

Oracle® GoldenGate

Release Notes



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Preface

This document describes the new features, major changes, and known issues for this release of Oracle GoldenGate.

Documentation Accessibility

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Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, such as "From the File menu, select Save ." Boldface also is used for terms defined in text or in the glossary.
<i>italic</i>	Italic type indicates placeholder variables for which you supply particular values, such as in the parameter statement: <code>TABLE <i>table_name</i></code> . Italic type also is used for book titles and emphasis.
monospace MONOSPACE	Monospace type indicates code components such as user exits and scripts; the names of files and database objects; URL paths; and input and output text that appears on the screen. Uppercase monospace type is generally used to represent the names of Oracle GoldenGate parameters, commands, and user-configurable functions, as well as SQL commands and keywords.
UPPERCASE	Uppercase in the regular text font indicates the name of a process or utility unless the name is intended to be a specific case. Keywords in upper case (ADD EXTRACT, ADD EXTTRAIL, FORMAT RELEASE).
LOWERCASE	Names of processes to be written in lower case. Examples: ADD EXTRACT exte, ADD EXTRAIL ea.
{ }	Braces within syntax enclose a set of options that are separated by pipe symbols, one of which must be selected, for example: { <i>option1</i> <i>option2</i> <i>option3</i> }.
[]	Brackets within syntax indicate an optional element. For example in this syntax, the SAVE clause is optional: CLEANUP REPLICAT <i>group_name</i> [, SAVE <i>count</i>]. Multiple options within an optional element are separated by a pipe symbol, for example: [<i>option1</i> <i>option2</i>].

Convention	Meaning
Sample Locations	Compass directions such as east, west, north, south to be used for demonstrating Extract and Replicat locations. Datacenters names to use the standard similar to dc1, dc2.
Group names	Prefixes for each process, as follows: <ul style="list-style-type: none"> • Extract: ext. Usage with location: extn, where n indicates 'north' compass direction. • Replicat: rep. Usage with location: repn, where n indicates 'north' compass direction. • Distribution Path: dp. Usage with location: dpn, where n indicates 'north' compass direction. • Checkpoint table: ggs_checkpointtable • Trail file names: e or d depending on whether the trail file is for the Extract of distribution path. Suffix derived in alphabetical order. Usage for an Extract trail file: ea, eb, ec. • Trail file subdirectory: The name will use compass directions to refer to the trail subdirectories. Example for trail subdirectory name would be / east, /west, /north, /south.

Related Information

The Oracle GoldenGate Product Documentation is available from the following location:

[Oracle GoldenGate Documentation](#)

Oracle GoldenGate for Distributed Applications and Analytics

[Oracle GoldenGate for Distributed Applications and Analytics](#)

For OCI GoldenGate, refer to:

[OCI GoldenGate](#)

For details on Oracle Database High Availability, see:

[Oracle Database High Availability](#)

1

Introduction

This chapter introduces the Release Notes for Oracle GoldenGate.

Topics:

Latest Release Information

This document is accurate at the time of publication. Oracle will update the release notes periodically after the software release. You can access the latest information and additions to these release notes on the Oracle Technology Network at:

<http://www.oracle.com/technetwork/indexes/documentation/index.html>

Purpose of this Document

This document contains the release information for Oracle GoldenGate.

Oracle recommends that you review its contents before installing, or working with the product.

Certification Information

To see versions of platforms and related software for which Oracle GoldenGate is certified and supported, go to <https://www.oracle.com/integration/goldengate/certifications/>

Product Documentation

For complete documentation on Oracle GoldenGate, go to <https://docs.oracle.com/en/middleware/goldengate/core/index.html>.

Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support at <https://support.oracle.com>

[Lifetime Support Policy for Oracle GoldenGate](#)

Licensing Information

Detailed information regarding license compliance for Oracle GoldenGate is available here:

[Licensing Information](#) in the *Oracle GoldenGate Licensing Information* guide.

2

New Features

This section highlights new features available with the current release of Oracle GoldenGate.

Release 23ai (23.6): October 2024

Support for JSON Relational Duality

Oracle GoldenGate 23ai supports replicating full-featured business objects in an event-based, pub/sub architecture with Oracle JSON Relational Duality and GoldenGate Data Streams. This is implemented by combining two new Oracle technology features: Oracle Database JSON Relational Duality Views and Oracle GoldenGate Data Streams.

For more information, see the following:

- Replicating Business Objects with Oracle JSON Relational Duality and GoldenGate Data Streams
- Support for JSON-Relational Duality Views and JSON Collection Tables
- Enable Table-level Supplemental Logging for JSON DV and JSON Collection Tables
- ADD TRANDATA and ADD SCHEMATRANDATA

Support for Database Password Plugin

Oracle GoldenGate 23ai (starting with 23.5 and higher) includes a user-friendly plugin that enables writing custom code to retrieve database credentials from a third-party vault and then return it in a predefined API to Oracle GoldenGate.

For more information, see [Authenticate the Database Connection Using the Database Password Plugin](#).

Release 23ai (23.5.2): August 2024

Oracle GoldenGate 23ai for Sybase supports Microservices Architecture

Oracle GoldenGate 23ai for Sybase now supports Microservices Architecture.

Support for MySQL Releases 9.0 and 8.4

Oracle GoldenGate 23ai for MySQL now supports releases 9.0 and 8.4.

Support for VECTOR datatype in Oracle GoldenGate 23ai for MySQL

Oracle GoldenGate 23ai (23.5 onwards) for MySQL 9.0 and higher supports the vector data type.

Release 23ai (23.5): July 2024

Oracle GoldenGate 23ai for Db2 for i and Oracle GoldenGate for Db2 LUW support Microservices Architecture

Oracle GoldenGate 23ai for Db2 for i and Oracle GoldenGate for Db2 LUW now support Microservices Architecture.

Oracle GoldenGate 23ai for Oracle TimesTen supports Microservices Architecture

Oracle GoldenGate 23ai for Oracle TimesTen now supports Microservices Architecture.

Release 23ai (23.4.2): June 2024

Oracle GoldenGate 23ai supports direct connectivity (DSN-less) for SQL Server database connections

Oracle GoldenGate 23ai adds direct connectivity support for SQL Server connections, allowing server host/IP and instance port entries for database connections.

For more information see, [Add Database Connections](#).

Release 23ai (23.4.1): June 2024

Oracle GoldenGate 23ai for Teradata supports Microservices Architecture

Oracle GoldenGate 23ai for Teradata now supports Microservices Architecture.

For more information, see the Installation Requirements for Teradata and Configure Teradata topics in the *Oracle GoldenGate Microservices Architecture Documentation for 23ai*.

Release 23ai: May 2024

Oracle GoldenGate support for database artificial intelligence (AI)

Oracle GoldenGate 23ai adds artificial intelligence support with the following data types:

- Oracle Database 23ai uses the new `vector` data type to store vector embeddings, which are mathematical vector representations of data. Oracle GoldenGate 23ai supports capture and delivery of the `vector` data type for Oracle Database 23ai to enable real-time vector processing for embedding flow. For more information, see Oracle: Details of Support for Oracle Data Types and Objects.
- Oracle GoldenGate 23ai can replicate vector data heterogeneously and homogeneously if the embedding algorithm is same in terms of type and dimension, across the databases, allowing migration of vector data from one database to another.
- Oracle GoldenGate 23ai also supports the capture and delivery of `array`, `pgvector` extension, `tsquery` and `tsvector` for PostgreSQL and most vendor derivatives. For more information, see PostgreSQL: Supported Data Types.

Configuration service to store critical configuration data

Oracle GoldenGate 23ai now supports a new Configuration Service for managing the configuration files of Oracle GoldenGate for high availability (HA) purposes. For more information, see Configuration Service.

Data streaming service

Oracle GoldenGate 23ai introduces the data streaming service. This service enables simplified access to database change records, provides continuous ETL, and real-time analytics over a web socket connection. For more information, see About Data Streaming Service.

Monitor Oracle GoldenGate statistics

Oracle GoldenGate 23ai supports StatsD, which is an open-source network daemon that listens for statistics, like counters and timers, sent over TCP and sends aggregates to one or more pluggable backend services. Oracle GoldenGate Microservice Architecture sends metrics to the Performance Metrics Service and writes metrics in StatsD format to a StatsD daemon or a time series databases that supports ingestion of StatsD metrics.

For more information, see Using StatsD with OGG

Trail file management

Oracle GoldenGate 23ai has introduced the ability to manage trail files directly, including the ability to create archive tasks and delete trail files.

For more information, see Trail File Management.

Support for new TRANLOGOPTIONS parameter

Oracle GoldenGate 23ai adds support for the new `TRANLOGOPTIONS EXCLUDEFILTERTABLE` parameter. This parameter replaces the `TRANLOGOPTIONS FILTERTABLE` parameter but supports the same functionality. For more information, see TRANLOGOPTIONS.

Support for Db2 version 13 for z/OS

Oracle GoldenGate 23ai now supports Db2 version 13 for z/OS.

Support for new DISTINCT data type

Oracle GoldenGate 23ai now supports the new `DISTINCT` data type for Db2 for i, Db2 LUW, and Db2 z/OS.

New user interface for Oracle GoldenGate Microservices Architecture

The Oracle GoldenGate Microservices Architecture web interface has been renewed with improved capabilities and enhanced user experience.

Oracle GoldenGate 23ai features for Oracle Database 23ai

- **Oracle GoldenGate supports Lock-free Reservable Columns**

Lock-free reservable columns are supported with Oracle GoldenGate 23ai. For more information, see Support for Lock-free Reservation.

- **Oracle GoldenGate supports Blockchain and Immutable Tables**

Blockchain and immutable tables are supported. For more information, see Tables, Views, and Materialized Views.

- **Support for Oracle SQL Domains**

Oracle GoldenGate supports Oracle SQL Domains. For more information, see Details of Support for Oracle Data Types and Objects.

- **Support for Boolean data type**

Oracle GoldenGate supports Boolean data type. For more information, see Details of Support for Oracle Data Types and Objects.

- **Oracle GoldenGate supports tables with 4K columns for Oracle Database 23ai**

Oracle GoldenGate supports tables with 4K columns for Oracle Database 23ai. For more information, see Tables, Views, and Materialized Views.

- **Support for Oracle database online DDL**

Oracle GoldenGate Extract and Replicat processes can manage replication for DDL operations in cases where minimal supplemental logging is enabled. This provides more flexibility for online application upgrades using Edition Based Redefinition.

For more information, see Using Edition-Based Redefinition section in *Oracle GoldenGate Microservices Documentation*.

- **JSON diff data type is supported with Oracle GoldenGate 23ai**

JSON diff data type is supported with Oracle GoldenGate 23ai. For more information, see Details of Support for Oracle Data Types and Objects.

- **Oracle GoldenGate 23ai works with per-PDB Extract level users only**

Oracle GoldenGate 23ai captures using per-PDB Extract only. Root level access using common user (c##ggadmin) is not available.

For more information, see Configure Multitenant Container Database.

- **Support for VECTOR data type**

Oracle GoldenGate 23ai now supports VECTOR data type to store vector embeddings.

Integrated health checks and alerts for integrated Replicat and Extract in Oracle GoldenGate Microservices

Diagnose and troubleshoot integrated Replicat and Extract processes in Oracle database from Oracle GoldenGate Microservices.

DDL notification on target tables for Replicat

Starting with Oracle GoldenGate 23ai, Replicat uses efficient table DDL change notification to invalidate any cached metadata when you perform a DDL operation on the target table.

For details, see DDL Notification on Target Tables .

Support coexistence of Oracle GoldenGate with Data Guard Pluggable Database (DGPDB)

Oracle Database 23ai functionality has been extended to allow using Oracle GoldenGate in a PDB-based Data Guard (DGPDB) environment in parallel. See Support for DGPDB.

New CHKPTDUMP utility

Oracle GoldenGate 23ai includes a new utility called `chkptdump`, which enables dumping content from checkpoint files. For details, see Location of Programs and Utilities Accessible from the Admin Client.

3

Enhancements

This section highlights the enhancements available with this release of Oracle GoldenGate.

Release 23ai - May 2024

Added new features to Oracle GoldenGate Configuration Assistant (OGGCA)

Oracle GoldenGate 23ai added the following new features for better user experience:

- OGGCA is enhanced to allow configuring the following features for the Service Manager and deployment:
 - Enable and configure the StatsD server for the deployment and Service Manager
 - Enable and configure the Configuration Service for the deployment
 - Enhanced security configuration from OGGCA
- Default environment variables are set for `OGG_HOME` and `LD_LIBRARY_PATH`
- Additional configuration options have been provided for the following:
 - Integration with external IDP providers
 - Customization of authentication modes
 - Availability of a sample template of the response file

Added encryption support for user data in cache files and Bounded Recovery Persisted Data Files (PCDFs)

Oracle GoldenGate 23ai provides encryption support for user data included in cache files and Bounded Recovery persisted data files (PCDFs). For more information, see *Secure Data in Transit*.

Added support for automatic reconnection of parallel Replicat for application continuity

Added support for automatic reconnection of parallel Replicat with databases on connection failures to maintain application continuity.

Integrated OAuth/SSO with identity domains in OCI Identity and Access Management (IAM)

Added the following to improve and simplify the integration of OAuth/SSO with identity providers (IDP):

- New OAM profile type
- Validate and enable the authorization profile to automatically configure the confidential application and self-register the redirect URIs

Improved failure detection for distribution and target-initiated paths

Added WebSocket protocol and asynchronous receive thread to improve the network failure detection process for distributed and target-initiated paths.

Improved token-based authentication

Oracle GoldenGate 23ai now supports token-based authentication for IDP-enabled deployments. For this, token-access parameter has been added to the `CONNECT` and `ADD CREDENTIALS` commands. In addition, `INFO CREDENTIALS` command has been updated to display the token related information. For more information, see `CONNECT`, `ADD CREDENTIALS`, and `INFO CREDENTIALS`.

Improved performance monitoring

Added Integrated Diagnostics REST API to obtain performance data to diagnose performance issues related to integrated Extract, integrated Replicat, and parallel integrated Replicat. This is a replacement over the previously used Replication Performance Advisory Utility (UTLRPDAV).

For more information, see Integrated Diagnostics

Enhanced Functionality for Automatic Conflict Detection and Resolution (ACDR)

Automatic Conflict Detection and Resolution provides improved functionality for the following tasks:

- Removing ACDR entirely from the table or removing ACDR column groups has less impact on the table as the ACDR related columns are marked as `UNUSED` columns. The decision to drop the columns can be made at a later time.
- Starting with Oracle Database 23ai, using `DBMS_REDEFINITION` for ACDR related tables is supported. The `DBMS_REDEFINITION` package can be used to remove unused columns or any other purpose for which the table needs to be reorganized.

See the following topics for details, Configure Latest Timestamp Conflict Detection and Resolution, Support for Online Redefinition, Removing Conflict Detection and Resolution From a Table, and Removing a Column Group.

Oracle Key Vault 21.8 is supported for trail file encryption

Oracle GoldenGate 23ai supports trail file encryption with Oracle Key Vault 21.8. See Using Oracle Key Vault with Oracle GoldenGate.

4

Default Behavior Changes

This section describes the default behavior changes made to Oracle GoldenGate in relation to the last release..

Release 23ai (23.5) - July 2024

Oracle GoldenGate 23ai does not need the OGG_SERVICEMANAGER_ID environment variable to be set for using the command line utilities that access database credentials

In Oracle GoldenGate 23ai (23.5) release, there is no requirement to set up the OGG_SERVICEMANAGER_ID environment variable for using command line utilities that access database credentials. This is required in the Oracle GoldenGate 23ai (23.4) release.

MySQL - Removed the remote (RMTTRAIL) option from the WebUI

For MySQL, the **Remote** button that was used for adding an Extract, has been removed from the WebUI.

Release 23ai (23.4.2) - June 2024

Behavior change in Oracle GoldenGate 23ai

Oracle GoldenGate 23ai introduces the following feature, which impacts the behavior of configuring and using Oracle GoldenGate:

Microsoft ODBC Driver 18 for SQL Server

Oracle GoldenGate 23ai for SQL Server now packages the Microsoft ODBC Driver 18 along with the Oracle GoldenGate for SQL Server installation, and database connections will use this driver by default.

Release 23ai - May 2024

Behavior change in Oracle GoldenGate 23ai

Oracle GoldenGate 23ai introduces the following features, which impacts the behavior of configuring and using Oracle GoldenGate:

- In OGGCA, you must use the #pkcs8 format to upload server, client, and rootCA certificates. Uploading wallets (#pkcs12) is not supported. For more information, see About Service Manager.
- When setting up Oracle database 23ai users for Oracle GoldenGate, make sure to use Oracle GoldenGate user roles to assign privileges. For more information, see Grant User Privileges for Oracle Database 23ai and Higher.
- Support for Oracle `Boolean` and `vector` data type for Oracle database. For more information, see Oracle: Details of Support for Oracle Data Types and Objects.
- Support for PostgreSQL `pgvector` extension, `array`, `tsquery`, and `tsvector` datatypes.

- Only per-PDB Extract is used for Extract rather than root-level Extract except for Downstream Capture, where root-level Extract is configured.
- Using Integrated Diagnostics rather than ULT_RPADV Diagnostics integrated in Oracle GoldenGate 23ai.

Oracle GoldenGate 23ai features for Oracle Database 23ai

User roles to grant role-based privileges for Oracle Database 23ai

Oracle GoldenGate 23ai for Oracle Database 23ai has introduced user roles to grant role-based privileges.

For details, see the Grant User Privileges topic in *Oracle GoldenGate Microservices Documentation*.

5

Deprecated and Desupported Features and Parameters

This section describes the deprecated and no longer supported features of Oracle GoldenGate.

Release 23ai (23.5) Deprecated and Desupported Features and Parameters - July 2024

Oracle GoldenGate for Oracle TimesTen no longer supports the TimesTen Scaleout architecture

Starting with Oracle GoldenGate 23ai, Oracle GoldenGate for Oracle TimesTen does not support the Scaleout architecture.

Use Oracle GoldenGate 21c for delivery to TimesTen Scaleout architecture for TimesTen versions 18.1 and 22.1.

Release 23ai (23.4.2) Deprecated and Desupported Features and Parameters - June 2024

Oracle GoldenGate has deprecated DBOPTIONS USEREPLICATIONUSER

`DBOPTIONS USEREPLICATIONUSER` option has been deprecated.

All SQL Server builds automatically set the connection with `Replication=yes`, and the functionality of `DBOPTIONS USEREPLICATIONUSER` remains the same as long as SQL Server ODBC driver is version 17.8.1 or higher.

Release 23ai Deprecated and Desupported Features and Parameters - May 2024

Oracle GoldenGate 23ai has deprecated Integrated Replicat

Starting with Oracle GoldenGate 23ai, integrated Replicat has been deprecated. As an alternative, you can use parallel Replicat.

Oracle GoldenGate 23ai has desupported Oracle GoldenGate Classic Architecture

Starting with Oracle GoldenGate 23ai, Oracle GoldenGate Classic Architecture has been desupported.

Oracle GoldenGate 23ai has desupported the following parameters:

Starting with Oracle GoldenGate 23ai, the following parameters have been desupported:

- `FILTERTABLE`
- `GETREPLICATES`

- GETAPPLPLOS
- IGNOREREPLICATES
- IGNOREAPPLPLOS



Note:

The `TRANLOGOPTIONS FILTERTABLE` parameter has been replaced with the `EXCLUDEFILTERTABLE` parameter, but with the same functionality.

Oracle GoldenGate 23ai has desupported Blowfish encryption

Starting with Oracle GoldenGate 23ai, Blowfish encryption algorithm has been desupported.

Oracle GoldenGate 23ai has desupported the Trace Table functionality

Starting with Oracle GoldenGate 23ai, the trace table functionality has been desupported for Oracle database. Therefore, the following parameters and commands are also desupported:

- **Parameters:**
 - `TRACETABLE`
 - `NOTRACETABLE`
- **Commands:**
 - `ADD TRACETABLE`
 - `DELETE TRACETABLE`
 - `INFO TRACETABLE`

Oracle GoldenGate 23ai has desupported six-digit trail file

Starting with Oracle GoldenGate 23ai, the six-digit trail file has been desupported.

Oracle GoldenGate 23ai has desupported the use of userid and password in Extract and Replicat parameter files

Starting with Oracle GoldenGate 23ai, the use of `userid` and `password` in the Extract and Replicat parameter files has been desupported. Alternatively, you need to use the `useridalias` option.

6

Known Issues and Workarounds

This chapter describes the known issues at the time of release.

Release 23ai - October 2024

Bug 37152943 - For Db2 for i, Extract fails with core dump issue for heartbeat table

For Oracle GoldenGate for Db2 for i release 23.6, Extract abends with the core dump error for heartbeat table. This results in heartbeat functionality not working for Oracle GoldenGate release 23.6.

Workaround

None.

Release 23ai - August 2024

Parallel Replicat is not supported for Sybase with the initial release of Oracle GoldenGate 23.5

Oracle GoldenGate for Sybase, release 23.5 does not support parallel Replicat.

Workaround

Use coordinated or classic Replicat.

Bug 36926498 - Sybase bi-directional Extract crashes without any error

An issue with Extract configured for bi-directional replication causes the Extract to abend.

Workaround

None

Bug 36927786 - OGGCA deployment creation is not picking up SYBASE system variable/value

When creating a Sybase deployment, the SYBASE system variable is not getting set automatically for the deployment.

Workaround

Add the SYBASE variable to the deployment's environment variable configuration manually, and set the path to the Sybase home directory, such as `/opt/sap`, then restart the deployment.

Release 23ai - May 2024

Explicitly exclude Inverted File (IVF) and Hierarchical Navigable Small Worlds (HNSW) index tables

If you are using wildcard parameters, then IVF and HSNW vector index tables must be explicitly excluded from the Extract.

Workaround

None

Extract LSN positioning does not work with 0x8:8:4 format for the Admin Client

For SQL Server, starting an Extract with ATCSN or AFTERCSN with the Admin Client and using a LSN value with a 0x8:8:4 format is not working as intended.

Workaround

Provide the LSN value in the following format: 0x8:8:4-ffffffff-8:8:4.

For example:

```
START EXTRACT EXTPROD AFTERCSN 0x000000b3:00002240:0003-  
ffffffff-000000b3:00002240:0003
```

7

Bugs Fixed

This chapter describes the bugs fixed at the time of release.

The Bug number is the number of the BugDB ticket. For questions on specific tickets or issues, consult Oracle Support.

Release 23ai (23.6.0.24.10) - October 2024

Bug 36869358: C-tree - Replicat overwrites memory and core dumps when writing to discard file

Fixed a memory overwrite issue with Replicat when writing to the discard file that caused core dump error.

Bug 34200795: Db2 for i - For a materialized query table, the Extract's behavior differs for a non-initial load setup

Fixed the Extract behavior to abend properly when a fully qualified name resolves to a materialized query table name for a non-initial load setup.

Bug 36606660: Db2 for i - Validate table name regex pattern for all SQL and native names

Fixed a JSON parsing issue with `INFO TRANDATA` command processing table names containing a period (.).

Bug 36743591: Db2 for i - Extract abends when table name includes characters other than ASCII

Added support for non-ASCII characters to be included in the table names.

Bug 36844240: Db2 for i - Checkpoint tables are not automatically journalled in Microservices deployment

Fixed an issue with checkpoint tables not automatically being journalled to `GGSCHEMA/OGGJRN`.

Bug 36872864: Db2 for i - Intermittent connection timeout occurs when establishing a connection from a Java module to the database

Fixed an issue that was causing intermittent connection timeout when establishing a connection from a Java module to the database.

Bug 37084736: Db2 for i - The INFO TRANDATA command failing for native names with wildcards

Added support for native names with wildcards for `ADD,INFO` and `DELETE TRANDATA` commands.

Bug 36753184: Db2 LUW - Activity logger uses incorrect format specifications

Fixed an issue of activity logger using incorrect format specifications.

Bug 36024390: Db2 z/OS - The Extract should be able to switch LPARs using data sharing support

Added data sharing support to enable Extracts to switch LPARs.

Bug 36970650: Db2 z/OS - Extract abends without error when table is altered

Fixed an issue of Extract abending without displaying any error message when a column is added to the table using the `ALTER TABLE` command.

Bug 37064356: Db2 z/OS - Initial Program Load (IPL) resets the ECSA monitor job and causes the Extract to abend

Fixed an issue of Extract abending when the memory monitor task is started on a different LPAR than the Extract.

Bug 36860369: Exadata Cloud at Customer (Gen2) - Extract capturing DDLs on data pump export process's internal table, SYS_EXPORT_TABLE

Fixed an issue with Extract capturing DDLs on internal tables generated during Data pump Export process.

Bug 36688820: Exadata on Premise - Extract abends with error "OGG-02560 Formatting error on update operation for a LOB column"

Fixed an issue of Extract abending with error, OGG-02560 Formatting error on update operation for a LOB column, due to leftover tombstone data.

Bug 36825916: Exadata on Premise - Replicat abends due to missing trails purged by the manager process

Fixed an issue of missing trail files being purged, causing the Replicat to abend.

Bug 36773183: MariaDB - Unable to run parallel Replicat

Fixed the issue of mapper receiving multiple `BEGIN` statements causing parallel Replicat to fail.

Bug 36959562: Microsoft SQL Server - Extract abends on version check when non-Oracle created objects exist on CT tables

Fixed an issue with Extract abending if an extra column, created as an object, is added to the CT table after running the `ADD TRANDATA` command.

Bug 35208691: MySQL - Timestamp datatype conversion does not happen when two Extracts capture from two different MySQL servers with two different timezones

Fixed an issue with `TZ` environment variable setting that was not allowing the conversion of the `TIMESTAMP` datatype to the MySQL database timezone.

Bug 35252069: MySQL - Oracle GoldenGate replication does not work when the CDR column value is null

Added support for `CDROPTIONS _CHECKNULL` option for non-Oracle databases.

Bug 36622073: MySQL - Support @DBFUNCTION with arguments for MySQL Heatwave for vector embeddings

Added support for vector embeddings through @DBFUNCTION with arguments for MySQL Heatwave.

Bug 37103610: MySQL - The Binary(16) field with trailing 0 in bytes is truncated

Fixed an issue of the Binary field with trailing value as 0 is truncated.

Bug 35117978: Oracle - Parallel Replicat process mode displays as coordinated when process is created

Fixed an initialization issue with parallel Replicat process mode that displays it as coordinated.

Bug 36294046: Oracle - Replicat abends with error "OGG-01163 Bad column length replicating a truncate operation"

Fixed an issue with Replicat abending when processing the TRUNCATE procedure from a trail file generated on a server with Big-Endian architecture.

Bug 36451257: Oracle - After the certificate update, Oracle GoldenGate warning "Unable to locate certificate with subject" is displayed

Fixed an issue of warning being displayed in the process log files, after updating the certificates through the Service Manager interface.

Bug 36543936: Oracle - OGGCA does not use the value of the HOST_SERVICEMANAGER option from the response file for non-silent installation

Fixed an issue of Oracle GoldenGate Configuration Assistant (OGGCA) not using the value of the HOST_SERVICEMANAGER option from the response file for a non-silent installation.

Bug 36714726: Oracle - Parallel integrated Replicat report file displays empty warning "WARNING OGG-00869 <NIL>" message

Fixed an issue of empty warning messages displayed in the parallel integrated Replicat report file.

Bug 36757657: Oracle - Coordinated Replicat abending with errors OGG-30200 & OGG-01091

Fixed an issue with the purge process that was causing the coordinated Replicat to abend with errors OGG-30200 & OGG-01091.

Bug 36793509: Oracle - The Service Manager fails to start on Windows due to issue with ntdll.dll

Fixed an issue with the ntdll.dll library file that caused the Service Manager to fail on Windows.

Bug 36819559: Oracle - PDB change table capture abends with error "OGG-02259 Extract failed to gather source database metadata from the mining database"

Fixed an issue of Extract failing to detect a shared capture on PDB, causing it to abend with the error, OGG-02259 Extract failed to gather source database metadata from the mining database, for an ADB deployment.

Bug 36835509: Oracle - Replicat abends while mapping values from nchar/nvarchar2/varchar2 type column to boolean type column

Fixed the UTF8 mapping issues between `Boolean` datatype and `nchar/nvarchar` and `varchar/nvarchar` with leading spaces datatypes.

Bug 36855549: Oracle - For Output Extract recovery, Extract abends with error "OGG-02246 source redo compatibility level 23.5.0 requires trail format 12.2 or higher"

Fixed a header issue with Extract, causing it to abend with error, OGG-02246 source redo compatibility level 23.5.0 requires trail format 12.2 or higher.

Bug 36916916: Oracle - The Performance Metrics Service displays the error "OGG-15312 Cannot obtain database version information frequently"

Removed the error message, OGG-15312 Cannot obtain database version information frequently, which was being displayed on connecting with the Admin Client.

Bug 36920035: Oracle - The ConfigService.log is flooding with warning messages (Create new credential store failed with 409) when user is trying to get DB Connections using "services/v2/credentials" REST API

Fixed an issue with `services/v2/credentials` REST API that was generating several warning messages in the `ConfigService.log`.

Bug 36939158: Oracle - Heartbeat data disappears after the Performance Service page is refreshed

Fixed an issue of heartbeat data disappearing when the Performance Service page is refreshed.

Bug 36960165: Oracle - For some of the deployments, the status of all or some of the services is not updated from registered to running on the Performance Service page

Fixed an issue with status of some services not being updated from registered to running on the Performance Service page, for some deployments, which were deployed using the Configuration Service.

Bug 36993857: Oracle - Service Manger user interface shows service as common.pluginsrvr

Renamed the `common.pluginsrvr` as Plugin Service in the Logs drop-down list of the Service Manager user interface.

Bug 36993999: Oracle - In the Web UI, the trail files of same name but with different paths (subdirectories) are not displayed simultaneously in Trails section

Fixed an issue of trail files with same names but stored in different sub-directories, not being displayed simultaneously in the Trails section of the Web UI.

Bug 36997618: Oracle - In the Web UI, the result of parallel Replicat STATS command to be renamed from invalid index ops to total no unique index updates/deletes

Renamed the result of the parallel Replicat `STATS` command from Invalid Index Ops to Total No Unique Index Updates/Deletes

Bug 37031531: Oracle - The Service Manager login page takes more than two minutes to load

Fixed the delay in loading of the Service Manager login page when the Oracle GoldenGate deployment is installed by enabling the Configuration Service.

Bug 37031703: Oracle - In the Service Manager user interface, the Collapse/Expand operation on parent node of the tree in the left pane is not working correctly

Fixed the expand/collapse operation of the Service Manager node in the Service Manager user interface.

Bug 36956582: PostgreSQL - Oracle GoldenGate Replicat abends when BYTEA column is used in KEYCOLS parameter

Added support for PostgreSQL `LOB` datatype column to be used with the `KEYCOLS` parameter.

Bug 36708412: Sybase Adaptive Server Enterprise - Oracle GoldenGate Extract client connection to publish its local hostname to Sybase

Fixed an issue of publishing the local hostname to the database for connections established by Oracle GoldenGate.

Bug 36921608: Sybase Adaptive Server Enterprise - SSL attribute which is invalid for Sybase, does not throw valid error

Added a relevant error message when unsupported additional attributes are provided with the `DBLOGIN` command.

Bug 36926498: Sybase Adaptive Server Enterprise - The bi-directional Extract crashes without any error

Fixed an issue of bi-directional replication causing the Extract to abend without any error.

Bug 36927786: Sybase Adaptive Server Enterprise - OGGCA deployment creation does not pick up SYBASE system variable/value

Fixed an issue with the OGGCA deployment not reading the value of the `SYBASE` system variable.

Bug 36660154: Generic - Cookie created by session using Identity Provider (IDP) does not match the IDP session time.

Fixed a session duration mismatch issue of the Oracle GoldenGate session cookie and the IDP session.

Bug 36684067: Generic - Integrated Extract is generating XML with invalid characters &#

Fixed an issue with integrated Extract generating XML with invalid characters due to missing `CDATA` tag for columns containing control characters.

Bug 36742896: Generic - The TRANLOGOPTION EXCLUDEUSER command for integrated Extract is not working

Fixed an issue of `TRANLOGOPTION EXCLUDEUSER | EXCLUDEUSERID` command not filtering excluded operations that were performed when integrated Extract was stopped or restarted.

Bug 36778160: Generic - The Configure Client Access option under Access Signing Certificate in IDCS is not mandatory

Updated the Configure Client Access option as non-mandatory in IDCS.

Bug 36785701: Generic - Administration Service crashing frequently due to memory corruption

Fixed an issue with the Administration Service frequently crashing due to running several database commands simultaneously.

Bug 36802606: Generic - Plugin service option is displayed as "ServiceManager.pluginsrvr"

Fixed the issue of Plugin Service displayed as ServiceManager.pluginsrvr in Web UI.

Bug 36854462: Generic - Replicat abends when BinaryDouble and BinaryFloat are passed as argument for @DBFUNCTION(TO_CHAR(number)) function

Fixed an issue of Replicat abending when `Boolean` datatype is passed as an argument for `DBFUNCTION()`.

Bug 36890433: Generic - An invalid XML character (Unicode: 0X4) found in CData section

Fixed an issue with the XML parser that was failing with the error, An invalid XML character (Unicode: 0x1a) was found in the CData section.

Bug 37034549: Generic - Performance Metrics Service crashes frequently with Segmentation violation (11) from a corrupted double-linked list

Fixed an issue with the Performance Metrics Service crashing frequently due to multiple threads accessing the `clearMPoint` function.

Bug 37056535: Generic - During executing oggca.sh, no field to enter replication schema on Japanese environment

Optimized the space on the OGGCA user interface screens to display all fields.

Bug 37066526: Generic - IAM Web UI login fails with "invalid_request & reached the token size limit of 16,000 characters" error

Fixed an issue with the IAM Web UI login when the Oracle GoldenGate deployment is integrated with IDCS/IAM and the user belongs to large number of groups.

Bug 37079447: Generic - Root capture fails to start when EXCLUDEUSER parameter is specified in the parameter file

Fixed an issue with Extract abending during startup when the `TRANLOGOPTIONS EXCLUDEUSER` parameter is included in the parameter file for the root capture process.

Bug 37099587: Generic - Issue with OCI Oracle GoldenGate 21.15 Kafka capture

Fixed an update issue with the Oracle GoldenGate Kafka Extracts caused by an update to the Oracle GoldenGate Credential Store.

Bug 37115005: Generic - The oggca.sh command fails with error "oggca.sh: command not found" while configuring a silent mode deployment

Fixed an issue with `oggca.sh` command failing with error, `oggca.sh: command not found` while configuring a silent mode deployment.

Release 23ai (23.5.2.24.07) - August 2024

Bug 36228407: MySQL - Verify Oracle Golden Gate functionality with MySQL 9.0

Added support for Oracle Golden Gate for MySQL 9.0.

Bug 36474071: MySQL - Verify Oracle GoldenGate functionality with MySQL 8.4

Added support for Oracle GoldenGate for MySQL 8.4.

Bug 36478812: MySQL - Support for Vector data type

Added support for `Vector` data type for MySQL Server 9.0 and HeatWave.

Bug 36794959: MySQL - Extract missing out the DDLs

Fixed an issue with single-line DDL statements that include comments, which causes these statements to be ignored and Extract to abend.

Bug 36833980: Sybase - Heartbeat table records are not captured by Sybase Extract

Fixed a configuration issue with the heartbeat table that was causing the Extract to not capture the heartbeat table records.

Release 23ai (23.5.1.24.07) - July 2024

Bug 36857176: Db2 z/OS - Extract fails with error "OGG-00551 Database operation failed: Retrieving reorg timestamp using >SELECT || SQLSTATE 42803 native database error -122"

Added the missing `GROUP BY` clause to the `SELECT` statement that was causing the Extract to fail with the error, `OGG-00551 Database operation failed: Retrieving reorg timestamp using >SELECT || SQLSTATE 42803 native database error -122`.

Bug 36771014: Oracle - oggca.sh 23ai fails with error "INS-85037 Restarting Service Manager"

Fixed an issue with installing Microservices architecture on a IPv4-only system.

Bug 36830821: Oracle - Parallel integrated Replicat performance degrades after upgrade to 21.14

Fixed an issue with the parallel integrated Replicat process after upgrading to Oracle GoldenGate 21.14 or later releases that was causing the performance to decrease.

Bug 36383740: Generic - The expand/collapse icon for Extracts/Replicats in the Web UI in the bar on the left of the screen may not work as expected

Fixed an issue with the expand/collapse icon for Extracts/Replicats in the left-side bar that was not displaying all the tabs, such as parameters, properties, report, or log.

Bug 36792393: Generic - Service Manager displays an error "Connection to server failed" after upgrade

Fixed an issue with the Service Manager that was displaying an error on upgrading from Oracle GoldenGate releases 19 and 21 to release 23ai.

Bug 36850729: Generic - Error "validator.validate is not a function" is displayed on alter Replicat with position in log method

Fixed an issue with the alter Replicat with position in log method that was generating the error, `validator.validate is not a function`.

Bug 36850812: Generic - Notifications display "The item type request with name does not exist" when the Check status link is clicked

Fixed an issue of timeout notification messages not being cleared, when creating Extract is the stopped status and clicking the Check Status link.

Bug 36858659: Generic - Initial load Extract does not replicate boolean datatype correctly

Fixed an issue with the initial load Extract process that was not replicating the `Boolean` datatype values correctly.

Bug 36859292: Generic - Process page for Extracts/Replicats using ">" in the tree may result in a blank page

Fixed an issue of blank page being displayed when clicking the greater than sign (>) to collapse the selected Extract or Replicat.

Release 23ai (23.5) - July 2024

Bug 36452224: Db2 z/OS - OGGMT001 program can terminate without warning on missing or invalid parameters

Added a message when `OGGMT001` program terminates if it is run without being started from Extract or run in any other unauthorized manner.

Bug 36684657: Db2 z/OS - Extract abends, affecting the ATS runs

Fixed an issue with Extract abending without generating a message in a report file.

Bug 35996208: Exadata Cloud at Customer (Gen2) - The Replicat process crashed with segfault error 11

Fixed an issue of parallel Replicat abending with `segfault error 11`.

Bug 36260450: Exadata on Premise - Sequence objects are not replicated on downstream capture from ADG standby

Fixed an issue with downstream Extract not capturing the updates to sequence objects.

Bug 36353961: Microsoft SQL Server - Ignore In-memory tables when using ADD TRANDATA with a wildcard pattern

Fixed an issue with using `ADD TRANDATA` and a wildcard specification that errored when encountering an in-memory table. In-memory tables are not supported for CDC capture.

Bug 36429456: Microsoft SQL Server - Extract reprocesses prior records of the last checkpoint position after restarting

Fixed an issue with Extract that was reprocessing records prior to the last checkpoint position, on restart.

Bug 36713522: Microsoft SQL Server - Incorrect login information does not return proper messaging

Fixed the incorrect error message that was displayed when using wrong credentials to login.

Bug 36658085: MySQL - Replicat abends with duplicate primary key after certain case of GTID based positioning of the Extract

Fixed an issue with Replicat abending on restart after encountering a duplicate primary key while running with GTID-based Extract.

Bug 36688861: MySQL - Extract fails on restart with error "No: 1236 - Error Message: (Cannot replicate because the source purged required binary logs)"

Fixed an issue of unsupported DDLs with GTID based Extract that fails on restart with the error, "Cannot replicate because the source purged required binary logs."

Bug 36616731: Oracle - While running RegisterServiceManager.sh from root user, it fails with oggca.sh: command not found error

Fixed an issue with the RegisterServiceManager.sh script that was causing the oggca.sh: command not found error, when run from the root user.

Bug 36625469: Oracle - Extract abends without any error but it reports segmentation fault in /var/log/messages and GDB reported checkSizeToRollover error

Fixed an issue with Extract abending without displaying any error when using OUTPUTFORMAT XML and switching to a new trail or output file.

Bug 36630528: Oracle - Data not synchronizing when using different indexes or keycols in source and target databases

Fixed the data synchronization issue when indexes or key columns are different for source and target databases.

Bug 36781005: Oracle - The TRANLOGOPTIONS EXCLUDEUSER command in PDB setup excludes all users

Fixed an issue with the TRANLOGOPTIONS EXCLUDEUSER or EXCLUDEUSERID command in PDB or CDB setup that was not capturing any operations and causing all users or user IDs to be excluded.

Bug 36821561: Oracle - No option to specify Begin point for Extract when configuring it from the WebUI

Added the Begin option in the WebUI for creating an Extract process.

Bug 36301151: Generic - Replicat not updating the checkpoint table correctly on stopping

Fixed an issue with Replicat not updating the checkpoint table correctly when stopped.

Bug 36616207: Generic - MA report file incorrectly lists file names including REPREPA for REPREP

Fixed an issue with report file listing incorrect file names.

Bug 36625098: Generic - Replicat abends with invalid DATE/TIME in type conversion

Fixed an issue with `DATE/TIME` type conversion that was causing the Replicat to abend.

Bug 36655689: Generic - Replicat should be able to use long varchar2 as primary key if database allows it

Fixed an issue with Replicat not selecting the column of `varchar2` type as a primary key.

Bug 36731087: Generic - Snowflake Replicat deletion process not deleting the associated temporary and state files

Fixed an issue with the `DELETE REPLICAT` command that was not deleting the temporary and state files.

Bug 36742287: Generic - Replicat not getting restarted by AUTORESTART

Fixed an issue with the `AUTORESTART` command, which was not restarting the Replicat process.

Bug 36755183: Generic - Replicat abends with the "OGG-30464 The connected session is not a GG session" error

Fixed an issue with Replicat abending with error, OGG-30464 - The connected session is not a GG session when connecting to a PDB with value of `container_data` variable as `CURRENT_DICTIONARY`.

Release 23ai (23.4.1.24.05) - May 2024

Bug 36630983: Oracle - Integrated Replicat fails with error "OGG-02092 Unexpected condition in function indexOutOfRangeException"

Fixed an issue with integrated Replicat either failing with error, OGG-02092 Unexpected condition in function `indexOutOfRangeException`, or skipping update of mapped columns present in the target database but not in the source database, leading to data divergence.

8

What's New in this Release for Oracle GoldenGate for Marketplace

This chapter describes the features, enhancements, and changes made to Oracle GoldenGate for Marketplace.

Topics:

What's New in this Oracle GoldenGate on Marketplace Release

This section provides a list of new features, enhancements, and changes made to Oracle GoldenGate on Marketplace. Oracle updates the release notes periodically after the software release. This document is accurate at the time of publication.

Oracle GoldenGate on Marketplace New Features: September 2024

Oracle GoldenGate on Marketplace requires Terraform v1.0.x

Oracle GoldenGate on Marketplace version 23.5 and higher require Terraform v1.0.x. Any existing instance of Marketplace, needs to be upgraded to v1.0.x. For details on upgrade, see *Upgrading an Oracle Cloud Marketplace Image in Using Oracle GoldenGate on Oracle Cloud Marketplace* guide.

Bugs Fixed and Enhancements for Marketplace

This chapter describes the bugs fixed and enhancements at the time of release.

The Bug number is the number of the BugDB ticket. For questions on specific tickets or issues, consult Oracle Support.

Release 21c (21.7.0) - September 2022

Bug 34329890 - Allow all available Intel/AMD shapes in Oracle GoldenGate Marketplace listings

Enhanced Oracle GoldenGate Marketplace to allows all available Intel/AMD shapes in Oracle GoldenGate Marketplace listings.

Bug 34420956 - Support flex shapes in Oracle GoldenGate Marketplace

Flex shapes are supported in Oracle GoldenGate Marketplace.

Bug 34180215 - Terraform Replicat fails with "Error: 400-InvalidParameter" for Oracle GoldenGate Marketplace MA on Oracle Autonomous Database on Shared Infrastructure

Fixed an issue with terraform Replicat failing with `Error: 400-InvalidParameter` for Oracle GoldenGate Marketplace MA on Oracle Autonomous Database on Shared Infrastructure.