Report Title: IQ Template Details

Run Date and Time: 27-Oct-2023 04:32:53 PM India Standard Time

Run by: G,Ramsanthosh

Table name: u_iq_template

IQ Template

Number:	AIQ0007322	Status:	Published
Product Name:	Infosrio Safety - Oracle 19c Upgrade from 12.1	Version Number:	1
IQ Date:	27-Aug-2021 04:46:19 PM	Category:	Cat 1
IQ Version:	1	GXP Regulated (A):	false
Type:	Software	SOX (B):	false
		Non Regulated (C):	Yes
		Privacy (P):	Yes

Form Changed:

true

Author:

Dilli,Dinesh (801379)

Technical Approver:

Ball,Linda (633987)

Development Manager:

IT Manager:

G,RamSanthosh (808326)

Qualification Coordinator:

Overview:

\\usadc-sboxi01\q\Dummy_Work_Instruction.htm#overview

System Introduction:

Installation Location and Environment Verification:

Responses to the following questions provide information about the location and environment into which the system is being installed:

CS.OP.CV001 Computer System Validation Activities and Deliverables
CS.WI.CV007 Creating and Executing an Installation Qualification

· What business group/department is responsible for the installation of this system?
Infosario Safety DBA support

· What site preparation is needed for this installation?

· What software preparation is needed for this installation?

Required RDBMS and patches are installed on Server
Qtrees are mounted for the Database that will move to the server

· What interface preparation is needed for this installation?

· What data preparation is needed for this installation (e.g., patient data, metadata setup, project-specific data, pre-loaded data necessary to install test user accounts, configuration settings)?

· Is this to be a multi-component installation (i.e., a single IQ or a series of related IQs)? If yes, describe.

· What access rights are necessary to perform this installation (e.g., OS or database admin privileges)?

Instructions for the Installer:

\\usadc-sboxi01\q\Dummy_Work_Instruction.htm#instructions

Acceptance Criteria:

Instructions for Resolving Errors:

\\usadc-sboxi01\q\Dummy_Work_Instruction.htm#error

Uninstall Procedures:

Remove Database from Orion Monitoring
Shutdown the Database
Startup the Database on the original standalone Server
Unmount the qtrees from server

Name And Version:

Infosrio Safety - Oracle 19c Upgrade from 12.1 1

Installation Procedures

Test Case Number:

Title:

Test Objective:

App Dependencies:

Dependencies:

Starting Point:

Overview Validate:

\\usadc-sboxi01\q\Dummy_Work_Instruction.htm#overview

ILEV Validate:

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Instrinstall Validate:

\\usadc-sboxi01\q\Dummy_Work_Instruction.htm#instructions

Acceptcrit Validate:

System Introduction Validate:

Errors Validate:

\\usadc-sboxi01\q\Dummy_Work_Instruction.htm#error

Uninstall Procedures Validate:

Lifecycle Dates

IQ Date:	
27-Aug-2021 04:46:19 PM	
Published:	
10-Aug-2022 12:47:17 PM	
Superseded:	
Retired:	
Retired by:	
Updated:	10-Aug-2022 12:47:18 PM

Activity

IQ Variables

Related List Title: Document Revision History List
Table name: u_iq_revision_history
Query Condition: IQ Template = Infosrio Safety - Oracle 19c Upgrade from 12.1 1
Sort Order: Revision Date in ascending order

5 Document Revision History

Version	Changes	Author	▲ Revision Date	IQ Template
1	initial version	Q801379	05-Oct-2021 04:24:41 PM	Infosrio Safety - Oracle 19c Upgrade from 12.1 1
1	Grants removed which are not needed	Q801379	12-Oct-2021 04:44:44 PM	Infosrio Safety - Oracle 19c Upgrade from 12.1 1
1	19C Optimal value for PGA calculation step added	Q801379	22-Apr-2022 07:59:11 PM	Infosrio Safety - Oracle 19c Upgrade from 12.1 1
1	Minor updates	Q801379	12-May-2022 04:11:13 PM	Infosrio Safety - Oracle 19c Upgrade from 12.1 1
1	Added PII step for 8.2.3	Q801379	05-Aug-2022 07:45:28 PM	Infosrio Safety - Oracle 19c Upgrade from 12.1 1

Related List Title: IQ Template Step List
Table name: u_iq_template_step
Query Condition: IQ Template = Infosrio Safety - Oracle 19c Upgrade from 12.1 1
Sort Order: Step Number in ascending order

10 IQ Template Steps

▲ Step Number	Step Type	Instructions
1	Install	If customer need to convert RAC DB as non-rac & do the upgrade, proceed with below steps. Else directly go to step 2. i) get the service name of the RAC database srvctl status database -d dbname -v ii) stop the database and remove the service name from cluster srvctl stop database -d dbname iii) Take a database backup iv) Remove all service's: srvctl remove service -s servcename -d dbname v) Remove all instances except first instance: srvctl remove instance -d dbname -i instance2 srvctl remove instance -d dbname -i instance3 . . . vi) set Oenv to instance 1 and start the database Run below commands on db, alter system set cluster_database=false scope=spfile; alter system set cluster_database_instances=1 scope=spfile; vii) Disable tread now, alter database disable thread 2; alter database disable thread 3; . . viii) Drop unwanted redo log group except thread 1 select thread#, group# from v$log order by 1; alter database drop logfile group XXXX; . .

▲ Step Number	Step Type	Instructions
		. ix) Drop unwanted undo tablespace from all nodes except thread 1 select tablespace_name from dba_tablespaces where tablespace_name like '%UNDO%'; drop tablespace UNDOTBS2 including contents and datafiles; drop tablespace UNDOTBS3 including contents and datafiles; . . X) Create pfile from spfile of RAC DB and remove all cluster related db/instance paramter. Xi) Set oev to DB name on node 1, start the DB with pfile created on step 'X'

▲ Step Number	Step Type	Instructions
2	Install	** Check the DBA_registry on 12C database, if database vault is installed, please uninstall before upgrading. * * Use below Link to uninstall database vault. How To uninstall / install Database Vault in a 12c database ? (Doc ID 2112167.1) ========== ========== ========== Determining Minimum PGA needed for 19c database ========== ======== There is a more 'scientific' method of determining this value based on values currently retrievable in the database. The generic equation is: ((maximum aggregate PGA in use for the life of the instance) + ((maximum number of attached processes for the life the instance) * 5M)) * 1.1 To find out the first term, you can query v$pgastat: col max_pga for 99999999.9 select value/1024/1024 max_pga from v$pgastat where name='maximum PGA allocated' minus select value/1024/1024 max_pga from v$pgastat where name='MGA allocated (under PGA)'; To find out the second term, again query v$resource_limit: select max_utilization from v$resource_limit where resource_name='processes'; Refer below Doc ID for reference Sizing the PGA in Oracle 19c - How to Account for the MGA Size (Doc ID 2808761.1) ========== ========== ========== Download the latest preupgrade.jar utility from the below document How to Download and Run Oracle's Database Pre-

▲ Step Number	Step Type	Instructions
		Upgrade Utility (Doc ID 884522.1) 1. Take Cold backup of database 2. Place it in a staging location and unzip the tool. 3. Run the preupgrade.jar using below step on 12C database binaries. $ORACLE_HOME/jdk/bin/java -jar /staging_location/preupgrade.jar FILE TEXT DIR /staging_location/preupgrade_output/ (create preupgrade_output folder under staging location to store the output of logs) Ex: /u01/app/oracle/product/12.1.0.2.180116/dbhome_1/jdk/bin/java -jar /mounts/lsts1x1_temp/upgrade_19c/preupgrade/preupgrade.jar FILE TEXT DIR /mounts/lsts1x1_temp/upgrade_19c/preupgrade/preupgrade_output/ This will create 3 log files namely below ========== Below is a PREUPGRADE SUMMARY only ========== /staging_location/preupgrade_output/preupgrade.log /staging_location/preupgrade_output/preupgrade_fixups.sql /staging_location/preupgrade_output/postupgrade_fixups.sql 3. Review preupgrade.log and fix all the required actions. A few recommended actions/information can be ignored and does not harm the upgrade. 4. Execute fixup scripts as indicated below: Before upgrade: Log into the database and execute the preupgrade fixups @/mounts/ora_home/app/oracle/cfgtoollogs/dbname/preupgrade/preupgrade_fixups.sql After the upgrade: Log into the database and execute the postupgrade fixups

▲ Step Number	Step Type	Instructions
		@/mounts/ora_home/app/oracle/cfgtoollogs/dbname/preupgrade/postupgrade_fixups.sql
3	Install	1. Now run the preupgrade_fixup. SQL> @/mounts/ora_home/app/oracle/cfgtoollogs/dbname/preupgrade/preupgrade_fixups.sql If required actions found on first run, that needs to addressed before starting upgrade. once all actions are fixed, Rerun preupgrade.jar to ensure there are no required actions 2. Take pfile from spfile sys> create pfile='/u01/app/oracle/admin/dbname/pfile/pfile_dbname_preupgrade.ora' from spfile; sys> !vi /u01/app/oracle/admin/lsds1e1/pfile/pfile_dbname_preupgrade.ora (Remove optimizer_adaptive_features, 19c this parameter is deprecated) sys> alter system switch logfile; 3. Take the directory list, as you will need to change default directories to point it to physical location instead of soft link col owner for A20 col DIRECTORY_NAME for A30 col DIRECTORY_PATH for A90 select * from dba_directories; 4. Shutdown Both Primary and standby database. if standby database does not exist then proceed with upgrading the primary database only ** Leave standby down and will sync after upgrade

▲ Step Number	Step Type	Instructions
4	Install	Upgrade Steps ========== 1. Mount the Qtree's on new server, if DB is being moved to new server. Create the directory structure for database on new server. Create db directory under admin directory and create necessarry softlinks 2. Copy pfile_dbname_preupgrade.ora, password file to 19c home 3. Make sure wallet Qtree's are accessable from 19c server and create 'tde' folder under path /mounts/oracle_wallet/dbname. Ex: /mounts/oracle_wallet/dbname/tde copy the wallet files from 12c wallet location to 19C wallet location prior to upgrade. 4. Create/change the oratab entry for DB to point to 19c. NOTE: - Make sure the Entry is created with the physical location and not pointing to a symbolic link. (i.e /mounts/ora_home/app) 5. cd /u01/app/oracle/admin/dbname/pfile 6. oracle >mv pfile_dbname_preupgrade.ora initdbname.ora 7. add/update below parameter to pfile ** Change local listener to point new server Ip's ** add below parameters to file *.wallet_root='/mounts/oracle_wallet/dbname' *.tde_configuration='KEYSTORE_CONFIGURATION=FILE' 6. Set the OENV for DB and start the DB in upgrade mode. i.e. ORACLE_SID set to: DBNAME. ORACLE_HOME set to: /mounts/ora_home/app/oracle/product/19.3.0. NLS_LANG set to: . 7. oracle >cd

▲ Step Number	Step Type	Instructions
		/mounts/ora_home/app/oracle/product/19.3.0/bin oracle >echo $ORACLE_HOME i.e. /mounts/ora_home/app/oracle/product/19.3.0 8. oracle >sqlplus sys as sysdba SQL*Plus: Release 19.0.0.0.0 - Production on Mon Dec 7 08:21:03 2020 Version 19.3.0.0.0 Copyright (c) 1982, 2019, Oracle. All rights reserved. Enter password: Connected to an idle instance. 9. SQL> startup upgrade ORACLE instance started. Total System Global Area 1.0737E+10 bytes Fixed Size 8907856 bytes Variable Size 1744830464 bytes Database Buffers 8959033344 bytes Redo Buffers 24645632 bytes Database mounted. Database opened. Once the DB is started in upgrade mode, start the DB upgrade ========== oracle >ls -ltr |grep -i dbupgrade -rwxr-x--- 1 oracle dba 3136 Apr 17 2019 dbupgrade oracle >nohup dbupgrade & [1] 40283 oracle >nohup: ignoring input and appending output to ânohup.outâ we can see progress using below command oracle >tail -f nohup.out Sample last output will be below, Upgrade Summary Report Located in: /mounts/ora_home/app/oracle/product/19.3.0/cfgtoollogs/dbname/upgrade20210826064449/upg_summary.log Grand Total Upgrade Time: [0d:0h:XXm:XXs]

▲ Step Number	Step Type	Instructions
		10. Verify Log Files and Attach to EIQ ========== 1. oracle >cat /mounts/ora_home/app/oracle/product/19.3.0/cfgtoollogs/dbname/upgrade20201207082303/upg_summary.log Oracle Database Release 19 Post-Upgrade Status Tool XXXXXXXXXXXX Database Name: DBNAME Component Current Full Elapsed Time Name Status Version HH:MM:SS Oracle Server UPGRADED 19.3.0.0.0 00:11:23 Oracle Text UPGRADED 19.3.0.0.0 00:00:30 Oracle Real Application Clusters UPGRADED 19.3.0.0.0 00:00:00 Oracle XML Database UPGRADED 19.3.0.0.0 00:01:47 Datapatch 00:00:52 Final Actions 00:01:25 Post Upgrade 00:00:29 Total Upgrade Time: 00:XX:XX Database time zone version is 18. It is older than current release time zone version 32. Time zone upgrade is needed using the DBMS_DST package. Grand Total Upgrade Time: [0d:0h:XXm:XXs] 2. attach the upg_summary.log to EIQ

▲ Step Number	Step Type	Instructions

5	Install	Timestamp Apply STEPS
		==========
		
		To apply timezone apply, start the DB in upgrade mode to open upgrade window, then apply the timestamp. Finally close the upgrade window.
		
		1. Startup upgrade
		==========
		
		oracle >sqlplus sys as sysdba
		
		SQL*Plus: Release 19.0.0.0.0 - Production on Mon Dec 7 08:52:02 2020
		Version 19.3.0.0.0
		
		Copyright (c) 1982, 2019, Oracle. All rights reserved.
		
		Enter password:
		Connected to an idle instance.
		
		SQL> startup upgrade
		ORACLE instance started.
		
		Total System Global Area 1.0737E+10 bytes
		Fixed Size 8907856 bytes
		Variable Size 1744830464 bytes
		Database Buffers 8959033344 bytes
		Redo Buffers 24645632 bytes
		Database mounted.
		Database opened.
		
		2. Timestamp Apply
		==========
		
		SQL> SET SERVEROUTPUT ON
		SQL> DECLARE
		l_tz_version PLS_INTEGER;
		BEGIN
		l_tz_version :=
		DBMS_DST.get_latest_timezone_version;
		DBMS_OUTPUT.put_line('l_tz_version=' ||
		l_tz_version);
		DBMS_DST.begin_upgrade(l_tz_version);
		END;
		/
		
		Output:
		
		l_tz_version=32
		An upgrade window has been successfully started.

▲ Step Number	Step Type	Instructions

		PL/SQL procedure successfully completed.
		
		SQL> SQL> shutdown immediate;
		Database closed.
		Database dismounted.
		ORACLE instance shut down.
		
		SQL> startup
		ORACLE instance started.
		
		Total System Global Area 1.0737E+10 bytes
		Fixed Size 8907856 bytes
		Variable Size 1744830464 bytes
		Database Buffers 8959033344 bytes
		Redo Buffers 24645632 bytes
		Database mounted.
		Database opened.
		
		3. CLOSE UPGRADE WINDOW
		==========
		
		SQL> SET SERVEROUTPUT ON
		SQL> DECLARE
		l_failures PLS_INTEGER;
		BEGIN
		DBMS_DST.upgrade_database(l_failures);
		DBMS_OUTPUT.put_line('DBMS_DST.upgrade_database : l_failures=' || l_failures);
		DBMS_DST.end_upgrade(l_failures);
		DBMS_OUTPUT.put_line('DBMS_DST.end_upgrade : l_failures=' || l_failures);
		END;
		/
		
		output:
		
		Table list:
		"GSMADMIN_INTERNAL"."AQ$_CHANGE_LOG_QUEUE_TABLE_S"
		Number of failures: 0
		Table list:
		"GSMADMIN_INTERNAL"."AQ$_CHANGE_LOG_QUEUE_TABLE_L"
		Number of failures: 0
		DBMS_DST.upgrade_database : l_failures=0
		An upgrade window has been successfully ended.
		DBMS_DST.end_upgrade : l_failures=0
		
		PL/SQL procedure successfully completed.
		
		4. Verify Timestamp
		==========

▲ Step Number	Step Type	Instructions
		SQL> SELECT * FROM v$timezone_file; FILENAME VERSION CON_ID ---------- ---------- ---------- timezlrg_32.dat 32 0 COLUMN property_name FORMAT A30 COLUMN property_value FORMAT A20 SELECT property_name, property_value FROM database_properties WHERE property_name LIKE 'DST_%' ORDER BY property_name; PROPERTY_NAME PROPERTY_VALUE ---------- ---------- DST_PRIMARY_TT_VERSION 32 DST_SECONDARY_TT_VERSION 0 DST_UPGRADE_STATE NONE Attach timezone output to EIQ

▲ Step Number	Step Type	Instructions
6	Install	1. Remove symbolinc link ========== Run below command to check which default directories are using symbalic links. Change those to point physical location along with DATA_PUMP_DIR directory. There shouldn't be any link pointing to symbalic link SQL> @ $ORACLE_HOME/rdbms/admin/utldirsymlink.sql The following DIRECTORY OBJECTS contain symlinks: 'ORACLE_BASE' 1 DIRECTORY OBJECTS with symlinks found. PL/SQL procedure successfully completed. No errors. 2. Run below query to recreate Directory with softlink found in above step ========== ========== SQL> col owner for A20 col DIRECTORY_NAME for A30 col DIRECTORY_PATH for A70 set linesize 180 set pages 1000SQL> SQL> SQL> SQL> SQL> select * from dba_directories where DIRECTORY_NAME in ('DATA_PUMP_DIR','ORACLE_BASE'); OWNER DIRECTORY_NAME DIRECTORY_PATH ORIGIN_CON_ID ---------- ---------- ---------- ---------- SYS ORACLE_BASE /u01/app/oracle 0 SYS DATA_PUMP_DIR /u01/app/oracle/product/12.1.0.2.180116/dbhome_1/rdbms/log/ 0 SQL> create or replace directory ORACLE_BASE as '/mounts/ora_home/app/oracle'; Directory created.

▲ Step Number	Step Type	Instructions

		SQL> create or replace directory DATA_PUMP_DIR as '/mounts/ora_home/app/oracle/product/19.3.0/rdbms/log/';
		
		Directory created.
		
		SQL> select * from dba_directories where DIRECTORY_NAME in ('DATA_PUMP_DIR','ORACLE_BASE');
		
		OWNER DIRECTORY_NAME DIRECTORY_PATH ORIGIN_CON_ID
		---------- ------------------------------ ---------- ----------
		SYS ORACLE_BASE /mounts/ora_home/app/oracle 0
		SYS DATA_PUMP_DIR /mounts/ora_home/app/oracle/product/19.3.0/rdbms/log/ 0
		
		3. Execute directory stats
		==========
		
		SQL> EXECUTE DBMS_STATS.GATHER_DICTIONARY_STATS;
		
		Execute Fixed objects grants.
		
		SQL> EXECUTE DBMS_STATS.GATHER_FIXED_OBJECTS_STATS;
		
		Note: Sometimes this command will take more time due to increase in the number of records on unified audit tables. If this happens, you can run below command on another session to clean up unified audit table.
		
		BEGIN
		DBMS_AUDIT_MGMT.CLEAN_AUDIT_TRAIL(
		audit_trail_type =>
		dbms_audit_mgmt.audit_trail_unified,
		use_last_arch_timestamp => FALSE);
		end;
		/
		
		Refer GATHER_FIXED_OBJECTS_STATS Runs Extremely Long (Doc ID 2581098.1)

▲ Step Number	Step Type	Instructions
		4. Finally run utlrp to cleanup all invalid objects. ========== SQL> @ $ORACLE_HOME/rdbms/admin/utlrp.sql

▲ Step Number	Step Type	Instructions
7	Install	POST UPGRADE ========== 1. Run postupgrade_fixups.sql and make sure no DBA action required. SQL> @/mounts/ora_home/app/oracle/cfgtoollogs/dbname/preupgrade/postupgrade_fixups.sql 2. Shutdown the database and startup in mount state to change compatible parameter sql> shu immediate sql> startup nomount SQL> alter system set compatible='19.3.0' scope=spfile; System altered. SQL> shu immediate ORA-01507: database not mounted ORACLE instance shut down. SQL> startup ORACLE instance started. Total System Global Area 1.0737E+10 bytes Fixed Size 8907856 bytes Variable Size 1744830464 bytes Database Buffers 8959033344 bytes Redo Buffers 24645632 bytes Database mounted. Database opened. SQL> show parameter compatible NAME TYPE VALUE ------------------------------------ ----------- ------------------------------ compatible string 19.3.0 noncdb_compatible boolean FALSE SQL> alter system switch logfile; System altered. SQL> shu immediate Database closed. Database dismounted. ORACLE instance shut down.

▲ Step Number	Step Type	Instructions
8	Install	DB Verification ========== 1. Take a backup of database and start the database SQL> startup ORACLE instance started. Total System Global Area 1.0737E+10 bytes Fixed Size 8907856 bytes Variable Size 1711276032 bytes Database Buffers 8992587776 bytes Redo Buffers 24645632 bytes Database mounted. Database opened. 2. Update/Change listener of DB to point on 19C home/listener. Ex entry in Listener file (SID_DESC = (ORACLE_HOME = /u01/app/oracle/product/19.3.0) (SID_NAME = dbname)) 3. Update TNS Name should be updated to new hostname in CCDB to make LDAP work quickly and connect the DB. Later hostname of DB CI should be updated to New server in CMDB as well oracle >sqlplus system/XXXXXX@DBNAME SQL*Plus: Release 19.0.0.0.0 - Production Version 19.3.0.0.0 Copyright (c) 1982, 2019, Oracle. All rights reserved. Last Successful login time: Mon Dec 07 2020 09:47:11 -05:00 Connected to: Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production Version 19.3.0.0.0 SQL> set lines 9999 SQL> select name,open_mode from v$database;

▲ Step Number	Step Type	Instructions
		NAME OPEN_MODE --------- ---------- dbname READ WRITE SQL> select INSTANCE_NAME,HOST_NAME,VERSION_FULL from v$instance; INSTANCE_NAME HOST_NAME VERSION_FULL ---------- ---------- ---------- ---------- dbname hostname 19.3.0.0.0 select comp_id,comp_name,status,version from dba_registry; Attach the output of verification to EIQ

▲ Step Number	Step Type	Instructions
9	Install	STANDBY DB UPGRADE ========== 1. Move the pfile & password file to 19c Home. register database with new listener Update TNS Name should be updated to new hostname in CCDB to make LDAP work quickly and connect the DB. Later hostname of DB CI should be updated to New server in CMDB as well Ex entry in Listener file (SID_DESC = (ORACLE_HOME = /u01/app/oracle/product/19.3.0) (SID_NAME = dbname)) 2. Change compatible parameter in pfile 3. Start the database (i). startup nomount (ii). alter database mount standby database (iii). start the MRP and make sure it is sync with prod using below query SELECT a.thread#, b. last_seq, a.applied_seq, a. last_app_timestamp, b.last_seq-a.applied_seq ARC_DIFF FROM (SELECT thread#, MAX(sequence#) applied_seq, MAX(next_time) last_app_timestamp FROM gv$archived_log WHERE applied = 'YES' GROUP BY thread#) a, (SELECT thread#, MAX (sequence#) last_seq FROM gv$archived_log GROUP BY thread#) b WHERE a.thread# = b.thread#; 4. Finally run below command to verify switchover status in prod database. alter database switchover to standbydbname verify; --> Output should be "database altered". if not fix errors/warnings triggered in alert log of prod and standby database. 5. Attach sync output and verify output to EIQ

▲ Step Number	Step Type	Instructions
10	Install	WALLET UPGRADE ========== 1. Make sure wallet is open & autologin by running below command Select *from v$encryption_wallet; 2. There is bug for TDE, if the wallet is created using mkstore then wallet_type will be "unknown". Refer: Why WALLET_TYPE is UNKNOWN in V$encryption_wallet? (Doc ID 2463998.1) if you know the wallet password, proceed with steps mentioned in the document, else dont proceed and it will not harm. 3. Run below command to get status of wallet sys> select *from v$encryption_wallet; This will show wallet is open with autologin. Verify to access the PII data from database. 4. With Argus 8.2.3, There are few more tables that are having PII data. So please run below script to move additional PII tables to encrypted tablespace. (i). PII DATA MOVEMENT TO ENCRYPTED TABLESPACE ========== Raise a RITM to DBA team to move PII data tables to encrypted tablespace after application upgrade. Script location : /u01/app/oracle/dba_folders/linda/argus_encrypt/PII_NEW Script Name : PII_TABLES_823_MISSING_IN_L_Q.sql (II). UNUSABLE INDEX REBUILD ========== During table movement, indexes related to tables will go to unusable state. so we have to rebuild the indexes. Script location : /u01/app/oracle/dba_folders/linda/argus_encrypt/PI

▲ Step Number	Step Type	Instructions
		I_NEW Script Path : script_find_index_unusable.sql & unusable_index_rebuild.sql PII tables ========== CASE_PAT_INFO CASE_REPORTERS LAM_PATIENT LAM_REPORTER --Narrative Tables CASE_COMMENTS CASE_COMPANY_CMTS CASE_LOCAL_EVA_COMMENT CASE_NARRATIVE --Attachments Table CASE_NOTES_ATTACH CASE_LETTERS INTAKE INTAKE_ATTACHMENTS --Audit Log Table CMN_AUDIT_LOG --Reports Table RPT_SAVED_MSG RPT_TRANSMIT_EMAIL_ATTACH --E2B Tables MESSAGES SAFETYREPORT INSIGHT TABLES ========== ========== RPT_CASE RPT_CASE_HIST RPT_REPORTERS RPT_REPORTERS_HIST Attach the output to EIQ ***** Refer below document for reference How To Convert From Using SQLNET.ENCRYPTION_WALLET_LOCATION To 19c Parameter (WALLET_ROOT and TDE_CONFIGURATION) (Doc ID 2642694.1)

▲ Step Number	Step Type	Instructions
		How to Configure Keystore and TDE Encryption Key for United Mode (Doc ID 2586100.1)

Related List Title: Approval List

Table name: sysapproval_approver

Query Condition: Review for = Infosrio Safety - Oracle 19c Upgrade from 12.1 1

Sort Order: State in ascending order

3 Approvals

▲ State	Approver	Approval Meaning	Group	Workflow activity	Created
Approved	Ball,Linda (633987)	This signature indicates technical review of this document and confirms that this deliverable includes sufficient detail to install the system, and that the document is in compliance with the applicable SOPs			05-Aug-2022 07:45:55 PM
Approved	Dilli,Dinesh (801379)	This signature confirms that installation and verification steps described in this document are complete and sufficient to demonstrate qualified installation of the system.			05-Aug-2022 07:45:29 PM
Approved	G,RamSanthosh (808326)	For Cat 1: This signature indicates technical review of this document has been completed, and authorizes execution of the IQ For Cat 2-5: This signature indicates review of this document and confirms that this deliverable includes sufficient detail to install the system or project			06-Aug-2022 01:23:01 PM