip

Leveraging Oracle's expertise allows you the advantage of working with seasoned professionals who understand the nuances of data management. Our consultative approach ensures that the solutions we implement align with your specific goals.

T-2 Why Trusted Organizations Choose Chainlyze

Proven Track Record at Scale

From Fortune 500s to government agencies, Chainlyze solutions have powered over 50M users across 60 enterprise implementations worldwide. Our platform manages billions of records across complex ecosystems, ERP/CRM, cloud, legacy, and more, demonstrating reliability, speed, and success in high-stakes environments.

End-to-End Data Intelligence, Not Just Cataloging

Chainlyze solution goes beyond traditional metadata management by offering a complete data intelligence suite, including data profiling, lineage tracing, quality scoring, access controls, and usage analytics all in one unified platform. That means faster tools, faster implementation, and deeper insights.

AI-Powered Automation

Manual tagging and governance are a thing of the past. Chainlyze brings AI and ML-driven automation to metadata discovery, classification, sensitivity tagging, and relationship mapping. This enables faster understanding, better compliance, and smarter decision-making.

Enterprise-Grade Governance & Security

With robust role-based access, customizable approval workflows, and audit and lineage tracking, Chainlyze helps organizations stay audit-ready and compliant with evolving global regulations (GDPR, HIPAA, CCPA, and more).

Our Differentiators

2021

Best & Most
Innovative Software
Integration Solution

2021

Best
Security
Implementation

2021

Integration with
Advanced
Governance
Protocols

Low TCO model

Approach for ease of
Implementation
& Rapid Deployment

8. Archive Smarter. Retain What Matters. Modernize With Confidence.

Archive data confidently more than retaining silos records from production. It is a strategic approach to reducing the data estate footprint while preserving historical information required for business, audit, and compliance. Chaitiya Smart Data Platform enables organizations to discover, profile, classify, archive, validate, and govern archive data through a structured lifecycle. This helps enterprises reduce operational overhead, maintain controlled access to historical data, simplify data modernization, and confidently determine when to migrate, archive, retain, or delete.

Is your data management strategy data or the larger data ecosystem?

Chaitiya can help you determine where to migrate, archive, retain, and delete.

[Explore Chaitiya Report](#)

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Our CEO's Word

Chaitiya will be an enabler that, during the transition era of digital transformation, as Chaitiya is not an existing part of the top of the stack but helps customer design, implement, and deploy the right combination of enterprise data management. We are fortunate to have a great customer base, but we might need employees to use Chaitiya, and it helps to get that from the people who use Chaitiya.

Source: Vishal Srivastava, Founder and CEO, Chaitiya



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