

Oracle® Database

Release Notes for Oracle GoldenGate



21c (21.1.0)

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ORACLE®

Oracle Database Release Notes for Oracle GoldenGate, 21c (21.1.0)

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Preface

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

- [Documentation Accessibility](#)
- [Conventions](#)
- [Related Information](#)

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Accessible Access to Oracle Support

Oracle customers who 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> <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 utility unless the name is intended to be a specific case. |
| { } | Braces within syntax enclose a set of options that are separated by pipe symbols, one of which must be selected, for example: <code>{<i>option1</i> <i>option2</i> <i>option3</i>}</code> . |

| Convention | Meaning |
|------------|--|
| [] | Brackets within syntax indicate an optional element. For example in this syntax, the <i>SAVE</i> clause is optional: <code>CLEANUP REPLICAT group_name [, SAVE count]</code> . Multiple options within an optional element are separated by a pipe symbol, for example: <code>[option1 option2]</code> . |

Related Information

The Oracle GoldenGate Product Documentation Libraries are found at:

<https://docs.us.oracle.com/en/middleware/goldengate/core/21.1/>

The Oracle GoldenGate related product documentation libraries are found at:

<https://docs.oracle.com/en/middleware/goldengate/index.html>

For additional information on Oracle GoldenGate, refer to:

<https://www.oracle.com/middleware/technologies/goldengate.html>

<https://www.oracle.com/database/technologies/high-availability/oracle-database-maa-best-practices.html>

For licensing information, refer to Licensing Information in the *Oracle GoldenGate Licensing Information* guide.

Part I

Introduction

This chapter introduces the Release Notes for Oracle GoldenGate for Marketplace 21c (21.1.0).

Oracle GoldenGate for Marketplace 21c (21.1.0) release is only available for Microservices Architecture.

- [Purpose of this Document](#)
- [What's New in this Release](#)
This chapter describes the features, enhancements, and changes made to Oracle GoldenGate. Oracle updates the release notes periodically after the software release. This document is accurate at the time of publication.
- [Known Issues and Workarounds](#)
This chapter describes the known issues at the time of release.
- [Bugs Fixed and Enhancements](#)
This chapter describes the bugs fixed and enhancements at the time of release.

1

Purpose of this Document

This document contains the release information for Oracle Fusion Middleware Release for Oracle GoldenGate.

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

- [Latest Release Information](#)
- [Certification Information](#)
- [Product Documentation](#)
- [Oracle Support](#)
- [Licensing Information](#)

1.1 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>

1.2 Certification Information

To see versions of platforms and related software for which Oracle GoldenGate is certified and supported, go to <http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html>

1.3 Product Documentation

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

1.4 Oracle Support

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

The Error Correction policy and patching support policy has been revised. See the following MOS (Doc ID 2545229.1) article for details:

[Lifetime Support Policy for Oracle GoldenGate](#)

1.5 Licensing Information

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

Licensing Information in the *Oracle GoldenGate Licensing Information* guide.

2

What's New in this Release

This chapter describes the features, enhancements, and changes made to Oracle GoldenGate. Oracle updates the release notes periodically after the software release. This document is accurate at the time of publication.

- [Release 21c \(21.1.0\): Initial Release May 2021](#)
- [Deprecated and Desupported Features and Parameters](#)
- [Default Behavior Changes](#)

2.1 Release 21c (21.1.0): Initial Release May 2021

Oracle GoldenGate Microservices Architecture is available with Oracle and heterogeneous databases

Oracle GoldenGate 21c supports the following databases:

- Oracle Database
- DB2 z/OS
- MySQL
- SQL Server

All Databases

Parallel Replicat Core Infrastructure Support for Heterogeneous Databases

Parallel Replicat is supported with SQL Server, DB2 z/OS, and MySQL.

Heartbeat History Endpoints Display Historic Heartbeat and Lag Information for ER Processes

Historic and lag information for ER processes and heartbeat records is retrieved and is available from the Administration Server's Replicat Process Information page.

Oracle Database

Unified Build Support

Oracle GoldenGate uses a single, unified build for capturing from and applying to multiple major Oracle Database versions for supported operating systems by including the latest Oracle database client libraries as part of Oracle GoldenGate.

Automatic Extract of tables with supplemental logging is supported

Oracle GoldenGate provides a new `auto_capture` mode to capture changes for all the tables that are enabled for logical replication. You can list the tables enabled for auto-capture using the `LIST TABLES AUTO_CAPTURE` command option. Use the `TRANLOGOPTIONS ENABLE_AUTO_CAPTURE` option to set up automatic capture.

When this parameter is enabled in Extract, any table that has supplemental logging on it will be automatically captured by Extract and you don't need to add the table as a `TABLE` parameter. You can use the new DDL options for `ALTER TABLE ... ENABLE LOGICAL`

REPLICATION ALL KEYS, ALTER TABLE ... ENABLE LOGICAL REPLICATION ALLOW NOVALIDATE KEYS, CREATE TABLE ... ENABLE LOGICAL REPLICATION ALL KEYS, or CREATE TABLE ... ENABLE LOGICAL REPLICATION NOVALIDATE KEYS to add supplemental logging to a table and allow Oracle GoldenGate to automatically capture it. This also requires Oracle Database 21c and higher.

Oracle native JSON datatype is supported

Oracle GoldenGate capture and apply processes now support the new native JSON datatype, which is supported by Oracle Database 21c and higher.

Automatic Conflict Detection and Resolution for Oracle Database 21c is available

This feature provides support in Oracle Database 21c and Oracle GoldenGate to enhance Automatic CDR to support:

- Earliest timestamp resolution
- Delete always win
- Site priority resolution

These features can be enabled in the `DBMS_GOLDENGATE.ADD_AUTO_CDR` procedure.

Kerberos Authentication is supported

Oracle GoldenGate supports external authentication for database login (`DBLOGIN`) for Kerberos user accounts.

Oracle Cloud Infrastructure Key Management Service (OCI KMS) integration is available

Oracle GoldenGate supports integration with the OCI KMS for trail file encryption, which simplifies securing Oracle GoldenGate cloud deployments.

Autonomous Database Extract is supported

Oracle GoldenGate can now capture from the Autonomous Databases in OCI. This feature allows capturing data out of specific Autonomous environment in a secure way without allowing access to any other data in that shared environment. For additional details, see Capturing from Pluggable Databases in *Using Oracle GoldenGate for Oracle Database*.

Replicat Compatibility Constraint

Replicat compatibility with different trail file formats is ensured using this feature. The Replicat compatibility constraint is associated to the record (LCR) by the primary Extract to restrict certain record to apply by specific version of Replicat in Oracle GoldenGate 21c or higher releases without bumping up the trail file format version. This feature is displayed by the LogDump utility.

Large DDL (greater than 4 MB) replication is supported

DDLs that are greater than 4 MB in size will be provided replication support.

Certificate management is available from the Microservices Architecture Web UI

Server certificates and multiple client certificates can be managed from the Servicer Manager. Each deployment has a Certificate Store that holds the server, client certificates, and CA certificates, which are used when setting up a secure communication channels for a deployment.

Support for multiple client certificates for wss protocol is available

You can store multiple client certificates in the Certificate Store and explicitly specify the type of authentication mechanism for the distribution paths and target-initiated paths as part of the specification.

You can select one of the three authentication mechanisms, Credentials, Client Certificates, or OAUht2.0 (available with Oracle GoldenGate 21.3.0). If you choose the client certificate authentication mechanism, then you can choose a specific client certificate.

DB_UNIQUE_NAME with heartbeat table

DB_UNIQUE_NAME is available with the heartbeat table to allow users to uniquely identify the source of the heartbeat. DB_UNIQUE_NAME will allow better use of the heartbeat table in active-active environments, where, typically all the replicas have the same DB_NAME but identify each replica site uniquely using the DB_UNIQUE_NAME.

DB_UNIQUE_NAME with trail file header

DB_UNIQUE_NAME is added in the trail file header along with DB_NAME, which helps in troubleshooting replication in active-active environments, where mostly all replicas have the same DB_NAME but identify each replica site uniquely using the DB_UNIQUE_NAME.

Oracle GoldenGate Upgrade Simplification

The process to upgrade to Oracle GoldenGate 21c has been further simplified. There are fewer steps necessary for the administrator to upgrade to the latest Oracle GoldenGate release. This includes automatic repositioning of Replicat after a trail file format upgrade.

Partition Name Filtering

The Partition Filtering option filters explicitly on the partition name of tables. Data can be filtered based on source partition names in Extract, Pump, Distribution Service, and Replicat.

Bounded Recovery Checkpoint Performance

The Bounded Recovery (BR) Checkpoint has been enhanced to allow Extract to continue mining the redo log and generate trail files during the BR checkpoint, which decreases the BR intervals and improves Extract restart times.

Active Data Guard (ADG) Redirection

If ADG is configured in a cascaded mode to transport redo logs to a downstream database, Oracle GoldenGate can connect to ADG as a source database for the REGISTER command instead of connecting to the database where redo is originated. There is no source database connection needed for registering Extract.

New Replicat parameter INCLUDETAG

Oracle GoldenGate for Oracle now supports INCLUDETAG in addition to the existing EXCLUDETAG parameter to allow more flexibility in configuring multi-way replication topologies.

DB2 z/OS

Capture from temporal tables is supported

Capture from temporal tables is supported with DB2 z/OS.

ECSA Storage is reduced when capturing from DB2 z/OS

ECSA storage requirements is reduced by using 64-bit common storage for storing log read buffers .

EOF option is supported for ADD/ALTER EXTRACT

The EOF option is supported to allow Extract to support various starting positions.

MySQL

DDL replication with remote capture

Oracle GoldenGate supports DDL replication with remote capture from MySQL 8.0 onwards.

Capture DDL metadata from BINLOG

Supports capturing DDL and metadata directly from MySQL BINLOG for MySQL version 8.0 and higher.

JSON Datatype Support

MySQL capture and delivery of JSON data is now supported.

SQL Server

Support SQL Server 2019 Standard and Enterprise

Capture and Delivery for SQL Server 2019 Enterprise and Standard Editions is supported.

Support Azure SQL Server Database Managed Instance

Capture and delivery for Azure SQL Server database managed instance is supported.

2.2 Deprecated and Desupported Features and Parameters

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

- [Release 21c \(21.1.0\) - Initial Release May 2021](#)

2.2.1 Release 21c (21.1.0) - Initial Release May 2021

Oracle Database: Oracle GoldenGate Classic Extract is desupported

Oracle GoldenGate does not support classic Extract. Any classic Extract processes must be moved to integrated Extract prior to upgrading to Oracle GoldenGate 21c.

Oracle Database: Oracle GoldenGate Classic Architecture is deprecated

Oracle GoldenGate Classic Architecture for Oracle Database is deprecated and may be desupported and unavailable in a future release. Oracle recommends using the Oracle GoldenGate Microservices Architecture.

UDT protocol between Distribution Server and Receiver Server has been desupported

In Oracle GoldenGate Microservices Architecture 21c (21.1.0), the UDT protocol that the Distribution Server uses for sending trails files has been desupported. Use the `wss`, `ws` or `ogg` protocol instead of UDT because this feature will be desupported in the next major Oracle GoldenGate release.

RMTTASK desupport and deprecation

The `RMTTASK` parameter is desupported for Oracle GoldenGate Microservices Architecture. The parameter has been deprecated for Classic Architecture and will be desupported for Classic Architecture in future releases.

NO_OBJECTDEFS and NO_TRAILDEFS parameters are desupported

The `NO_OBJECTDEFS` and `NO_TRAILDEFS` parameters are desupported.

OPTIMIZE_PROGRESS_TABLE parameter is desupported

The parameter `OPTIMIZE_PROGRESS_TABLE` has been desupported for Oracle GoldenGate 21c and higher releases.

Oracle GoldenGate replication support for Oracle Sharding is deprecated

Oracle GoldenGate replication support for Oracle Sharding High Availability is deprecated with Oracle Database 21c and may be desupported in the future release. For Oracle Sharding in Database 21c, the Oracle GoldenGate support is limited to one pluggable database in a multitenant database.

2.3 Default Behavior Changes

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

- [Release 21c \(21.1.0\) - Initial Release May 2021](#)

2.3.1 Release 21c (21.1.0) - Initial Release May 2021

Oracle GoldenGate binaries are no longer installed on a shared drive

Oracle always recommended installing the Oracle GoldenGate binaries (`OGG_HOME`) on a local file system as a best practice. From this release onward, it is a requirement. The binaries must be installed on local drives. For more information refer to MOS note DOC ID 2689857.1.

Simplified heartbeat administration for Oracle Databases

Heartbeat table administration operations are only be done in the schema of the `DBLOGIN` user. `GGSCHEMA` is now only required for CDB root Extracts.

Logging of full metadata enabled when upgrading from Oracle GoldenGate 19c to 21c and the database is MySQL 8.0

This change is applicable when upgrading from Oracle GoldenGate 19c to 21c with MySQL 8.0.

However, for upgrading Oracle GoldenGate 19c to 21c with MySQL 5.7 no change is required.

Table containing IDENTITY columns with default sequence needs to be created with primary key

For Oracle database, table with identity column needs to be created with primary key, otherwise the Replicat will abend with errors similar to the following:

```
2020-02-07 08:17:53 ERROR OGG-00516 Fatal error executing DDLreplication: error [Error code [1430], ORA-01430: column being added already exists intable]
```

One shiphome supporting all Oracle Database versions

Instant Client 21c is bundled with Oracle GoldenGate. When launching the Oracle GoldenGate executables with Oracle data layer dependency, it is mandatory to go through the bundled instant client connectivity, libraries, and tools..

Microservices Architecture does not support the management of individual threads for coordinated Replicat

Microservices Architecture does not support the management of individual threads for coordinated Replicat. If you are using individual threads in Classic Architecture and are migrating to MA, you may need to remove those threads before migrations.

A new Extract needs to be created when the DB timezone is changed

You need to create new Extract if DB timezone is changed, especially in case of Oracle Cloud deployment.

3

Known Issues and Workarounds

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

- [Release 21c \(21.1.0\) — Initial Release May 2021](#)

3.1 Release 21c (21.1.0) — Initial Release May 2021

Bug 31677892: MySQL - Timestamp values differ in source and target when environment variable TZ differs from MySQL database timezone settings

When the time zone of the Oracle GoldenGate installation server does not match the time zone of the source database server, then `TIMESTAMP` data sent to the target database will differ from that of the source database.

For Microservices installations, regardless if the time zones are the same, the Extract will resolve the time zone to UTC.

Workaround

Set the `TZ` variable value to match the `timezone` value set in MySQL database.

The Extract process has been enhanced to report the current timezone in the session and also display the a message to ensure that the environment variable `TZ` is set to match the database timezone as `timestamp` in MySQL depends upon correct setting of `TZ`.

Determine the source database time zone by running the following query:

```
select @@system_time_zone
```

This will return a time zone value, such as `PDT`.

For Classic Architecture, create a session variable for Oracle GoldenGate, called `TZ`, and set it equal to the time zone value of the database.

For MA, create a new variable in the deployment that contains the source Extract, called `TZ` and set it to the value of the source database time zone, then stop any running Oracle GoldenGate processes and restart the Administration Server, then start the Extracts and Replicats.

Bug 31825720: MySQL - In MA, SQLEXEC with parameterized input fails when client character set is not compatible with database character set

In MA, when `SQLEXEC` is configured with parametrized input in the Extract parameter file, the query reports no records fetched for the query supplied even though the database contains matching records. This is due to the client character set not matching with the database character set causing the query input parameter to be replaced with symbols and so record match fails.

Workaround

Set the client character set to match with database charset in `GLOBALS` file.

Bug 32595302: MySQL - Extractabend with error "ERROR OGG-00768 The data type (245) is not supported in SQLEXEC functionality"

Columns of JSON data type cannot be used in a SQLEXEC function.

Workaround

None.

Bug 32795888: SQL Server - ADD HEARTBEATTABLE functionality for Azure SQL Database Managed Instance only supports a target configuration

The `ADD HEARTBEATTABLE` functionality for an Azure SQL Database Managed Instance only supports a target configuration and cannot be used as a source for heartbeat functionality. `ALTER HEARTBEATTABLE NOTARGETONLY` is not supported as well.

Workaround

None.

Bug 32817253: SQL Server - Extract abends on Azure Managed Instance SQL Server Agent Check with Access is Denied

An Extract configured with a user that has `sysadmin` rights running against an Azure SQL Database Managed Instance will Abend with an `Access is Denied` error.

Workaround

Remove the `sysadmin` rights for the Extract user and only set the account to the `db_owner` role within the source database.

Bug 32203789: Checkprm options not supported from Admin Client

When running shell commands from the Admin Client for a Microservices installation, command options after two dashes, `--`, are ignored.

Workaround

Escape the `--` option with a backslash `\--`. For example:

```
SHELL ./checkprm \--COMMAND EXTRACT
```

4

Bugs Fixed and Enhancements

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 \(21.1.0\) - Initial Release May 2021](#)

4.1 Release 21c (21.1.0) - Initial Release May 2021

Bug 30032198: Generic - Parallel Replicat is available for DB2 z/OS, SQL Server, MySQL

Parallel Replicat is supported for DB2 z/OS, SQL Server, MySQL.

Bug 29200958: Generic - \$OGG_HOME/lib/htdocs is overly large at 150MB

Directory where the web UI code is placed in the deployment is overly large.

Bug 32568282: Generic - Integrated Replicat supports attribute columns as keys for object tables

Fixed an issue with integrated Replicat falling back to classic Replicat to apply updates or deletes on object tables, or it may raise an `ORA-600` error, if `APPLY_PARALLELISM` value is set to 1.

Bug 32746918: Generic - Distribution Server and Receiver Server web interface allow updating the path authentication method

Enhanced the web interface for Distribution Server and Receiver Server to allow changing or modifying the path authentication method.

Bug 30361687: Oracle - GG_LAG_HISTORY view is enhanced to show component lags

Added component lag values in `GG_LAG_HISTORY` view to show lag for each component in the replication path including processes such as Extract, Pump, Distribution Service and Replicat.

Bug 27819295: Oracle - ADD SCHEMATRANDATA without waiting for inflight transactions is supported

`ADD SCHEMATRANDATA` without waiting for inflight transactions is supported.

Bug 30441675: Oracle - Service Manager fails to start in the docker container when is XAG is enabled

Docker support for `--xagEnabled` command line option is available.

Bug 31941089: Oracle - Autonomous Database Extract failing to start when used with TRANLOGOPTIONS EXCLUDEUSER

Fixed an issue with Extract failing to start when used with `TRANLOGOPTIONS EXCLUDEUSER`.

Bug 31879230: Oracle - BATCHSQL and CDR generate Replicat errors

Fixed an issue with CDR and BATCHSQL enabled, encountering errors when applying records.

Bug 31548760: Oracle - DBLOGIN to Autonomous Data Warehouse (ADWS) fails with the erro "ORA-942 table or view does not exist"

Allows an Autonomous Data Warehouse (ADWS) login in a cloud environment without checking RDBMS.

Bug 32351396: Oracle - Support for multiple Service Managers registered under the same OGG_HOME with XAG

Oracle GoldenGate is enhanced to allow using logical filenames when launching Service Manager.

Bug 29397548 : DB2 z/OS - TARGETONLY/NOTARGETONLY feature to ADD/ALTER HEARTBEATABLE is supported

`TARGETONLY/NOTARGETONLY` for DB2 for i, DB2 z/OS, DB2 LUW is supported.

Bug 30473323: DB2 z/OS - SHOWTRANS output is enhanced to be more DB2 z/OS specific

Fixed an issue with SHOWTRANS output showing information that is not specific to DB2 z/OS.

Bug 25615394: DB2 z/OS - Enable EOF option for add and alter Extract

Enable EOF option for `ADD/ALTER EXTRACT` is supported for DB2 z/OS.

Bug 16814471: DB2 z/OS - Capture from temporal tables is supported

Capture from temporal tables is supported with DB2 z/OS.

Bug 30582001: DB2 z/OS - Error mapping from DB2 z/OS Extract to Teradata Replicat

Fixed an issue with incorrect value of `BIGINT` appears replicated in target table.

Bug 29437485: DB2 z/OS - Use 64-bit shared common storage instead of ECSA for log read buffers

ECSA storage requirements is minimized by using 64-bit common storage for storing log read buffers.

Bug 31676227: DB2 z/OS - Extract writes incorrect LOGCSN token to trail

Fixed an issue with Extract not being able to use LOGCSN to replay position.

Bug 32254188: DB2 z/OS - SP and UDT statistics show negative numbers

Fixed an issue with the Extract printing a report of the runtime statistics for the mainframe access functionality for a long duration causing the report to show negative values.

Bug 31962294: DB2 z/OS - Prevent deallocating ECSA that has already been deallocated by IPL

Fixed a possibility for Oracle GoldenGate to delete ECSA not owned by its processes if it was already deallocated by IPL.

Bug 31255253: DB2 z/OS - Extract fetch fails when timestamp part of key

Fixed the fetching of source records when timestamp is part of key or no primary key and all keys include a timestamp.

Bug 31923063: DB2 z/OS - Change Extract to check SP/UDF versions and stop if they are incorrect

Protects users from accidentally using incorrect versions of the DB2 SQL procedures and the Extract, which can cause issues with DB2 z/OS.

Bug 31541257: DB2 z/OS - Protection against crashing an LPAR due to mismatch with DB2 z/OS executables

Fixed an issue that occurs if you define the remote stored procedure and name the remote code with a previous version's module inadvertently, you may cause an abend on the DB2 z/OS system.

Bug 30872061: Maria DB - Amazon RDS for MariaDB has been certified for remote capture and delivery

Amazon RDS for MariaDB for remote capture and delivery is supported.

Bug 31690247: MySQL - Capture and delivery of JSON data type is supported

MySQL capture and delivery of JSON data type is now supported.

Bug 32078366: MySQL - Heartbeat range value/message not matched with document bug description

Fixed an issue with the `ALTER HEARTBEATTABLE` command, which caused an error when using negative values for individual components.

Bug 31346319: SQL Server - Enable PAGE Compression on OracleGGTranTables table

The `OracleGGTranTables` table used by SQL Server CDC Extract are allowed to become very large.

Bug 31487146: SQL Server - Extract Abends when more than 1000 Tables Enabled with TRANDATA

Fixed an issue with Extract abending while trying to check the version consistency of CDC objects when there are more than 1000 tables with trandata listed in the Extract parameter file.

Bug 32335569: SQL Server - Replicat is slow in applying delete and update when there is CHAR/VARCHAR column as part of the primary key

Fixed performance issue due to index seek caused by VARCHAR key column is bound as NVARCHAR.

Bug 32108804: SQL Server - Replicat on SQL Server timezone offset didn't show the correct value

Fixed an issue where the local date and time is displayed without the timezone offset.

Part II

Oracle GoldenGate on Marketplace 21c (21.1.0)

This section describes the bug fixes and known issues for Oracle GoldenGate on Marketplace 21c (21.1.0).

Topic:

- [What's New in this Release](#)
This chapter describes the features, enhancements, and changes made to Oracle GoldenGate.
- [Known Issues and Workarounds](#)
This chapter describes the known issues at the time of release.

5

What's New in this Release

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

Topics:

- [Oracle GoldenGate on Marketplace New Features: May 2021](#)

5.1 Oracle GoldenGate on Marketplace New Features: May 2021

Oracle Goldengate on Marketplace requires Terraform v0.14x

By default Oracle GoldenGate on Marketplace uses Terraform v0.14x. Any existing instance of Marketplace, needs to be upgraded to v0.14x. For details on upgrade, see *Upgrading an Oracle Cloud Marketplace Image in Using Oracle GoldenGate on Oracle Cloud Marketplace* guide.

6

Known Issues and Workarounds

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

- [Release 21c \(21.5.0.0.2\) - February 2022](#)

6.1 Release 21c (21.5.0.0.2) - February 2022

Bug 32853695: SQL Server – ADD TRANDATA fails to enable change data capture for Azure SQL Database Managed Instance

When adding TRANDATA to a table in an Azure SQL Database Managed Instance database, you may encounter the following error:

```
ERROR OGG-05268 Failed to enable change data capture for table
'dbame.table' in the database
'dbname'. SQL error: 50000: [Microsoft][ODBC Driver 17 for SQL Server]
[SQL Server]Could not find stored procedure 'msdb.dbo.rds_cdc_enable_db'.
```

Note:

This issue may occur in any of the bundle patches of Oracle GoldenGate 21c releases including Oracle GoldenGate for Marketplace 21c (21.1.0), Oracle GoldenGate 21c (21.3.0) and higher versions.

Workaround

Manually run `EXEC sys.sp_cdc_enable_db` against the database and rerun `ADD TRANDATA`.