Dynamic Performance (V\$) Views: V\$ACCESS to V\$HVMASTER_INFO

This chapter describes the first set (in alphabetical order) of dynamic performance views.

The remaining dynamic performance views appear in alphabetical order in Dynamic Performance (V\$) Views: V\$IM_COLUMN_LEVEL to V\$RULE_SET_AGGREGATE_STATS through Dynamic Performance (V\$) Views: V\$SCHEDULER_IN_MEMORY_TRACE to V\$ZONEMAP_USAGE_STATS.

This chapter contains the following topics:

- About Dynamic Performance Views
- Oracle Exadata Database Machine Views
- Dynamic Performance View Descriptions

8.1 About Dynamic Performance Views

Oracle contains a set of underlying views that are maintained by the database server and accessible to the database administrator user SYS. These views are called **dynamic performance views** because they are continuously updated while a database is open and in use, and their contents relate primarily to performance.

Although these views appear to be regular database tables, they are not. These views provide data on internal disk structures and memory structures. You can select from these views, but you can never update or alter them.

Note:

- You can query the dynamic performance views to extract information from them. However, only simple queries are supported. If sorts, joins, GROUP BY clauses and the like are needed, then you should copy the information from each V\$ view into a table (for example, using a CREATE TABLE ... AS SELECT statement), and then query from those tables.
- Because the information in the V\$ views is dynamic, read consistency is not guaranteed for SELECT operations on these views.

The <code>catalog.sql</code> script contains definitions of the views and public synonyms for the dynamic performance views. You must run <code>catalog.sql</code> to create these views and synonyms. After installation, only user <code>SYS</code> or anyone with <code>SYSDBA</code> privilege has access to the dynamic performance tables. See <code>Oracle Database Administrator's Guide</code> for more information about running <code>catalog.sql</code>.

8.1.1 V\$ Views

The actual dynamic performance views are identified by the prefix $v_{\hat{y}}$. Public synonyms for these views have the prefix $v_{\hat{y}}$. Database administrators and other users should access only the $v_{\hat{y}}$ objects, not the $v_{\hat{y}}$ objects.

The dynamic performance views are used by Oracle Enterprise Manager, which is the primary interface for accessing information about system performance. After an instance is started, the v\$ views that read from memory are accessible. Views that read data from disk require that the database be mounted, and some require that the database be open.

V\$ views are CONTAINER_DATA objects. When a user connected to the root queries a V\$ view, the query results will depend on the CONTAINER_DATA attribute for users for the view. The CONTAINER_DATA clause of the SQL ALTER USER statement is used to set and modify users' CONTAINER DATA attribute.

V\$ views can return data from different containers in a CDB when queried from the root container. These objects will implicitly convert data to the character set of the root container (AL32UTF8) and then return the result to the user. Some character sets may have character expansion (more bytes needed to represent a character) when converted to AL32UTF8, so there may be data truncation if the view column width is not able to accommodate data from a given PDB.

See Also:

- Oracle Database Security Guide for more information about container data objects
- Oracle Database SQL Language Reference for more information about the CONTAINER DATA clause for the SQL ALTER USER statement

8.1.2 GV\$ Views

For almost every V\$ view described in this chapter, Oracle has a corresponding GV\$ (global V\$) view. In Oracle Real Application Clusters, querying a GV\$ view retrieves the V\$ view information from all qualified instances. In addition to the V\$ information, each GV\$ view contains an extra column named $INST_ID$ of data type NUMBER. The $INST_ID$ column displays the instance number from which the associated V\$ view information was obtained. The $INST_ID$ column can be used as a filter to retrieve V\$ information from a subset of available instances. For example, the following query retrieves the information from the V\$LOCK view on instances 2 and 5:

SQL> SELECT * FROM GV\$LOCK WHERE INST_ID = 2 OR INST_ID = 5;

See Also:

Oracle Real Application Clusters Installation and Configuration Guide for your operating system



GV\$ views are <code>CONTAINER_DATA</code> objects. When a user connected to the root queries a GV\$ view, the query results will depend on the <code>CONTAINER_DATA</code> attribute for users for the view. The <code>CONTAINER_DATA</code> clause of the SQL <code>ALTER USER</code> statement is used to set and modify users' <code>CONTAINER_DATA</code> attribute.

GV\$ views can return data from different containers in a CDB when queried from the root container. These objects will implicitly convert data to the character set of the root container (AL32UTF8) and then return the result to the user. Some character sets may have character expansion (more bytes needed to represent a character) when converted to AL32UTF8, so there may be data truncation if the view column width is not able to accommodate data from a given PDB.

See Also:

- Oracle Database Security Guide for more information about container data objects
- Oracle Database SQL Language Reference for more information about the CONTAINER DATA clause for the SQL ALTER USER statement

8.2 Oracle Exadata Database Machine Views

Descriptions of Oracle Exadata Database Machine views are not provided in this manual.

See Oracle Exadata System Software User's Guide for descriptions of Oracle Exadata Database Machine views.



Oracle Exadata Database Machine view names begin with V\$CELL.

8.3 Dynamic Performance View Descriptions

The remainder of this chapter describes the dynamic performance views in alphabetical order.

8.4 V\$ACCESS

V\$ACCESS displays information about locks that are currently imposed on library cache objects.

The locks are imposed to ensure that they are not aged out of the library cache while they are required for SQL execution.

Column	Datatype	Description
SID	NUMBER	Session number that is accessing an object
OWNER	VARCHAR2 (64)	Owner of the object
OBJECT	VARCHAR2(1000)	Name of the object
TYPE	VARCHAR2 (64)	Type identifier for the object



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire multitenant container database (CDB). This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.5 V\$ACTIVE_INSTANCES

 ${\tt V\$ACTIVE_INSTANCES} \ displays \ the \ mapping \ between \ instance \ names \ and \ instance \ numbers \ for \ all \ instances \ that \ have \ the \ database \ currently \ mounted.$

Column	Datatype	Description
INST_NUMBER	NUMBER	Instance number
INST_NAME	VARCHAR2 (256)	Instance name
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.6 V\$ACTIVE_SERVICES

 ${\tt V\$ACTIVE_SERVICES} \ displays \ information \ about \ the \ active \ services \ in \ the \ database.$

Column	Datatype	Description
SERVICE_ID	NUMBER	Service ID
NAME	VARCHAR2 (64)	Name of the service
NAME_HASH	NUMBER	Service name hash
NETWORK_NAME	VARCHAR2 (512)	Network name
CREATION_DATE	DATE	Creation date
CREATION_DATE_HASH	NUMBER	Creation date hash
GOAL	VARCHAR2 (12)	Runtime Load Balancing Goal being used to create run-time load balancing and connection load balancing advice: NONE SERVICE_TIME - Connections are balanced by response time THROUGHPUT - Connections are balanced by throughput



Column	Datatype	Description
DTP	VARCHAR2(1)	Indicates whether or not Distributed Transaction Processing is enabled for this service. When Distributed Transaction Processing is set to Y (YES), it means that the service is offered at exactly one instance at a time for XA affinity. Possible values:
		Y - YESN - NO
BLOCKED	CHAR(2)	Indicates whether a service on the specified instance is blocked from accepting new connections altogether (YES) or not (NO). If a service is blocked, then all connections will be directed to other instances (if any) that are hosting the desired service.
AQ_HA_NOTIFICATION	VARCHAR2(3)	Indicates whether FAN - Fast Application Notification for OCI connections is set (YES) or not (NO)
CLB_GOAL	VARCHAR2(5)	Connection load balancing goal used with statistics that are sent to the listeners to determine how new connections are distributed: LONG SHORT
COMMIT_OUTCOME	VARCHAR2(3)	For Transaction Guard and Database Native Transaction Guard, indicates whether the database service associated with the user session has the <code>COMMIT_OUTCOME</code> service attribute enabled (YES) or not (NO). This attribute applies on a per session basis and is set at connect time.
		When the value of this column is YES, the commit status is managed for all supported transaction types and the outcome of a COMMIT transaction is preserved after the COMMIT has executed. Refer to the COMMIT_OUTCOME_FASTPATH column to view the preferred method for preserving the commit outcome.
		See Also: Oracle Database Development Guide for information about preserving the commit outcome
RETENTION_TIME	NUMBER	For Transaction Guard and Database Native Transaction Guard, when COMMIT_OUTCOME = YES, this value indicates the amount of time (in seconds) that the commit outcome is retained in the database.
REPLAY_INITIATION_TIMEOU T	NUMBER	For Application Continuity, this option specifies the difference between the time (in seconds) of original execution of the first operation of a request and the time that the replay is ready to start after a successful reconnect. Application Continuity will not replay after the specified amount of time has passed. This option is intended to avoid the unintentional execution of a transaction when a system is recovered after a long period of time. The default is 5 minutes (300 seconds).
SESSION_STATE_CONSISTENC Y	VARCHAR2 (128)	Describes how non-transactional is changed during a request. This parameter is considered only if <code>failover_type</code> is set to <code>TRANSACTION</code> for Application Continuity. Examples of session state are NLS settings, optimizer preferences, event settings, PL/SQL global variables, temporary tables, advanced queues, LOBs, and result cache. If non-transactional values change after the request starts, the default value of <code>DYNAMIC</code> should be set. Almost all applications should use <code>DYNAMIC</code> mode. If you are unsure, use <code>DYNAMIC</code> mode.
GLOBAL	VARCHAR2(3)	Indicates whether the service is global. A global service is managed by Global Service Manager (GSM) and can be provided by multiple databases that contain replicated data. Possible values:
		 YES: Indicates the service is global NO: Indicates the service is not global



Column	Datatype	Description
CON_NAME	VARCHAR2 (128)	Container name of the object. The value of this column is ${\tt NULL}$ in non-CDBs.
SQL_TRANSLATION_PROFILE	VARCHAR2 (261)	A non-NULL value specifies the initial SQL translation profile for subsequent database connections that use the service and do not specify a SQL translation profile. A NULL value has no effect.
MAX_LAG_TIME	VARCHAR2 (128)	The maximum replication lag (in seconds) that is acceptable for a data replica to be used for providing the database service. Can only be specified for global services.
STOP_OPTION	VARCHAR2 (128)	Stop option for sessions of this service for planned maintenance
FAILOVER_RESTORE	VARCHAR2 (128)	Indicates whether sessions recover their commonly used session state (like NLS, schema) when they are failed over with TAF
DRAIN_TIMEOUT	NUMBER	Number of seconds to wait for sessions to be drained
TABLE_FAMILY_ID	NUMBER	Sharded table family ID associated with the service
PLACEMENT_TEMPLATE	VARCHAR2 (64)	Reserved for future use
COMMIT_OUTCOME_FASTPATH	VARCHAR2(3)	For Transaction Guard and Database Native Transaction Guard, when COMMIT_OUTCOME = YES, the value of this column indicates the preferred method for preserving the commit outcome. Possible values:
		 YES - Database Native Transaction Guard is used. Each transaction is assigned a unique transaction identifier (DB XID) in the database. The DB XID and status of the corresponding transaction are maintained persistently in a transaction table. Note that if COMMIT_OUTCOME = YES, then the value of COMMIT_OUTCOME_FASTPATH defaults to YES. NO - Transaction Guard is used. A logical transaction ID (LTXID) is set for each user session at login and at each successful commit. LTXIDs are used only when the commit is not in the same round-trip to the database as the start of the transaction. Moreover, some transaction types, such as commit on success transactions, DDL transactions, and PL/SQL transactions, will continue to use LTXIDs in the same round-trip. When Transaction Guard is used, the outcome of a COMMIT transaction is known. If there is an outage, the application can use DBMS_APP_CONT.GET_LTXID_OUTCOME to return a reliable status for the last in-flight work. See Also: Oracle Real Application Clusters Administration and
MDIJE CAQUE GEDUTGE	113 D 0113 D 0 (C 4)	Deployment Guide for information about logical transaction IDs
TRUE_CACHE_SERVICE	VARCHAR2 (64)	True Cache service associated with this database service
PARENT_SERVICE TEMPLATE_TIMEOUT	VARCHAR2 (64) NUMBER	Name of the parent service Maximum number of seconds that can pass before templates for the service expire
		If the value of this column is 0, then template timeout is turned off.
FAILOVER_TYPE	VARCHAR2 (128)	AUTO for Transparent Application Continuity, TRANSACTION for Application Continuity, SESSION or SELECT for TAF.
FAILOVER_METHOD	VARCHAR2 (128)	TAF only for compatibility - BASIC or NONE
FAILOVER_RETRIES	NUMBER	For Application Continuity and TAF, when reconnecting after a failure, number of attempts to re-connect per incident
FAILOVER_DELAY	NUMBER	For Application Continuity and TAF, when reconnecting after a failure, delay between each connection retry (in seconds)
RESET_STATE	VARCHAR2(6)	Reset state for the service. Possible values: LEVEL1 NONE



Column	Datatype	Description
AUTO_CONNECTION_REBALANC	VARCHAR2(7)	Drain setting for service load balancing. Possible values:
E		• 0 - DEFAULT
		• 1 - NONE
		• 255 - AUTO
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		• <i>n</i> : Where <i>n</i> is the applicable container ID for the rows containing data

8.7 V\$ACTIVE_SESS_POOL_MTH

V\$ACTIVE SESS POOL MTH displays available active session pool resource allocation methods.

Column	Datatype	Description
NAME	VARCHAR2 (40)	Name of the active session pool resource allocation method
CON_ID NUMBER	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.8 V\$ACTIVE_SESSION_HISTORY

V\$ACTIVE SESSION HISTORY displays sampled session activity in the database.

It contains snapshots of active database sessions taken once a second. A database session is considered active if it was on the CPU or was waiting for an event that didn't belong to the Idle wait class. Refer to the V\$EVENT_NAME view for more information on wait classes.

This view contains one row for each active session per sample and returns the latest session sample rows first. A majority of the columns describing the session in the active session history are present in the V\$SESSION view.

Column	Datatype	Description
SAMPLE_ID	NUMBER	ID of the sample
SAMPLE_TIME	TIMESTAMP(3)	Time at which the sample was taken
SAMPLE_TIME_UTC	TIMESTAMP(3)	Time at which the sample was taken in UTC (Coordinated Universal Time) time zone
USECS_PER_ROW	NUMBER	Time in microseconds since the last sample was taken



Column	Datatype	Description
IS_AWR_SAMPLE	VARCHAR2(1)	Indicates whether this sample has been flushed or will be flushed to the Automatic Workload Repository (DBA_HIST_ACTIVE_SESS_HISTORY) (Y) or not (N)
SESSION_ID	NUMBER	Session identifier; maps to V\$SESSION.SID
SESSION_SERIAL#	NUMBER	Session serial number (used to uniquely identify a session's objects); maps to ${\tt V\$SESSION.SERIAL\#}$
SESSION_TYPE	VARCHAR2(10)	Session type: • FOREGROUND • BACKGROUND
FLAGS	NUMBER	Reserved for future use
USER_ID	NUMBER	Oracle user identifier; maps to V\$SESSION.USER#
SQL_ID	VARCHAR2 (13)	SQL identifier of the SQL statement that the session was executing at the time of sampling
IS_SQLID_CURRENT	VARCHAR2(1)	Indicates whether the SQL identifier in the ${\tt SQL_ID}$ column is being executed (Y) or not (N)
SQL_CHILD_NUMBER	NUMBER	Child number of the SQL statement that the session was executing at the time of sampling
SQL_OPCODE	NUMBER	Indicates what phase of operation the SQL statement was in; maps to ${\tt V\$SESSION.COMMAND}$
		See Also: "V\$SESSION" for information on interpreting this column
SQL_OPNAME	VARCHAR2 (64)	SQL command name
FORCE_MATCHING_SIGNATURE	NUMBER	Signature used when the CURSOR_SHARING parameter is set to FORCE
TOP_LEVEL_SQL_ID	VARCHAR2(13)	SQL identifier of the top level SQL statement
TOP_LEVEL_SQL_OPCODE	NUMBER	Indicates what phase of operation the top level SQL statement was in
SQL_ADAPTIVE_PLAN_RESOLV ED	NUMBER	Indicates whether the SQL plan of the sampled database session is a resolved adaptive plan or not
SQL_FULL_PLAN_HASH_VALUE	NUMBER	Numerical representation of the complete SQL plan for the cursor being executed by this session
SQL_PLAN_HASH_VALUE	NUMBER	Numeric representation of the SQL plan for the cursor. This information might not be available for all session samples. V\$SESSION does not contain this information.
SQL_PLAN_LINE_ID	NUMBER	SQL plan line ID
SQL_PLAN_OPERATION	VARCHAR2(30)	Plan operation name
SQL_PLAN_OPTIONS	VARCHAR2(30)	Plan operation options
SQL_EXEC_ID	NUMBER	SQL execution identifier
SQL_EXEC_START	DATE	Time when the execution of the SQL started
PLSQL_ENTRY_OBJECT_ID	NUMBER	Object ID of the top-most PL/SQL subprogram on the stack; NULL if there is no PL/SQL subprogram on the stack. Maps to DBA_OBJECTS.OBJECT_ID.
PLSQL_ENTRY_SUBPROGRAM_I	NUMBER	Subprogram ID of the top-most PL/SQL subprogram on the stack. Maps to DBA_OBJECTS.DATA_OBJECT_ID.
PLSQL_OBJECT_ID	NUMBER	Object ID of the currently executing PL/SQL subprogram. Maps to DBA_OBJECTS.OBJECT_ID.
PLSQL_SUBPROGRAM_ID	NUMBER	Subprogram ID of the currently executing PL/SQL object; NULL if executing SQL. Maps to DBA_OBJECTS.DATA_OBJECT_ID.



Column	Datatype	Description
QC_INSTANCE_ID	NUMBER	Query coordinator instance ID. This information is only available if the sampled session is a parallel query worker. For all other sessions, the value is 0.
QC_SESSION_ID	NUMBER	Query coordinator session ID. This information is only available if the sampled session is a parallel query worker. For all other sessions, the value is 0.
QC_SESSION_SERIAL#	NUMBER	Query coordinator session serial number. This information is only available if the sampled session is a parallel query worker. For all other sessions, the value is 0 .
PX_FLAGS	NUMBER	Reserved for internal use
EVENT	VARCHAR2 (64)	If ${\tt SESSION_STATE} = {\tt WAITING}$, then the event for which the session was waiting for at the time of sampling.
		If SESSION_STATE = ON CPU, then this column is NULL.
		See Also: Oracle Wait Events
EVENT_ID	NUMBER	Identifier of the resource or event for which the session is waiting or for which the session last waited. Interpretation is similar to that of the EVENT column.
EVENT#	NUMBER	Number of the resource or event for which the session is waiting or for which the session last waited. Interpretation is similar to that of the EVENT column.
SEQ#	NUMBER	Sequence number that uniquely identifies the wait (incremented for each wait)
P1TEXT	VARCHAR2 (64)	Text of the first additional parameter
P1	NUMBER	First additional parameter
P2TEXT	VARCHAR2 (64)	Text of the second additional parameter
P2	NUMBER	Second additional parameter
P3TEXT	VARCHAR2 (64)	Text of the third additional parameter
Р3	NUMBER	Third additional parameter
WAIT_CLASS	VARCHAR2(64)	Wait class name of the event for which the session was waiting at the time of sampling. Interpretation is similar to that of the EVENT column. Maps to V\$SESSION.WAIT_CLASS.
WAIT_CLASS_ID	NUMBER	Wait class identifier of the event for which the session was waiting at the time of sampling. Interpretation is similar to that of the EVENT column. Maps to V\$SESSION.WAIT_CLASS_ID.
WAIT_TIME	NUMBER	Total wait time for the event for which the session last waited if the session was on the CPU when sampled; 0 if the session was waiting at the time of sampling
		Note: Whether or not WAIT_TIME = 0 is what is useful to find the SESSION_STATE at the time of sampling, rather than the actual value of WAIT_TIME itself. Maps to V\$SESSION.WAIT_TIME.
SESSION_STATE	VARCHAR2(7)	Session state:
		• WAITING
		• ON CPU



Column	Datatype	Description
TIME_WAITED	NUMBER	If SESSION_STATE = WAITING, then the time that the session actually spent waiting for that event (in microseconds). This column is set for waits that were in progress at the time the sample was taken.
		If a wait event lasted for more than a second and was caught waiting in more than one session sample row, then the actual time spent waiting for that wait event will be populated in the last of those session sample rows. At any given time, this information will not be available for the latest session sample.
BLOCKING_SESSION_STATUS	VARCHAR2(11)	Status of the blocking session: VALID NO HOLDER GLOBAL NOT IN WAIT UNKNOWN
BLOCKING_SESSION	NUMBER	Session identifier of the blocking session. Populated only if the blocker is on the same instance and the session was waiting for enqueues or a "buffer busy" wait. Maps to V\$SESSION.BLOCKING_SESSION.
BLOCKING_SESSION_SERIAL#	NUMBER	Serial number of the blocking session
BLOCKING_INST_ID	NUMBER	Instance number of the blocker shown in BLOCKING_SESSION
BLOCKING_HANGCHAIN_INFO	VARCHAR2(1)	Indicates whether the information about ${\tt BLOCKING_SESSION}$ comes from the hang chain (Y) or not (N)
CURRENT_OBJ#	NUMBER	Object ID of the object that the session is referencing. This information is only available if the session was waiting for application, cluster, concurrency, and user I/O wait events. Maps to V\$SESSION.ROW_WAIT_OBJ#.
CURRENT_FILE#	NUMBER	File number of the file containing the block that the session is referencing. This information is only available if the session was waiting for cluster, concurrency, and user I/O wait events. Maps to V\$SESSION.ROW_WAIT_FILE#.
CURRENT_BLOCK#	NUMBER	ID of the block that the session is referencing. This information is only available if the session was waiting for cluster, concurrency, and user I/O wait events. Maps to V\$SESSION.ROW_WAIT_BLOCK#.
CURRENT_ROW#	NUMBER	Row identifier that the session is referencing. This information is only available if the session was waiting for cluster, concurrency, and user I/O wait events. Maps to V\$SESSION.ROW_WAIT_ROW#.
TOP_LEVEL_CALL#	NUMBER	Oracle top level call number
TOP_LEVEL_CALL_NAME	VARCHAR2(64)	Oracle top level call name
CONSUMER_GROUP_ID	NUMBER	Consumer group ID
XID	RAW(8)	Transaction ID that the session was working on at the time of sampling. ${\tt V\$SESSION} \ {\bf does} \ {\bf not} \ {\bf contain} \ {\bf this} \ {\bf information}.$
REMOTE_INSTANCE#	NUMBER	Remote instance identifier that will serve the block that this session is waiting for. This information is only available if the session was waiting for cluster events.
TIME_MODEL	NUMBER	Time model information
IN_CONNECTION_MGMT	VARCHAR2(1)	Indicates whether the session was doing connection management at the time of sampling (Y) or not (N)
IN_PARSE	VARCHAR2(1)	Indicates whether the session was parsing at the time of sampling (Y) or not (N)



Column	Datatype	Description
IN_HARD_PARSE	VARCHAR2(1)	Indicates whether the session was hard parsing at the time of sampling (Y) or not (N)
IN_SQL_EXECUTION	VARCHAR2(1)	Indicates whether the session was executing SQL statements at the time of sampling (Y) or not (N)
IN_PLSQL_EXECUTION	VARCHAR2(1)	Indicates whether the session was executing PL/SQL at the time of sampling (Y) or not (N)
IN_PLSQL_RPC	VARCHAR2(1)	Indicates whether the session was executing inbound PL/SQL RPC calls at the time of sampling (Y) or not (N)
IN_PLSQL_COMPILATION	VARCHAR2(1)	Indicates whether the session was compiling PL/SQL at the time of sampling (Y) or not (N)
IN_JAVA_EXECUTION	VARCHAR2(1)	Indicates whether the session was executing Java at the time of sampling (Y) or not (N)
IN_BIND	VARCHAR2(1)	Indicates whether the session was doing bind operations at the time of sampling (Y) or not (N)
IN_CURSOR_CLOSE	VARCHAR2(1)	Indicates whether the session was closing a cursor at the time of sampling (Y) or not (N)
IN_SEQUENCE_LOAD	VARCHAR2(1)	Indicates whether the session is loading in sequence (in sequence load code) (Y) or not (N)
IN_INMEMORY_QUERY	VARCHAR2(1)	Indicates whether the session was querying the In-Memory Column Store (IM column store) at the time of sampling (Y) or not (N)
IN_INMEMORY_POPULATE	VARCHAR2(1)	Indicates whether the session was populating the IM column store at the time of sampling (Y) or not (N)
IN_INMEMORY_PREPOPULATE	VARCHAR2(1)	Indicates whether the session was prepopulating the IM column store at the time of sampling (Y) or not (N)
IN_INMEMORY_REPOPULATE	VARCHAR2(1)	Indicates whether the session was repopulating the IM column store at the time of sampling (Y) or not (N)
IN_INMEMORY_TREPOPULATE	VARCHAR2(1)	Indicates whether the session was trickle repopulating the IM column store at the time of sampling (Y) or not (N)
IN_TABLESPACE_ENCRYPTION	VARCHAR2(1)	Indicates whether encryption or decryption of a tablespace occurred at the time of sampling (Y) or not (N)
CAPTURE_OVERHEAD	VARCHAR2(1)	Indicates whether the session is executing capture code (Y) or not (N)
REPLAY_OVERHEAD	VARCHAR2(1)	Indicates whether the session is executing replay code (Y) or not (N)
IS_CAPTURED	VARCHAR2(1)	Indicates whether the session is being captured (Y) or not (N)
IS_REPLAYED	VARCHAR2(1)	Indicates whether the session is being replayed (Y) or not (N)
IS_REPLAY_SYNC_TOKEN_HOL DER	VARCHAR2(1)	Indicates whether the session is holding a synchronization token (Y) or not (N) during workload replay
SPID	VARCHAR2(24)	Operating system process identifier
STID	VARCHAR2(24)	Operating system thread identifier
SERVICE_HASH	NUMBER	Hash that identifies the Service; maps to V\$ACTIVE_SERVICES.NAME_HASH
PROGRAM	VARCHAR2(84)	Name of the operating system program
MODULE	VARCHAR2(64)	Name of the executing module when sampled, as set by the DBMS_APPLICATION_INFO.SET_MODULE procedure
ACTION	VARCHAR2(64)	Name of the executing module when sampled, as set by the DBMS_APPLICATION_INFO.SET_ACTION procedure



Column	Datatype	Description
CLIENT_ID	VARCHAR2 (64)	Client identifier of the session; maps to V\$SESSION.CLIENT_IDENTIFIER
CLIENT_INFO	VARCHAR2(64)	Client information for the session; maps to V\$SESSION.CLIENT_INFO
MACHINE	VARCHAR2 (64)	Client's operating system machine name
PORT	NUMBER	Client port number
ECID	VARCHAR2 (64)	Execution context identifier (sent by Application Server)
DBREPLAY_FILE_ID	NUMBER	If the session is being captured or replayed, then <code>DBREPLAY_FILE_ID</code> is the file ID for the workload capture or workload replay; otherwise it is NULL.
DBREPLAY_CALL_COUNTER	NUMBER	If the session is being captured or replayed, then DBREPLAY_CALL_COUNTER is the call counter of the user call that is being captured or replayed; otherwise it is NULL.
TM_DELTA_TIME	NUMBER	Time interval (in microseconds) over which <code>TM_DELTA_CPU_TIME</code> and <code>TM_DELTA_DB_TIME</code> are accumulated
TM_DELTA_CPU_TIME	NUMBER	Amount of time this session spent on CPU over the last ${\tt TM_DELTA_TIME}$ microseconds
TM_DELTA_DB_TIME	NUMBER	Amount of time spent by this session in database calls over the last ${\tt TM_DELTA_TIME}$ microseconds
DELTA_TIME	NUMBER	Time interval (in microseconds) since the last time this session was sampled or created, over which the next five statistics are accumulated
DELTA_READ_IO_REQUESTS	NUMBER	Number of read I/O requests made by this session over the last DELTA_TIME microseconds
DELTA_WRITE_IO_REQUESTS	NUMBER	Number of write I/O requests made by this session over the last DELTA_TIME microseconds
DELTA_READ_IO_BYTES	NUMBER	Number of I/O bytes read by this session over the last ${\tt DELTA_TIME}$ microseconds
DELTA_WRITE_IO_BYTES	NUMBER	Number of I/O bytes written by this session over the last ${\tt DELTA_TIME}$ microseconds
DELTA_INTERCONNECT_IO_BY TES	NUMBER	Number of I/O bytes sent over the I/O interconnect over the last DELTA_TIME microseconds
DELTA_READ_MEM_BYTES	NUMBER	Number of read bytes through the buffer cache
PGA_ALLOCATED	NUMBER	Amount of PGA memory (in bytes) consumed by this session at the time this sample was taken
TEMP_SPACE_ALLOCATED	NUMBER	Amount of TEMP memory (in bytes) consumed by this session at the time this sample was taken
CON_DBID	NUMBER	The database ID of the pluggable database (PDB)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		1: This value is used for rows containing data that pertain to only the root Where n is the applicable container ID for the rows containing.
		 n: Where n is the applicable container ID for the rows containing data
DBOP_NAME	VARCHAR2(30)	Database operation name. If the type is SQL, the ${\tt DBOP_NAME}$ will be ${\tt NULL}.$
DBOP_EXEC_ID	NUMBER	Database operation execution identifier for the current execution. If the type is SQL, the DBOP_EXEC_ID will be NULL.



See Also:

- "V\$SESSION"
- "V\$ALL_ACTIVE_SESSION_HISTORY"
- Oracle Database PL/SQL Packages and Types Reference for more information about the DBMS APPLICATION INFO.SET MODULE procedure
- Oracle Database PL/SQL Packages and Types Reference for more information about the DBMS_APPLICATION_INFO.SET_ACTION procedure

8.9 V\$ACTIVITY_MVIEW

V\$ACTIVITY_MVIEW describes the materialized view activity snapshots that are currently being taken by the Object Activity Tracking System (OATS).

Each row in this view represents one in-progress activity snapshot and describes the materialized view activity that has occurred so far during the snapshot interval.

Column	Datatype	Description
MVIEW_NAME	VARCHAR2 (128)	Name of the materialized view for which the activity snapshot is being taken
MVIEW_OWNER	VARCHAR2 (128)	Owner of the materialized view for which the activity snapshot is being taken
USER_CLASS	VARCHAR2(7)	Indicates whether the activity was performed by the RDBMS (SYS) or by a user (NON-SYS)
COMPILES	NUMBER	Number of times the materialized view was compiled
		This number includes:
		• Explicit compiles performed with the SQL statement ALTER MATERIALIZED VIEW COMPILE
		 Automatic compiles that occurred because the structure of an underlying base table changed
REWRITES_TEXTMATCH	NUMBER	Number of query rewrites that used the text match rewrite method
REWRITES_GENERAL	NUMBER	Number of query rewrites that used general rewrite methods
REWRITES_PARTIAL	NUMBER	Number of query rewrites that occurred when the view was partially stale
		This number includes:
		 UNION ALL operations involving rewritten queries that had one branch with the materialized view and the other branch with its underlying base tables (partial rewrites)
		 Single query block rewrites of the materialized view that involved a join back to its underlying base table
REWRITES_DELTA	NUMBER	Number of query rewrites that used stale data in the materialized view plus the delta information stored in the materialized view logs
REWRITES_PCT	NUMBER	Number of partition change tracking (PCT) rewrites
REWRITES_HINTED	NUMBER	Number of query rewrites that occurred because the materialized view was eligible for query rewrite and the SELECT statement contained the REWRITE hint with the name of the materialized view specified in the hint
NOREWRITES_HINTED	NUMBER	Reserved for future use



Column	Datatype	Description
NOREWRITES_STALE	NUMBER	Number of query executions that did not use query rewrite because the materialized view was eligible for query rewrite, but stale
REFRESHES_ON_DEMAND	NUMBER	Number of ON DEMAND refreshes
		This type of refresh is performed on materialized views that use the ON DEMAND refresh mode, which instructs the database to refresh the materialized view only when a manual refresh is launched by one of the three DBMS_MVIEW refresh procedures.
REFRESHES_ON_COMMIT	NUMBER	Number of ON COMMIT refreshes
		This type of refresh is performed on materialized views that use the ON COMMIT refresh mode, which instructs the database to refresh the materialized view whenever the database commits a transaction that operates on a master table of the materialized view.
REFRESHES_ON_STATEMENT	NUMBER	Number of on statement refreshes
		This type of refresh is performed on materialized views that use the ON STATEMENT refresh mode, which instructs the database to perform an automatic refresh of the materialized view every time a DML operation is performed on any of the view's base tables.
REFRESHES_SCHEDULED	NUMBER	Number of scheduled refreshes
REFRESHES_AUTOMATIC	NUMBER	Number of automatic refreshes
REFRESHES_FAST	NUMBER	Number of incremental refreshes
REFRESHES_COMPLETE	NUMBER	Number of full refreshes
REFRESHES_PCT	NUMBER	Number of partition change tracking (PCT) refreshes
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

Note:

The counts in this view are approximate in order to keep system overhead low. Also, there are database activities, such as statistics collection, query compilation, and query optimization, that may cause the counts to be different than expected or to vary slightly across successive queries.

See Also:

"DBA_ACTIVITY_MVIEW" to view recently completed materialized view activity snapshots



8.10 V\$ACTIVITY_TABLE

 ${\tt V\$ACTIVITY_TABLE} \ describes \ the \ table \ activity \ snapshots \ that \ are \ currently \ being \ taken \ by \ the \ Object \ Activity \ Tracking \ System \ (OATS).$

Each row in this view represents one in-progress activity snapshot and describes the table activity that has occurred so far during the snapshot interval.

Column	Datatype	Description
TABLE_NAME	VARCHAR2 (128)	Name of the table for which the activity snapshot is being taken
TABLE_OWNER	VARCHAR2 (128)	Owner of the table for which the activity snapshot is being taken
USER_CLASS	VARCHAR2	Reserved for future use
SCANS	NUMBER	Number of table scans
LOADS	NUMBER	Number of table loads
LOAD_ROWS	NUMBER	Number of rows that were loaded into the table
INSERT_ROWS	NUMBER	Number of rows that were inserted into the table
DELETE_ROWS	NUMBER	Number of rows that were deleted from the table
UPDATE_ROWS	NUMBER	Number of table rows that were updated
TRUNCATES	NUMBER	Number of table truncations
TRUNCATED_ROWS	NUMBER	Number of table rows that were deleted due to table truncations
PARTITION_TRUNCATES	NUMBER	Number of table partition or subpartition truncations
PARTITION_TRUNCATED_ROWS	NUMBER	Number of table rows that were deleted due to table partition or subpartition truncations
PARTITION_CREATES	NUMBER	Number of table partitions or subpartitions that were created
PARTITION_DROPS	NUMBER	Number of table partition or subpartition drops
PARTITION_DROPS_ROWS	NUMBER	Number of table rows that were dropped due to table partition or subpartition drops
PARTITION_MOVES	NUMBER	Number of table partition or subpartition moves
PARTITION_MOVES_ROWS	NUMBER	Number of table rows that were moved due to table partition or subpartition moves
PARTITION_SPLITS	NUMBER	Number of table partition or subpartition splits
PARTITION_SPLITS_ROWS	NUMBER	Number of table rows that were split due to table partition or subpartition splits
PARTITION_MERGES	NUMBER	Number of table partition or subpartition merges
PARTITION_MERGES_ROWS	NUMBER	Number of table rows that were merged due to table partition or subpartition merges
PARTITION_COALESCES	NUMBER	Number of table partition or subpartition coalesces
PARTITION_COALESCE_ROWS	NUMBER	Number of table rows that were redistributed due to table partition or subpartition coalesces
PARTITION_EXCHANGES	NUMBER	Number of table partition or subpartition exchanges
PARTITION_EXCHANGES_ROWS	NUMBER	Number of table rows that were exchanged due to table partition or subpartition exchanges



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

Note:

The counts in this view are approximate in order to keep system overhead low. Also, there are database activities, such as statistics collection, query compilation, and query optimization, that may cause the counts to be different than expected or to vary slightly across successive queries.

Note:

This view does not contain information related to temporary tables or external tables.

See Also:

"DBA_ACTIVITY_TABLE" to view recently completed table activity snapshots

8.11 V\$ADVISOR_PROGRESS

V\$ADVISOR PROGRESS displays information about the progress of advisor execution.

Column	Datatype	Description
SID	NUMBER	Session ID
SERIAL#	NUMBER	Session serial number
USERNAME	VARCHAR2(128)	Oracle user name
OPNAME	VARCHAR2(64)	Operation name
ADVISOR_NAME	VARCHAR2(64)	Advisor name
TASK_ID	NUMBER	Task ID
TARGET_DESC	VARCHAR2(32)	Description of the target of the advisor
SOFAR	NUMBER	Amount of work done so far
TOTALWORK	NUMBER	Total work to be done
UNITS	VARCHAR2(32)	Units that the work is measured in
BENEFIT SOFAR	NUMBER	Benefit obtained so far



Column	Datatype	Description
BENEFIT_MAX	NUMBER	Estimate of maximum benefit that could be obtained
FINDINGS	NUMBER	Number of findings so far
RECOMMENDATIONS	NUMBER	Number of recommendations so far
TIME_REMAINING	NUMBER	Estimate of time remaining for the completion of the task (in seconds)
START_TIME	DATE	Start time of the task
LAST_UPDATE_TIME	DATE	Last time progress was posted
ELAPSED_SECONDS	NUMBER	Elapsed time so far
ADVISOR_METRIC1	NUMBER	Value of the advisor-specific metric
METRIC1_DESC	VARCHAR2(64)	Description of the advisor-specific metric
EXECUTION_TYPE	VARCHAR2 (64)	Type of the last execution. This information is optional for single-execution tasks.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.12 V\$ALERT_TYPES

V\$ALERT TYPES displays information about server alert types.

Column	Datatype	Description
REASON_ID	NUMBER	ID of the alert reason
OBJECT_TYPE	VARCHAR2 (64)	Object type
TYPE	VARCHAR2(9)	Alert type: Stateful Stateless
GROUP_NAME	VARCHAR2(64)	Group name
SCOPE	VARCHAR2(8)	<pre>Scope: Database Instance</pre>
INTERNAL_METRIC_CATEGORY	VARCHAR2 (64)	Internal metric category
INTERNAL_METRIC_NAME	VARCHAR2 (64)	Internal metric name
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



8.13 V\$ALL_ACTIVE_SESSION_HISTORY

V\$ALL_ACTIVE_SESSION_HISTORY displays sampled session activity in the database.

Note:

 ${\tt V\$ALL_ACTIVE_SESSION_HISTORY} \ allows \ application \ developers \ to \ view \ their \ own \\ session \ activity. \ It \ is \ similar \ to \ the \ {\tt V\$ACTIVE_SESSION_HISTORY} \ view, \ with \ the \ following exception:$

- When queried by a user with the SYSDBA privilege, the
 V\$ALL_ACTIVE_SESSION_HISTORY view displays the same data as the
 V\$ACTIVE SESSION HISTORY view.
- When queried by any other user, the V\$ALL_ACTIVE_SESSION_HISTORY view displays only data about sessions owned by that user.

See also "V\$ACTIVE_SESSION_HISTORY"

Column	Datatype	Description
SAMPLE_ID	NUMBER	ID of the sample
SAMPLE_TIME	TIMESTAMP(3)	Time at which the sample was taken
SAMPLE_TIME_UTC	TIMESTAMP(3)	Time at which the sample was taken in UTC (Coordinated Universal Time) time zone
USECS_PER_ROW	NUMBER	Time in microseconds since the last sample was taken
IS_AWR_SAMPLE	VARCHAR2(1)	Indicates whether this sample has been flushed or will be flushed to the Automatic Workload Repository (DBA_HIST_ACTIVE_SESS_HISTORY) (Y) or not (N)
SESSION_ID	NUMBER	Session identifier; maps to V\$SESSION.SID
SESSION_SERIAL#	NUMBER	Session serial number (used to uniquely identify a session's objects); maps to <code>V\$SESSION.SERIAL#</code>
SESSION_TYPE	VARCHAR2(10)	Session type: • FOREGROUND • BACKGROUND
FLAGS	NUMBER	Reserved for future use
USER_ID	NUMBER	Oracle user identifier; maps to V\$SESSION.USER#
SQL_ID	VARCHAR2 (13)	SQL identifier of the SQL statement that the session was executing at the time of sampling
IS_SQLID_CURRENT	VARCHAR2(1)	Indicates whether the SQL identifier in the SQL_ID column is being executed (Y) or not (N)
SQL_CHILD_NUMBER	NUMBER	Child number of the SQL statement that the session was executing at the time of sampling
SQL_OPCODE	NUMBER	Indicates what phase of operation the SQL statement was in; maps to ${\tt V\$SESSION.COMMAND}$
		See Also: "V\$SESSION" for information on interpreting this column
SQL_OPNAME	VARCHAR2(64)	SQL command name
FORCE_MATCHING_SIGNATURE	NUMBER	Signature used when the CURSOR_SHARING parameter is set to FORCE



Column	Datatype	Description
TOP_LEVEL_SQL_ID	VARCHAR2(13)	SQL identifier of the top level SQL statement
TOP_LEVEL_SQL_OPCODE	NUMBER	Indicates what phase of operation the top level SQL statement was in
SQL_ADAPTIVE_PLAN_RESOLV ED	NUMBER	Indicates whether the SQL plan of the sampled database session is a resolved adaptive plan or not
SQL_FULL_PLAN_HASH_VALUE	NUMBER	Numerical representation of the complete SQL plan for the cursor being executed by this session
SQL_PLAN_HASH_VALUE	NUMBER	Numeric representation of the SQL plan for the cursor. This information might not be available for all session samples. V\$SESSION does not contain this information.
SQL_PLAN_LINE_ID	NUMBER	SQL plan line ID
SQL_PLAN_OPERATION	VARCHAR2(30)	Plan operation name
SQL_PLAN_OPTIONS	VARCHAR2(30)	Plan operation options
SQL_EXEC_ID	NUMBER	SQL execution identifier
SQL_EXEC_START	DATE	Time when the execution of the SQL started
PLSQL_ENTRY_OBJECT_ID	NUMBER	Object ID of the top-most PL/SQL subprogram on the stack; NULL if there is no PL/SQL subprogram on the stack. Maps to DBA_OBJECTS.OBJECT_ID.
PLSQL_ENTRY_SUBPROGRAM_I	NUMBER	Subprogram ID of the top-most PL/SQL subprogram on the stack. Maps to DBA_OBJECTS.DATA_OBJECT_ID.
PLSQL_OBJECT_ID	NUMBER	Object ID of the currently executing PL/SQL subprogram. Maps to DBA_OBJECTS.OBJECT_ID.
PLSQL_SUBPROGRAM_ID	NUMBER	Subprogram ID of the currently executing PL/SQL object; NULL if executing SQL. Maps to DBA_OBJECTS.DATA_OBJECT_ID.
PLSQL_CURRENT_ENTRY_OBJECT_ID	NUMBER	Object ID of the currently executing PL/SQL subprogram; NULL if executing SQL.
QC_INSTANCE_ID	NUMBER	Query coordinator instance ID. This information is only available if the sampled session is a parallel query worker. For all other sessions, the value is 0.
QC_SESSION_ID	NUMBER	Query coordinator session ID. This information is only available if the sampled session is a parallel query worker. For all other sessions, the value is 0.
QC_SESSION_SERIAL#	NUMBER	Query coordinator session serial number. This information is only available if the sampled session is a parallel query worker. For all other sessions, the value is 0.
PX_FLAGS	NUMBER	Reserved for internal use
EVENT	VARCHAR2 (64)	If SESSION_STATE = WAITING, then the event for which the session was waiting for at the time of sampling.
		If SESSION_STATE = ON CPU, then this column is NULL.
		See Also: Oracle Wait Events
EVENT_ID	NUMBER	Identifier of the resource or event for which the session is waiting or for which the session last waited. Interpretation is similar to that of the ${\tt EVENT}$ column.
EVENT#	NUMBER	Number of the resource or event for which the session is waiting or for which the session last waited. Interpretation is similar to that of the EVENT column.
SEQ#	NUMBER	Sequence number that uniquely identifies the wait (incremented for each wait)



Column	Datatype	Description
P1TEXT	VARCHAR2 (64)	Text of the first additional parameter
P1	NUMBER	First additional parameter
P2TEXT	VARCHAR2(64)	Text of the second additional parameter
P2	NUMBER	Second additional parameter
P3TEXT	VARCHAR2(64)	Text of the third additional parameter
Р3	NUMBER	Third additional parameter
WAIT_CLASS	VARCHAR2 (64)	Wait class name of the event for which the session was waiting at the time of sampling. Interpretation is similar to that of the EVENT column. Maps to V\$SESSION.WAIT_CLASS.
WAIT_CLASS_ID	NUMBER	Wait class identifier of the event for which the session was waiting at the time of sampling. Interpretation is similar to that of the EVENT column. Maps to V\$SESSION.WAIT_CLASS_ID.
WAIT_TIME	NUMBER	Total wait time for the event for which the session last waited if the session was on the CPU when sampled; 0 if the session was waiting at the time of sampling
		Note: Whether or not WAIT_TIME = 0 is what is useful to find the SESSION_STATE at the time of sampling, rather than the actual value of WAIT_TIME itself. Maps to V\$SESSION.WAIT_TIME.
SESSION_STATE	VARCHAR2(7)	Session state:
		• WAITING
TIME_WAITED	NUMBER	 ON CPU If SESSION_STATE = WAITING, then the time that the session actually spent waiting for that event (in microseconds). This column is set for waits that were in progress at the time the sample was taken.
		If a wait event lasted for more than a second and was caught waiting in more than one session sample row, then the actual time spent waiting for that wait event will be populated in the last of those session sample rows. At any given time, this information will not be available for the latest session sample.
BLOCKING_SESSION_STATUS	VARCHAR2(11)	Status of the blocking session:
		• VALID
		• NO HOLDER
		GLOBAL NOT IN WAIT
		• UNKNOWN
BLOCKING_SESSION	NUMBER	Session identifier of the blocking session. Populated only if the blocker is on the same instance and the session was waiting for enqueues or a "buffer busy" wait. Maps to V\$SESSION.BLOCKING_SESSION.
BLOCKING_SESSION_SERIAL#	NUMBER	Serial number of the blocking session
BLOCKING_INST_ID	NUMBER	Instance number of the blocker shown in BLOCKING_SESSION
BLOCKING_HANGCHAIN_INFO	VARCHAR2(1)	Indicates whether the information about <code>BLOCKING_SESSION</code> comes from the hang chain (Y) or not (N)
CURRENT_OBJ#	NUMBER	Object ID of the object that the session is referencing. This information is only available if the session was waiting for application, cluster, concurrency, and user I/O wait events. Maps to V\$SESSION.ROW_WAIT_OBJ#.



NUMBER NUMBER NUMBER	File number of the file containing the block that the session is referencing. This information is only available if the session was waiting for cluster, concurrency, and user I/O wait events. Maps to V\$SESSION.ROW_WAIT_FILE#. ID of the block that the session is referencing. This information is only available if the session was waiting for cluster, concurrency, and user
	available if the session was waiting for cluster, concurrency, and user
NUMBER	I/O wait events. Maps to V\$SESSION.ROW_WAIT_BLOCK#.
	Row identifier that the session is referencing. This information is only available if the session was waiting for cluster, concurrency, and user I/O wait events. Maps to V\$SESSION.ROW_WAIT_ROW#.
NUMBER	Oracle top level call number
VARCHAR2 (64)	Oracle top level call name
NUMBER	Consumer group ID
RAW(8)	Transaction ID that the session was working on at the time of sampling. V\$SESSION does not contain this information.
NUMBER	Remote instance identifier that will serve the block that this session is waiting for. This information is only available if the session was waiting for cluster events.
NUMBER	Time model information
VARCHAR2(1)	Indicates whether the session was doing connection management at the time of sampling (Y) or not (N)
VARCHAR2(1)	Indicates whether the session was parsing at the time of sampling (Y) or not (N)
VARCHAR2(1)	Indicates whether the session was hard parsing at the time of sampling (Y) or not (N)
VARCHAR2(1)	Indicates whether the session was executing SQL statements at the time of sampling (Y) or not (N)
VARCHAR2(1)	Indicates whether the session was executing PL/SQL at the time of sampling (Y) or not (N)
VARCHAR2(1)	Indicates whether the session was executing inbound PL/SQL RPC calls at the time of sampling (Y) or not (N)
VARCHAR2(1)	Indicates whether the session was compiling PL/SQL at the time of sampling (Y) or not (N)
VARCHAR2(1)	Indicates whether the session was executing Java at the time of sampling (Y) or not (N)
VARCHAR2(1)	Indicates whether the session was doing bind operations at the time of sampling (Y) or not (N)
VARCHAR2(1)	Indicates whether the session was closing a cursor at the time of sampling (Y) or not (N)
VARCHAR2(1)	Indicates whether the session is loading in sequence (in sequence load code) (Y) or not (N)
VARCHAR2(1)	Indicates whether the session was querying the In-Memory Column Store (IM column store) at the time of sampling (Y) or not (N)
VARCHAR2(1)	Indicates whether the session was populating the IM column store at the time of sampling (Y) or not (N)
VARCHAR2(1)	Indicates whether the session was prepopulating the IM column store at the time of sampling (Y) or not (N)
	NUMBER VARCHAR2 (64) NUMBER RAW (8) NUMBER NUMBER VARCHAR2 (1)



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<u> </u>	DELTA_READ_IO_BYTES	NUMBER	<u> </u>
	DELTA_WRITE_IO_BYTES	NUMBER	



Column	Datatype	Description
DELTA_INTERCONNECT_IO_BY TES	NUMBER	Number of I/O bytes sent over the I/O interconnect over the last DELTA_TIME microseconds
DELTA_READ_MEM_BYTES	NUMBER	Number of read bytes through the buffer cache
PGA_ALLOCATED	NUMBER	Amount of PGA memory (in bytes) consumed by this session at the time this sample was taken
TEMP_SPACE_ALLOCATED	NUMBER	Amount of TEMP memory (in bytes) consumed by this session at the time this sample was taken
CON_DBID	NUMBER	The database ID of the pluggable database (PDB)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
DBOP_NAME	VARCHAR2(30)	Database operation name. If the type is SQL, the ${\tt DBOP_NAME}$ will be ${\tt NULL}.$
DBOP_EXEC_ID	NUMBER	Database operation execution identifier for the current execution. If the type is SQL, the <code>DBOP_EXEC_ID</code> will be <code>NULL</code> .

8.14 V\$ALL_SQL_BIND_CAPTURE

V\$ALL SQL BIND CAPTURE displays information on bind variables used by SQL cursors.

Note:

 ${\tt V\$ALL_SQL_BIND_CAPTURE} \ allows \ application \ developers \ to \ view \ information \ about \ their \ own \ bind \ variables \ used \ by \ SQL \ cursors. \ It \ is \ similar \ to \ the \ {\tt V\$SQL_BIND_CAPTURE} \ view, \ with \ the \ following \ exception:$

- When queried by a user with the SYSDBA privilege, the V\$ALL_SQL_BIND_CAPTURE view displays the same data as the V\$SQL_BIND_CAPTURE view.
- When queried by any other user, the V\$ALL_SQL_BIND_CAPTURE view displays only data about bind variables used by the SQL cursors owned by that user.

See also "V\$SQL_BIND_CAPTURE"

Column	Datatype	Description
ADDRESS	RAW (4 8)	Address of the parent cursor
HASH_VALUE	NUMBER	Hash value of the parent cursor in the library cache. The hash value is a fixed index for the view and should always be used to speed up access to the view.
SQL_ID	VARCHAR2 (13)	SQL identifier of the parent cursor in the library cache
CHILD_ADDRESS	RAW(4 8)	Address of the child cursor
CHILD_NUMBER	NUMBER	Child cursor number



Column	Datatype	Description
NAME	VARCHAR2 (128)	Name of the bind variable
POSITION	NUMBER	Position of the bind variable in the SQL statement
DUP_POSITION	NUMBER	If the binding is performed by name and the bind variable is duplicated, then this column gives the position of the primary bind variable.
DATATYPE	NUMBER	Internal identifier for the bind data type. Beginning in Oracle Database 12c, a number representing a PL/SQL data type can appear in this column.
DATATYPE_STRING	VARCHAR2 (15)	Textual representation of the bind data type. Beginning in Oracle Database 12c, a text representation of a PL/SQL-only data type can appear in this column. If the actual data type is a PL/SQL sub type, the name of the data type, not the sub type will be displayed.
CHARACTER_SID	NUMBER	National character set identifier
PRECISION	NUMBER	Precision (for numeric binds)
SCALE	NUMBER	Scale (for numeric binds)
MAX_LENGTH	NUMBER	Maximum bind length
WAS_CAPTURED	VARCHAR2(3)	Indicates whether the bind value was captured (YES) or not (NO)
LAST_CAPTURED	DATE	Date when the bind value was captured. Bind values are captured when SQL statements are executed. To limit the overhead, binds are captured at most every 15 minutes for a given cursor.
VALUE_STRING	VARCHAR2 (4000)	Value of the bind represented as a string
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

Note:

This view is available starting with Oracle Database 23ai.



8.15 V\$ALL_SQL_MONITOR

Note:

- When queried by a user with the SYSDBA privilege, the V\$ALL_SQL_MONITOR view displays the same data as the V\$SQL MONITOR view.
- When queried by any other user, the V\$ALL_SQL_MONITOR view displays data only about SQL statements that were executed in sessions owned by that user.

See also "V\$SQL_MONITOR"

Column	Datatype	Description
KEY	NUMBER	Artificial join key to efficiently join V\$ALL_SQL_MONITOR with its corresponding plan level monitoring statistics stored in V\$ALL_SQL_PLAN_MONITOR
REPORT_ID	NUMBER	Unique ID of the XML report stored in Automatic Workload Repository (AWR) for this monitored entity
STATUS	VARCHAR2(19)	SQL execution status:
		QUEUED - SQL statement is queued
		 EXECUTING - SQL statement is still executing
		DONE (ERROR) - Execution terminated with an error
		 DONE (FIRST N ROWS) - Execution terminated by the application before all rows were fetched
		DONE (ALL ROWS) - Execution terminated and all rows were fetched
		 DONE - Execution terminated (parallel execution)
USER#	NUMBER	User ID of the database user who issued the SQL being monitored
USERNAME	VARCHAR2 (128)	User name of the database user who issued the SQL being monitored
MODULE	VARCHAR2 (64)	Name of the executing module when sampled, as set by the DBMS_APPLICATION_INFO.SET_MODULE procedure
ACTION	VARCHAR2 (64)	Name of the executing action when sampled, as set by the DBMS_APPLICATION_INFO.SET_ACTION procedure
SERVICE_NAME	VARCHAR2(64)	Service name of the user session
CLIENT_IDENTIFIER	VARCHAR2 (64)	Client identifier from the user session
CLIENT_INFO	VARCHAR2(64)	Client information for the user session
PROGRAM	VARCHAR2(84)	Name of the operating system program that issued the monitored SQL
PLSQL_ENTRY_OBJECT_ID	NUMBER	Object ID of the top-most PL/SQL subprogram on the stack; NULL if there is no PL/SQL subprogram on the stack
PLSQL_ENTRY_SUBPROGRAM_I	NUMBER	Subprogram ID of the top-most PL/SQL subprogram on the stack; NULL if there is no PL/SQL subprogram on the stack
PLSQL_OBJECT_ID	NUMBER	Object ID of the currently executing PL/SQL subprogram; NULL if executing SQL



Column	Datatype	Description
PLSQL_OWNER_ID	NUMBER	ID of the owner of the currently executing PL/SQL subprogram; NULL if executing SQL
PLSQL_SUBPROGRAM_ID	NUMBER	Subprogram ID of the currently executing PL/SQL object; NULL if executing SQL
FIRST_REFRESH_TIME	DATE	Time when monitoring of the SQL statement started, generally a few seconds after execution start time
LAST_REFRESH_TIME	DATE	Time when statistics in V\$ALL_SQL_MONITOR were last updated for the SQL statement. Statistics are generally refreshed every second when the statement executes.
REFRESH_COUNT	NUMBER	Number of times V\$ALL_SQL_MONITOR statistics have been refreshed (generally once every second when the SQL statement executes)
DBOP_EXEC_ID	NUMBER	Database operation execution identifier for the current execution. If the type is SQL, the <code>DBOP_EXEC_ID</code> will be <code>NULL</code> .
DBOP_NAME	VARCHAR2(30)	Database operation name. If the type is SQL, the <code>DBOP_NAME</code> will be <code>NULL</code> .
SID	NUMBER	Session identifier executing (or having executed) the SQL statement being monitored
PROCESS_NAME	VARCHAR2(5)	Process name identifier executing (or having executed)the statement; ora if the process is foreground, else the background process name (for example, p001 for PX server p001)
SQL_ID	VARCHAR2(13)	SQL identifier of the statement being monitored
SQL_TEXT	VARCHAR2 (2000)	Up to the first 2000 characters of the text of the SQL being monitored
IS_FULL_SQLTEXT	VARCHAR2(1)	Indicates whether the ${\tt SQL_TEXT}$ column has the entire SQL text (Y) or not (N)
SQL_EXEC_START	DATE	Time when the execution started
SQL_EXEC_ID	NUMBER	Execution identifier. Together, the three columns SQL_ID, SQL_EXEC_START, and SQL_EXEC_ID represent the execution key. The execution key is used to uniquely identify one execution of the SQL statement.
SQL_PLAN_HASH_VALUE	NUMBER	SQL plan hash value
SQL_FULL_PLAN_HASH_VALUE	NUMBER	Numeric representation of the complete SQL plan for this cursor. Comparing one SQL_FULL_PLAN_HASH_VALUE to another easily identifies whether or not two plans are the same (rather than comparing the two plans line by line). Note that the SQL_FULL_PLAN_HASH_VALUE cannot be compared across databases releases. It is not backward compatible.
EXACT_MATCHING_SIGNATURE	NUMBER	Signature calculated on the normalized SQL text. The normalization includes the removal of white space and the uppercasing of all non-literal strings.
FORCE_MATCHING_SIGNATURE	NUMBER	Same as EXACT_MATCHING_SIGNATURE but literals in the SQL text are replaced by binds
SQL_CHILD_ADDRESS	RAW(8)	Address of the child cursor (can be used with SQL_ID to join with V\$SQL)
SESSION_SERIAL#	NUMBER	Session serial number executing the statement being monitored
PX_IS_CROSS_INSTANCE	VARCHAR2(1)	Indicates whether the SQL statement ran parallel across multiple instances (Y) or not (N)
PX_MAXDOP	NUMBER	Maximum degree of parallelism for any plan operation executed on behalf of the monitored SQL
PX_MAXDOP_INSTANCES	NUMBER	Number of database instances touched at the maximum degree of parallelism



Column	Datatype	Description
PX_SERVERS_REQUESTED	NUMBER	Total number of parallel execution servers requested to execute the monitored SQL
PX_SERVERS_ALLOCATED	NUMBER	Actual number of parallel execution servers allocated to execute the query
PX_SERVER#	NUMBER	Logical parallel execution server process number executing (or having executed) the statement being monitored; NULL if this monitoring entry is not associated with an execution server. This is a logical number within the parallel server set (see SERVER# in V\$PX_SESSION).
PX_SERVER_GROUP	NUMBER	Logical parallel execution server group number to which PX_SERVER# belongs (see SERVER_GROUP in V\$PX_SESSION); NULL if this monitoring entry is not associated with a parallel execution server. This value is generally 1 unless the SQL statement has one or more parallel subqueries.
PX_SERVER_SET	NUMBER	Number (1 or 2) of the logical set of parallel execution servers to which PX_SERVER# belongs (see SERVER_SET in V\$PX_SESSION); NULL if this monitoring entry is not associated with a parallel execution server
PX_QCINST_ID	NUMBER	Instance identifier where the parallel execution coordinator runs; NULL if ${\tt PX_SERVER\#}$ is NULL
PX_QCSID	NUMBER	Session identifier for the parallel execution coordinator; NULL if PX_SERVER# is NULL
ERROR_NUMBER	VARCHAR2(40)	Error number encountered in case a SQL fails to execute successfully (for example, 932 in case of ORA-00932)
ERROR_FACILITY	VARCHAR2(4)	Error facility in case a SQL fails to execute successfully (for example, ORA in case of ORA-00932)
ERROR_MESSAGE	VARCHAR2 (256)	Detailed error message displayed corresponding to the error number and error facility when a SQL fails to execute successfully
BINDS_XML	CLOB	Information about bind variables used with the SQL, such as name, position, value, data type, and so on (stored in XML format)
OTHER_XML CLOB	CLOB	Provides extra information specific to an execution step of the execution plan. The content of this column is structured using XML, which allows multiple pieces of information to be stored, including the following:
		 Name of the schema against which the query was parsed Release number of the Oracle Database that produced the explain plan Hash value associated with the execution plan Name (if any) of the outline or the SQL profile used to build the execution plan
		 Indication of whether or not dynamic statistics were used to produce the plan
		The outline data, a set of optimizer hints that can be used to regenerate the same plan
		 Additional data that describes the relationship between rows in the plan table and subplans of adaptive plans
ELAPSED_TIME	NUMBER	Elapsed time (in microseconds); updated as the statement executes
QUEUING_TIME	NUMBER	Duration of time (in microseconds) spent by SQL in the statement queue
CPU_TIME	NUMBER	CPU time (in microseconds); updated as the statement executes
FETCHES	NUMBER	Number of fetches associated with the SQL statement; updated as the statement executes
BUFFER_GETS	NUMBER	Number of buffer get operations; updated as the statement executes



Column	Datatype	Description
DISK_READS	NUMBER	Number of disk reads; updated as the statement executes
DIRECT_WRITES	NUMBER	Number of direct writes; updated as the statement executes
IO_INTERCONNECT_BYTES	NUMBER	Number of I/O bytes exchanged between Oracle Database and the storage system
PHYSICAL_READ_REQUESTS	NUMBER	Number of physical read I/O requests issued by the monitored SQL
PHYSICAL_READ_BYTES	NUMBER	Number of bytes read from disks by the monitored SQL
PHYSICAL_WRITE_REQUESTS	NUMBER	Number of physical write I/O requests issued by the monitored SQL
PHYSICAL_WRITE_BYTES	NUMBER	Number of bytes written to disks by the monitored SQL
APPLICATION_WAIT_TIME	NUMBER	Application wait time (in microseconds); updated as the statement executes
CONCURRENCY_WAIT_TIME	NUMBER	Concurrency wait time (in microseconds); updated as the statement executes
CLUSTER_WAIT_TIME	NUMBER	Cluster wait time (in microseconds); updated as the statement executes
USER_IO_WAIT_TIME	NUMBER	User I/O Wait Time (in microseconds); updated as the statement executes
PLSQL_EXEC_TIME	NUMBER	PL/SQL execution time (in microseconds); updated as the statement executes
JAVA_EXEC_TIME	NUMBER	Java execution time (in microseconds); updated as the statement executes
RM_LAST_ACTION	VARCHAR2 (48)	The most recent action that was taken on this SQL operation by Resource Manager. Its value is one of the following:
		 CANCEL_SQL KILL_SESSION LOG_ONLY SWITCH TO <cg name=""></cg> For the last value, <cg name=""> is the name of the consumer group that the SQL operation was switched to. If the Resource Plan has since been changed then <cg name=""> is the ID of the consumer group.</cg></cg>
RM_LAST_ACTION_REASON	VARCHAR2 (128)	The reason for the most recent action that was taken on this SQL operation by Resource Manager. Its value is one of the following:
		 SWITCH_CPU_TIME SWITCH_IO_REQS SWITCH_IO_MBS SWITCH_ELAPSED_TIME SWITCH_IO_LOGICAL
RM_LAST_ACTION_TIME	DATE	The time of the most recent action that was taken on this SQL operation by Resource Manager
RM_CONSUMER_GROUP	VARCHAR2 (128)	The current consumer group for this SQL operation
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data
CON_NAME	VARCHAR2 (128)	Container name of the object. The value of this column is NULL in non-CDBs.

Column	Datatype	Description
ECID	VARCHAR2 (64)	Execution context identifier (sent by Application Server)
IS_ADAPTIVE_PLAN	VARCHAR2(1)	Indicates whether the statistics are from an adaptive plan (Y) or not (N).
IS_FINAL_PLAN	VARCHAR2(1)	Indicates whether the statistics are from the final plan (Y) or not (N).
IN_DBOP_NAME	VARCHAR2(30)	If the SQL that is monitored was executed by a session that was also monitored by a database operation (DBOP), then this column specifies the name of that DBOP
IN_DBOP_EXEC_ID	NUMBER	If the SQL that is monitored was executed by a session that was also monitored by a database operation (DBOP), then this column specifies the execution ID of that DBO
IO_CELL_UNCOMPRESSED_BYT ES	NUMBER	Number of uncompressed bytes (that is, size after decompression) that are offloaded to the Exadata cells
		See Also: Oracle Exadata Storage Server Software documentation for more information
IO_CELL_OFFLOAD_ELIGIBLE _BYTES	NUMBER	Number of I/O bytes which can be filtered by the Exadata storage system
		See Also: Oracle Exadata Storage Server Software documentation for more information
IO_CELL_OFFLOAD_RETURNED _BYTES	NUMBER	Number of filtered bytes returned by Exadata cells (that is, the number of bytes returned after processing has been offloaded on the Exadata cells)
		See Also: Oracle Exadata Storage Server Software documentation for more information
CURRENT_USER#	NUMBER	Unique number identifying the current user
CURRENT_USERNAME	VARCHAR2 (128)	Username for the current user
PDB_REPORT_ID	NUMBER	Unique ID of the XML report of a PDB monitored entity that is stored in the CDB's Automatic Workload Repository (AWR) tables
PDB_ID	NUMBER	Container ID of the PDB
PARSING_SCHEMA#	NUMBER	Identifier of the parsing schema
PARSING_SCHEMA_NAME	VARCHAR2 (128)	Name of the parsing schema



8.16 V\$ALL_SQL_PLAN_MONITOR

 $\verb|V$ALL_SQL_PLAN_MONITOR| \ displays plan level monitoring statistics for each SQL statement found in VALL_SQL_MONITOR. |$

Note:

 ${\tt V\$ALL_SQL_PLAN_MONITOR} \ allows \ application \ developers \ to \ view \ statistics \ about \ their own \ SQL \ statements. \ It is \ similar \ to \ the \ {\tt V\$SQL_PLAN_MONITOR} \ view, \ with \ the \ following \ exception:$

- When queried by a user with the SYSDBA privilege, the V\$ALL_SQL_PLAN_MONITOR view displays the same data as the V\$SQL PLAN MONITOR view.
- When queried by any other user, the V\$ALL_SQL_PLAN_MONITOR view displays
 data only about SQL statements that were executed in sessions owned by that
 user

See also "V\$SQL PLAN MONITOR"

Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
KEY	NUMBER	Foreign key to efficiently join V\$ALL_SQL_PLAN_MONITOR with V\$ALL_SQL_MONITOR (see V\$ALL_SQL_MONITOR)
STATUS	VARCHAR2(19)	SQL execution status:
		 EXECUTING - SQL statement is still executing
		DONE (ERROR) - Execution terminated with an error
		 DONE (FIRST N ROWS) - Execution terminated by the application before all rows were fetched
		 DONE (ALL ROWS) - Execution terminated and all rows were fetched DONE - Execution terminated (parallel execution)
FIRST_REFRESH_TIME	DATE	Time when monitoring of the SQL statement started
LAST_REFRESH_TIME	DATE	Time when statistics were last updated for the SQL statement
FIRST_CHANGE_TIME	DATE	First time a row was produced by this operation
LAST_CHANGE_TIME	DATE	Last time a row was produced by this operation
REFRESH_COUNT	NUMBER	Number of times statistics have been refreshed
SID	NUMBER	Session identifier executing (or having executed) the SQL statement being monitored
PROCESS_NAME	VARCHAR2(5)	Process name identifier
SQL_ID	VARCHAR2(13)	SQL identifier
SQL EXEC START	DATE	Time when the execution started



Column	Datatype	Description
SQL_EXEC_ID	NUMBER	Execution identifier
SQL_PLAN_HASH_VALUE	NUMBER	SQL plan hash value
SQL_CHILD_ADDRESS	RAW(8)	Address of the child cursor
PLAN_PARENT_ID	NUMBER	ID of the next execution step that operates on the output of the curren step
PLAN_LINE_ID	NUMBER	Plan line number for the entry
PLAN_OPERATION	VARCHAR2(30)	Plan operation name (from V\$SQL_PLAN)
PLAN_OPTIONS	VARCHAR2(30)	Plan option name (from V\$SQL_PLAN)
PLAN_OBJECT_OWNER	VARCHAR2 (128)	Name of the user who owns the schema containing the table or index
PLAN_OBJECT_NAME	VARCHAR2 (128)	Name of the table or index
LAN_OBJECT_TYPE	VARCHAR2 (20)	Type of the object
PLAN_DEPTH	NUMBER	Depth (or level) of the operation in the tree. It is not necessary to issue a CONNECT BY statement to get the level information, which is generally used to indent the rows from the PLAN_TABLE table. The root operation (statement) is level 0.
PLAN_POSITION	NUMBER	Order of processing for all operations that have the same <code>PARENT_ID</code>
PLAN_COST	NUMBER	Cost of the operation as estimated by the optimizer's cost-based approach. For statements that use the rule-based approach, this column is NULL.
LAN_CARDINALITY	NUMBER	Estimate, by the cost-based optimizer, of the number of rows produce by the operation
PLAN_BYTES	NUMBER	Estimate, by the cost-based optimizer, of the number of bytes produce by the operation
PLAN_TIME	NUMBER	Elapsed time (in seconds) of the operation as estimated by the optimizer's cost-based approach. For statements that use the rule-based approach, this column is NULL.
PLAN_PARTITION_START	VARCHAR2 (64)	Start partition of a range of accessed partitions
LAN_PARTITION_STOP	VARCHAR2 (64)	Stop partition of a range of accessed partitions
PLAN_CPU_COST	NUMBER	CPU cost of the operation as estimated by the optimizer's cost-based approach. For statements that use the rule-based approach, this column is NULL.
PLAN_IO_COST	NUMBER	I/O cost of the operation as estimated by the optimizer's cost-based approach. For statements that use the rule-based approach, this column is NULL.
PLAN_TEMP_SPACE	NUMBER	Temporary space usage of the operation (sort or hash-join) as estimated by the optimizer's cost-based approach. For statements the use the rule-based approach, this column is NULL.
STARTS	NUMBER	Number of times this operation was executed. For example, an operation is executed multiple times when it is on the right side of a nested-loop join (once for each row of the left input of that nested-loo join).
OUTPUT_ROWS	NUMBER	Number of rows produced by this operation since the execution started. This number is cumulated for all executions of this operation. Divide the value of the STARTS column to compute the average number of rows per execution of the operation. Note that the value in the STARTS column is equal to or higher than the value in the OUTPUT_ROWS column. The value will usually be equal, but depending on internal optimization a higher value may be seen.



Column	Datatype	Description
IO_INTERCONNECT_BYTES	NUMBER	Number of I/O bytes exchanged between Oracle Database and the storage system. Maintained only after Oracle starts to monitor the execution.
PHYSICAL_READ_REQUESTS	NUMBER	Number of physical read I/O requests issued by the monitored SQL. Maintained only after Oracle starts to monitor the execution.
PHYSICAL_READ_BYTES	NUMBER	Number of bytes read from disks by the monitored SQL. Maintained only after Oracle starts to monitor the execution.
PHYSICAL_WRITE_REQUESTS	NUMBER	Number of physical write I/O requests issued by the monitored SQL. Maintained only after Oracle starts to monitor the execution.
PHYSICAL_WRITE_BYTES	NUMBER	Number of bytes written to disks by the monitored SQL. Maintained only after Oracle starts to monitor the execution.
WORKAREA_MEM	NUMBER	Amount of memory (in bytes) used by the operation when the query is executing; NULL if the execution is done. This applies only to operation using a work area, such as sort, hash-join, group-by, and so on.
WORKAREA_MAX_MEM	NUMBER	Maximum value (in bytes) for WORKAREA_MEM; NULL if the operation is not using a work area. When the execution is finished, this value will hold the maximum amount of memory consumed by this operation during the execution of the statement.
WORKAREA_TEMPSEG	NUMBER	Amount of temporary space (in bytes) used by the operation when the query is executing; NULL if the operation has not spilled to disk or if the execution is finished
WORKAREA_MAX_TEMPSEG	NUMBER	Maximum value (in bytes) for WORKAREA_TEMPSEG; NULL if this operation never spilled to disk. When the execution is done, this value will hold the maximum amount of temporary space consumed by this operation during the entire execution.
OTHERSTAT_GROUP_ID	NUMBER	Plan line statistic group identifier (see GROUP_ID column in V\$SQL_MONITOR_STATNAME)
OTHERSTAT_1_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 1 of that plan line
OTHERSTAT_1_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_1_VALUE	NUMBER	Value of statistic number 1 of that plan line
OTHERSTAT_2_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 2 of that plan line
OTHERSTAT_2_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_2_VALUE	NUMBER	Value of statistic number 2 of that plan line
OTHERSTAT_3_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 3 of that plan line
OTHERSTAT_3_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_3_VALUE	NUMBER	Value of statistic number 3 of that plan line
OTHERSTAT_4_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 4 of that plan line
OTHERSTAT_4_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_4_VALUE	NUMBER	Value of statistic number 4 of that plan line
OTHERSTAT_5_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 5 of that plan line
OTHERSTAT_5_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_5_VALUE	NUMBER	Value of statistic number 5 of that plan line



Column	Datatype	Description
OTHERSTAT_6_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 6 of that plan line
OTHERSTAT_6_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_6_VALUE	NUMBER	Value of statistic number 6 of that plan line
OTHERSTAT_7_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 7 of that plan line
OTHERSTAT_7_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_7_VALUE	NUMBER	Value of statistic number 7 of that plan line
OTHERSTAT_8_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 8 of that plan line
OTHERSTAT_8_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_8_VALUE	NUMBER	Value of statistic number 8 of that plan line
OTHERSTAT_9_ID	NUMBER	Statistic identifier (see ID column in <code>V\$SQL_MONITOR_STATNAME</code>) for statistic number 9 of that plan line
OTHERSTAT_9_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_9_VALUE	NUMBER	Value of statistic number 9 of that plan line
OTHERSTAT_10_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 10 of that plan line
OTHERSTAT_10_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_10_VALUE	NUMBER	Value of statistic number 10 of that plan line
OTHERSTAT_11_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 11 of that plan line
OTHERSTAT_11_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_11_VALUE	NUMBER	Value of statistic number 11 of that plan line
OTHERSTAT_12_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 12 of that plan line
OTHERSTAT_12_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_12_VALUE	NUMBER	Value of statistic number 12 of that plan line
OTHERSTAT_13_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 13 of that plan line
OTHERSTAT_13_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_13_VALUE	NUMBER	Value of statistic number 13 of that plan line
OTHERSTAT_14_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 14 of that plan line
OTHERSTAT_14_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_14_VALUE	NUMBER	Value of statistic number 14 of that plan line
OTHERSTAT_15_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 15 of that plan line
OTHERSTAT_15_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_15_VALUE	NUMBER	Value of statistic number 15 of that plan line
OTHERSTAT_16_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 16 of that plan line
OTHERSTAT_16_TYPE	NUMBER	Reserved for internal use



Column	Datatype	Description
OTHERSTAT_16_VALUE	NUMBER	Value of statistic number 16 of that plan line
OTHERSTAT_17_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 17 of that plan line
OTHERSTAT_17_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_17_VALUE	NUMBER	Value of statistic number 17 of that plan line
OTHERSTAT_18_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 18 of that plan line
OTHERSTAT_18_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_18_VALUE	NUMBER	Value of statistic number 18 of that plan line
OTHERSTAT_19_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 19 of that plan line
OTHERSTAT_19_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_19_VALUE	NUMBER	Value of statistic number 19 of that plan line
OTHERSTAT_20_ID	NUMBER	Statistic identifier (see ID column in <code>V\$SQL_MONITOR_STATNAME</code>) for statistic number 20 of that plan line
OTHERSTAT_20_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_20_VALUE	NUMBER	Value of statistic number 20 of that plan line
DTHERSTAT_21_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 21 of that plan line
THERSTAT_21_TYPE	NUMBER	Reserved for internal use
THERSTAT_21_VALUE	NUMBER	Value of statistic number 21 of that plan line
THERSTAT_22_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 22 of that plan line
THERSTAT_22_TYPE	NUMBER	Reserved for internal use
THERSTAT_22_VALUE	NUMBER	Value of statistic number 22 of that plan line
OTHERSTAT_23_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 23 of that plan line
THERSTAT_23_TYPE	NUMBER	Reserved for internal use
THERSTAT_23_VALUE	NUMBER	Value of statistic number 23 of that plan line
OTHERSTAT_24_ID	NUMBER	Statistic identifier (see ID column in ${\tt V\$SQL_MONITOR_STATNAME})$ for statistic number 24 of that plan line
THERSTAT_24_TYPE	NUMBER	Reserved for internal use
THERSTAT_24_VALUE	NUMBER	Value of statistic number 24 of that plan line
DTHERSTAT_25_ID	NUMBER	Statistic identifier (see ID column in ${\tt V\$SQL_MONITOR_STATNAME})$ for statistic number 25 of that plan line
THERSTAT_25_TYPE	NUMBER	Reserved for internal use
THERSTAT_25_VALUE	NUMBER	Value of statistic number 25 of that plan line
OTHERSTAT_26_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 26 of that plan line
THERSTAT_26_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_26_VALUE	NUMBER	Value of statistic number 26 of that plan line
OTHERSTAT_27_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 27 of that plan line



Column	Datatype	Description
OTHERSTAT_27_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_27_VALUE	NUMBER	Value of statistic number 27 of that plan line
OTHERSTAT_28_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 28 of that plan line
OTHERSTAT_28_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_28_VALUE	NUMBER	Value of statistic number 28 of that plan line
OTHERSTAT_29_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 29 of that plan line
OTHERSTAT_29_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_29_VALUE	NUMBER	Value of statistic number 29 of that plan line
OTHERSTAT_30_ID	NUMBER	Statistic identifier (see ID column in V\$SQL_MONITOR_STATNAME) for statistic number 30 of that plan line
OTHERSTAT_30_TYPE	NUMBER	Reserved for internal use
OTHERSTAT_30_VALUE	NUMBER	Value of statistic number 30 of that plan line
OTHER_XML	CLOB	Provides extra information specific to an execution step of the execution plan. The content of this column is structured using XML, which allows multiple pieces of information to be stored, including the following: Name of the schema against which the query was parsed Release number of the Oracle Database that produced the explain plan Hash value associated with the execution plan Name (if any) of the outline or the SQL profile used to build the execution plan Indication of whether or not dynamic statistics were used to produce the plan The outline data, a set of optimizer hints that can be used to regenerate the same plan Additional data that describes the relationship between rows in the plan table and subplans of adaptive plans
PLAN_OPERATION_INACTIVE	NUMBER	Indicates whether this plan operation was part of the final resolved plan
PDB_ID	NUMBER	Container ID of the PDB

8.17 V\$AQ

 ${\tt V\$AQ}$ displays statistics for the queues in the database.

Column	Datatype	Description
QID	NUMBER	Unique queue identifier
WAITING	NUMBER	Number of messages in the queue in the state 'WAITING'
READY	NUMBER	Number of messages in the queue in the state 'READY'
EXPIRED	NUMBER	Number of messages in the queue the state 'EXPIRED'
AVERAGE_MSG_AGE	NUMBER	Average age of the messages in the queue'
TOTAL_WAIT	NUMBER	Total wait time of all 'READY' messages in the queue
AVERAGE_WAIT	NUMBER	Average wait time of 'READY' messages in the queue



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



See Also:

Oracle Database Advanced Queuing User's Guide for more information about Oracle Database Advanced Queueing

8.18 V\$AQ_BACKGROUND_COORDINATOR

V\$AQ_BACKGROUND_COORDINATOR lists performance statistics for the Oracle Database Advanced Queueing primary background coordinator process (AQPC).

Column	Datatype	Description
PROCESS_ID	VARCHAR2 (24)	Operating system process ID of the primary
PROCESS_NAME	VARCHAR2 (48)	Operating system name of the primary
NUM_JOBS	NUMBER	Number of jobs started
JOB_LATENCY	NUMBER	Job start latency
NUM_COORDINATORS	NUMBER	Number of primaries started
CON_ID	NUMBER	The ID of the container to which the data pertains. The <code>CON_ID</code> value in this view is always 0. The rows pertain to the entire CDB or to the non-CDB.



See Also:

Oracle Database Advanced Queuing User's Guide for more information about Oracle Database Advanced Queueing

8.19 V\$AQ_BMAP_NONDUR_SUBSCRIBERS

V\$AQ_BMAP_NONDUR_SUBSCRIBERS can be used to get the available bit positions. The view is queried to get the free bit position during creation of a non-durable subscriber.

Column	Datatype	Description
QUEUE_ID	NUMBER	Queue ID
USED_POS	RAW(128)	Stream of bits to identify used and available bit positions



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



Oracle Database Advanced Queuing User's Guide for more information about Oracle Database Advanced Queueing

8.20 V\$AQ_CROSS_INSTANCE_JOBS

V\$AQ CROSS INSTANCE JOBS describes each of the cross process jobs.

Each job serves to forward messages for a shard from a source instance to a destination instance for a set of subscribers of a sharded queue.



Note:

Column	Datatype	Description
JOB_ID	NUMBER	Job ID within this coordinator
SCHEMA_NAME	VARCHAR2 (128)	Source schema of the job
QUEUE_NAME	VARCHAR2 (128)	Source queue name of the cross job
SHARD_ID	NUMBER	Source shard ID
START_SUBSHARD_ID	NUMBER	Start subshard ID of the job
DESTINATION_INSTANCE_ID	NUMBER	Destination instance of the cross job
COORDINATOR_ID	NUMBER	Index of the coordinator serving the job
DEST_SERVER_PROCESS_ID	NUMBER	Process ID of the destination server
JOB_STATE	VARCHAR2 (13)	State of the job: CRASHED INACTIVE PAUSED REQUESTED RUNNING STOPPED

Column	Datatype	Description
FLOW_CONTROL	NUMBER	Indicates whether the job is flow controlled:
		0 - The job is not flow controlled
		1 - The job is flow controlled
MSGS_SENT	NUMBER	Messages sent during the job
BYTES_SENT	NUMBER	Bytes sent during the job
ACK_LATENCY	NUMBER	Latency for receiving ACK for the job
JOB_TYPE	VARCHAR2 (26)	Cross instance job type. Values: CROSS_STREAM
		 : This job type is responsible for forwarding a shard from its owner instance to a destination dequeue instance for all subscribers performing dequeue from that shard at the destination dequeue instance. DEQUEUE_AFFINITY_TO_REMOTE: This job type is responsible for switching a subscriber's dequeue affinity from a shard's owner instance to a remote dequeue instance. DEQUEUE_AFFINITY_TO_LOCAL: This job type is responsible for
		switching back a subscriber's dequeue affinity from a remote dequeue instance to a shard's owner instance.
PRIORITYO_CROSS_LWM	NUMBER	Last priority 0 subshard received at DESTINATION_INSTANCE_ID
PRIORITY1_CROSS_LWM	NUMBER	Last priority 1 subshard received at DESTINATION_INSTANCE_ID
PRIORITY2_CROSS_LWM	NUMBER	Last priority 2 subshard received at DESTINATION_INSTANCE_ID
PRIORITY3_CROSS_LWM	NUMBER	Last priority 3 subshard received at DESTINATION_INSTANCE_ID
PRIORITY4_CROSS_LWM	NUMBER	Last priority 4 subshard received at DESTINATION_INSTANCE_ID
PRIORITY5_CROSS_LWM	NUMBER	Last priority 5 subshard received at DESTINATION_INSTANCE_ID
PRIORITY6_CROSS_LWM	NUMBER	Last priority 6 subshard received at DESTINATION_INSTANCE_ID
PRIORITY7_CROSS_LWM	NUMBER	Last priority 7 subshard received at DESTINATION_INSTANCE_ID
PRIORITY8_CROSS_LWM	NUMBER	Last priority 8 subshard received at DESTINATION_INSTANCE_ID
PRIORITY9_CROSS_LWM	NUMBER	Last priority 9 subshard received at DESTINATION_INSTANCE_ID
JOB_START_TIME	TIMESTAMP(3) WITH TIME ZONE	Start time of this job
SUBSCRIBER_ID	NUMBER	Subscriber ID whose affinity is being switched for the DEQUEUE_AFFINITY_TO_REMOTE and DEQUEUE_AFFINITY_TO_LOCAL job types
SUBSCRIBER_NAME	VARCHAR2 (512)	Subscriber name whose affinity is being switched for the DEQUEUE_AFFINITY_TO_REMOTE and DEQUEUE_AFFINITY_TO_LOCAL job types. This column is NULL for the CROSS_STREAM job type.
OWNER_INSTANCE_ID	NUMBER	Owner instance of the shard
QUEUE_ID	NUMBER	Queue ID
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



Oracle Database Advanced Queuing User's Guide for more information about Oracle Database Advanced Queueing

8.21 V\$AQ_IPC_ACTIVE_MSGS

 ${\tt V\$AQ_IPC_ACTIVE_MSGS} \ displays \ the \ information \ related \ to \ active \ IPC \ messages \ being processed \ by \ AQ \ background \ processes.$

Column	Datatype	Description
PROCESS_NAME	VARCHAR2 (48)	Worker process name
PROCESS_ID	NUMBER	Oracle process ID for this worker
SLAVE_STATE	NUMBER	Worker status: 3: Picked task 4: Running 7: Idle
SLAVEOBJ_STATE	NUMBER	Worker object status: 0: Invalid 1: Valid
SEQUENCE_NUMBER	NUMBER	Message sequence number
MSG_CLASS_NAME	VARCHAR2(30)	Message class name
MSG_FLAGS	NUMBER	Message flags: 1: This message needs ack 2: Short 4: Long 8: Priority 10: Special ack
MSG_SUBMT_TIME	NUMBER	Time this message was added into the IPC primary's list (in seconds)
MSG_PICKD_TIME	NUMBER	Time this message was picked by worker or primary for processing (in seconds)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.22 V\$AQ_IPC_MSG_STATS

V\$AQ_IPC_MSG_STATS displays the statistics of each IPC message class, such as the total number of invocations of a message class, total pending message/processed message count,

and last failure related data. Information like total processed message count, average pending time/average processing time gives a real-time outline of AQ IPC background state.

Column	Datatype	Description
MSG_CLASS_NAME	VARCHAR2(30)	Message class name
TOTAL_MSG_CALLS	NUMBER	Total number of calls for this message class
TOTAL_ACTIVE_MSGS	NUMBER	Total number of active messages presently processed by workers and primary
TOTAL_PENDING_MSGS	NUMBER	Total number of pending messages in the primary's local context
TOTAL_PROCESSED_MSGS	NUMBER	Total number of processed messages
LAST_RECEIVED_TIME	TIMESTAMP(3) WITH TIME ZONE	Time when the last message of this type was received in the primary's context list
LAST_PROCESS_TIME	TIMESTAMP(3) WITH TIME ZONE	Time when the last message was picked for processing
LAST_DONE_TIME	TIMESTAMP(3) WITH TIME ZONE	Time when the last message was done processing
AVERAGE_PENDING_TIME	NUMBER	Average pending time for this message class (in seconds)
AVERAGE_PROCESSING_TIME	NUMBER	Average processing time for this message class (in seconds)
LAST_FAILURE_TIME	TIMESTAMP(3) WITH TIME ZONE	Time of the last failure for this message class
LAST_ERROR_MSG	VARCHAR2 (512)	Last error message for this message class
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.23 V\$AQ_IPC_PENDING_MSGS

 ${\tt V\$AQ_IPC_PENDING_MSGS} \ \ \textbf{displays information about pending messages, present in the local primary context.}$

Column	Datatype	Description
SEQUENCE_NUMBER	NUMBER	Message sequence number
MSG_CLASS_NAME	VARCHAR2(30)	Message class name
MSG_FLAGS	NUMBER	Message flags:
		1: This message needs ack
		• 2: Short
		• 4: Long
		8: Priority
		• 10: Special ack
MSG_SUBMT_TIME	NUMBER	Time this message was added into the IPC primary's list (in seconds)



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing
		data

8.24 V\$AQ_JOB_COORDINATOR

V\$AQ_JOB_COORDINATOR lists performance statistics per coordinator, for every AQ coordinator controlled by the Oracle Database Advanced Queueing primary coordinator.

Column	Datatype	Description
COORDINATOR_ID	NUMBER	ID of the coordinator
PROCESS_ID	VARCHAR2(24)	Operating system process ID of the coordinator
PROCESS_NAME	VARCHAR2 (48)	Operating system process name of the coordinator
JOB_NAME	VARCHAR2(32)	Name of the job handled
JOB_TYPE	NUMBER	Type of job handled
SERVER_COUNT	NUMBER	Number of servers active
MAX_SERVER_COUNT	NUMBER	Maximum server fanout achieved
CON_ID	NUMBER	The ID of the container to which the data pertains. The $\texttt{CON_ID}$ value in this view is always 0. The rows pertain to the entire CDB or to the non-CDB.

See Also:

Oracle Database Advanced Queuing User's Guide for more information about Oracle Database Advanced Queueing

8.25 V\$AQ_MESSAGE_CACHE

V\$AQ_MESSAGE_CACHE provides performance statistics of the message cache for sharded queues at the subshard level in the instance.

Note:

Column	Datatype	Description
QUEUE_ID	NUMBER	Queue ID
SHARD_ID	NUMBER	Shard ID
PRIORITY	NUMBER	Priority of the subshard for dequeue, range 0-9
SUBSHARD_ID	NUMBER	Subshard ID in the shard
PARTITION_ID	NUMBER	Partition id for the particular subshard
MAX_MSGS	NUMBER	Maximum number of messages of subshard
ENQUEUED_MSGS	NUMBER	Number of messages enqueued for the subshard
MSGS_MADE_EXPIRED	NUMBER	Number of messages made expired
CHUNK_SIZE	NUMBER	The size of the memory chunk for storing messages
NUM_CHUNKS	NUMBER	Number of chunks for the subshard
NUM_FREE_CHUNKS	NUMBER	Number of free chunks for the subshard
USED_MEMORY_SIZE	NUMBER	Total estimated size of memory in use (in bytes) for the subshard
STATE	VARCHAR2(13)	Subshard state. Possible values:
		CACHED (in memory)
		• UNCACHED (on disk)
		• UNCACHED_FREE
		• CACHED_FREE
		• UNKNOWN
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

Oracle Database Advanced Queuing User's Guide for more information about Oracle Database Advanced Queueing

8.26 V\$AQ_MESSAGE_CACHE_ADVICE

V\$AQ_MESSAGE_CACHE_ADVICE shows simulated metrics for a range of potential message cache sizes. This view assists in cache sizing by providing information in the form of metrics as described below.

Note:

Column	Datatype	Description
SIZE_FOR_ESTIMATE	NUMBER	Cache size for simulation (in megabytes)
SIZE_FACTOR	NUMBER	Size factor with respect to the current cache size
ESTD_SIZE_TYPE	VARCHAR2(9)	Possible values:
		 MINIMUM: This cache size is required to have all dequeues in- memory (no uncached).
		 PREFERRED: This is the smallest message cache size required to eliminate 80% of unevictions that occur with a message cache size of MINIMUM for subscribers who keep up, that is, subscribers whose dequeue rate matches the enqueue rate.
		 MAXIMUM: This cache size is required to have zero evictions. NULL: This is the value in all other cases.
ESTD_CACHED_SUBSHARDS	NUMBER	Estimated number of cached subshards for this size
ESTD UNCACHED SUBSHARDS	NUMBER	Estimated number of uncached substraints for this size
ESTD_EVICTIONS	NUMBER	Estimated number of subshards evicted for this size
ESTD EVICTION RATE	NUMBER	Estimated number of subshards getting evicted per minute
ESTD FG UNEVICTIONS	NUMBER	Estimated number of subshards unevicted by foreground processes
ESTD FG UNEVICTION RATE	NUMBER	Estimated number of subshards getting unevicted by foreground
	WOILDER	processes
ESTD_BG_UNEVICTIONS	NUMBER	Estimated number of subshards unevicted by background processes
ESTD_BG_UNEVICTION_RATE	NUMBER	Estimated number of subshards getting unevicted by background processes
ESTD_BG_PROCESSES	NUMBER	Estimated number of background processes required for this size
TOTAL_ENQUEUE_RATE	NUMBER	Simulated number of messages being enqueued per second
TOTAL_DEQUEUE_RATE	NUMBER	Simulated number of messages being dequeued per second
AVG_SUBSHARD_SIZE	NUMBER	Simulated average number of messages per cached subshard
AVG_SUBSHARD_MEMORY	NUMBER	Simulated average memory per cached subshard (in megabytes)
AVG_EVICTION_TIME	NUMBER	Simulated average time to evict a cached subshard (in milliseconds)
AVG_UNEVICTION_TIME	NUMBER	Simulated average time to unevict a cached subshard (in milliseconds)
FLAGS	NUMBER	Reserved for internal use
SIMULATION_TIME	NUMBER	Amount of time that was simulated for (in minutes)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.27 V\$AQ_MESSAGE_CACHE_STAT

 ${\tt V\$AQ_MESSAGE_CACHE_STAT} \ \ displays \ statistics \ about \ memory \ management \ for \ sharded \ queues \ in the \ Streams \ pool \ within the \ System \ Global \ Area (SGA). \ Sharded \ queues \ use the \ Streams$

pool in units of subshards. Thus, columns of this view shows statistics at subshard level. This view shows statistics across all sharded queues.



Column	Datatype	Description
NUM_EVICTED	NUMBER	Number of evicted subshards across all sharded queues
NUM_PREFETCHED	NUMBER	Number of subshards pre-fetched by AQ background process
NUM_UNEVICTION	NUMBER	Number of subshards un-evicted by foreground process (like dequeue process)
NUM_UNCACHED	NUMBER	Number of subshards stored as uncached
NUM_TRACKED	NUMBER	Number of subshards which are actively tracking dequeue rates
NUM_CACHED	NUMBER	Number of subshards stored as cached
MAX_SUBSH_SIZE	NUMBER	Maximum subshard size seen till now, in terms of number of messages per subshard
MIN_SUBSH_SIZE	NUMBER	Minimum subshard size seen till now, in terms of number of messages per subshard
MEAN_SUBSH_SIZE	NUMBER	Mean subshard size seen till now, in terms of number of messages per subshard
AVG_EVICTION_RATE	NUMBER	Average number subshards evicted per second
AVG_LOAD_RATE	NUMBER	Average number of subshards pre-fetched or un-evicted per second
AVG_EVICTION_TIME	NUMBER	Average time taken to evict one subshard (in milliseconds)
AVG_LOAD_TIME	NUMBER	Average time taken to un-evict one subshard (in milliseconds)
AVG_MISS_RATIO	NUMBER	Average ratio of number of foreground un-evictions versus background pre-fetch
AVG_THRASH_RATIO	NUMBER	Average ratio of number of subshard pre-fetched by background withou dequeue attempt versus total number of subshards prefetched
MANDATORY_AFF_SWITCH_ATT EMPTS	NUMBER	An affinity switch is a change in dequeue instance for a shard-subscriber pair. A mandatory affinity switch is when there are local enqueues in the queue at the instance but no local dequeues present, so the dequeue affinity is switched to another instance for that shard-subscriber pair. This column shows the number of times mandatory affinity switches were attempted across all instances. Populated at the smallest instance id only.
OPTIONAL_AFF_SWITCH_ATTE MPTS	NUMBER	Optional affinity switches are affinity switches that are not mandatory. Optional affinity switches are done for global load balancing across the Oracle Real Application Clusters (Oracle RAC) database. This column shows the number of times optional affinity switches were attempted across all instances. Populated at the smallest instance id only.
MIN_EVICT_PERCENT	NUMBER	Percentage of streams_pool memory beyond which sharded queue subshard eviction is triggered
LAST_AVG_CACHED_HORIZON	NUMBER	Last average number of cached subshards seen in sharded queue memory manager horizon
LAST_AVG_MEMORY_HORIZON	NUMBER	Last average memory of cached subshards seen in sharded queue memory manager horizon

Column	Datatype	Description
LAST_AVG_SUBSHARD_HORIZO	NUMBER	Last average number of subshards seen in sharded queue memory manager horizon
LAST_LEEWAY_SHIFT	NUMBER	Internal leeway for memory threshold
AVG_OPTTIME_DRIFT	NUMBER	Average drift of opt_time for all subshards. A drift is defined as a difference between opt_time as set on a subshard and the actual time at which subshard is first dequeueed after prefetch/uneviction.
NUM_THRESHOLD_DRIFT	NUMBER	Number of times drift value has gone over threshold time. A typical threshold time can be horizon_time/2.
MAX_OPT_TIME_DRIFT	NUMBER	Maximum drift till now
MIN_OPT_TIME_DRIFT	NUMBER	Minimum drift till now
AVG_OPT_TIME_ERROR	NUMBER	An opt_time error occurs when a cached subshard is unevicted by a foreground process (instead of being prefetched by the aq background) Thus, opt_time error is the difference between the actual opt_time set for a sharded queue subshard and the absolute time at which foreground unevicts the same subshard. This column represents average time of this error.
MAX_OPT_TIME_ERROR	NUMBER	Maximum opt_time error
MIN_OPT_TIME_ERROR	NUMBER	Minimum opt_time error
NUM_FG_RELOADED	NUMBER	Number of subshards reloaded from disk into message cache by foreground processes
NUM_PRERELOADED	NUMBER	Number of subshards reloaded from disk into message cache in advance by background processes
AVG_RELOAD_TIME	NUMBER	Average time to reload a subshard from disk into message cache (in milliseconds)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.28 V\$AQ_NONDUR_REGISTRATIONS

 ${\tt V\$AQ_NONDUR_REGISTRATIONS} \ \ \textbf{provides} \ \ \textbf{information} \ \ \textbf{about non-durable subscriptions}.$

Column	Datatype	Description
REG ID	NUMBER	Registration ID
SUBSCRIPTION	VARCHAR2 (128)	Subscription name
LOCATION	VARCHAR2 (256)	Location name
USER#	NUMBER	User ID
USER_CONTEXT	RAW(32)	Context the user provided
CONTEXT_SIZE	NUMBER	Size of the context
NAMESPACE	NUMBER	Subscription namespace
VERSION	NUMBER	Database version number



Column	Datatype	Description	
STATE	NUMBER	State of the registration:	
		ENABLED: The registration is enabled for notification	
		 STOPPING: The registration is in a transient state before it becomes DISABLED 	
		DISABLED: The registration is disabled for notification	
		• DEAD: The registration does not exist any more, and it is marked for deferred cleanup.	
QOS	NUMBER	Quality of service	
REG_TIME	TIMESTAMP(3) WITH TIME ZONE	Time of registration	
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:	
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.	
		 1: This value is used for rows containing data that pertain to only the root 	
		• <i>n</i> : Where <i>n</i> is the applicable container ID for the rows containing data	



8.29 V\$AQ_NONDUR_SUBSCRIBER

 ${\tt V\$AQ_NONDUR_SUBSCRIBER} \ \ \textbf{provides} \ \ \textbf{information about the non-durable subscriptions on sharded queues}.$



Column	Datatype	Description
QUEUE_ID	NUMBER	Queue ID
SUBSCRIBER_ID	NUMBER	ID of the non-durable subscriber
SUBSCRIBER_NAME	VARCHAR2 (128)	Subscriber name
RULE_CONDITION	VARCHAR2 (4000)	Rule condition of the subscriber
TRANSFORMATION_OWNER	VARCHAR2 (128)	Owner of the transformation (for JMS queues)
TRANSFORMATION_NAME	VARCHAR2 (128)	Name of the transformation (for JMS queues)
CREATION_TIME	TIMESTAMP(1) WITH TIME ZONE	Non-durable subscriber creation time



Column	Datatype	Description
FLAGS	NUMBER	Property of the subscriber:
		• 0x0001 – Persistent subscriber
		 0x0002 – Buffered subscriber
		 0x0004 – JMS subscriber
		 0x0008 – Rule-based subscriber
		 0x0010 – Subscriber has transformation
		 0x0020 – Notification-only non-durable subscriber
		subscriber
SUBSCRIBER_TYPE NUMBER	NUMBER	Type of subscriber:
		 1 – JMS non-durable subscriber
		 2 – Service layer dummy non-durable subscriber
		 3 – Notification-only non-durable subscriber
BITPOS	NUMBER	Position of subscriber in subscriber bitmap
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		• 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.30 V\$AQ_NONDUR_SUBSCRIBER_LWM

 ${\tt V\$AQ_NONDUR_SUBSCRIBER_LWM\ projects\ the\ low\ watermarks\ (LWMs)\ of\ non-durable\ subscribers} in\ a\ sharded\ queue.\ The\ LWM\ of\ a\ non-durable\ subscriber\ is\ a\ combination\ of\ shard,\ priority\ and\ LWM\ (subshard).}$



Column	Datatype	Description
QUEUE_ID	NUMBER	Queue ID
SUBSCRIBER_ID	NUMBER	ID of the non-durable subscriber
SHARD_ID	NUMBER	Shard ID
PRIORITY	NUMBER	Priority of the shard



Column	Datatype	Description	
LWM	NUMBER	Lower watermark (in a subshard) of the non-durable subscriber	
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:	
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only 	
		the root	
		 n: Where n is the applicable container ID for the rows containing data 	



8.31 V\$AQ_NOTIFICATION_CLIENTS

 ${\tt V\$AQ_NOTIFICATION_CLIENTS} \ \ \textbf{displays} \ \ \textbf{performance statistics} \ \ \textbf{for secure OCI client} \\ \textbf{connections}.$

Column	Datatype	Description
CLIENT_ID	VARCHAR2 (29)	Internally generated client ID for secure notification clients
EMON_ID	NUMBER	Emon ID serving the client
NOTIFICATION_STATE	NUMBER	Notification state: ACTIVE – Sending notification WAIT_FOR_ACK – Waiting for client acknowledgment INACTIVE - Idle connection
NUM_MESSAGE_SENT	NUMBER	Number of messages sent on the connection
NUM_BYTES_SENT	NUMBER	Number of bytes sent on the connection
NUM_MESSAGE_RECEIVED	NUMBER	Number of messages successfully received by the client
LAST_SEND_TIME	TIMESTAMP(3) WITH TIME ZONE	Time when the last message was sent on the connection
LAST_RECEIVE_TIME	TIMESTAMP(3) WITH TIME ZONE	Time when the last message was received over the connection
CONNECT_TIME	TIMESTAMP(3) WITH TIME ZONE	Time at which the client connected
DISCONNECT_TIME	TIMESTAMP(3) WITH TIME ZONE	Time at which the client disconnected
LAST_ERROR	NUMBER	The last error that occurred on the client connection



Column	Datatype	Description	
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:	
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data 	

✓ See Also:

Oracle Database Advanced Queuing User's Guide for more information about Oracle Database Advanced Queueing

8.32 V\$AQ_PARTITION_STATS

 ${\tt V\$AQ_PARTITION_STATS} \ \ displays \ usage \ statistics \ for \ the \ queue \ partition \ cache \ and \ the \ dequeue \ log \ partition \ cache.$

Note:

Column	Datatype	Description
INST_ID	NUMBER	Current instance ID
QUEUE_ID	NUMBER	Queue ID
QUEUE_TABLE_ID	NUMBER	Queue table object ID
QUEUE_SCHEMA	VARCHAR2 (128)	Queue schema name
QUEUE_NAME	VARCHAR2 (128)	Queue name
PT_TUNED_SIZ_QT	NUMBER	Current tuned size of the queue partition cache, expressed in number of partition cache elements
PT_CACHED_PTNS_QT	NUMBER	Current number of cached partitions in the queue partition cache
PT_OVER_CACHED_PTNS_QT	NUMBER	Current number of over-cached partitions in the queue partition cache, that is, the number of cached partitions whose partition cache elements exceed the current tuned size of the queue partition cache
PT_TOTAL_UPTUNE_QT	NUMBER	Total amount of space added to the queue partition cache due to tune- ups, since the cache was initialized, expressed in number of partition cache elements
PT_NO_OF_UPTUNES_QT	NUMBER	Total number of times a tune-up was triggered on the queue partition cache, since the cache was initialized



Column	Datatype	Description
PT_TOTAL_DOWNTUNE_QT	NUMBER	Total amount of space removed from the queue partition cache due to tune-downs, since the cache was initialized, expressed in number of partition cache elements
PT_NO_OF_DOWNTUNES_QT	NUMBER	Total number of times a tune-down was triggered on the queue partition cache, since the cache was initialized
PT_CACHE_MISS_QT	NUMBER	Total number of cache misses during partition lookups on the queue partition cache
PT_CACHE_HIT_QT	NUMBER	Total number of cache hits during partition lookups on the queue partition cache
PT_TOTAL_CACH_GET_QT	NUMBER	Total number of successful fetches from the queue partition cache
PT_TOTAL_CACH_PUT_QT	NUMBER	Total number of caching operations that occurred on the queue partition cache
PT_UNBOUNDINGS_QT	NUMBER	Total number of times queue partitions were unbounded
PT_TUNED_SIZ_DQ	NUMBER	Current tuned size of the dequeue log partition cache, expressed in number of partition cache elements
PT_CACHED_PTNS_DQ	NUMBER	Current number of cached partitions in the dequeue log partition cache
PT_OVER_CACHED_PTNS_DQ	NUMBER	Current number of over-cached partitions in the dequeue log partition cache, that is, the number of cached dequeue log partitions whose partition cache elements exceed the current tuned size of the dequeue log partition cache
PT_TOTAL_UPTUNE_DQ	NUMBER	Total amount of space added to the dequeue log partition cache due to tune-ups, since the cache was initialized, expressed in number of partition cache elements
PT_NO_OF_UPTUNES_DQ	NUMBER	Total number of times a tune-up was triggered on the dequeue log partition cache, since the cache was initialized
PT_TOTAL_DOWNTUNE_DQ	NUMBER	Total amount of space removed from the dequeue log partition cache due to tune-downs, since the cache was initialized, expressed in number of partition cache elements
PT_NO_OF_DOWNTUNES_DQ	NUMBER	Total number of times a tune-down was triggered on the dequeue log partition cache, since the cache was initialized
PT_CACHE_MISS_DQ	NUMBER	Total number of cache misses during partition lookups on the dequeue log partition cache
PT_CACHE_HIT_DQ	NUMBER	Total number of cache hits during partition lookups on the dequeue log partition cache
PT_TOTAL_CACH_GET_DQ	NUMBER	Total number of successful fetches from the dequeue log partition cache
PT_TOTAL_CACH_PUT_DQ	NUMBER	Total number of caching operations that occurred on the dequeue log partition cache
PT_UNBOUNDINGS_DQ	NUMBER	Total number of times dequeue log partitions were unbounded
ADD_PARTITION_FG_QT	NUMBER	Total number of queue partitions created inline during foreground AQ enqueue operations
ADD_PARTITION_BG_QT	NUMBER	Total number of queue partitions created asynchronously by the AQ partitioning background process
ADD_PARTITION_FG_DQLOG	NUMBER	Total number of dequeue log partitions created inline during foreground AQ dequeue operations
ADD_PARTITION_BG_DQLOG	NUMBER	Total number of dequeue log partitions created asynchronously by the AQ partitioning background process
TRUNC_PARTITION_QT	NUMBER	Total number of truncated and recycled queue partitions



Column	Datatype	Description
TRUNC_PARTITION_DQLOG	NUMBER	Total number of truncated and recycled dequeue log partitions
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.33 V\$AQ_REMOTE_DEQUEUE_AFFINITY

 ${\tt V\$AQ_REMOTE_DEQUEUE_AFFINITY} \ lists \ the \ dequeue \ affinity instance \ of the \ subscribers \ not \ dequeuing \ locally from the \ shard's \ owner \ instance. Cross instance \ message \ forwarding \ is \ used for these subscribers.$



AQ sharded queues are deprecated in Oracle Database 21c. Oracle recommends that you instead use Transactional Event Queues (TxEventQs) for higher throughput and better performance.

Column	Datatype	Description	
QUEUE_ID	NUMBER	Queue ID	
SHARD_ID	NUMBER	Shard ID which is being forwarded from SOURCE_INSTANCE to INST_ID for the subscriber	
SOURCE_INSTANCE_ID	NUMBER	Owner instance ID from where the shard is being forwarded	
SUBSCRIBER_ID	NUMBER	Subscriber ID	
QUEUE_SCHEMA	VARCHAR2 (128)	Queue schema name	
QUEUE_NAME	VARCHAR2 (128)	Queue name	
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible valuinclude:	
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 	
		 1: This value is used for rows containing data that pertain to only the root 	
		• <i>n</i> : Where <i>n</i> is the applicable container ID for the rows containing data	

8.34 V\$AQ SERVER POOL

V\$AQ SERVER POOL lists performance statistics for all the servers in the pool.

Column	Datatype	Description
COORDINATOR_ID	NUMBER	ID of the coordinator



Column	Datatype	Description
COORDINATOR_INSTANCE_ID	NUMBER	Instance of the coordinator
PROCESS_ID	VARCHAR2 (24)	Operating system process ID of the server
PROCESS_NAME	VARCHAR2 (48)	Operating system process name of the server
JOB_NAME	VARCHAR2 (32)	Name of the job handled
POOL_STATE	VARCHAR2(20)	State of the pool:
		• REMOTE
		• IDLE
		• ACTIVE
CON_ID	NUMBER	The ID of the container to which the data pertains. The $\texttt{CON_ID}$ value in this view is always 0. The rows pertain to the entire CDB or to the non-CDB.



8.35 V\$AQ_SHARDED_SUBSCRIBER_STAT

V\$AQ_SHARDED_SUBSCRIBER_STAT displays basic statistical information about the subscribers of sharded queues. There is one row per queue per shard per subscriber.



Column	Datatype	Description
QUEUE ID	NUMBER	Queue identifier
SUBSCRIBER ID	NUMBER	Subscriber identifier
_		
SHARD_ID	NUMBER	Shard identifier
PRIORITY	NUMBER	Priority value of the shard
MSG_SN	NUMBER	Message serial number
DEQUEUE_SUBSHARD	NUMBER	Last known dequeue position in this shard
ENQUEUED_MSGS	NUMBER	Number of enqueued messages
DEQUEUED_MSGS	NUMBER	Number of dequeued messages
ELAPSED_DEQUEUE_TIME	NUMBER	Amount of time spent performing dequeues (in seconds)
CPU_DEQUEUE_TIME	NUMBER	Actual amount of CPU time spent performing dequeues (in seconds)
DEQUEUE_RATE	NUMBER	Number of messages dequeued per second



Column	Datatype	Description
DEQUEUE_POSITION	RAW(16)	Message ID at the dequeue position of the subscriber in this shard
		A NULL value indicates that either the shard is empty or no dequeues have been done on this shard.
TIME_SINCE_LAST_DEQUEUE	NUMBER	Time since last dequeue activity (in seconds)
ESTD_TIME_TO_DRAIN	NUMBER	Estimated amount of time to drain the shard (in seconds) with current enqueue and dequeue rates. Null, if the enqueue rate is greater than the dequeue rate.
ESTD_TIME_TO_DRAIN_NO_EN Q	NUMBER	Estimated amount of time to drain the shard (in seconds) with no new enqueues
MESSAGE_LATENCY_1	NUMBER	Message latency within the last 5 minutes (in milliseconds). Null if no message is consumed or it is delay dequeue.
MESSAGE_LATENCY_2	NUMBER	Message latency within the last 1 hour (in milliseconds). Null if no message is consumed or it is delay dequeue.
MESSAGE_LATENCY_3	NUMBER	Message latency within the last 5 hours (in milliseconds). Null if no message is consumed or it is delay dequeue.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.36 V\$AQ_SUBSCRIBER_LOAD

 ${\tt V\$AQ_SUBSCRIBER_LOAD}\ describes\ the\ load\ of\ all\ subscribers\ of\ sharded\ queues\ in\ terms\ of\ latency\ at\ every\ instance\ in\ an\ Oracle\ RAC\ environment.$

Latency denotes the predicted amount of time (in seconds) required from the current time to drain all the messages for that subscriber at each respective instance. The latency calculation considers past enqueue/dequeue rates and future enqueue/dequeue rates based on history.



Column	Datatype	Description
QUEUE_ID	NUMBER	Queue ID
QUEUE_SCHEMA	VARCHAR2 (128)	Queue schema
QUEUE_NAME	VARCHAR2 (128)	Queue name
SUBSCRIBER_ID	NUMBER	Subscriber ID
SUBSCRIBER_NAME	VARCHAR2 (128)	Subscriber name

Column	Datatype	Description
LATENCY_STATE	VARCHAR2(8)	Possible values: FINITE - The subscriber will be able to dequeue all the messages in a finite amount of time INFINITE - The subscriber's dequeue rate may not catch up to the enqueue rate UNKNOWN - Latency is not yet known
LATENCY	NUMBER	Latency (in seconds). Valid only when LATENCY_STATE is FINITE.
DEQUEUE_REQUESTS	NUMBER	Approximate number of dequeue requests noted recently
ACTIVE_SHARDS	NUMBER	Number of queue shards that have messages for this subscriber
ACTIVE_LISTENER	VARCHAR2(5)	Indicates whether the subscriber is actively listening at this instance for messages (TRUE) or not (FALSE)
DEQUEUE_SESSIONS	NUMBER	Displays the number of active dequeue sessions for this subscriber
FLAGS	NUMBER	For internal use only
MANDATORY_AFF_SWITCHES	NUMBER	An affinity switch is a change in the dequeue instance for a shard-subscriber pair. A mandatory affinity switch is when there are local enqueues in the queue at the instance but no local dequeues present, so the dequeue affinity is switched to another instance for that shard-subscriber pair. This column shows the number of times mandatory affinity switches were needed from this instance to another for this subscriber.
OPTIONAL_AFF_SWITCHES	NUMBER	Optional affinity switches are affinity switches that are not mandatory. Optional affinity switches are done for global load balancing across the Oracle Real Application Clusters (Oracle RAC) database. This column shows the number of times optional affinity switches were needed from this instance to another for this subscriber.
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing

Oracle Database Advanced Queuing User's Guide for more information about Oracle Database Advanced Queueing

8.37 V\$ARCHIVE

 ${\tt V\$ARCHIVE} \ \ \textbf{displays} \ \ \textbf{information} \ \ \textbf{about} \ \ \textbf{redo} \ \ \textbf{log} \ \ \textbf{files} \ \ \textbf{in} \ \ \textbf{need} \ \ \textbf{of} \ \ \textbf{archiving}.$

Each row displays information for one thread. This information is also available in V\$LOG. Oracle recommends that you use V\$LOG.





"V\$LOG"

Column	Datatype	Description
GROUP#	NUMBER	Log file group number
THREAD#	NUMBER	Log file thread number
SEQUENCE#	NUMBER	Log file sequence number
ISCURRENT	VARCHAR2(3)	This is the current online redo log
CURRENT	VARCHAR2(3)	This column is obsolete and maintained for backward compatibility. The value of this column is always equal to the value in ISCURRENT.
FIRST_CHANGE#	NUMBER	First SCN stored in the current log
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.38 V\$ARCHIVE_DEST

 ${\tt V\$ARCHIVE_DEST} \ displays, for the current instance, all of the destinations in the \ Data \ Guard \ configuration, including each destination's current value, mode, and status.$

Column	Datatype	Description
DEST_ID	NUMBER	Log archive destination parameter identifier (1 to 31)
DEST_NAME	VARCHAR2 (256)	Log archive destination parameter name
STATUS	VARCHAR2(9)	Identifies the current status of the destination:
		VALID - Initialized and available
		INACTIVE - No destination information
		 DEFERRED - Manually disabled by the user
		ERROR - Error during open or copy
		DISABLED - Disabled after error
		BAD PARAM - Parameter has errors
		 ALTERNATE - Destination is available as an alternate
		 FULL - Exceeded quota size for the destination
BINDING	VARCHAR2(9)	Specifies how failure will affect the archival operation:
		 MANDATORY - Successful archival is required
		 OPTIONAL - Successful archival is not required (depends on LOG_ARCHIVE_MIN_SUCCEED_DEST)
NAME_SPACE	VARCHAR2(7)	Identifies the scope of parameter setting:
		SYSTEM - System definition
		SESSION - Session definition



Column	Datatype	Description
TARGET	VARCHAR2(7)	For a primary database, this column specifies whether the archive destination is local or remote to the primary database:
		• PRIMARY - local
		• STANDBY - remote
		For a standby database, this column specifies whether the archive destination is local or remote to the standby database:
		• LOCAL - local
		REMOTE - remote
ARCHIVER	VARCHAR2(10)	Identifies the archiver process relative to the database where the query is issued:
		• ARCn
		• FOREGROUND
		LGWR RFS
SCHEDULE	VARCHAR2(8)	Indicates whether the archival of this destination is INACTIVE, PENDING,
SCHEDULE	VARCHARZ (U)	ACTIVE, OF LATENT
DESTINATION	VARCHAR2 (256)	Specifies the location where the archived redo logs are to be archived
LOG_SEQUENCE	NUMBER	Identifies the sequence number of the last archived redo log to be archived
REOPEN_SECS	NUMBER	Identifies the retry time (in seconds) after error
DELAY_MINS	NUMBER	Identifies the delay interval (in minutes) before the archived redo log is automatically applied to a standby database
NET_TIMEOUT	NUMBER	Number of seconds the log writer process will wait for status from the network server of a network operation issued by the log writer process
PROCESS	VARCHAR2(10)	Identifies the archiver process relative to the primary database, even if the query is issued on the standby database: ARCn FOREGROUND LGWR
REGISTER	VARCHAR2(3)	Indicates whether the archived redo log is registered in the remote destination control file (YES) or not (NO). If the archived redo log is registered, it is available to log apply services.
FAIL DATE	DATE	Date and time of last error
FAIL_SEQUENCE	NUMBER	Sequence number of the archived redo log being archived when the laserror occurred
FAIL_BLOCK	NUMBER	Block number of the archived redo log being archived when the last error occurred
FAILURE_COUNT	NUMBER	Current number of contiguous archival operation failures that have occurred for the destination
MAX_FAILURE	NUMBER	Allows you to control the number of times log transport services will attempt to reestablish communication and resume archival operations with a failed destination
ERROR	VARCHAR2 (256)	Displays the error text
ALTERNATE	VARCHAR2 (256)	Alternate destination, if any
DEPENDENCY	VARCHAR2 (256)	Reserved for future use
REMOTE_TEMPLATE QUOTA_SIZE	VARCHAR2 (256) NUMBER	Specifies the template to be used to derive the location to be reco Destination quotas, expressed in bytes



Column	Datatype	Description	
QUOTA_USED	NUMBER	Size of all the archived redo logs currently residing on the specified destination	
MOUNTID	NUMBER	Instance mount identifier	
TRANSMIT_MODE	VARCHAR2 (12)	Specifies network transmission mode: SYNCHRONOUS PARALLELSYNC ASYNCHRONOUS	
ASYNC_BLOCKS	NUMBER	Number of blocks specified for the ASYNC attribute	
AFFIRM	VARCHAR2(3)	Specifies disk I/O mode	
TYPE	VARCHAR2 (7)	Indicates whether the archived log destination definition is PUBLIC or PRIVATE. Only PUBLIC destinations can be modified at run time using the ALTER SYSTEM SET or ALTER SESSION SET statements. By default, all archived log destinations are PUBLIC.	
VALID_NOW	VARCHAR2 (16)	 Indicates whether the destination is valid right now for archival operations: YES - Redo log type and database role for this destination are valid for the current database WRONG VALID_TYPE - Redo log type specified for this destination is not valid for the current database role. For example, WRONG VALID_TYPE would be returned if a destination specified with the VALID_FOR=(STANDBY_LOGFILE, STANDBY_ROLE) attribute is running in the standby database role but does not have standby redo logs implemented. WRONG VALID_ROLE - Database role specified for this destination is not the role in which the database is currently running. For example, the WRONG VALID_ROLE would be returned when a destination defined with the VALID_FOR=(ONLINE_LOGFILE, STANDBY_ROLE) attribute is running in the primary database role. INACTIVE - Destination is inactive, probably due to an error 	
VALID_TYPE	VARCHAR2 (15)	Redo log type or types that are valid for the destination: ONLINE_LOGFILE STANDBY_LOGFILE ALL_LOGFILES	
VALID_ROLE	VARCHAR2 (12)	Database role or roles that are valid for the destination: PRIMARY_ROLE STANDBY_ROLE ALL_ROLES	
DB_UNIQUE_NAME	VARCHAR2 (30)	Unique database name	
VERIFY	VARCHAR2(3)	Indicates whether the value of the VERIFY attribute on the LOG_ARCHIVE_DEST_n parameter is verified (YES) or not verified (NO)	



Column	Datatype	Description
COMPRESSION	VARCHAR2(7)	Indicates whether network compression is ENABLED or DISABLED, or whether the ZLIB or LZO algorithm is in use. These values correspond to the values accepted by the COMPRESSION attribute for the database initialization parameter LOG_ARCHIVE_DEST_n. The possible values include: DISABLE: Compression is disabled. ENABLE: Compression is enabled. The ZLIB compression algorithm is used. ZLIB: ZLIB compression is used.
APPLIED_SCN	NUMBER	For a destination that corresponds to a physical or logical standby database, the SCN of the last applied redo. For a destination that corresponds to a snapshot standby database, the SCN of the last redo applied before conversion to a snapshot standby database. This column is only valid for enabled and active standby database destinations on a primary or cascading standby database.
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data
ENCRYPTION	VARCHAR2(7)	Indicates whether encryption of the redo stream sent to Zero Data Loss Recovery Appliance (Recovery Appliance) is enabled (ENABLED) or not (DISABLED)
ROLE	VARCHAR2 (9)	Role of the destination: DATACACHE FARSYNC LOCAL LOGICAL PHYSICAL PRIMARY SNAPSHOT

✓ See Also:

- Zero Data Loss Recovery Appliance Administrator's Guide for introductory information about Recovery Appliance
- "LOG_ARCHIVE_DEST" and "LOG_ARCHIVE_DEST_n"
- "LOG_ARCHIVE_DUPLEX_DEST" and "LOG_ARCHIVE_DEST_STATE_n"
- "LOG_ARCHIVE_MIN_SUCCEED_DEST"



8.39 V\$ARCHIVE_DEST_STATUS

 ${\tt V\$ARCHIVE_DEST_STATUS} \ \ \textbf{displays} \ \ \textbf{run time and configuration information for the archived redolog destinations}.$

The information in this view does not persist across an instance shutdown.

Column	Datatype	Description
DEST_ID	NUMBER	Identifies the log archive destination parameter (1 to 31)
DEST_NAME	VARCHAR2 (256)	Log archive destination parameter name
STATUS	VARCHAR2 (9)	Current status of the destination: ALTERNATE - Destination is in an alternate state BAD PARAM - Parameter has errors DEFERRED - Manually disabled by the user DISABLED - Disabled after error ERROR - Error during open or copy FULL - Exceeded quota size for the destination IDLE - Destination is idle INACTIVE - No destination information VALID - Initialized and available
TYPE	VARCHAR2 (16)	Type of archival destination database: BACKUP APPLIANCE - Backup appliance CROSS-INSTANCE - An instance of the primary DOWNSTREAM - Streams downstream capture database FAR SYNC - Far Sync Instance LOCAL - Local to primary database LOGICAL - Logical standby PHYSICAL - Physical standby SNAPSHOT - Snapshot standby database TRUE CACHE - True cache
DATABASE_MODE	VARCHAR2(15)	Current mode of the archival destination database: STARTED - Instance started, not mounted MOUNTED - Mounted MOUNTED-STANDBY - Mounted standby OPEN - Open read/write OPEN_READ-ONLY - Open read-only



Column	Datatype	Description
RECOVERY_MODE	VARCHAR2 (34)	Current apply mode at the archival destination:
		 IDLE - Managed recovery is not active
		 LOGICAL APPLY - SQL Apply
		 LOGICAL REAL TIME APPLY - Real time SQL Apply
		 MANAGED - Managed recovery is active. This value is used when the standby database is mounted. In this recovery mode, users cannot query data on the standby.
		 MANAGED REAL TIME APPLY - In this recovery mode, log apply services recover redo data from standby redo logs at the same time the logs are being written to, as opposed to recovering redo from archived redo logs when a log switch occurs. In this recovery mode, users cannot query data on the standby.
		 MANAGED REAL TIME APPLY WITH QUERY - In this recovery mode, log apply services recover redo data from standby redo logs at the same time the logs are being written to, as opposed to recovering redo from archived redo logs when a log switch occurs. In a non- CDB, this mode is used when the database is open, and users can query data on the standby. In a CDB, this value is used when one or more PDBs in the CDB are open, and users can query data on the standby.
		 MANAGED WITH QUERY - Managed recovery is active in this recovery mode. In a non-CDB, this value is used when the database is open and users can query data on the standby. In a CDB, this value is used when one or more PDBs in the CDB are open, and users can query data on the standby.
PROTECTION_MODE	VARCHAR2(20)	Indicates how the database is protected:
		MAXIMUM AVAILABILITY
		MAXIMUM PERFORMANCE
		• MAXIMUM PROTECTION • RESYNCHRONIZATION
DESTINATION	VARCHAR2 (256)	Specifies the location where the redo data is to be archived
STANDBY_LOGFILE_COUNT	NUMBER	Indicates the total number of standby redo logs created on the standby database
STANDBY_LOGFILE_ACTIVE	NUMBER	Indicates the total number of standby redo logs on the standby database that are active and contain primary database online redo log information
ARCHIVED_THREAD#	NUMBER	Identifies the thread number of the most recent archived redo log received at the destination
ARCHIVED_SEQ#	NUMBER	Identifies the log sequence number of the most recent archived redo log received at the destination
APPLIED_THREAD#	NUMBER	Identifies the thread number of the most recent applied redo log received at the destination
APPLIED_SEQ#	NUMBER	Identifies the log sequence number of the most recent applied redo log received at the destination
ERROR	VARCHAR2 (256)	Displays the error text
SRL	VARCHAR2(3)	Indicates whether standby redo logfiles are used on the standby database (YES) or not (NO)
DB_UNIQUE_NAME	VARCHAR2(30)	Specifies the unique database name of the current instance that was defined with the <code>DB_UNIQUE_NAME</code> attribute on the <code>LOG_ARCHIVE_DEST_n</code> parameter



Column	Datatype	Description
SYNCHRONIZATION_STATUS	VARCHAR2 (22)	Possible values for this column are as follows:
		 CHECK CONFIGURATION - Synchronization with this destination is not possible because this database is either not in MAXIMUM PROTECTION or MAXIMUM AVAILABILITY data protection mode, or the LOG_ARCHIVE_DEST_n parameter associated with this destination has not been configured with the SYNC and AFFIRM attributes. CHECK CONNECTIVITY - One or more instances of this database cannot send redo data to this destination. CHECK STANDBY REDO LOG - The standby redo log at this destination is configured improperly. DESTINATION HAS A GAP - This destination is missing redo data needed for synchronization with this database. OK - This destination is synchronized with this database. STATUS NOT AVAILABLE - Synchronization status is not available. See Also: Oracle Data Guard Concepts and Administration for more information about redo transport configuration
SYNCHRONIZED	VARCHAR2(3)	Possible values are:
		 YES - This destination is synchronized with the primary database. NO - The destination is not synchronized with the primary database. UNKNOWN - The synchronization status of this destination cannot be determined.
GAP_STATUS	VARCHAR2(24)	Redo gap status:
		 LOCALLY UNRESOLVABLE GAP - Destination has a redo gap that cannot be automatically resolved by fetching the missing redo from this database. It may be possible to resolve the gap by fetching the missing redo from another destination. LOG SWITCH GAP - Destination has not yet received all of the redo from the previous log file. NO GAP - Destination does not have a redo gap. RESOLVABLE GAP - Destination has a redo gap that can be automatically resolved by fetching the missing redo from this database. UNRESOLVABLE GAP - Destination has a redo gap that cannot be automatically resolved by fetching the missing redo from this database and there are no other destinations from which redo can be fetched.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

¹ The Oracle Real Application Clusters (Oracle RAC) cross-instance archival feature is deprecated in Oracle Database 23ai. See *Oracle Database Upgrade Guide* for more information.

8.40 V\$ARCHIVE_GAP

 ${\tt V\$ARCHIVE_GAP} \ \ displays \ information \ about \ archive \ gaps \ on \ a \ standby \ database. \ This \ view \ can be used to find out the current archive gap that is blocking recovery for the current recovery incarnation.$

Column	Datatype	Description
THREAD#	NUMBER	Thread number of the missing archived redo log files. The number is 1 for a single instance. For Oracle Real Application Clusters, this column will contain different numbers.
LOW_SEQUENCE#	NUMBER	Lowest sequence number of the log files received on the standby system
HIGH_SEQUENCE#	NUMBER	Highest sequence number of the log files received on the standby system
CON_ID NUMBER	The ID of the container to which the data pertains. Possible values include:	
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.41 V\$ARCHIVE_PROCESSES

 $\verb|V\$ARCHIVE_PROCESSES| \ \textbf{displays} \ \textbf{the state of the various ARCH processes for the instance}.$

Column	Datatype	Description
PROCESS	NUMBER	Identifier for the ARCH process for the instance, numbered from 0-9
STATUS	VARCHAR2(10)	Status of the ARCH process, displayed as a keyword. Possible values are: STOPPED, SCHEDULED, STARTING, ACTIVE, STOPPING, and TERMINATED.
LOG_SEQUENCE	NUMBER	This is the online redo log sequence number currently being archived, if ${\tt STATE="BUSY"}$
STATE	VARCHAR2(4)	This is the current state of the ARCH process, displayed as a keyword. Possible keywords are IDLE or BUSY.
ROLES	VARCHAR2 (36)	The list of roles assigned to the archive process. The roles include: HEART_BEAT, NO_FAL, NO_SRL, CLEAR_LOGS
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.42 V\$ARCHIVED_LOG

V\$ARCHIVED_LOG displays archived log information from the control file, including archive log names.

An archive log record is inserted after the online redo log is successfully archived or cleared (name column is <code>NULL</code> if the log was cleared). If the log is archived twice, there will be two archived log records with the same <code>THREAD#</code>, <code>SEQUENCE#</code>, and <code>FIRST_CHANGE#</code>, but with a different name. An archive log record is also inserted when an archive log is restored from a backup set or a copy and whenever a copy of a log is made with the RMAN <code>COPY</code> command.

Column	Datatype	Description
RECID	NUMBER	Archived log record ID
STAMP	NUMBER	Archived log record stamp
NAME	VARCHAR2 (513)	Archived log file name. If set to NULL, either the log file was cleared before it was archived or an RMAN backup command with the "delete input" option was executed to back up archivelog all (RMAN> backup archivelog all delete input;).
DEST_ID	NUMBER	Original destination from which the archive log was generated. The value is $_{\rm 0}$ if the destination identifier is not available.
THREAD#	NUMBER	Redo thread number
SEQUENCE#	NUMBER	Redo log sequence number
RESETLOGS_CHANGE#	NUMBER	Resetlogs change number of the database when the log was written
RESETLOGS_TIME	DATE	Resetlogs time of the database when the log was written
RESETLOGS_ID	NUMBER	Resetlogs identifier associated with the archived redo log
FIRST_CHANGE#	NUMBER	First change number in the archived log
FIRST_TIME	DATE	Timestamp of the first change
NEXT_CHANGE#	NUMBER	First change in the next log
NEXT_TIME	DATE	Timestamp of the next change
BLOCKS	NUMBER	Size of the archived log (in blocks)
BLOCK_SIZE	NUMBER	Redo log block size. This is the logical block size of the archived log, which is the same as the logical block size of the online log from which the archived log was copied. The online log logical block size is a platform-specific value that is not adjustable by the user.
CREATOR	VARCHAR2 (7)	Creator of the archivelog: ARCH - Archiver process FGRD - Foreground process RMAN - Recovery Manager SRMN - RMAN at standby LGWR - Logwriter process
REGISTRAR	VARCHAR2 (7)	Registrar of the entry: RFS - Remote File Server process ARCH - Archiver process FGRD - Foreground process RMAN - Recovery manager SRMN - RMAN at standby LGWR - Logwriter process



Column	Datatype	Description
STANDBY_DEST	VARCHAR2(3)	Indicates whether the entry is an archivelog destination (YES) or not (NO)
ARCHIVED	VARCHAR2(3)	Indicates whether the online redo log was archived (YES) or whether RMAN only inspected the log and created a record for future application of redo logs during recovery (\mathbb{NO}).
APPLIED	VARCHAR2(9)	Indicates whether an archived redo log file has been applied to the corresponding physical standby database. The value is always ${\tt NO}$ for local destinations.
		This column is meaningful on a physical standby database for rows where REGISTRAR = RFS:
		 If REGISTRAR = RFS and APPLIED = NO, then the log file has been received but has not yet been applied.
		 If REGISTRAR = RFS and APPLIED = IN-MEMORY, then the log file has been applied in memory, but the data files have not yet been updated.
		 If REGISTRAR = RFS and APPLIED = YES, then the log file has been applied and the data files have been updated.
		This column can be used to identify log files that can be backed up and deleted. When used for this purpose, the value IN-MEMORY should be treated as if it were NO.
DELETED	VARCHAR2(3)	Indicates whether an RMAN <code>DELETE</code> command has physically deleted the archived log file from disk, as well as logically removing it from the control file of the target database and from the recovery catalog (YES) or not (NO)
STATUS	VARCHAR2(1)	Status of the archived log:
		A - Available
		D - Deleted
		U - Unavailable
		x - Expired
COMPLETION_TIME	DATE	Time when the archiving completed
DICTIONARY_BEGIN	VARCHAR2(3)	Indicates whether the log contains the start of a LogMiner dictionary (YES) or not (NO)
DICTIONARY_END	VARCHAR2(3)	Indicates whether the log contains the end of a LogMiner dictionary (YES) or not (NO)
END_OF_REDO	VARCHAR2(3)	Indicates whether the archived redo log contains the end of all redo information from the primary database (YES) or not (NO)
BACKUP_COUNT	NUMBER	Indicates the number of times this file has been backed up. Values range from 0-15. If the file has been backed up more than 15 times, the value remains 15.
ARCHIVAL_THREAD#	NUMBER	Redo thread number of the instance that performed the archival operation. This column differs from the THREAD# column only when a closed thread is archived by another instance.
ACTIVATION#	NUMBER	Number assigned to the database instantiation
IS_RECOVERY_DEST_FILE	VARCHAR2(3)	Indicates whether the file was created in the fast recovery area (YES) or not (NO)
COMPRESSED	VARCHAR2(3)	Reserved for internal use
FAL	VARCHAR2(3)	Indicates whether the archive log was generated as the result of a FAL request (YES) or not (NO)



Column	Datatype	Description
END_OF_REDO_TYPE	VARCHAR2(10)	Possible values are as follows:
		 SWITCHOVER - Shows archived redo log files that are produced at the end of a switchover TERMINAL - Shows archived redo log files produced after a failover
		 RESETLOGS - Shows online redo log files archived on the primary database after an ALTER DATABASE OPEN RESETLOGS statement is issued
		 ACTIVATION - Shows any log files archived on a physical standby database after an ALTER DATABASE ACTIVATE STANDBY DATABASE statement is issued
		 "empty string" - Any empty string implies that the log is just a normal archival and was not archived due to any of the other events
BACKED_BY_VSS	VARCHAR2(3)	Whether or not the file has been backed up by Volume Shadow Copy Service (VSS). This column is reserved for internal use.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only
		the root
		 n: Where n is the applicable container ID for the rows containing data

8.43 V\$ASM_ACFS_ENCRYPTION_INFO

 ${\tt V\$ASM_ACFS_ENCRYPTION_INFO}\ \ \textbf{displays encryption information for every mounted Oracle ACFS}.$

Column	Datatype	Description
FS_NAME	VARCHAR2(1024)	File system mount point (foreign key to V\$ASM_FILESYSTEM)
VOL_DEVICE	VARCHAR2 (256)	Name of the Oracle ADVM device
SET_STATUS	VARCHAR2(7)	Indicates whether encryption parameters have been set on the file system (YES) or not (NO); otherwise UNKNOWN.
ENABLED_STATUS	VARCHAR2(8)	Indicates whether file system level encryption is enabled (ENABLED) or not (DISABLED); otherwise UNKNOWN.
ALGORITHM	VARCHAR2(7)	Encryption algorithm used. AES is the only supported algorithm.
KEY_LENGTH	VARCHAR2(7)	Key length used for the encryption key
LAST_REKEY_TIME	DATE	Time that the volume was last rekeyed
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.



- Oracle Automatic Storage Management Administrator's Guide for more information about Oracle Advanced Cluster File System (Oracle ACFS)
- Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle Advanced Cluster File System (Oracle ACFS) and Oracle ASM Dynamic Volume Manager (Oracle ADVM) information

Note:

To display information about Oracle ACFS file systems or volumes that are located on nodes in an Oracle Flex ASM configuration, you must connect to the Oracle ASM proxy instance instead of the local Oracle ASM instance. For information about Oracle Flex ASM, refer to *Oracle Automatic Storage Management Administrator's Guide*.

8.44 V\$ASM ACFSAUTORESIZE

V\$ASM_ACFSAUTORESIZE displays the auto-resize settings for each mounted Oracle ACFS file system.

Column	Datatype	Description
FS_NAME	VARCHAR2 (1024)	Full path name of the Oracle ACFS file system mount point
RESIZE_INCREMENT	NUMBER	Auto-resize increment (in megabytes)
RESIZE_MAXIMUM	NUMBER	Auto-resize maximum (in megabytes)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

See Also:

- Oracle Automatic Storage Management Administrator's Guide for more information about Oracle Advanced Cluster File System (Oracle ACFS)
- Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle Advanced Cluster File System (Oracle ACFS) and Oracle ASM Dynamic Volume Manager (Oracle ADVM) information



Note:

To display information about Oracle ACFS file systems or volumes that are located on nodes in an Oracle Flex ASM configuration, you must connect to the Oracle ASM proxy instance instead of the local Oracle ASM instance. For information about Oracle Flex ASM, refer to *Oracle Automatic Storage Management Administrator's Guide*.

8.45 V\$ASM_ACFSREPL

 ${\tt V\$ASM_ACFSREPL} \ displays \ information \ for \ Oracle \ ACFS \ file \ systems \ that \ are \ initialized \ for \ replication.$

Column	Datatype	Description
FSNAME	VARCHAR2 (1024)	File system mount point (foreign key to V\$ASM_FILESYSTEM)
VOLDEV	VARCHAR2 (256)	Name of the Oracle ADVM device
SITE	VARCHAR2(7)	 Replication site role: PRIMARY - File system is initialized as a primary STANDBY - File system is initialized as a standby
LAG	VARCHAR2 (128)	Amount of time standby is behind primary in hours:minutes:seconds (primary only)
STATUS	VARCHAR2 (12)	Replication primary or standby status: ONLINE - Replication is initialized and processing real-time changes PAUSED - The primary is not sending logs to the standby or the standby is not applying logged changes
INITSTATUS	VARCHAR2(11)	This column is not maintained.
DIRSSCAN	NUMBER	This column is not maintained.
PERCENT	NUMBER	This column is not maintained.
LASTSYNC	DATE	Time of last apply on the standby site (standby only)
CRSRUN	NUMBER	Number of Cluster Ready Services replication daemons currently running
CRSTOTAL	NUMBER	Number of Cluster Ready Services replication daemons expected to be running
PMNTPT	VARCHAR2 (1024)	Replication primary site mount point
SMNTPT	VARCHAR2 (1024)	Replication standby site mount point
PSVCNAME	VARCHAR2 (1024)	This column is not maintained.
SSVCNAME	VARCHAR2 (1024)	This column is not maintained.
PHOST	VARCHAR2 (1024)	A replication primary cluster host name
SHOST	VARCHAR2 (1024)	A replication standby cluster host name
REMALIAS	VARCHAR2 (4000)	This column is not maintained.
TAGS	NUMBER	TRUE (1) if replicating tagged files
COMPRESSION	VARCHAR2(3)	This column is not maintained.
DBGLVL	NUMBER	Replication trace log debug level



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data For this view, the value is always 0.

Note:

For Oracle ASM releases 12.2 or later, this view contains records only for storage locations that are file systems (and not for storage locations that are snapshots). The following columns in this view are no longer maintained: INITSTATUS, DIRSCAN, PERCENT, PSVCNAME, SSVCNAME, REMALIAS, and COMPRESSION.

See Also:

- Oracle Automatic Storage Management Administrator's Guide for more information about Oracle Advanced Cluster File System (Oracle ACFS)
- Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle Advanced Cluster File System (Oracle ACFS) and Oracle ASM Dynamic Volume Manager (Oracle ADVM) information

Note:

To display information about Oracle ACFS file systems or volumes that are located on nodes in an Oracle Flex ASM configuration, you must connect to the Oracle ASM proxy instance instead of the local Oracle ASM instance. For information about Oracle Flex ASM, refer to *Oracle Automatic Storage Management Administrator's Guide*.

8.46 V\$ASM_ACFSREPLTAG

V\$ASM_ACFSREPLTAG displays replicated tag information for Oracle ACFS file systems that are initialized for replication.

Column	Datatype	Description
FSNAME	VARCHAR2 (1024)	File system mount point (foreign key to V\$ASM_FILESYSTEM)
VOLDEV	VARCHAR2 (256)	Name of the Oracle ADVM device



Column	Datatype	Description
TAG	VARCHAR2 (32)	Tag name that is being replicated
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data For this view, the value is always 0.

Note:

This view only contains records for Oracle ASM releases prior to Oracle Database 12c Release 2 (12.2.0.1). To display Oracle ACFS replication information for Oracle Database 12c Release 2 (12.2.0.1) or higher, use the acfsutil repl info command.

See Also:

- Oracle Automatic Storage Management Administrator's Guide for more information about Oracle Advanced Cluster File System (Oracle ACFS)
- Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle Advanced Cluster File System (Oracle ACFS) and Oracle ASM Dynamic Volume Manager (Oracle ADVM) information

Note:

To display information about Oracle ACFS file systems or volumes that are located on nodes in an Oracle Flex ASM configuration, you must connect to the Oracle ASM proxy instance instead of the local Oracle ASM instance. For information about Oracle Flex ASM, refer to *Oracle Automatic Storage Management Administrator's Guide*.

8.47 V\$ASM_ACFSSNAPSHOTS

V\$ASM ACFSSNAPSHOTS displays snapshot information for every mounted Oracle ACFS.

Column	Datatype	Description
FS_NAME	VARCHAR2 (1024)	File system mount point (foreign key to V\$ASM_FILESYSTEM)



Column	Datatype	Description
VOL_DEVICE	VARCHAR2 (256)	Name of the Oracle ADVM device
SNAP_NAME	VARCHAR2 (1024)	Name of the snapshot
CREATE_TIME	DATE	Time when the snapshot was created
TYPE	VARCHAR2(2)	Snapshot type. Possible types are read-only (RO) or read/write (RW).
PARENT	VARCHAR2 (1024)	Parent name used to create the snapshot. If the snapshot was created using the mount point as a base, parent name will be NULL. If the snapshot was created using an existing snapshot as the base, the parent name will be the name of the snapshot passed to the acfsutil snap create -p operation.
LINK	VARCHAR2 (1024)	If link has been set, the path of the link. If unset, NULL.
ADDITIONAL_STORAGE	NUMBER	Equivalent to "storage added to snapshot" output
QUOTA	NUMBER	Value of quota. If unset, NULL.
REPL	VARCHAR2(5)	Indicates whether the snapshot is being used for replication (TRUE) or not (FALSE)
STATE	VARCHAR2 (14)	The state of the snapshot: • AVAILABLE - Default • DELETE_WAITING - Maps to "delete waiting for last close"
		 DELETE_IN_PROGRESS - Maps to "delete in progress"
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.

- Oracle Automatic Storage Management Administrator's Guide for more information about Oracle Advanced Cluster File System (Oracle ACFS)
- Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle Advanced Cluster File System (Oracle ACFS) and Oracle ASM Dynamic Volume Manager (Oracle ADVM) information

Note:

To display information about Oracle ACFS file systems or volumes that are located on nodes in an Oracle Flex ASM configuration, you must connect to the Oracle ASM proxy instance instead of the local Oracle ASM instance. For information about Oracle Flex ASM, refer to *Oracle Automatic Storage Management Administrator's Guide*.



8.48 V\$ASM_ACFSTAG

V\$ASM_ACFSTAG displays every file or directory that has a tag and its tag name for every mounted Oracle ACFS.

Column	Datatype	Description
TAG_NAME	VARCHAR2 (32)	Tag name on file or directory
FS_NAME	VARCHAR2 (1024)	File system mount point
PATH_NAME	VARCHAR2 (4096)	Complete file path name
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data For this view, the value is always 0.

See Also:

- Oracle Automatic Storage Management Administrator's Guide for more information about Oracle Advanced Cluster File System (Oracle ACFS)
- Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle Advanced Cluster File System (Oracle ACFS) and Oracle ASM Dynamic Volume Manager (Oracle ADVM) information

Note:

To display information about Oracle ACFS file systems or volumes that are located on nodes in an Oracle Flex ASM configuration, you must connect to the Oracle ASM proxy instance instead of the local Oracle ASM instance. For information about Oracle Flex ASM, refer to *Oracle Automatic Storage Management Administrator's Guide*.

8.49 V\$ASM ACFSVOLUMES

 ${\tt V\$ASM_ACFSVOLUMES} \ \ \textbf{displays} \ \ \textbf{information about mounted Oracle ACFS volumes, correlated} \\ \textbf{with } {\tt V\$ASM} \ \ \texttt{FILESYSTEM.}$

Column	Datatype	Description
FS_NAME	VARCHAR2 (1024)	File system mount point (foreign key to V\$ASM_FILESYSTEM)
VOL_DEVICE	VARCHAR2 (256)	Name of the Oracle ADVM device



Column	Datatype	Description
VOL_LABEL	VARCHAR2 (64)	Volume label (optional name) assigned through mkfs/acfsformat; NULL if no name exists
PRIMARY_VOL	VARCHAR2(5)	Indicates whether the volume is the primary volume for the file system (TRUE) or not (FALSE)
TOTAL_MB	NUMBER	Size of the volume device (in megabytes)
FREE_MB	NUMBER	Available space on the volume device (in megabytes)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data For this view, the value is always 0.

- "V\$ASM_FILESYSTEM"
- Oracle Automatic Storage Management Administrator's Guide for more information about Oracle Advanced Cluster File System (Oracle ACFS)
- Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle Advanced Cluster File System (Oracle ACFS) and Oracle ASM Dynamic Volume Manager (Oracle ADVM) information

Note:

To display information about Oracle ACFS file systems or volumes that are located on nodes in an Oracle Flex ASM configuration, you must connect to the Oracle ASM proxy instance instead of the local Oracle ASM instance. For information about Oracle Flex ASM, refer to *Oracle Automatic Storage Management Administrator's Guide*.

8.50 V\$ASM_ALIAS

In an Oracle Automatic Storage Management (Oracle ASM) instance, V\$ASM_ALIAS displays one row for every alias present in every disk group mounted by the Oracle ASM instance.

Column	Datatype	Description
NAME	VARCHAR2(70)	Oracle ASM alias or alias directory name
GROUP_NUMBER	NUMBER	Owning disk group number of the alias (foreign key to the V\$ASM_DISKGROUP view)



Column	Datatype	Description
FILE_NUMBER	NUMBER	Oracle ASM file number of the alias (foreign key to the V\$ASM_FILE view)
FILE_INCARNATION	NUMBER	Oracle ASM file incarnation number for the alias
ALIAS_INDEX	NUMBER	Alias entry number for the alias
ALIAS_INCARNATION	NUMBER	Incarnation number for the parent of the alias
PARENT_INDEX	NUMBER	A 32-bit number consisting of a disk group number in the high-order 8 bits and an alias entry number in the low-order 24 bits (number of the directory containing the alias)
REFERENCE_INDEX	NUMBER	A 32-bit number consisting of a disk group number in the high-order 8 bits and an alias entry number in the low-order 24 bits (number of the directory describing the current entry)
ALIAS_DIRECTORY	VARCHAR2(1)	Indicates whether the alias is to a directory (Y) or to an Oracle ASM file (N)
SYSTEM_CREATED	VARCHAR2(1)	Indicates whether the alias is system created (Y) or user created (N)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only
		 the root n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.



8.51 V\$ASM_ATTRIBUTE

V\$ASM_ATTRIBUTE displays one row for each attribute defined. In addition to attributes specified by CREATE DISKGROUP and ALTER DISKGROUP statements, the view may show other attributes that are created automatically.

Note that attributes are only displayed for disk groups where COMPATIBLE.ASM is set to 11.1 or higher.

Column	Datatype	Description
NAME	VARCHAR2 (256)	Full name of the attribute
VALUE	VARCHAR2 (256)	Value of the attribute
GROUP_NUMBER	NUMBER	Number of the disk group in which this attribute exists (composite primary key)
ATTRIBUTE_INDEX	NUMBER	Number of this attribute in the disk group (composite primary key)
ATTRIBUTE_INCARNATION	NUMBER	Incarnation number for this attribute (composite primary key)



Column	Datatype	Description
READ_ONLY	VARCHAR2(7)	Indicates whether the attribute is read-only (Y) or not (N)
SYSTEM_CREATED	VARCHAR2(7)	Indicates whether this is a system-created attribute (Y) or not (N)
CON_ID NUMBER	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.



In an Oracle Database instance, this view returns 0 rows when queried from a PDB.

See Also:

- Oracle Automatic Storage Management Administrator's Guide for more information about viewing Oracle ASM disk group attributes using this view
- Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle ASM information

8.52 V\$ASM_AUDIT_CLEANUP_JOBS

In an Oracle Automatic Storage Management (Oracle ASM) instance, V\$ASM AUDIT CLEANUP JOBS displays information about the configured audit trail purge jobs.

In a database instance, V\$ASM AUDIT CLEANUP JOBS displays no rows.

Column	Datatype	Description
JOB_NAME	VARCHAR2 (64)	Name of the audit trail purge job
JOB_STATUS	VARCHAR2(64)	Current status of the audit trail purge job (ENABLED) or (DISABLED)
AUDIT_TRAIL	VARCHAR2 (64)	Audit trail for which the audit trail purge job is configured: OS AUDIT TRAIL and UNIFIED AUDIT TRAIL
JOB_FREQUENCY	NUMBER	Frequency at which the audit trail purge job runs
USE_TIMESTAMP	VARCHAR2 (64)	Indicates whether the audit trail purge job is configured to use the last archive timestamp (TRUE) or not (FALSE)



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing
		data For this view, the value is always 0.



8.53 V\$ASM_AUDIT_CONFIG_PARAMS

In an Oracle Automatic Storage Management (Oracle ASM) instance, V\$ASM_AUDIT_CONFIG_PARAMS displays information about the currently configured audit trail properties that are used by the DBMS_AUDIT_MGMT package.

In a database instance, V\$ASM AUDIT CONFIG PARAMS displays no rows.

Column	Datatype	Description
PARAMETER_NAME	VARCHAR2(64)	Name of the property
PARAMETER_VALUE	VARCHAR2(64)	Value of the property
AUDIT_TRAIL	VARCHAR2(64)	Audit trails for which the property is configured: OS AUDIT TRAIL and UNIFIED AUDIT TRAIL
PARAMETER_UNIT	VARCHAR2(64)	Provides description of units of audit properties (file size in KB and file age in day(s))
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.



See Also:

- Oracle Database PL/SQL Packages and Types Reference for more information about the DBMS AUDIT MGMT package
- Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle ASM information

8.54 V\$ASM_AUDIT_LAST_ARCH_TS

In an Oracle Automatic Storage Management (Oracle ASM) instance, V\$ASM_AUDIT_LAST_ARCH_TS displays information about the last archive timestamps set for audit trail cleanup or purges.

In a database instance, V\$ASM_AUDIT_LAST_ARCH_TS displays no rows.

Column	Datatype	Description
AUDIT_TRAIL	VARCHAR2 (64)	Audit trail for which the last archive timestamp applies: OS AUDIT TRAIL and UNIFIED AUDIT TRAIL
LAST_ARCHIVE_TS	TIMESTAMP(6) WITH TIME ZONE	Timestamp of the last audit file that has been archived
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.

See Also:

Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle ASM information

8.55 V\$ASM CLIENT

In an Oracle Automatic Storage Management (Oracle ASM) instance, V\$ASM_CLIENT identifies databases using disk groups managed by the Oracle ASM instance.

In a database instance, VASM_CLIENT$ displays information about the Oracle ASM instance if the database has any open Oracle ASM files.



Column	Datatype	Description
GROUP_NUMBER	NUMBER	Number of the disk group being used by the database instance (foreign key to the V\$ASM_DISKGROUP view). When a client is connected to an Oracle ASM instance, but is not currently using any disk groups, V\$ASM_CLIENT.GROUP_NUMBER contains 0.
		When the Cluster Ready Services Daemon (CRSD) or Cluster Synchronization Services (OCSSD) connects to the Oracle ASM instance, this will represent the number of the disk group used for their OCR and voting files respectively.
INSTANCE_NAME	VARCHAR2 (64)	Identifier for the database instance client
		When CRSD or OCSSD has opened its files in the disk group mounted by the Oracle ASM instance, this will contain the node name where CRSD or OCSSD is running.
DB_NAME	VARCHAR2(8)	Unique database name of the database client instance
		When CRSD has opened the Oracle Cluster Registry (OCR) file in the disk group mounted by the Oracle ASM instance, DB_NAME will contain _OCR.
		When OCSSD has opened the voting file in the disk group mounted by the Oracle ASM instance, DB_NAME will contain _CSS.
CLUSTER_NAME	VARCHAR2(31)	Name of the cluster
STATUS	VARCHAR2(12)	Status of the client connection:
		 CONNECTED - Database instance client has an active connection to the Oracle ASM instance DISCONNECTED - Database instance client normally ended its connection to the Oracle ASM instance BROKEN - Connection with the database instance client terminated in a nonstandard way When CRSD or OCSSD has opened its files in the disk group mounted by the Oracle ASM instance, it will report Connected as status.
SOFTWARE_VERSION	VARCHAR2(60)	Software version number of the database or Oracle ASM instance for the selected disk group connection
COMPATIBLE_VERSION	VARCHAR2(60)	Compatibility setting of the database or Oracle ASM instance for the selected disk group connection
		The value will be - when CRSD or OCSSD has opened its files in the disk group mounted by the Oracle ASM instance.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.

In an Oracle Database instance, this view returns 0 rows when queried from a PDB.



8.56 V\$ASM_DBCLONE_INFO

 ${\tt V\$ASM_DBCLONE_INFO} \ shows \ the \ relationship \ between \ the \ parent \ database \ and \ point-in-time \ database \ clones.$

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Disk group number
DBCLONE_NAME	VARCHAR2 (128)	Name of the point-in-time database clone
MIRRORCOPY_NAME	VARCHAR2 (128)	Name of the mirror copy associated with the database clone
DBCLONE_STATUS	VARCHAR2 (128)	Status of the database clone. Possible values:
		 PREPARING — The process to prepare the database for splitting has started, but the database is not yet ready to be split.
		 PREPARED — The preparation process is complete and the database is ready to be split.
		• SPLITTING — The process to split the database files has started.
		 SPLIT COMPLETED — The database has been split.
		 DROPPING — The process to drop the prepared database clone has started.
		 FAILED — The clone operation has failed. The incomplete clone will be dropped.
PARENT_DBNAME	VARCHAR2 (128)	Name of the parent database
PARENT_FILEGROUP_NAME	VARCHAR2 (128)	Name of the file group associated with the parent database
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



Oracle Automatic Storage Management Administrator's Guide for information about point-in-time database clones

8.57 V\$ASM DISK

V\$ASM_DISK displays one row for every disk discovered by the Oracle Automatic Storage Management (Oracle ASM) instance, including disks that are not part of any disk group.

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Number of the disk group containing the disk (foreign key to the V\$ASM_DISKGROUP view)
DISK_NUMBER	NUMBER	Number assigned to the disk within its disk group
COMPOUND_INDEX	NUMBER	A 32-bit number consisting of a disk group number in the high-order 8 bits and a disk number in the low-order 24 bits (for efficient access to the view)
INCARNATION	NUMBER	Incarnation number for the disk
MOUNT_STATUS	VARCHAR2(7)	Per-instance status of the disk relative to group mounts:
		MISSING - Oracle ASM metadata indicates that the disk is known to be part of the Oracle ASM disk group but no disk in the storage system was found with the indicated name ORACLE Disk in prepart in the atternation but in pat being.
		 CLOSED - Disk is present in the storage system but is not being accessed by Oracle ASM
		 OPENED - Disk is present in the storage system and is being accessed by Oracle ASM. This is the normal state for disks in a database instance which are part of a disk group being actively used by the instance.
		 CACHED - Disk is present in the storage system and is part of a disk group being accessed by the Oracle ASM instance. This is the normal state for disks in an Oracle ASM instance which are part of a mounted disk group.
		 IGNORED - Disk is present in the system but is ignored by Oracle ASM because of one of the following:
		 The disk is detected by the system library but is ignored because an Oracle ASM library discovered the same disk Oracle ASM has determined that the membership claimed by
		 the disk header is no longer valid CLOSING - Oracle ASM is in the process of closing this disk
HEADER STATUS	VARCHAR2 (12)	Per-instance status of the disk as seen by discovery:
_		UNKNOWN - Oracle ASM disk header has not been read
		 CANDIDATE - Disk is not part of a disk group and may be added to a disk group with the ALTER DISKGROUP statement
		 INCOMPATIBLE - Version number in the disk header is not compatible with the Oracle ASM software version
		PROVISIONED - Disk is not part of a disk group and may be added to a disk group with the ALTER DISKGROUP statement. The PROVISIONED header status is different from the CANDIDATE header status in that PROVISIONED implies that an additional platform-
		specific action has been taken by an administrator to make the disk available for Oracle ASM.
		 MEMBER - Disk is a member of an existing disk group. No attempt should be made to add the disk to a different disk group. The ALTER DISKGROUP statement will reject such an addition unless overridden
		with the FORCE option.
		 FORMER - Disk was once part of a disk group but has been dropped cleanly from the group. It may be added to a new disk group with the ALTER DISKGROUP statement.
		 CONFLICT - Oracle ASM disk was not mounted due to a conflict
		 FOREIGN - Disk contains data created by an Oracle product other than Oracle ASM. This includes data files, logfiles, and OCR disks.



Column	Datatype	Description
MODE_STATUS	VARCHAR2(7)	Global status about which kinds of I/O requests are allowed to the disk:
		 ONLINE - Disk is online and operating normally. Reads and writes are attempted when the disk is mounted. Reads are attempted as part of disk discovery.
		 OFFLINE - Disk is offline and access to data is not permitted. Reads and writes are not attempted. An offline disk remains logically part of its disk group.
		 SYNCING - Disk is offline for reads, but online for writes. Oracle ASM is resyncing stale data on the disk. See V\$ASM_OPERATION to view resync progress.
STATE	VARCHAR2(8)	Global state of the disk with respect to the disk group:
		 UNKNOWN - Oracle ASM disk state is not known (typically the disk is not mounted)
		NORMAL - Disk is online and operating normally
		 ADDING - Disk is being added to a disk group, and is pending validation by all instances that have the disk group mounted
		 DROPPING - Disk has been manually taken offline and space allocation or data access for the disk halts. Rebalancing will commence to relocate data off the disks to other disks in the disk group. Upon completion of the rebalance, the disk is expelled from the group.
		 HUNG - Disk drop operation cannot continue because there is insufficient space to relocate the data from the disk being dropped
		 FORCING - Disk is being removed from the disk group without attempting to offload its data. The data will be recovered from redundant copies, where possible.
REDUNDANCY	VARCHAR2(7)	Hardware redundancy of the disk:
		• UNKNOWN
		UNPROT MIRROR
		• PARITY
		Note: This column is valid only if an ASMLIB is present that supports returning hardware redundancy information. This column is not related to the redundancy of the disk group of which the disk is a member.
LIBRARY	VARCHAR2 (64)	Name of the library that discovered the disk
OS_MB	NUMBER	Size of the disk (in megabytes) as reported by the host operating system
TOTAL_MB	NUMBER	Total capacity of the disk (in megabytes)
FREE_MB	NUMBER	Unused capacity of the disk (in megabytes)
HOT_USED_MB ¹	NUMBER	Number of used megabytes in the hot region
COLD_USED_MB ¹	NUMBER	Number of used megabytes in the cold region
NAME	VARCHAR2(30)	Name of the disk
FAILGROUP	VARCHAR2(30)	Name of the failure group containing the disk
LABEL	VARCHAR2(31)	Disk label portion of the name returned by discovery
PATH	VARCHAR2 (256)	Operating system path name portion of the name returned by discovery
UDID	VARCHAR2(64)	Unique Device ID portion of the name returned by discovery
PRODUCT	VARCHAR2 (32)	Name of the manufacturer and the name of the product. All disks with the same product id will have the same performance and reliability characteristics.



Column	Datatype	Description
CREATE_DATE	DATE	Date and time when the disk was added to the disk group
MOUNT_DATE	DATE	Date and time when the disk was mounted by the first instance
REPAIR_TIMER	NUMBER	Seconds remaining until the disk is automatically dropped (0 if not failed)
READS	NUMBER	Total number of I/O read requests for the disk
WRITES	NUMBER	Total number of I/O write requests for the disk
READ_ERRS	NUMBER	Total number of failed I/O read requests for the disk
WRITE_ERRS	NUMBER	Total number of failed I/O write requests for the disk
READ_TIMEOUT	NUMBER	Number of read I/Os that are timed out
WRITE_TIMEOUT	NUMBER	Number of write I/Os that are timed out
READ_TIME	NUMBER	Total I/O time (in seconds) for read requests for the disk if the <code>TIMED_STATISTICS</code> initialization parameter is set to <code>true</code> (0 if set to false)
WRITE_TIME	NUMBER	Total I/O time (in seconds) for write requests for the disk if the <code>TIMED_STATISTICS</code> initialization parameter is set to <code>true</code> (0 if set to <code>false</code>)
BYTES_READ	NUMBER	Total number of bytes read from the disk
BYTES_WRITTEN	NUMBER	Total number of bytes written to the disk
PREFERRED_READ	VARCHAR2(1)	Status of the preferred read failure group:
		 U - Disk group has no preferred read failure group
		Y - Disk is a preferred read disk
		 N - Disk is not a preferred read disk For a disk group with one or more preferred read failure groups, if the disk is in one of the preferred read failure groups, the value of this column is Y; otherwise it is N.
HASH_VALUE	NUMBER	A unique hash value for an Oracle ASM disk, computed using the Oracle ASM disk name (as specified by NAME column in v\$asm_disk) and the Oracle ASM disk group name (as specified by NAME column in v\$asm_diskgroup).
HOT_READS ¹	NUMBER	This column is not meaningful and its value is always 0
HOT_WRITES 1	NUMBER	This column is not meaningful and its value is always 0
HOT_BYTES_READ1	NUMBER	This column is not meaningful and its value is always 0
HOT_BYTES_WRITTEN1	NUMBER	This column is not meaningful and its value is always 0
COLD_READS 1	NUMBER	Number of reads from the disk
COLD WRITES ¹	NUMBER	Number of writes to the disk
COLD BYTES READ ¹	NUMBER	Number of bytes read from the disk
COLD BYTES WRITTEN ¹	NUMBER	Number of bytes written to the disk
VOTING_FILE	VARCHAR2(1)	Indicates whether the disk contains a voting file (Y) or not (N)
SECTOR_SIZE	NUMBER	Physical block size (in bytes)
LOGICAL_SECTOR_SIZE	NUMBER	Shows the logical sector size value of the disk in bytes. This is the smallest possible I/O that can be done by the disk.
		If the value of the <code>LOGICAL_SECTOR_SIZE</code> column is 512, while the value in the <code>SECTOR_SIZE</code> column is 4096, then the disk supports 512 sector size emulation. This means the disk can be used for both 512 native and 4096 native disk groups.



Column	Datatype	Description
FAILGROUP_TYPE	VARCHAR2(7)	Type of the failure group: REGULAR QUORUM
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.
THIN_PROVISION_CAPABLE	VARCHAR2(1)	Indicates whether the disk supports Storage Thin Provisioning (Y) or not (N)
DATA_INTEGRITY_CAPABLE	VARCHAR2(1)	Indicates whether the disk supports the Data Integrity feature (Y) or not (N)
SITE_NAME	VARCHAR2(30)	The name of the site to which the specific disk belongs
SITE_GUID	VARCHAR2(33)	The GUID for the site to which the specific disk belongs
FAILGROUP_LABEL	VARCHAR2(30)	This is the suggested name for the failure group to which the disk belongs, as returned by discovery
SITE_LABEL	VARCHAR2(30)	This is the suggested name for the site to which the disk belongs, as returned by discovery
SITE_STATUS	VARCHAR2 (11)	This column is populated only for disks in Oracle ASM extended disk groups. The site status is computed after every Partnership and Status Table (PST) refresh or when the PST is read from disks into memory. The possible states include:
		UNKNOWN: This is the state before any checks have been performed.
		 UNAVAILABLE: This is the state when all the disks in the site are offline.
		COMPROMISED: The state when enough disks or PST copies are
		offline, such that the site can no longer provide data availability. • AVAILABLE: The state when there is enough redundancy within the
		site to provide data availability in case another site becomes compromised or unavailable.

¹ Intelligent Data Placement is desupported starting with Oracle Database 21c. As a result, the individual values for the HOT_USED_MB and COLD_USED_MB columns are not meaningful. However, the sum of the HOT_USED_MB and COLD_USED_MB values represents the total number of used megabytes on the disk. Also, the HOT_READS, HOT_WRITES, HOT_BYTES_READ, and HOT_BYTES_WRITTEN columns are no longer meaningful and always return 0, and the COLD_READS, COLD_WRITES, COLD_BYTES_READ, and COLD_BYTES_WRITTEN columns return statistics for the entire disk.

The <code>GROUP_NUMBER</code> and <code>DISK_NUMBER</code> columns will only be valid if the disk is part of a disk group which is currently mounted by the instance. Otherwise, <code>GROUP_NUMBER</code> will be 0, and <code>DISK_NUMBER</code> will be a unique value with respect to the other disks that also have a group number of 0.



In an Oracle Database instance, this view returns 0 rows when queried from a PDB.

Note:

This view performs disk discovery every time it is queried. Because performing disk discovery is very resource intensive, Oracle recommends against using this view for monitoring scripts. Instead, use the less expensive view V\$ASM_DISK_STAT.

See Also:

Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle ASM information

8.58 V\$ASM_DISK_IOSTAT

V\$ASM_DISK_IOSTAT displays information about disk I/O statistics for each Oracle Automatic Storage Management (Oracle ASM) client.

If this view is queried from the database instance, only the rows for that instance are shown.

Column	Datatype	Description
INSTNAME	VARCHAR2 (64)	Identifier for the DB/ADVM instance client
DBNAME	VARCHAR2(8)	Unique database name (DB_UNIQUE_NAME)
CLUSTERNAME	VARCHAR2 (31)	Name of the cluster
GROUP_NUMBER	NUMBER	Number of the disk group containing the disk
DISK_NUMBER	NUMBER	Number assigned to the disk within its disk group
FAILGROUP	VARCHAR2 (30)	Name of the failure group to which the disk belongs
SITE_NAME	VARCHAR2(30)	This is the name of the site to which the disk belongs
READS	NUMBER	Total number of I/O read requests for the disk
RITES	NUMBER	Total number of I/O write requests for the disk
EAD_ERRS	NUMBER	Total number of failed I/O read requests for the disk
RITE_ERRS	NUMBER	Total number of failed I/O write requests for the disk
EAD_TIMEOUT	NUMBER	Number of read I/Os that are timed out
VRITE_TIMEOUT	NUMBER	Number of write I/Os that are timed out
READ_TIME	NUMBER	Total I/O time (in seconds) for read requests for the disk if the <code>TIMED_STATISTICS</code> initialization parameter is set to <code>TRUE</code> (0 if set to <code>FALSE</code>).
WRITE_TIME	NUMBER	Total I/O time (in seconds) for write requests for the disk if the <code>TIMED_STATISTICS</code> initialization parameter is set to <code>TRUE</code> (0 if set to <code>FALSE</code>)



Column	Datatype	Description
BYTES_READ	NUMBER	Total number of bytes read from the disk
BYTES_WRITTEN	NUMBER	Total number of bytes written from the disk
HOT_READS ¹	NUMBER	This column is not meaningful and its value is always 0
HOT_WRITES 1	NUMBER	This column is not meaningful and its value is always 0
HOT_BYTES_READ ¹	NUMBER	This column is not meaningful and its value is always 0
HOT_BYTES_WRITTEN1	NUMBER	This column is not meaningful and its value is always 0
COLD_READS ¹	NUMBER	Number of reads from the disk
COLD_WRITES ¹	NUMBER	Number of writes to the disk
COLD_BYTES_READ ¹	NUMBER	Number of bytes read from the disk
COLD_BYTES_WRITTEN1	NUMBER	Number of bytes written to the disk
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.

Intelligent Data Placement is desupported starting with Oracle Database 21c. As a result, the HOT_READS, HOT_WRITES, HOT_BYTES_READ, and HOT_BYTES_WRITTEN columns are no longer meaningful and always return 0, and the COLD_READS, COLD_WRITES, COLD_BYTES_READ, and COLD_BYTES_WRITTEN columns return statistics for the entire disk.

In an Oracle Database instance, this view returns 0 rows when queried from a PDB.

See Also:

Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle ASM information

8.59 V\$ASM DISK STAT

V\$ASM_DISK_STAT displays performance statistics in the same way that V\$ASM_DISK does, but without performing discovery of new disks

This results in a less expensive operation. However, since discovery is not performed, the output of this view does not include any data about disks that are new to the system.

The columns for V\$ASM DISK STAT are the same as those for V\$ASM DISK.



In an Oracle Database instance, this view returns 0 rows when queried from a PDB.

See Also:

"V\$ASM DISK"

8.60 V\$ASM_DISKGROUP

 ${\tt V\$ASM_DISKGROUP} \ displays \ one \ row \ for \ every \ Oracle \ Automatic \ Storage \ Management \ (Oracle \ ASM) \ disk \ group \ discovered \ by \ the \ Oracle \ ASM \ instance \ on \ the \ node.$

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Cluster-wide number assigned to the disk group (primary key)
NAME	VARCHAR2(30)	Name of the disk group
SECTOR_SIZE	NUMBER	Physical block size (in bytes)
LOGICAL_SECTOR_SIZE	NUMBER	This column represents the logical sector size value of the disk group in bytes. This is the smallest possible I/O that can be done in this disk group. Any I/O smaller than the logical sector size will cause an assert in the code.
		If the value of the LOGICAL_SECTOR_SIZE column is 512, while the value in the SECTOR_SIZE column is 4096, then the disk group supports 512 sector size emulation. This means that I/O operations can be both 512 or 4096 aligned. For example, this means that you can have redo log files with a file block size of 512 bytes in this disk group that can be both read and written to, as well as create new redo log files with a file block size of 4096 bytes.
BLOCK_SIZE	NUMBER	Oracle ASM metadata block size (in bytes)
ALLOCATION_UNIT_SIZE	NUMBER	Size of the allocation unit (in bytes)
STATE	VARCHAR2 (11)	State of the disk group relative to the instance: • BROKEN - Database instance lost connectivity to the Oracle ASM
		 BROKEN - Database instance lost connectivity to the Oracle ASM instance that mounted the disk group
		CONNECTED - Disk group is in use by the database instance
		 DISMOUNTED - Disk group was cleanly dismounted by the Oracle ASM instance following a successful mount
		 MOUNTED - Instance is successfully serving the disk group to its database clients
		 QUIESCING - CRSCTL utility attempted to dismount a disk group that contains the Oracle Cluster Registry (OCR). The disk group cannot be dismounted until Cluster Ready Services (CRS) exits, because the disk group contains the OCR.
		 RESTRICTED - A disk group mounted in this mode can only be seen by this Oracle ASM instance for maintenance purposes
		 UNKNOWN - Oracle ASM instance has never attempted to mount the disk group



Column	Datatype	Description
TYPE	VARCHAR2 (6)	Redundancy type for the disk group: EXTEND EXTERN FLEX HIGH NORMAL
TOTAL_MB	NUMBER	Total capacity of the disk group, excluding that of quorum disks (in megabytes)
FREE_MB	NUMBER	Unused capacity of the disk group (in megabytes)
HOT_USED_MB ¹	NUMBER	Number of used megabytes in the hot region
COLD_USED_MB ¹	NUMBER	Number of used megabytes in the cold region
REQUIRED_MIRROR_FREE_MB	NUMBER	Amount of space that is required to be available in a given disk group in order to restore redundancy after one or more disk failures. The amount of space displayed in this column takes mirroring effects into account.
USABLE_FILE_MB	NUMBER	Amount of free space that can be safely utilized taking mirroring into account and yet be able to restore redundancy after a disk failure
OFFLINE_DISKS	NUMBER	Number of disks in the disk group that are currently offline
COMPATIBILITY	VARCHAR2(60)	Minimum software version required for an Oracle ASM instance to mount this disk group
DATABASE_COMPATIBILITY	VARCHAR2(60)	Minimum software version required for a database instance to use files in this disk group
VOTING_FILES	VARCHAR2(1)	Indicates whether the disk contains voting files (Y) or not (N)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data For this view, the value is always 0.

Intelligent Data Placement is desupported starting with Oracle Database 21c. As a result, the individual values for the HOT_USED_MB and COLD_USED_MB columns are not meaningful. However, the sum of the HOT_USED_MB and COLD_USED_MB values represents the total number of used megabytes in the disk group.

Note

The <code>GROUP_NUMBER</code>, <code>TOTAL_MB</code>, and <code>FREE_MB</code> columns are only meaningful if the disk group is mounted by the instance. Otherwise, their values will be 0.





This view performs disk discovery every time it is queried. Because performing disk discovery is very resource intensive, Oracle recommends against using this view for monitoring scripts. Instead, use the less expensive view V\$ASM_DISKGROUP_STAT.

See Also:

Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle ASM information

8.61 V\$ASM DISKGROUP STAT

V\$ASM_DISKGROUP_STAT displays performance statistics in the same way that V\$ASM_DISKGROUP does, but without performing discovery of new disk groups.

This results in a less expensive operation. However, since discovery is not performed, the output of this view does not include any data about disk groups that are new to the system.

The columns for V\$ASM DISKGROUP STAT are the same as those for V\$ASM DISKGROUP.



"V\$ASM DISKGROUP"

8.62 V\$ASM ESTIMATE

V\$ASM_ESTIMATE displays an estimate of the work involved in execution plans for Oracle Automatic Storage Management (Oracle ASM) disk group rebalance and resync operations.

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Oracle ASM disk group number
STATEMENT_ID	VARCHAR2(30)	Value of the optional STATEMENT_ID parameter specified in the EXPLAIN WORK statement
TIMESTAMP	DATE	Date and time when the EXPLAIN WORK statement was issued
EST_WORK	NUMBER	Estimated number of Allocation Units that have to be moved by the operation



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data For this view, the value is always 0.



8.63 V\$ASM_FILE

In an Oracle Automatic Storage Management (Oracle ASM) instance, VASM_FILE$ displays one row for each file in each disk group mounted by the Oracle ASM instance.

For example, if there are three disk groups and five files in each, fifteen rows are displayed (unless the query is qualified with a WHERE clause).

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Number of the disk group containing the file (composite primary key)
FILE_NUMBER	NUMBER	Number of the file within the disk group (composite primary key)
COMPOUND_INDEX	NUMBER	A 32-bit number consisting of a disk group number in the high-order 8 bits and a file number in the low-order 24 bits (for efficient access to the view)
INCARNATION	NUMBER	Incarnation number for the file (composite primary key)
BLOCK_SIZE	NUMBER	Block size of the file (in bytes)
BLOCKS	NUMBER	Number of blocks in the file
BYTES	NUMBER	Number of bytes in the file
SPACE	NUMBER	Number of bytes allocated to the file



Column	Datatype	Description
TYPE	VARCHAR2 (64)	Type of the file. Possible values are as follows: ARCHIVELOG AUTOBACKUP BACKUPSET CHANGETRACKING CONTROLFILE DATAFILE DATAGUARDCONFIG DUMPSET FLASHBACK ONLINELOG PARAMETERFILE TEMPFILE XTRANSPORT
REDUNDANCY	VARCHAR2(6)	Redundancy of the file:
	, , , , , , , , , , , , , , , , , , , ,	 HIGH MIRROR PARITY UNPROT
STRIPED	VARCHAR2(6)	Indicates how the file is striped: FINE COARSE
CREATION_DATE	DATE	Date on which the file was created
MODIFICATION_DATE	DATE	Date of the last open/close for writing, rounded back to the nearest hour
REDUNDANCY_LOWERED	VARCHAR2(1)	Indicates whether a file has lower redundancy than what was expected (Y) or not (N). Redundancy is said to have been lowered for a file when one or more data extents in that file are not mirrored at the level specified by the administrator. In case of unprotected files, data extents could be missing altogether. Another possible value for this column is (U), which means that it is unknown.
		This column is deprecated, and it always displays a value of $\ensuremath{\mathtt{U}}.$
PERMISSIONS	VARCHAR2(16)	Access permissions of the file, in order of user, group, and other
USER_NUMBER	NUMBER	User number
USER_INCARNATION	NUMBER	Incarnation number of the user
	NUMBER	Hear group number
USERGROUP_NUMBER		User group number
USERGROUP_NUMBER USERGROUP_INCARNATION	NUMBER	Incarnation number of the user group
USERGROUP_INCARNATION	NUMBER VARCHAR2(4)	
usergroup_incarnation primary_region1		Incarnation number of the user group Region used for allocating primary extents: • HOT
USERGROUP_INCARNATION PRIMARY_REGION MIRROR_REGION	VARCHAR2(4)	Incarnation number of the user group Region used for allocating primary extents: HOT COLD Region for allocating mirrored extents: HOT
USERGROUP_INCARNATION PRIMARY_REGION ¹ MIRROR_REGION ¹ HOT_READS ¹	VARCHAR2(4) VARCHAR2(4)	Incarnation number of the user group Region used for allocating primary extents: HOT COLD Region for allocating mirrored extents: HOT COLD
USERGROUP_INCARNATION PRIMARY_REGION ¹ MIRROR_REGION ¹ HOT_READS ¹ HOT_WRITES ¹	VARCHAR2 (4) VARCHAR2 (4) NUMBER	Incarnation number of the user group Region used for allocating primary extents: HOT COLD Region for allocating mirrored extents: HOT COLD This column is not meaningful and its value is always 0 This column is not meaningful and its value is always 0
USERGROUP_INCARNATION	VARCHAR2 (4) VARCHAR2 (4) NUMBER NUMBER	Incarnation number of the user group Region used for allocating primary extents: HOT COLD Region for allocating mirrored extents: HOT COLD This column is not meaningful and its value is always 0



Column	Datatype	Description
COLD_WRITES ¹	NUMBER	Number of writes to the file
COLD_BYTES_READ ¹	NUMBER	Number of bytes read from the file
COLD_BYTES_WRITTEN1	NUMBER	Number of bytes written to the file
FILEGROUP_NUMBER	NUMBER	Shows the number of the associated file group
FILEGROUP_INCARNATION	NUMBER	The incarnation number for the file group the file belongs to in a flex redundancy disk group
REMIRROR	VARCHAR2(1)	This column has the value Y when rebalance is needed for the file after a redundancy change in a flex redundancy disk group, N otherwise. A redundancy change can occur when the file is moved to a file group with a different redundancy, or when the redundancy property of the file group is changed. After rebalance is run for the file, the value changes to N .
PARENT_FILNUM	NUMBER	For internal use only.
PARENT_FILNUMINC	NUMBER	For internal use only.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data For this view, the value is always 0.

Intelligent Data Placement is desupported starting with Oracle Database 21c. As a result, the PRIMARY_REGION and MIRROR_REGION columns are no longer meaningful. Also, the HOT_READS, HOT_WRITES, HOT_BYTES_READ, and HOT_BYTES_WRITTEN columns are no longer meaningful and always return 0, and the COLD_READS, COLD_WRITES, COLD_BYTES_READ, and COLD_BYTES_WRITTEN columns return statistics for the entire file.



8.64 V\$ASM_FILEGROUP

V\$ASM_FILEGROUP describes the properties of the Oracle Automatic Storage Management (Oracle ASM) File Groups.

In both Oracle ASM and Oracle Database instances, V\$ASM_FILEGROUP displays one row for every File Group present in every Disk Group mounted by the Oracle ASM instance. File Groups are only displayed for Disk Groups where COMPATIBLE.ASM is set to 12.2 or higher.



There will not be an entry for the default File Group.

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Number of the Disk Group in which this File Group exists (composite primary key)
FILEGROUP_NUMBER	NUMBER	Number associated to the File Group within its Disk Group (composite primary key)
INCARNATION	NUMBER	Incarnation number for the File Group (composite primary key)
COMPOUND_INDEX	NUMBER	A 32-bit number consisting of a Disk Group number in the high-order 8 bits and a File Group number in the low-order 24 bits (for efficient access to the view)
NAME	VARCHAR2 (128)	Name of the File Group
CLIENT_TYPE	NUMBER	Type of client that the File Group is associated to:
		• DATABASE
		• CLUSTER
		• VOLUME
CLIENT_NAME	VARCHAR2 (128)	Name of the client (database, PDB, CDB, cluster, or volume) that the File Group is associated to
GUID	VARCHAR2(32)	 If the CLIENT_TYPE is DATABASE: In a CDB environment, it is the GUID of the PDB or CDB associated with the file group, the same value as the GUID in V\$CONTAINERS. In a non-CDB environment it is the database identifier (DBID) of
		the database associated with that file group.
		If the CLIENT_TYPE is VOLUME or CLUSTER, the GUID column is empty.
QUOTAGROUP_NUMBER	NUMBER	Number of the quota group associated with this File Group (foreign key to the V\$ASM_QUOTAGROUP view)
QUOTAGROUP_INCARNATION	NUMBER	Incarnation number for the Quota Group
USED_QUOTA_MB	NUMBER	Used quota of the quota group in GB
USER_NUMBER	NUMBER	User number
USER_INCARNATION	NUMBER	Incarnation number of the user
USERGROUP_NUMBER	NUMBER	User group number
USERGROUP_INCARNATION	NUMBER	Incarnation number of the user group
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



See Also:

"V\$ASM_FILEGROUP_PROPERTY"

8.65 V\$ASM_FILEGROUP_FILE

V\$ASM_FILEGROUP_FILE lists all the Oracle Automatic Storage Management (Oracle ASM) files associated with each File Group.

In both Oracle ASM and Oracle Database instances, V\$ASM_FILEGROUP_FILE will display one row for every file associated with a File Group contained in every Disk Group mounted by the instance.

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Number of the Disk Group in which this File Group exists
FILEGROUP_NUMBER	NUMBER	Number associated to the File Group within its Disk Group
FILEGROUP_INCARN	NUMBER	Incarnation number for the File Group
FILE_NUMBER	NUMBER	Number associated to the ASM File (same file number as in V\$ASM_FILE)
INCARNATION	NUMBER	Incarnation number for the ASM File
COMPOUND_INDEX	NUMBER	A 32-bit number consisting of a Disk Group number in the high-order 8 bits and a File number in the low-order 24 bits (for efficient access to the view)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

See Also:

- "V\$ASM FILE"
- "V\$ASM FILEGROUP"

8.66 V\$ASM_FILEGROUP_PROPERTY

V\$ASM_FILEGROUP_PROPERTY describes all the properties of every Oracle Automatic Storage Management (Oracle ASM) File Group.

In both Oracle ASM and Oracle Database instances, V\$ASM_FILEGROUP_PROPERTY will display one row for every property of every file type of every File Group contained in every Disk Group mounted by the instance.



File Group properties are only displayed for File Groups on Disk Groups where ${\tt COMPATIBLE.ASM}$ is set to 12.2 or higher.



There will not be an entry for the default File Group.

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Number of the Disk Group in which this File Group exists (composite primary key)
FILEGROUP_NUMBER	NUMBER	Number associated to the File Group within its Disk Group (composite primary key)
COMPOUND_INDEX	NUMBER	A 32-bit number consisting of a Disk Group number in the high-order 8 bits and a Property Number in the low-order 24 bits (for efficient access to the view)
PROPERTY_INDEX	NUMBER	Number of this property in the Disk Group for the File Group (composite primary key)
INCARNATION	NUMBER	Incarnation number for this property (composite primary key)
FILE_TYPE	VARCHAR2 (30)	Type of file the property will be applied to: ARCHIVELOG ASMPARAMETERFILE ASMVDRL ASMVOL AUDIT_SPILLFILES AUTOBACKUP BACKUPSET CHANGETRACKING CONTAINER CONTROLFILE DATAFILE DATAGUARDCONFIG DUMPSET FLASHBACK FLASHFILE KEY_STORE OCRBACKUP OCRFILE ONLINELOG PARAMETERFILE TEMPFILE VOTINGFILE VOTINGFILE VOTINGFILE VTRANSPORT

The value can be \mathtt{NULL} for properties with a File Group granularity.

Column	Datatype	Description
NAME	VARCHAR2(64)	Full name of the property. Possible values: COMPATIBLE.CLIENT DBCLONE_STATUS OWNER PARENT_FILEGROUP_NUMBER POWER_LIMIT PRIORITY REDUNDANCY STRIPING USER GROUP
VALUE	VARCHAR2 (256)	Value of the property See Oracle Automatic Storage Management Administrator's Guide for information about file group property values.
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



"V\$ASM_FILEGROUP"

8.67 V\$ASM_FILESYSTEM

V\$ASM_FILESYSTEM displays information for every mounted Oracle ACFS.

Column	Datatype	Description
FS_NAME	VARCHAR2 (1024)	Mount point (primary key)
AVAILABLE_TIME	DATE	Mount time or the time that the file system became available again; NULL if the file system is not available
BLOCK_SIZE	NUMBER	File system block size (in kilobytes)
STATE	VARCHAR2 (13)	 File system status:: NOT AVAILABLE AVAILABLE OFFILINE - Either the Oracle ASM instance is down, the disk group has been forced dismounted, or less commonly, a metadata I/O failure occurred or serious metadata corruption was detected. In the case of a metadata I/O failure, the file system is also marked as corrupt. An offline file system can only be unmounted; other attempts at access result in errors.
CORRUPT	VARCHAR2(5)	Indicates whether the file system needs the fixer (fsck, acfschkdsk) to be run (TRUE) or not (FALSE)



Column	Datatype	Description
NUM_VOL	NUMBER	Number of volumes in the file system
TOTAL_SIZE	NUMBER	Total capacity of the file system (in megabytes)
TOTAL_FREE	NUMBER	Total free space in the file system (in megabytes)
TOTAL_SNAP_SPACE_USAGE	NUMBER	Total space used by snapshots (in megabytes)
REPLSTATE	VARCHAR2(7)	Replication status:
		 NO REPL - Replication is not initialized PRIMARY - File system is initialized for replication as a primary STANDBY - File system is initialized for replication as a standby
RESIZE_STATE	VARCHAR2 (5)	Possible resize states: NONE - AutoResize not configured AUTO - Equivalent to AutoResizeEnabled flag ERROR - Equivalent to AutoResizeError flag
COMPRESS_STATE	VARCHAR2 (7)	Compression status of the file system. Possible values: DISABLED - Compression is not active ENABLED - Compression is active PARTIAL - Compression is disabled, but the file system may contain compressed files
FROZEN_STATE	VARCHAR2(5)	Indicates whether the filesystem is frozen (TRUE) or not (FALSE)
ACFS_COMPATIBILITY	VARCHAR2(60)	Oracle Release streams where Oracle ACFS has shipped
METADATA_BLOCK_SIZE	NUMBER	Metadata block size of the file system. Possible values:5124096
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data For this view, the value is always 0.

See Also:

Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle ASM information

8.68 V\$ASM_OPERATION

In an Oracle Automatic Storage Management (Oracle ASM) instance, V\$ASM_OPERATION displays one row for every active Oracle ASM long running operation executing in the Oracle ASM instance.

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Disk group number (primary key). This is the foreign key to the V\$ASM_DISKGROUP view.
OPERATION	CHAR(5)	Type of the operation:
		 REBAL - Rebalance pending for this group. The disk group is rebalancing. REMIRROR - Remirror is pending for this group. SCRUB - Scrubbing is pending for this group. Starting with Oracle Database 12c, new queries should use the PASS column instead of this column.
PASS	VARCHAR2(9)	Type of the operation:
		 COMPACT - Oracle ASM is moving user data closer together, which improves performance by reducing seek distance PREPARE - Completing work corresponding to the prepare SQL operation. This phase is enabled only for FLEX or EXTENDED redundancy disk groups and COMPATIBLE. ASM must be set to 12.2 or higher. REBALANCE - Rebalance pending for this group. The disk group is rebalancing. REBUILD - Restoring the redundancy of forcing disks. Forcing disks are those disks that have been dropped with the FORCE option. RESILVER - This value appears in Oracle Exadata environments when WriteBack FlashCache is enabled RESYNC - Resync operation in progress to bring one or more Oracle ASM disks online SCRUBBING - The disk group is scrubbing. Starting with Oracle Database 12c, new queries should use this column instead of the OPERATION column.
STATE	VARCHAR2 (4)	 State of the operation: WAIT - No operations running for the group EST - An estimate is computed on the amount of work to be done for the rebalance RUN - Operation running for the group REAP - Operation is being run down DONE - Displayed for a pass that is complete ERRS - Operation halted by errors Estimates are computed in parallel in the background while the work is being executed. Thus, the transition from the EST to the RUN state may be extremely fast.
POWER	NUMBER	Power requested for the operation as specified by the ASM_POWER_LIMIT initialization parameter or command syntax. Or, power requested for the operation as specified by the power option of the scrubbing SQL syntax.
ACTUAL	NUMBER	Power allocated to the operation
SOFAR	NUMBER	Number of Allocation Units that are being moved per minute by the operation. Or, the number of Allocation Units that have been scrubbed so far.
EST_WORK	NUMBER	Estimated number of Allocation Units that have to be moved by the operation. Or, the estimated number of Allocation Units that have to be scrubbed by the scrubbing operation.
EST_RATE	NUMBER	Estimated number of Allocation Units that are being moved per minute by the operation



Column	Datatype	Description
EST_MINUTES	NUMBER	Estimated amount of time (in minutes) that the remainder of the operation is expected to take
ERROR_CODE	VARCHAR2 (44)	Oracle external error code; NULL if no error
CON_ID NUMBER	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only
		the root
		 n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.



8.69 V\$ASM_QUOTAGROUP

V\$ASM_QUOTAGROUP displays one row for every Oracle Automatic Storage Management (Oracle ASM) quota group discovered by the Oracle ASM instance on the node.

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Number of the disk group containing the quota group (composite primary key)
QUOTAGROUP_NUMBER	NUMBER	Number of the quota group within the disk group (composite primary key)
INCARNATION	NUMBER	Incarnation of the quota group (composite primary key)
NAME	VARCHAR2(30)	Name of the quota group
USED_QUOTA_MB	NUMBER	Used quota of the quota group in GB
QUOTA_LIMIT_MB	NUMBER	Quota limit (capacity) of the quota group in GB
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.70 V\$ASM_TEMPLATE

In an Oracle Automatic Storage Management (Oracle ASM) instance, $VASM_TEMPLATE$ displays one row for every template present in every disk group mounted by the Oracle ASM instance.

In a database instance, VASM_TEMPLATE$ displays one row for every template present in every disk group mounted by the Oracle ASM instance with which the database instance communicates.

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Owning disk group number (foreign key to the V\$ASM_DISKGROUP view)
ENTRY_NUMBER	NUMBER	Template number (primary key)
REDUNDANCY	VARCHAR2(6)	Redundancy of the template: HIGH MIRROR PARITY UNPROT
STRIPE	VARCHAR2(6)	Indicates how the template is striped: FINE COARSE
SYSTEM	VARCHAR2(1)	Indicates whether the template is a system template (Y) or not (N)
NAME	VARCHAR2(30)	Name of the template
PRIMARY_REGION ¹	VARCHAR2(4)	Region used for allocating primary extents: HOT COLD
MIRROR_REGION ¹	VARCHAR2(4)	Region for allocating mirrored extents: HOT COLD
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data For this view, the value is always 0.

¹ Intelligent Data Placement is desupported starting with Oracle Database 21c. As a result, the PRIMARY_REGION and MIRROR_REGION columns are no longer meaningful.



In an Oracle Database instance, this view returns 0 rows when queried from a PDB.



See Also:

Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle ASM information

8.71 V\$ASM USER

 VASM_USER$ displays the effective operating system user names of connected database instances and of file owners.

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Oracle ASM disk group number
USER_NUMBER	NUMBER	Oracle ASM internal unique user number
COMPOUND_INDEX	NUMBER	A 32-bit number consisting of a disk group number in the high-order 8 bits and a user number in the low-order 24 bits (for efficient access to the view)
INCARNATION	NUMBER	Incarnation number of the user
CLUSTER_ID	VARCHAR2 (128)	Oracle ASM cluster ID. The <code>CLUSTER_ID</code> and <code>OS_NAME</code> pair can be used to uniquely identify a user.
OS_ID	VARCHAR2(128)	Operating system user ID
OS_NAME	VARCHAR2(33)	Operating system user name
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data For this view, the value is always 0.

Note:

In an Oracle Database instance, this view returns 0 rows when queried from a PDB.

See Also:

Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle ASM information

8.72 V\$ASM_USERGROUP

V\$ASM_USERGROUP displays the creator for each Oracle Automatic Storage Management (Oracle ASM) File Access Control group.

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Oracle ASM disk group number
USERGROUP_NUMBER	NUMBER	Number of the user group
COMPOUND_INDEX	NUMBER	A 32-bit number consisting of a disk group number in the high-order 8 bits and a user group number in the low-order 24 bits (for efficient access to the view)
INCARNATION	NUMBER	Incarnation number of the user group
OWNER_NUMBER	NUMBER	User group owner identified by a unique number
OWNER_INCARNATION	NUMBER	Incarnation number of the user group owner
NAME	VARCHAR2 (64)	User group name
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.



In an Oracle Database instance, this view returns 0 rows when queried from a PDB.

See Also:

Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle ASM information

8.73 V\$ASM_USERGROUP_MEMBER

 ${\tt V\$ASM_USERGROUP_MEMBER} \ \ \textbf{displays} \ \ \textbf{the members for each Oracle Automatic Storage} \\ \textbf{Management (Oracle ASM) File Access Control group.}$

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Oracle ASM disk group number
MEMBER_NUMBER	NUMBER	Number of the user group member
MEMBER_INCARNATION	NUMBER	Incarnation number of the user group member
USERGROUP_NUMBER	NUMBER	User group number
USERGROUP_INCARNATION	NUMBER	Incarnation number of the user group



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.



In an Oracle Database instance, this view returns 0 rows when queried from a PDB.

✓ See Also:

Oracle Automatic Storage Management Administrator's Guide for additional information about using views to display Oracle ASM information

8.74 V\$ASM_VOLUME

In an Oracle Automatic Storage Management (Oracle ASM) instance, V\$ASM_VOLUME displays information about each Oracle ADVM volume.

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Cluster-wide number assigned to the disk group (composite primary key)
VOLUME_NAME	VARCHAR2(30)	Name of the volume
COMPOUND_INDEX	NUMBER	A 32-bit number consisting of a disk group number in the high-order 8 bits and a volume number in the low-order 24 bits (for efficient access to the view)
SIZE_MB	NUMBER	Size of the volume (in megabytes)
VOLUME_NUMBER	NUMBER	Number of the Volume within the disk group (composite primary key)
REDUNDANCY	VARCHAR2 (6)	Redundancy type for the volume: UNPROT HIGH MIRROR
STRIPE_COLUMNS	NUMBER	Number of columns in a stripe set
STRIPE_WIDTH_K	NUMBER	Stripe width of the volume (in kilobytes)
STATE	VARCHAR2(8)	Indicates whether the volume is enabled (ENABLED), disabled (DISABLED), or remote (REMOTE)
FILE_NUMBER	NUMBER	Volume file number



Column	Datatype	Description
INCARNATION	NUMBER	Volume file incarnation number
DRL_FILE_NUMBER	NUMBER	Volume Dirty Region Logging (DRL) file used for mirrored volumes
RESIZE_UNIT_MB	NUMBER	Volume allocation unit (in megabytes) that a volume can be created
USAGE	VARCHAR2 (30)	Optional usage string for the volume
VOLUME_DEVICE	VARCHAR2 (256)	OSD path for the volume device
MOUNTPATH	VARCHAR2 (1024)	Optional mount path string for the volume
PRIMARY_REGION ¹	VARCHAR2(4)	Region used for allocating primary extents: HOT COLD
MIRROR_REGION ¹	VARCHAR2(4)	Region used for allocating mirrored extents: HOT COLD
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data
		For this view, the value is always 0.

¹ Intelligent Data Placement is desupported starting with Oracle Database 21c. As a result, the PRIMARY REGION and MIRROR REGION columns are no longer meaningful.



8.75 V\$ASM_VOLUME_STAT

In an Oracle Automatic Storage Management (Oracle ASM) instance, V\$ASM_VOLUME_STAT displays information about statistics for each Oracle ADVM volume.

Column	Datatype	Description
GROUP_NUMBER	NUMBER	Cluster-wide number assigned to the disk group (composite primary key)
VOLUME_NAME	VARCHAR2(30)	Name of the volume
COMPOUND_INDEX	NUMBER	A 32-bit number consisting of a disk group number in the high-order 8 bits and a volume number in the low-order 24 bits (for efficient access to the view)
VOLUME_NUMBER	NUMBER	Number of the Volume within the disk group (composite primary key)
READS	NUMBER	Total number of read requests for this volume
WRITES	NUMBER	Total number of write requests for this volume



Column	Datatype	Description
READ_ERRS	NUMBER	Total number of failed read I/O operations for this volume
WRITE_ERRS	NUMBER	Total number of failed write I/O operations for this volume
READ_TIME	NUMBER	Total I/O time (in seconds) for read requests for this volume
WRITE_TIME	NUMBER	Total I/O time (in seconds) for write requests for this volume
BYTES_READ	NUMBER	Total number of bytes read for this volume
BYTES_WRITTEN	NUMBER	Total number of bytes written for this volume
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data For this view, the value is always 0.



8.76 V\$AUTHPOOL_STATS

V\$AUTHPOOL_STATS displays statistics for the authentication pool. This pool authenticates user connections when client applications connect to Database Resident Connection Pooling (DRCP).

Column	Datatype	Description
NUM_SRVS	NUMBER	Total number of servers in the authentication pool
NUM_BUSY	NUMBER	Number of busy servers in the authentication pool
NUM_FREE	NUMBER	Number of free servers in the authentication pool
NUM_WAITERS	NUMBER	Number of connections waiting for a server in the authentication pool to become available
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire multitenant container database (CDB). This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.77 V\$AUTO_IM_FEATURES

V\$AUTO_IM_FEATURES describes the In-Memory Column Store performance features that are optimized by Automatic In-Memory (AIM).

Column	Datatype	Description
FEATURE_ID	NUMBER	Unique feature ID
DESCRIPTION	VARCHAR2 (64)	Feature description. Possible values:
		Autonomous Bloom Filter Optimization
		Autonomous Join Groups
		Autonomous Optimized Arithmetic
		Autonomous Vector Optimization
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



This view is available starting with Oracle Database 23ai.

8.78 V\$AW_AGGREGATE_OP

V\$AW_AGGREGATE_OP displays the aggregation operators available in analytic workspaces. You can use this view in an application to provide a list of choices.

Column	Datatype	Description
NAME	VARCHAR2 (14)	Keyword for the aggregation operator
LONGNAME	VARCHAR2(30)	Descriptive name for the operator
DEFAULT_WEIGHT	NUMBER	Default weight factor for weighted operators
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.79 V\$AW_ALLOCATE_OP

 ${\tt V$AW_ALLOCATE_OP} \ displays \ the \ allocation \ operators \ available \ in \ analytic \ workspaces. \ You \ can use this view in an application to provide a list of choices.$

Column	Datatype	Description
NAME	VARCHAR2(14)	Keyword for the allocation operator
LONGNAME	VARCHAR2(30)	Descriptive name for the operator
CON_ID NUMBER	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.80 V\$AW_CALC

 ${\tt V$AW_CALC}\ reports\ on\ the\ effectiveness\ of\ various\ caches\ used\ by\ Oracle\ OLAP\ during\ dynamic\ aggregation.$

Column	Datatype	Description
SESSION_ID	NUMBER	A unique numeric identifier for the session.
AGGREGATE_CACHE_HITS	NUMBER	The number of times a dimension member is found in the aggregate cache (a hit).
		The number of hits for run-time aggregation can be increased by fetching data across the dense dimension
AGGREGATE_CACHE_MISSES	NUMBER	The number of times a dimension member is not found in the aggregate cache and must be read from disk (a miss).
SESSION_CACHE_HITS	NUMBER	The number of times the data is found in the session cache (a hit).
SESSION_CACHE_MISSES	NUMBER	The number of times the data is not found in the session cache (a miss).
POOL_HITS	NUMBER	The number of times the data is found in a page in the OLAP page pool (a hit).
POOL_MISSES	NUMBER	The number of times the data is not found in the OLAP page pool (a miss).
POOL_NEW_PAGES	NUMBER	The number of newly created pages in the OLAP page pool that have not yet been written to the workspace LOB.
POOL_RECLAIMED_PAGES	NUMBER	The number of previously unused pages that have been recycled with new data.
CACHE_WRITES	NUMBER	The number of times the data from the OLAP page pool has been written to the database cache.
POOL_SIZE	NUMBER	The number of kilobytes in the OLAP page pool.
CURR_DML_COMMAND	VARCHAR2(64)	The command currently being executed.
PREV_DML_COMMAND	VARCHAR2 (64)	The command most recently completed.



Column	Datatype	Description
AGGR_FUNC_LOGICAL_NA	NUMBER	The number of times the aggregation engine returns a logical NA because the AGGINDEX option is on and the composite tuple does not exist.
AGGR_FUNC_PRECOMPUTE	NUMBER	The number of times the aggregation engine finds a value in a position that it was called to calculate.
AGGR_FUNC_CALCS	NUMBER	The number of times the aggregation engine calculates a parent value based on the values of its children.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.81 V\$AW_LONGOPS

 ${\tt V\$AW_LONGOPS} \ displays \ status \ information \ about \ active \ SQL \ cursors \ initiated \ in \ an \ analytic \ workspace.$

Column	Datatype	Description
SESSION_ID	NUMBER	Identifier for the session in which the fetch is executing. This table can be joined with V\$SESSION to obtain the user name.
CURSOR_NAME	VARCHAR2 (64)	Name assigned to the cursor
COMMAND	VARCHAR2 (17)	Command that is actively fetching data from relational tables: QUERY FETCH IMPORT EXECUTE UPDATE SOLVE CLEAR LOAD CUBE LOAD DIMENSION DIMENSION COMPILE
STATUS	VARCHAR2(9)	 Status of the current operation: EXECUTING - Command has begun executing FETCHING - Data is being fetched into the analytic workspace FINISHED - Command has finished executing. This status appears very briefly before the record disappears from the table.
ROWS_PROCESSED	NUMBER	Number of rows already inserted, updated, or deleted
SEQ_NUMBER	NUMBER	Sequence number in the Cube Build log
SQL_ID	VARCHAR2 (13)	SQL ID of the statement
TARGET	VARCHAR2(64)	Operated object name
TARGET_DESC	VARCHAR2(64)	A brief description of the operated object
START TIME	DATE	Time the command started executing



Column	Datatype	Description
LAST_UPDATE_TIME	DATE	Last updated time
ELAPSED_SECONDS	NUMBER	Number of seconds between START_TIME and LAST_UPDATE_TIME
SOFAR	NUMBER	Number of units so far
TOTALWORK	NUMBER	Total number of units
UNITS	VARCHAR2(6)	Units description: ROWS NODES VALUES
MESSAGE	VARCHAR2 (512)	Message for the user
USERNAME	VARCHAR2(32)	User name
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.82 V\$AW_OLAP

V\$AW OLAP provides a record of active sessions and their use with analytic workspaces.

A row is generated whenever an analytic workspace is created or attached. The first row for a session is created when the first command is issued. It identifies the SYS.EXPRESS workspace, which is attached automatically to each session. Rows related to a particular analytic workspace are deleted when the workspace is detached from the session or the session ends.

Column	Datatype	Description
SESSION_ID	NUMBER	A unique numeric identifier for a session
AW_NUMBER	NUMBER	A unique numeric identifier for an analytic workspace. To get the name of the analytic workspace, join this column to the AW_NUMBER column of the USER_AWS view or to the AWSEQ# column of the AW\$ table.
ATTACH_MODE	VARCHAR2(10)	READ ONLY OF READ WRITE
GENERATION	NUMBER	The generation of an analytic workspace. Each UPDATE creates a new generation. Sessions attaching the same workspace between UPDATE commands share the same generation.
TEMP_SPACE_PAGES	NUMBER	The number of pages stored in temporary segments for the analytic workspace.
TEMP_SPACE_READS	NUMBER	The number of times data has been read from a temporary segment and not from the page pool.
LOB_READS	NUMBER	The number of times data has been read from the table where the analytic workspace is stored (the permanent LOB).
POOL_CHANGED_PAGES	NUMBER	The number of pages in the page pool that have been modified in this analytic workspace.
POOL_UNCHANGED_PAGES	NUMBER	The number of pages in the page pool that have not been modified in this analytic workspace.



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		• <i>n</i> : Where <i>n</i> is the applicable container ID for the rows containing data

8.83 V\$AW_SESSION_INFO

 ${\tt V\$AW_SESSION_INFO}\ provides\ information\ about\ each\ active\ session.$

A transaction is a single exchange between a client session and Oracle OLAP. Multiple commands can execute within a single transaction.

Column	Datatype	Description
SESSION_ID	NUMBER	A unique numeric identifier for a session
CLIENT_TYPE	VARCHAR2(64)	OLAP
SESSION_STATE	VARCHAR2 (64)	TRANSACTING, NOT_TRANSACTING, EXCEPTION_HANDLING, CONSTRUCTING, CONSTRUCTED, DECONSTRUCTING, or DECONSTRUCTED
SESSION_HANDLE	NUMBER	The session identifier
USERID	VARCHAR2(64)	The database user name under which the session opened
TOTAL_TRANSACTION	NUMBER	The total number of transactions executed within the session; this number provides a general indication of the level of activity in the session
TRANSACTION_TIME	NUMBER	The elapsed time in milliseconds of the mostly recently completed transaction
TOTAL_TRANSACTION_TIME	NUMBER	The total elapsed time in milliseconds in which transactions were being executed
AVERAGE_TRANSACTION_TIME	NUMBER	The average elapsed time in milliseconds to complete a transaction
TRANSACTION_CPU_TIME	NUMBER	The total CPU time in milliseconds used to complete the most recent transaction
TOTAL_TRANSACTION_CPU_TI ME	NUMBER	The total CPU time used to execute all transactions in this session; this total does not include transactions that are currently in progress
AVERAGE_TRANSACTION_CPU_ TIME	NUMBER	The average CPU time to complete a transaction; this average does not include transactions that are currently in progress
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only
		 the root n: Where n is the applicable container ID for the rows containing data



8.84 V\$BACKUP

V\$BACKUP displays the backup status of all online data files.

Column	Datatype	Description
FILE#	NUMBER	File identifier
STATUS	VARCHAR2 (18)	File status: NOT ACTIVE, ACTIVE (backup in progress), OFFLINE NORMAL, or description of an error.
		NOT ACTIVE indicates that the file is not currently in backup mode (that is, an ALTER TABLESPACE BEGIN BACKUP or ALTER DATABASE BEGIN BACKUP statement has not been issued), whereas ACTIVE indicates that the file is currently in backup mode.
CHANGE#	NUMBER	System change number when backup started
TIME	DATE	Time the backup started
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.85 V\$BACKUP_ARCHIVELOG_DETAILS

 $\verb|V\$BACKUP_ARCHIVELOG_DETAILS| \ contains \ information \ about \ all \ restorable \ archive \ logs.$

It will include all archived logs backed up in a backup set or proxy copies.

Column	Datatype	Description
BTYPE	CHAR(9)	Backup type container, either BACKUPSET or PROXYCOPY
BTYPE_KEY	NUMBER	Unique identifier for the backup type. For BACKUPSET, it is BS_KEY
SESSION_KEY	NUMBER	Session identifier
SESSION_RECID	NUMBER	Session recid
SESSION_STAMP	NUMBER	Session stamp
ID1	NUMBER	If BACKUPSET, it contains SET_STAMP
		If PROXYCOPY, it is RECID from the control file
ID2	NUMBER	If BACKUPSET, it contains SET_COUNT
		If proxycopy, it is stamp
THREAD#	NUMBER	Thread number
SEQUENCE#	NUMBER	Sequence number
RESETLOGS_CHANGE#	NUMBER	Resetlogs change SCN
RESETLOGS_TIME	DATE	Resetlogs change time
FIRST_CHANGE#	NUMBER	First change SCN
FIRST_TIME	DATE	First change time
NEXT_CHANGE#	NUMBER	Next change SCN



Column	Datatype	Description
NEXT_TIME	DATE	Next change time
FILESIZE	NUMBER	File size
COMPRESSION_RATIO	NUMBER	The ratio between the total blocks in the archive log and the blocks that RMAN backed up. This is <i>not</i> the ratio from the AS COMPRESSED BACKUPSET clause of the BACKUP command.
FILESIZE_DISPLAY	VARCHAR2 (4000)	Same value as the FILESIZE column, but converted to a user-displayable format, for example nM , nG , nT , nP , and so on
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.86 V\$BACKUP_ARCHIVELOG_SUMMARY

 ${\tt V\$BACKUP_ARCHIVELOG_SUMMARY}\ provides\ archive\ log\ summary\ information\ based\ on\ archive\ logs\ in\ the\ backup\ set\ or\ on\ proxy\ copies.$

Column	Datatype	Description
NUM_FILES_BACKED	NUMBER	Number of files backed up
NUM_DISTINCT_FILES_BACKE D	NUMBER	Number of distinct archive log files backed up
MIN_FIRST_CHANGE#	NUMBER	Lowest SCN range value
MAX_NEXT_CHANGE#	NUMBER	Highest SCN range value
MIN_FIRST_TIME	DATE	Lowest SCN range time
MAX_NEXT_TIME	DATE	Highest SCN range time
INPUT_BYTES	NUMBER	Total input bytes read
OUTPUT_BYTES	NUMBER	Output size of backups
COMPRESSION_RATIO	NUMBER	The ratio between the total blocks in the archive log and the blocks that RMAN backed up. This is <i>not</i> the ratio from the AS COMPRESSED BACKUPSET clause of the BACKUP command.
INPUT_BYTES_DISPLAY	VARCHAR2 (4000)	Displayable format for input bytes
OUTPUT_BYTES_DISPLAY	VARCHAR2 (4000)	Displayable format for output bytes
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing



8.87 V\$BACKUP_ASYNC_IO

 ${\tt V\$BACKUP_ASYNC_IO}\ displays\ performance\ information\ about\ ongoing\ and\ recently\ completed\ RMAN\ backups\ and\ restores.$

For each backup, it contains one row for each input data file, one row for the aggregate total performance of all data files, and one row for the output backup piece. This data is not stored persistently, and is not preserved when the instance is re-started.

Column	Datatype	Description
SID	NUMBER	Oracle SID of the session doing the backup or restore
SERIAL	NUMBER	Use count for the SID doing the backup or restore
USE_COUNT	NUMBER	A counter that can be used to identify rows from different backup sets
RMAN_STATUS_RECID	NUMBER	Owning V\$RMAN_STATUS record ID
RMAN_STATUS_STAMP	NUMBER	Owning V\$RMAN_STATUS record stamp
DEVICE_TYPE	VARCHAR2(17)	Device type where the file is located
TYPE	VARCHAR2(9)	INPUT, OUTPUT, Or AGGREGATE
STATUS	VARCHAR2(11)	NOT STARTED, IN PROGRESS, Or FINISHED
FILENAME	VARCHAR2 (513)	Name of the backup file being read or written
SET_COUNT	NUMBER	Set count of the backup set being read or written
SET_STAMP	NUMBER	Set stamp of the backup set being read or written
BUFFER_SIZE	NUMBER	Size of the buffers being used to read/write the file, in bytes
BUFFER_COUNT	NUMBER	Number of buffers being used to read/write the file
TOTAL_BYTES	NUMBER	Total number of bytes that will be read or written for the file, if known. If not known, this column will be null
OPEN_TIME	DATE	Time the file was opened. If TYPE='AGGREGATE', then this is the time that the first file in the aggregate was opened
CLOSE_TIME	DATE	Time the file was closed. If TYPE='AGGREGATE', then this is the time that the last file in the aggregate was closed
ELAPSED_TIME	NUMBER	Time, in hundredths of a second, that the file was open
MAXOPENFILES	NUMBER	Number of concurrently open DISK files. This value is only present in rows where TYPE='AGGREGATE'.
BYTES	NUMBER	Number of bytes read or written so far
EFFECTIVE_BYTES_PER_SECO ND	NUMBER	I/O rate that was achieved with this device during this backup
IO_COUNT	NUMBER	Number of I/Os that were performed to this file
READY	NUMBER	Number of asynchronous requests for which a buffer was immediately ready for use
SHORT_WAITS	NUMBER	Number of times that a buffer was not immediately available, but a buffer became available after doing a nonblocking poll for I/O completion
SHORT_WAIT_TIME_TOTAL	NUMBER	Total time, in hundredths of a second, taken by nonblocking polls for I/O completion
SHORT_WAIT_TIME_MAX	NUMBER	Maximum time taken for a nonblocking poll for I/O completion, in hundredths of a second



Column	Datatype	Description
LONG_WAITS	NUMBER	The number of times that a buffer was not immediately available, and only became available after a blocking wait was issued
LONG_WAIT_TIME_TOTAL	NUMBER	The total time, in hundredths of a second, taken by blocking waits for I/O completion
LONG_WAIT_TIME_MAX	NUMBER	The maximum time taken for a blocking wait for I/O completion, in hundredths of a second
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing
		data

8.88 V\$BACKUP_CONTROLFILE_DETAILS

V\$BACKUP CONTROLFILE DETAILS contains information about restorable control files.

It will include all the control files backed up in the backup set, image copies, and proxy copies.

Column	Datatype	Description
BTYPE	CHAR(9)	Backup type container. Possible values are BACKUPSET, IMAGECOPY, PROXYCOPY.
BTYPE_KEY	NUMBER	Unique identifier for the backup type, either BS_KEY or COPY_KEY.
SESSION_KEY	NUMBER	Session identifier
SESSION_RECID	NUMBER	Session recid
SESSION_STAMP	NUMBER	Session stamp
ID1	NUMBER	If BACKUPSET, it contains SET_STAMP
		If IMAGECOPY or PROXYCOPY, it is RECID from the control file
ID2	NUMBER	If BACKUPSET, it contains SET_COUNT
		If imagecopy or proxycopy, it is stamp
CREATION_TIME	DATE	File creation time
RESETLOGS_CHANGE#	NUMBER	Resetlogs change SCN
RESETLOGS_TIME	DATE	Resetlogs change time
CHECKPOINT_CHANGE#	NUMBER	Checkpoint change SCN
CHECKPOINT_TIME	DATE	Checkpoint change time
FILESIZE	NUMBER	File size, in bytes, for the output of backing up this control file
COMPRESSION_RATIO	NUMBER	The ratio between the total blocks in the datafile and the blocks that RMAN backed up. This is <i>not</i> the the ratio from the AS COMPRESSED BACKUPSET clause of the BACKUP command.
FILESIZE_DISPLAY	VARCHAR2(4000)	Same value as the FILESIZE column, but converted to a user-displayable format, for example nM , nG , nT , nP , and so on



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.89 V\$BACKUP_CONTROLFILE_SUMMARY

V\$BACKUP_CONTROLFILE_SUMMARY provides control file summary information, based on either a backup set of files, image copies, or proxy copies.

Column	Datatype	Description
NUM_FILES_BACKED	NUMBER	Number of files backed up for specific criteria
NUM_DISTINCT_FILES_BACKE D	NUMBER	Number of distinct files backed up
MIN_CHECKPOINT_CHANGE#	NUMBER	Minimum checkpoint change number of the data file for specified criteria
MAX_CHECKPOINT_CHANGE#	NUMBER	Maximum checkpoint change number of the data file for specified criteria
MIN_CHECKPOINT_TIME	DATE	Minimum checkpoint time of the data file for specified criteria
MAX_CHECKPOINT_TIME	DATE	Maximum checkpoint time of the data file for specified criteria
INPUT_BYTES	NUMBER	Total input bytes of files read
OUTPUT_BYTES	NUMBER	Total output bytes written
COMPRESSION_RATIO	NUMBER	The ratio between the total blocks in the datafile and the blocks that RMAN backed up. This is <i>not</i> the the ratio from the AS COMPRESSED BACKUPSET clause of the BACKUP command.
INPUT_BYTES_DISPLAY	VARCHAR2 (4000)	Displayable format for input bytes
OUTPUT_BYTES_DISPLAY	VARCHAR2 (4000)	Displayable format for output bytes
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.90 V\$BACKUP_COPY_DETAILS

 ${\tt V\$BACKUP_COPY_DETAILS} \ \ \textbf{contains information about all available control file and data file copies.}$

Column	Datatype	Description
SESSION_KEY	NUMBER	Session identifier



Column	Datatype	Description
SESSION_RECID	NUMBER	Session recid
SESSION_STAMP	NUMBER	Session stamp
COPY_KEY	NUMBER	Unique identifier for this data file or control file copy
FILE#	NUMBER	Absolute data file number
NAME	VARCHAR2 (513)	File name of the data file copy. The maximum length of the name is dependent on your operating system.
TAG	VARCHAR2(32)	Data file copy tag
CREATION_CHANGE#	NUMBER	Data file creation change number
CREATION_TIME	DATE	Data file creation timestamp
CHECKPOINT_CHANGE#	NUMBER	Checkpoint change number of the data file when the copy was made
CHECKPOINT_TIME	DATE	Checkpoint timestamp of the data file when the copy was made
MARKED_CORRUPT	NUMBER	Number of blocks marked corrupt by this copy operation. That is, blocks that were not marked corrupted in the source data file, but were detected and marked as corrupted during the copy operation.
OUTPUT_BYTES	NUMBER	Total output bytes written
COMPLETION_TIME	DATE	Time when the copy was completed
CONTROLFILE_TYPE	VARCHAR2(1)	Type of control file. B indicates normal copies. S indicates standby copies.
KEEP	VARCHAR2(3)	(YES NO) Indicates whether or not this backup set has a retention policy that is different than the value for the configure retention policy
KEEP_UNTIL	DATE	If specified, this is the date after which the backup becomes obsolete. If this column is null, then the backup never expires.
KEEP_OPTIONS	VARCHAR2(11)	Lists additional retention options for this backup set. Possible values are:
		 LOGS - The logs needed to recover this backup set are kept NOLOGS - The logs needed to recover this backup set are not kept
IS_RECOVERY_DEST_FILE	VARCHAR2(3)	Indicates whether the file was created in the fast recovery area (YES) or not (NO)
SPARSE_BACKUP	VARCHAR2(3)	Indicates whether the file is sparse (YES) or not (NO)
OUTPUT_BYTES_DISPLAY	VARCHAR2 (4000)	Size of backup set to display
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.91 V\$BACKUP_COPY_SUMMARY

 ${\tt V\$BACKUP_COPY_SUMMARY}\ \ provides\ summary\ information\ for\ the\ output\ data\ file\ and\ control\ file\ copy.$

Column	Datatype	Description
NUM_COPIES	NUMBER	Number of copies created
NUM_DISTINCT_COPIES	NUMBER	Number of distinct copies (that contain data files with different checkpoints)
MIN_CHECKPOINT_CHANGE#	NUMBER	Minimum checkpoint change SCN
MAX_CHECKPOINT_CHANGE#	NUMBER	Maximum checkpoint change SCN
MIN_CHECKPOINT_TIME	DATE	Minimum checkpoint change time
MAX_CHECKPOINT_TIME	DATE	Maximum checkpoint change time
OUTPUT_BYTES	NUMBER	Total number of output bytes
OUTPUT_BYTES_DISPLAY	VARCHAR2 (4000)	Displayable format for output bytes
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.92 V\$BACKUP_CORRUPTION

 ${\tt V\$BACKUP_CORRUPTION} \ \ \textbf{displays information about corrupt block ranges in data file backups from the control file.}$

Note that corruptions are not tolerated in the control file and archived redo log backups.

Column	Datatype	Description
RECID	NUMBER	Backup corruption record ID
STAMP	NUMBER	Backup corruption record stamp
SET_STAMP	NUMBER	Backup set stamp
SET_COUNT	NUMBER	Backup set count
PIECE#	NUMBER	backup piece that contains this corrupt block
FILE#	NUMBER	Absolute file number of the data file that contains the corrupt blocks
BLOCK#	NUMBER	Block number of the first corrupt block in the range of corrupted blocks
BLOCKS	NUMBER	Number of corrupted blocks found starting with BLOCK#
CORRUPTION_CHANGE#	NUMBER	Change number at which the logical corruption was detected. Set to 0 to indicate media corruption.
MARKED_CORRUPT	VARCHAR2(3)	Indicates whether this corruption was not previously detected by the Oracle Database (YES) or the Oracle Database had already discovered this corrupt block and marked it as corrupt (NO). Note that when a corrupt block is encountered in a backup, and was not already marked corrupt by the Oracle Database, then the backup process does not mark the block as corrupt in the production data file. Thus, this field may be YES for the same block in more than one backup set.



Column	Datatype	Description
CORRUPTION_TYPE	VARCHAR2 (9)	Type of block corruption in the data file:
		 ALL ZERO - Block header on disk contained only zeros. The block may be valid if it was never filled and if it is in an Oracle7 file. The buffer will be reformatted to the Oracle8 standard for an empty block.
		 FRACTURED - Block header looks reasonable, but the front and back of the block are different versions.
		 CHECKSUM - optional check value shows that the block is not self- consistent. It is impossible to determine exactly why the check value fails, but it probably fails because sectors in the middle of the block are from different versions.
		 CORRUPT - Block is wrongly identified or is not a data block (for example, the data block address is missing)
		 LOGICAL - Block is logically corrupt
		 NOLOGGING - Block does not have redo log entries (for example, NOLOGGING operations on primary database can introduce this type of corruption on a physical standby)
CON_ID NUMBER	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.93 V\$BACKUP_DATAFILE

 ${\tt V\$BACKUP_DATAFILE} \ \ displays \ information \ about \ control \ files \ and \ data \ files \ in \ backup \ sets \ from the \ control \ file.$

Column	Datatype	Description
RECID	NUMBER	Backup data file record ID
STAMP	NUMBER	Backup data file record stamp
SET_STAMP	NUMBER	Backup set stamp
SET_COUNT	NUMBER	Backup set count
FILE#	NUMBER	Data file number; set to 0 for control file
CREATION_CHANGE#	NUMBER	Creation system change number (SCN) of the data file
CREATION_TIME	DATE	Creation timestamp of the data file
RESETLOGS_CHANGE#	NUMBER	Resetlogs system change number (SCN) of the data file when it was backed up
RESETLOGS_TIME	DATE	Resetlogs timestamp of the data file when it was backed up
INCREMENTAL_LEVEL	NUMBER	Normal full backups have a NULL value, level 0 incremental backups have a value of 0, and level 1 incremental backups have a value of 1
INCREMENTAL_CHANGE#	NUMBER	All blocks changed after the incremental change number is included in this backup; set to 0 for a full backup
CHECKPOINT_CHANGE#	NUMBER	All changes up to the checkpoint change number are included in this backup



Column	Datatype	Description
CHECKPOINT_TIME	DATE	Timestamp of the checkpoint
ABSOLUTE_FUZZY_CHANGE#	NUMBER	Highest change number in this backup
MARKED_CORRUPT	NUMBER	Number of blocks marked corrupt
MEDIA_CORRUPT	NUMBER	Number of blocks media corrupt
LOGICALLY_CORRUPT	NUMBER	Number of blocks logically corrupt
DATAFILE_BLOCKS	NUMBER	Size of the data file in blocks at backup time. This value is also the number of blocks taken by the data file restarted from this backup.
BLOCKS	NUMBER	Size of the backup data file (in blocks). Unused blocks are not copied to the backup.
BLOCK_SIZE	NUMBER	Block size
OLDEST_OFFLINE_RANGE	NUMBER	RECID of the oldest offline range record in this backup control file. 0 for data file backups.
COMPLETION_TIME	DATE	Time completed
CONTROLFILE_TYPE	VARCHAR2(1)	B - Normal copies
		s - Standby copies
USED_CHANGE_TRACKING	VARCHAR2(3)	Indicates whether change tracking data was used to accelerate this incremental backup (YES) or whether change tracking data was not used (NO)
BLOCKS_READ	NUMBER	Number of blocks that were scanned while taking this backup. If this was an incremental backup, and change tracking was used to optimize the backup, then the value of this column will be smaller than <code>DATAFILE_BLOCKS</code> . Otherwise, the value of this column will be the same as <code>DATAFILE_BLOCKS</code> . Even when change tracking data is used, the value of this column may be larger than <code>BLOCKS</code> , because the data read by change tracking is further refined during the process of creating an incremental backup.
USED_OPTIMIZATION	VARCHAR2(3)	Indicates whether backup optimization was applied (YES) or not (NO)
FOREIGN_DBID	NUMBER	Foreign DBID of the database from which this data file was transported. The value is 0 if the file backed up is not a foreign database file.
PLUGGED_READONLY	VARCHAR2(3)	${\tt YES}$ if this is a backup of a transported read-only foreign file; otherwise ${\tt NO}.$
PLUGIN_CHANGE#	NUMBER	SCN at which the foreign data file was transported into the database. The value is 0 if this file is not a foreign database file.
PLUGIN_RESETLOGS_CHANGE#	NUMBER	The SCN of the RESETLOGS operation for the incarnation into which this foreign file was transported. The value is 0 if this file is not a foreign database file.
PLUGIN_RESETLOGS_TIME	DATE	The time of the RESETLOGS operation for the incarnation into which this foreign file was transported. The value is 0 if this file is not a foreign database file.
SECTION_SIZE	NUMBER	Specifies the number of blocks in each section of a multisection backup. Value is 0 for whole file backups.
UNDO_OPTIMIZED	VARCHAR2(3)	Indicates whether undo blocks were ignored when creating the backup data file (YES) or not (NO)
BLOCKS_SKIPPED_IN_CELL	NUMBER	Number of blocks that were not backed up because they were skipped by the Exadata cell
		See Also: Oracle Exadata Storage Server Software documentation for more information



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
BACKED_BY_PDB VARCHAR2(3)	VARCHAR2(3)	Recovery Manager (RMAN) allows a PDB to be backed up in two ways. The value in this column indicates how the PDB backup was taken:
		YES: The backup was taken when connected to the PDB
		No: The backup was taken when connected to the root container
SPARSE_BACKUP	VARCHAR2(3)	Indicates whether the file is sparse (YES) or not (NO)
GUID	RAW(16)	The GUID of the PDB to which the backup belongs. This is useful after the PDB is dropped to identify which PDB the backup belongs to.

8.94 V\$BACKUP_DATAFILE_DETAILS

 $\verb|V\$BACKUP_DATAFILE_DETAILS| \textbf{ contains information about restorable data files.} \\$

It will include all data files backed in the backup set, image copies, and proxy copies.

Column	Datatype	Description
BTYPE	CHAR(9)	Backup type container. Possible values are: BACKUPSET, IMAGECOPY, PROXYCOPY.
BTYPE_KEY	NUMBER	Unique identifier for the backup type. For BACKUPSET, it is BS_KEY.
SESSION_KEY	NUMBER	Session identifier
SESSION_RECID	NUMBER	Session record ID
SESSION_STAMP	NUMBER	Session stamp
ID1	NUMBER	If BACKUPSET, it contains SET_STAMP.
		If IMAGECOPY or PROXYCOPY, it is RECID from the control file.
ID2	NUMBER	If BACKUPSET, it contains SET_COUNT.
		If IMAGECOPY or PROXYCOPY, it is STAMP.
FILE#	NUMBER	File number
CREATION_CHANGE#	NUMBER	File creation change SCN
CREATION_TIME	DATE	File creation time
RESETLOGS_CHANGE#	NUMBER	Resetlogs change SCN
RESETLOGS_TIME	DATE	Resetlogs change time
INCREMENTAL_LEVEL	NUMBER	Normal full backups have a NULL value, level 0 incremental backups have a value of 0, and level 1 incremental backups have a value of 1
INCREMENTAL_CHANGE#	NUMBER	Incremental change SCN
CHECKPOINT_CHANGE#	NUMBER	Checkpoint change SCN
CHECKPOINT_TIME	DATE	Checkpoint change time
MARKED_CORRUPT	NUMBER	Number of blocks marked corrupt
FILESIZE	NUMBER	File size, in bytes



Column	Datatype	Description
COMPRESSION_RATIO	NUMBER	The ratio between the total blocks in the datafile and the blocks that RMAN backed up. This is <i>not</i> the the ratio from the AS COMPRESSED BACKUPSET clause of the BACKUP command.
SPARSE_BACKUP	VARCHAR2(3)	Indicates whether the file is sparse (YES) or not (NO)
TS#	NUMBER	Tablespace number
TSNAME	VARCHAR2(30)	Tablespace name
FILESIZE_DISPLAY	VARCHAR2(4000)	Same value as the FILESIZE column, but converted to a user-displayable format, for example nM , nG , nT , nP , and so on
CON_ID NUMBER	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.95 V\$BACKUP_DATAFILE_SUMMARY

V\$BACKUP_DATAFILE_SUMMARY provides summary information for a specific criteria set, based on a backup job, a time range applicable to jobs, or a specific data file).

Column	Datatype	Description
NUM_FILES_BACKED	NUMBER	Number of files backed up for specified criteria
NUM_DISTINCT_FILES_BACKE D	NUMBER	Number of distinct files backed up
NUM_DISTINCT_TS_BACKED	NUMBER	Number of distinct tablespaces backed up
MIN_CHECKPOINT_CHANGE#	NUMBER	Minimum checkpoint change number of the data file for specified criteria
MAX_CHECKPOINT_CHANGE#	NUMBER	Maximum checkpoint change number of the data file for specified criteria
MIN_CHECKPOINT_TIME	DATE	Minimum checkpoint time of the data file for specified criteria
MAX_CHECKPOINT_TIME	DATE	Maximum checkpoint time of the data file for specified criteria
INPUT_BYTES	NUMBER	Total input bytes of files read
OUTPUT_BYTES	NUMBER	Total output bytes written
COMPRESSION_RATIO	NUMBER	The ratio between the total blocks in the datafile and the blocks that RMAN backed up. This is <i>not</i> the the ratio from the AS COMPRESSED BACKUPSET clause of the BACKUP command.
INPUT_BYTES_DISPLAY	VARCHAR2 (4000)	Displayable format for input bytes
OUTPUT_BYTES_DISPLAY	VARCHAR2 (4000)	Displayable format for output bytes



Column	Datatype	Description
CON_ID NUMBER	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.96 V\$BACKUP_DEVICE

V\$BACKUP DEVICE displays information about supported backup devices.

If a device type does not support named devices, then one row with the device type and a null device name is returned for that device type. If a device type supports named devices then one row is returned for each available device of that type. The special device type DISK is not returned by this view because it is always available.

Column	Datatype	Description
DEVICE_TYPE	VARCHAR2 (17)	Type of the backup device
DEVICE_NAME	VARCHAR2 (513)	Name of the backup device
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.97 V\$BACKUP_FILES

 ${\tt V\$BACKUP_FILES} \ \ displays \ information \ about \ all \ RMAN \ backups \ (both \ image \ copies \ and \ backup \ sets) \ and \ archived \ logs.$

This view simulates the LIST BACKUP and LIST COPY RMAN commands. This view requires that the database be set using the DBMS RCVMAN.SETDATABASE procedure.

Column	Datatype	Description
PKEY	NUMBER	Primary key for the backup
BACKUP_TYPE	VARCHAR2(32)	Type of the backup: BACKUP SET COPY PROXY COPY



Column	Datatype	Description
FILE_TYPE	VARCHAR2 (32)	Type of the file: DATAFILE CONTROLFILE SPFILE REDO LOG ARCHIVED LOG COPY (for an image copy backup) PIECE (for a backup piece)
KEEP	VARCHAR2(3)	Indicates whether the backup has a retention policy different from the value for CONFIGURE RETENTION POLICY (YES) or not (NO)
KEEP_UNTIL	DATE	If the KEEP UNTIL TIME clause of the BACKUP command was specified, then this column shows the date after which the backup becomes obsolete. If the column is null and KEEP_OPTIONS is not null, the backup never becomes obsolete.
KEEP_OPTIONS	VARCHAR2(13)	 KEEP options for the backup: LOGS - RMAN keeps the logs needed to recover the backup NOLOGS - RMAN does not keep the logs needed to recover the backup If this column is null, then the backup has no KEEP options and will be made obsolete based on the retention policy.
STATUS	VARCHAR2 (16)	Status of the backup: AVAILABLE UNAVAILABLE EXPIRED OTHER
FNAME	VARCHAR2(1024)	Name of the file
TAG	VARCHAR2 (32)	Tag of the piece, copy, or proxy copy
MEDIA	VARCHAR2(80)	Media ID of the piece or proxy copy
RECID	NUMBER	Recid of the record in the control file
STAMP	NUMBER	Stamp of the record in the control file
DEVICE_TYPE	VARCHAR2 (255)	Type of media device that stores the backup
BLOCK_SIZE	NUMBER	Block size for the backup (in bytes)
COMPLETION_TIME	DATE	Time when the backup completed
COMPRESSED	VARCHAR2(3)	Indicates whether the backup piece is compressed (YES) or not (NO); valid only if FILE_TYPE is PIECE. Image copies cannot be compressed.
OBSOLETE	VARCHAR2(3)	Indicates whether the backup piece or copy is obsolete (YES) or not (NO) valid only if $FILE_TYPE$ is $PIECE$ or $COPY$
BYTES	NUMBER	Size of the file (in bytes)
BS_KEY	NUMBER	Primary key of the backup set (valid only if BACKUP_TYPE is BACKUP SET)
BS_COUNT	NUMBER	Count of the backup set from the control file record (valid only if BACKUP_TYPE is BACKUP SET)
BS_STAMP	NUMBER	Stamp of the backup set from the control file record (valid only if BACKUP_TYPE is BACKUP SET)
BS_TYPE	VARCHAR2 (32)	Type of the backup set (valid only if BACKUP_TYPE is BACKUP SET): • DATAFILE • ARCHIVED LOG



Column	Datatype	Description
BS_INCR_TYPE	VARCHAR2 (32)	Incremental type of the backup set (valid only if BACKUP_TYPE is BACKUP SET)
BS_PIECES	NUMBER	Number of backup pieces in the backup set (valid only if BACKUP_TYPE is BACKUP SET)
BS_COPIES	NUMBER	Number of copies of the backup set (valid only if FILE_TYPE is PIECE and BACKUP_TYPE is BACKUP SET)
BS_COMPLETION_TIME	DATE	Completion time of the backup set (valid only if BACKUP_TYPE is BACKUP SET)
BS_STATUS	VARCHAR2 (16)	Status of the backup set (valid only if BACKUP_TYPE is BACKUP SET): AVAILABLE UNAVAILABLE EXPIRED OTHER - Pieces which are part of the backup set do not have uniform status (that is, some of them are available, some not)
BS_BYTES	NUMBER	Sum of all backup piece sizes in the backup set (valid only if BACKUP_TYPE is BACKUP SET)
BS_COMPRESSED	VARCHAR2(3)	Indicates whether the backup pieces of the backup set are compressed (YES) or not (NO); valid only if BACKUP_TYPE is BACKUP SET
BS_TAG	VARCHAR2 (1024)	Tags of the backup set. If pieces have different tags, then all piece tags are concatenated and separated by commas. Valid only if BACKUP_TYPE is BACKUP SET)
BS_DEVICE_TYPE	VARCHAR2 (255)	Device type of the backup set. If there is more than one device type, then they are separated by commas. Valid only if $\texttt{BACKUP_TYPE}$ is \texttt{BACKUP} \texttt{SET}
BP_PIECE#	NUMBER	Number of pieces inside the backup set (valid only if FILE_TYPE is PIECE and BACKUP_TYPE is BACKUP SET)
BP_COPY#	NUMBER	Number of copies of the backup set (valid only if FILE_TYPE is PIECE and BACKUP_TYPE is BACKUP SET)
DF_FILE#	NUMBER	Absolute file number of the data file (valid only if FILE_TYPE is DATAFILE)
DF_TABLESPACE	VARCHAR2(30)	Tablespace name of the data file (valid only if FILE_TYPE is DATAFILE)
DF_RESETLOGS_CHANGE#	NUMBER	System change number (SCN) of the most recent RESETLOGS when the control file or data file was created (valid only if FILE_TYPE is DATAFILE)
DF_CREATION_CHANGE#	NUMBER	Creation SCN of the control file or data file (valid only if FILE_TYPE is CONTROLFILE or DATAFILE)
DF_CHECKPOINT_CHANGE#	NUMBER	System change number (SCN) of the most recent control file or data file checkpoint (valid only if FILE_TYPE is CONTROLFILE or DATAFILE)
DF_CKP_MOD_TIME	DATE	Modification time in case of SPFILE, otherwise time when the control file or data file was checkpointed (valid only if FILE_TYPE is SPFILE, CONTROLFILE, or DATAFILE)
RL_THREAD#	NUMBER	Redo log thread number of the archived log (valid only if <code>FILE_TYPE</code> is <code>REDO LOG</code>)
RL_SEQUENCE#	NUMBER	Redo log sequence number of the archived log (valid only if ${\tt FILE_TYPE}$ is REDO LOG)
RL_RESETLOGS_CHANGE#	NUMBER	System change number (SCN) of the most recent RESETLOGS when the record was created (valid only if FILE_TYPE is REDO LOG)
RL_FIRST_CHANGE#	NUMBER	First SCN of the redo log (valid only if FILE_TYPE is REDO LOG)



Column	Datatype	Description
RL_FIRST_TIME	DATE	Time when the Oracle Database switched into the redo log (valid only if FILE_TYPE is REDO LOG)
RL_NEXT_CHANGE#	NUMBER	First SCN of the next redo log in the thread (valid only if FILE_TYPE is REDO LOG)
RL_NEXT_TIME	DATE	First timestamp of the next redo log in the thread (valid only if FILE_TYPE is REDO LOG)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



Oracle Database Backup and Recovery User's Guide for more information about the ${\tt DBMS_RCVMAN}$. SETDATABASE procedure

8.98 V\$BACKUP_NONLOGGED

 ${\tt V\$BACKUP_NONLOGGED} \ displays \ information \ about \ nonlogged \ block \ ranges \ in \ data \ file \ backups, \\ recorded \ in \ the \ control \ file.$

Column	Datatype	Description
RECID	NUMBER	Nologged backup record ID
STAMP	NUMBER	Nonlogged backup record stamp
SET_STAMP	NUMBER	Backup set stamp
SET_COUNT	NUMBER	Backup set count
PIECE#	NUMBER	Backup piece that contains the range of nonlogged blocks
FILE#	NUMBER	Absolute file number of the data file that contains this range of nonlogged blocks
BLOCK#	NUMBER	Block number of the first nonlogged block in the range of nologged blocks
BLOCKS	NUMBER	Number of nonlogged blocks found starting with BLOCK#
NONLOGGED_CHANGE#	NUMBER	The smallest SCN on which any block in this block range became nonlogged. NULL if unknown.
NONLOGGED_TIME	VARCHAR2	The time that corresponds to <code>NONLOGGED_CHANGE#</code> . NULL if unknown.
RESETLOGS_CHANGE#	VARCHAR2	The resetlogs SCN of the incarnation on which this block range was first marked as nonlogged. NULL if unknown.
RESETLOGS_TIME	VARCHAR2	The resetlogs time of the incarnation on which this block range was first marked as nologged. NULL if unknown.



Column	Datatype	Description
OBJECT#	VARCHAR2	The object ID this range belongs to. If this field is NULL, the object number is unknown.
REASON	CHAR(7)	The reason why this block range appears in this list, for example, primary file offline, could not talk to primary, non-standby recovery, and so on. For Oracle Database 12c and later releases, it is always UNKNOWN.
CON_ID NUMBER	The ID of the container to which the data pertains. Possible values include:	
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.99 V\$BACKUP_PIECE

 ${\tt V\$BACKUP_PIECE} \ displays \ information \ about \ backup \ pieces \ from \ the \ control \ file. \ Each \ backup \ set \ consists \ of \ one \ or \ more \ backup \ pieces.$

Column	Datatype	Description
RECID	NUMBER	Backup piece record ID
STAMP	NUMBER	Backup piece record stamp
SET_STAMP	NUMBER	Backup set stamp
SET_COUNT	NUMBER	Backup set count
PIECE#	NUMBER	Backup piece number (1-N)
COPY#	NUMBER	Indicates the copy number for backup pieces created with duplex enabled. 1 if the backup piece is not duplexed.
DEVICE_TYPE	VARCHAR2 (17)	Type of the device on which the backup piece resides. Set to DISK for backup sets on disk.
		See Also: V\$BACKUP_DEVICE
HANDLE	VARCHAR2 (513)	Backup piece handle identifies the backup piece on restore
COMMENTS	VARCHAR2(64)	Comment returned by the operating system or storage subsystem. Set to NULL for backup pieces on disk. This value is informational only; not needed for restore.
MEDIA	VARCHAR2 (65)	Name of the media on which the backup piece resides. This value is informational only; not needed for restore.
MEDIA_POOL	NUMBER	The media pool in which the copy resides. This is the same value that was entered in the POOL operand of the Recovery Manager BACKUP command.
CONCUR	VARCHAR2(3)	(YES $\ensuremath{\mathtt{NO}}\xspace$) Indicates whether the piece on a media that can be accessed concurrently
TAG	VARCHAR2(32)	Backup piece tag. The tag is specified at backup set level, but stored at piece level.
STATUS	VARCHAR2(1)	Indicates the status of the piece: ${\tt A}$ (available), ${\tt D}$ (deleted), or ${\tt X}$ (expired
START_TIME	DATE	Starting time
COMPLETION_TIME	DATE	Completion time



Column	Datatype	Description
ELAPSED_SECONDS	NUMBER	Number of elapsed seconds
DELETED	VARCHAR2(3)	(YES/NO) NO indicates that the file still exists. YES indicates the file no longer exists because it has been deleted.
BYTES	NUMBER	Size of the backup piece (in bytes)
IS_RECOVERY_DEST_FILE	VARCHAR2(3)	Indicates whether the file was created in the fast recovery area (YES) or not (NO)
RMAN_STATUS_RECID	NUMBER	Owning V\$RMAN_STATUS record ID
RMAN_STATUS_STAMP	NUMBER	Owning V\$RMAN_STATUS record stamp
COMPRESSED	VARCHAR2(3)	Indicates whether the backup piece is compressed (YES) or not (NO)
BACKED_BY_VSS	VARCHAR2(3)	Whether or not the file has been backed up by Volume Shadow Copy Service (VSS). This column is reserved for internal use.
ENCRYPTED	VARCHAR2(3)	A value of ${\tt YES}$ means an encrypted backup, otherwise not an encrypted backup.
BACKED_BY_OSB	VARCHAR2(3)	A value of YES means the backup was done to Oracle Secure Backup. Otherwise, backed up by other third party tape library.
FOR_XTTS	VARCHAR2(3)	Indicates whether this is a cross platform backup piece:
		 YES: This is a cross platform backup piece.
		 No: This is not a cross platform backup piece.
SAME_ENDIAN	VARCHAR2(3)	If the value of FOR_XTTS is YES, then this column indicates whether the backup piece has the same endianess as the current database (YES) or not (NO); otherwise NULL.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing
GUID	RAW(16)	data The GUID of the PDB to which the backup belongs. This is useful after the PDB is dropped to identify which PDB the backup belongs to.

8.100 V\$BACKUP_PIECE_DETAILS

V\$BACKUP_PIECE_DETAILS displays information about all available backup pieces.

Column	Datatype	Description
SESSION_KEY	NUMBER	Session identifier
SESSION_RECID	NUMBER	Session recid
SESSION_STAMP	NUMBER	Session stamp
BS_KEY	NUMBER	Backup set identifier
BP_KEY	NUMBER	Backup piece key
RECID	NUMBER	Backup piece record ID
STAMP	NUMBER	Backup piece record stamp
SET STAMP	NUMBER	Backup set stamp



Column	Datatype	Description
SET_COUNT	NUMBER	Backup set count
PIECE#	NUMBER	Backup piece number (1-N)
COPY#	NUMBER	Indicates the copy number for backup pieces created with duplex enabled. The value is 1 if the backup piece is not duplexed.
DEVICE_TYPE	VARCHAR2(17)	Type of device on which the backup piece resides. Set to DISK for backup sets on disk.
HANDLE	VARCHAR2 (513)	Backup piece handle identifies the backup piece on restore
COMMENTS	VARCHAR2 (64)	Comments returned by the operating system or storage subsystem. Set to NULL for backup pieces on disk. This value is informational only. It is not needed for restore.
MEDIA	VARCHAR2 (65)	Name of the media on which the backup piece resides. This value is informational only. It is not needed for restore.
MEDIA_POOL	NUMBER	The media pool in which the copy resides. This is the same value that was entered in the POOL operand of the Recovery Manager BACKUP command.
CONCUR	VARCHAR2(3)	(YES NO) indicates whether or not the piece is on a media that can be accessed concurrently
TAG	VARCHAR2(32)	Backup piece tag. The tag is specified at backup set level, but stored at piece level.
STATUS	VARCHAR2(1)	Indicates the status of the piece: ${\tt A}$ (available), ${\tt D}$ (deleted), or ${\tt X}$ (expired)
START_TIME	DATE	Starting time
COMPLETION_TIME	DATE	Completion time
ELAPSED_SECONDS	NUMBER	Number of elapsed seconds
DELETED	VARCHAR2(3)	$\tt NO$ indicates that the file still exists. ${\tt YES}$ indicates that the file no longer exists because it has been deleted.
BYTES	NUMBER	Size of the backup piece, in bytes
IS_RECOVERY_DEST_FILE	VARCHAR2(3)	Indicates whether or not the file was created in the fast recovery area (YES) or not (NO)
RMAN_STATUS_RECID	NUMBER	Owning V\$RMAN_STATUS record ID
RMAN_STATUS_STAMP	NUMBER	Owning V\$RMAN_STATUS record stamp
COMPRESSED	VARCHAR2(3)	Indicates whether the backup piece is compressed (YES) or not (NO)
BACKED_BY_VSS	VARCHAR2(3)	Whether or not the file has been backed up by Volume Shadow Copy Service (VSS). This column is reserved for internal use.
ENCRYPTED	VARCHAR2(3)	A value of ${\tt YES}$ means an encrypted backup, otherwise not an encrypted backup.
BACKED_BY_OSB	VARCHAR2(3)	A value of YES means the backup was done to Oracle Secure Backup. Otherwise, backed up by other third party tape library.
FOR_XTTS	VARCHAR2(3)	Indicates whether this is a cross platform backup piece:
		 YES: This is a cross platform backup piece. NO: This is not a cross platform backup piece.
SAME_ENDIAN	VARCHAR2(3)	If the value of FOR_XTTS is YES, then this column indicates whether the backup piece has the same endianess as the current database (YES) or not (NO); otherwise NULL.



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data
PIECES_PER_SET	NUMBER	Number of backup pieces per set
SIZE_BYTES_DISPLAY	VARCHAR2 (4000)	Size (in bytes) of the backup piece to display

8.101 V\$BACKUP_REDOLOG

V\$BACKUP REDOLOG displays information about archived logs in backup sets from the control file.

Note that online redo logs cannot be backed up directly; they must be archived first to disk and then backed up. An archive log backup set can contain one or more archived logs.

Column	Datatype	Description
RECID	NUMBER	Record ID for this row; it is an integer that identifies this row
STAMP	NUMBER	Timestamp used with RECID to uniquely identify this row
SET_STAMP	NUMBER	One of the foreign keys for the row of the V\$BACKUP_SET table that identifies this backup set
SET_COUNT	NUMBER	One of the foreign keys for the row of the V\$BACKUP_SET table that identifies this backup set
THREAD#	NUMBER	Thread number for the log
SEQUENCE#	NUMBER	Log sequence number
RESETLOGS_CHANGE#	NUMBER	Change number of the last resetlogs before the log was written
RESETLOGS_TIME	DATE	Change time of the last resetlogs before the log was written. These will be the same for all logs in a backup set.
FIRST_CHANGE#	NUMBER	SCN when the log was switched into. The redo in the log is at this SCN and greater.
FIRST_TIME	DATE	Time allocated when the log was switched into
NEXT_CHANGE#	NUMBER	SCN when the next log in this thread was switched into. The redo in the log is below this SCN.
NEXT_TIME	DATE	Time when the next log in this thread was switched into
BLOCKS	NUMBER	Size of the log in logical blocks including the header block
BLOCK_SIZE	NUMBER	Size of the log blocks in bytes
TERMINAL	VARCHAR2(3)	Indicates whether this record corresponds to a terminal archived redo log, as defined in V\$ARCHIVED_LOG (YES) or not (NO)
SECTION_SIZE	NUMBER	Number of blocks in each section of a multisection log. The value is $\boldsymbol{0}$ for whole file logs.



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.102 V\$BACKUP_SET

 ${\tt V\$BACKUP_SET} \ \ \textbf{displays information about backup sets from the control file.}$

A backup set record is inserted after the backup set is successfully completed.

Column	Datatype	Description
RECID	NUMBER	Backup set record ID
STAMP	NUMBER	Backup set record stamp
SET_STAMP	NUMBER	Backup set stamp. The backup set stamp and count uniquely identify the backup set.
		Primary key for the V\$BACKUP_SET table, and the foreign key for the following tables: V\$BACKUP_PIECE, V\$BACKUP_DATAFILE, V\$BACKUP_REDOLOG, V\$BACKUP_CORRUPTION.
SET_COUNT	NUMBER	Backup set count. The backup set count is incremented by one every time a new backup set is started (if the backup set is never completed the number is "lost"). If the control file is re-created then the count is reset to 1. Therefore the count must be used with the stamp to uniquely identify a backup set.
		Primary key for the V\$BACKUP_SET table, and the foreign key for the following tables: V\$BACKUP_PIECE, V\$BACKUP_DATAFILE, V\$BACKUP_REDOLOG, V\$BACKUP_CORRUPTION
BACKUP_TYPE	VARCHAR2(1)	Type of files that are in this backup. If the backup contains archived redo logs, the value is ${\tt L}.$ If this is a data file full backup, the value is ${\tt D}.$ If this is an incremental backup, the value is ${\tt I}.$
CONTROLFILE_INCLUDED	VARCHAR2(3)	 Provides information about the control file in the backup set: YES: The control file included is a primary control file. SBY: The control file included is a standby control file. NO: A control file is not included.
INCREMENTAL_LEVEL	NUMBER	Location where this backup set fits into the database's backup strategy. Set to NULL for full datafile, archivelog, controlfile, and spfile backups, set to 0 for incremental level 0 datafile backups, and set to 1 for incremental level 1 datafile backups.
PIECES	NUMBER	Number of distinct backup pieces in the backup set
START_TIME	DATE	Starting time
COMPLETION_TIME	DATE	Time that this backup set completed
ELAPSED_SECONDS	NUMBER	The number of elapsed seconds
BLOCK_SIZE	NUMBER	Block size of the backup set



Column	Datatype	Description
INPUT_FILE_SCAN_ONLY	VARCHAR2(3)	${\tt YES}$ indicates no actual backup is performed, but the data files are read. ${\tt NO}$ indicates a normal backup is performed.
KEEP	VARCHAR2(3)	(YES/NO) Indicates whether or not this backup set has a retention policy that is different than the value for the configure retention policy
KEEP_UNTIL	DATE	If KEEP_UNTIL_TIME is specified, this is the date after which the backup becomes obsolete. If this column is null, then the backup never expires.
KEEP_OPTIONS	VARCHAR2 (11)	Lists additional retention options for this backup set. Possible values are:
		LOGS - The logs need to recover this backup are kept
		NOLOGS - The logs needed to recover this backup will not be kept
		BACKUP_LOGS - An archive log backup exists to support this backup set
MULTI_SECTION	VARCHAR2(3)	Indicates whether or not this backup set is a multi-section backup. Valid values are YES and NO. A multi-section backup is a backup in which multiple backup pieces are produced independently in parallel by multiple channels.
FOR_XTTS	VARCHAR2(3)	Indicates whether this is a cross platform backup set:
		 YES: This is a cross platform backup set.
		 NO: This is not a cross platform backup set.
SAME_ENDIAN	VARCHAR2(3)	If the value of FOR_XTTS is YES, then this column indicates whether the backup set has the same endianess as the current database (YES) or not (NO); otherwise NULL.
INC_DMPFILE	VARCHAR2(3)	If the value of FOR_XTTS is YES, then this column indicates whether the backup set includes a Data Pump export file of the backed up data files (YES) or not (NO), otherwise NULL.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		0: This value is used for rows containing data that pertain to the
		entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
GUID	RAW(16)	The GUID of the PDB to which the backup belongs. This is useful after the PDB is dropped to identify which PDB the backup belongs to.

8.103 V\$BACKUP_SET_DETAILS

 ${\tt V\$BACKUP_SET_DETAILS} \ \ \textbf{provides} \ \ \textbf{detailed} \ \ \textbf{information} \ \ \textbf{about the backup set}.$

This view will contain an extra row for each backup session that invokes BACKUP BACKUPSET (that is, creates new copies for the same backup set or copies backup set information from disk to tape). However, the remaining values of other columns belong to the complete backup set.

Column	Datatype	Description
SESSION_KEY	NUMBER	Session identifier
SESSION_RECID	NUMBER	Identifies the job, together with SESSION_STAMP.
SESSION_STAMP	NUMBER	Identifies the job, together with SESSION_RECID



Column	Datatype	Description
BS_KEY	NUMBER	Backup set identifier
RECID	NUMBER	RECID from V\$BACKUP_SET record
STAMP	NUMBER	Stamp from V\$BACKUP_SET record
SET_STAMP	NUMBER	Backup set stamp
SET_COUNT	NUMBER	Backup count number
BACKUP_TYPE	VARCHAR2(1)	Type of backup (same as in V\$BACKUP_SET)
CONTROLFILE_INCLUDED	VARCHAR2(3)	Control file included in backup set (same as in V\$BACKUP_SET)
INCREMENTAL_LEVEL	NUMBER	Incremental level (same as in V\$BACKUP_SET)
PIECES	NUMBER	Number of pieces (same as in V\$BACKUP_SET)
START_TIME	DATE	Start time of the backup set (same as in V\$BACKUP_SET)
COMPLETION_TIME	DATE	Completion time of the backup set (same as in V\$BACKUP_SET)
ELAPSED_SECONDS	NUMBER	Time taken for backup set creation (same as in V\$BACKUP_SET)
BLOCK_SIZE	NUMBER	Block size (same as in V\$BACKUP_SET)
KEEP	VARCHAR2(3)	Keep value (same as in V\$BACKUP_SET)
KEEP_UNTIL	DATE	Keep Until time (same as in V\$BACKUP_SET)
KEEP_OPTIONS	VARCHAR2(11)	Keep options (same as in V\$BACKUP_SET)
DEVICE_TYPE	VARCHAR2(17)	Type of device. If the backup set exists on more than one device type, an * is indicated here.
COMPRESSED	VARCHAR2(3)	YES, if backup is compressed
NUM_COPIES	NUMBER	Number of identical copies
OUTPUT_BYTES	NUMBER	Size of the backup set
ORIGINAL_INPUT_BYTES	NUMBER	Amount of data backed up when the backup set was created
COMPRESSION_RATIO	NUMBER	The ratio between the total blocks in the datafile and the blocks that RMAN backed up. This is <i>not</i> the the ratio from the AS COMPRESSED BACKUPSET clause of the BACKUP command.
STATUS	CHAR(1)	The status of the backup set. It is always ${\tt A}$ (all backup pieces available), because this view only reflects available backup sets.
ORIGINAL_INPRATE_BYTES	NUMBER	Number of bytes read per second when backup set was initially created
OUTPUT_RATE_BYTES	NUMBER	Number of bytes written per second when the backup set was initially created
ORIGINAL_INPUT_BYTES_DIS PLAY	VARCHAR2 (4000)	Input rate to display
OUTPUT_BYTES_DISPLAY	VARCHAR2 (4000)	Size of backup set to display
ORIGINAL_INPRATE_BYTES_D ISPLAY	VARCHAR2 (4000)	Input rate per second for display
OUTPUT_RATE_BYTES_DISPLA Y	VARCHAR2 (4000)	Output rate per second for display
TIME_TAKEN_DISPLAY	VARCHAR2 (4000)	Elapsed time in hh:mm:ss format
ENCRYPTED	VARCHAR2(3)	A value of $\mathtt{YES}\xspace$ means an encrypted backup, otherwise not an encrypted backup.
BACKED_BY_OSB	VARCHAR2(3)	A value of YES means the backup was done to Oracle Secure Backup. Otherwise, backed up by other third party tape library.



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

"V\$BACKUP_SET"

8.104 V\$BACKUP_SET_SUMMARY

 $\verb|V$BACKUP_SET_SUMMARY| provides summary information for a backup set.\\$

Column	Datatype	Description
NUM_BACKUPSETS	NUMBER	Total number of backup sets created
OLDEST_BACKUP_TIME	DATE	Oldest backup start time
NEWEST_BACKUP_TIME	DATE	Newest backup start time
OUTPUT_BYTES	NUMBER	Number of output bytes (not including multiple copies)
ORIGINAL_INPUT_BYTES	NUMBER	Number of input bytes when backup sets were created
ORIGINAL_INPRATE_BYTES	NUMBER	Average input rate
OUTPUT_RATE_BYTES	NUMBER	Average output rate
COMPRESSION_RATIO	NUMBER	The ratio between the total blocks in the datafile and the blocks that RMAN backed up. This is <i>not</i> the the ratio from the AS COMPRESSED BACKUPSET clause of the BACKUP command.
ORIGINAL_INPUT_BYTES_DIS PLAY	VARCHAR2 (4000)	Displayable format for input bytes
OUTPUT_BYTES_DISPLAY	VARCHAR2 (4000)	Displayable format for output bytes
ORIGINAL_INPRATE_BYTES_D ISPLAY	VARCHAR2 (4000)	Displayable format for input rate
OUTPUT_RATE_BYTES_DISPLA Y	VARCHAR2 (4000)	Displayable format for output rate
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.105 V\$BACKUP_SPFILE

 ${\tt V\$BACKUP_SPFILE} \ \ displays \ information \ about \ server \ parameter \ files \ in \ backup \ sets \ from \ the \ control \ file.$

Column	Datatype	Description
RECID	NUMBER	Backup SPFILE record ID
STAMP	NUMBER	Backup SPFILE record stamp
SET_STAMP	NUMBER	Backup set stamp (of the set which contains this SPFILE backup)
SET_COUNT	NUMBER	Backup set count (of the set which contains this SPFILE backup)
MODIFICATION_TIME	DATE	Time when the SPFILE was last modified (this also includes creation time)
BYTES	NUMBER	Size of the SPFILE (in bytes)
COMPLETION_TIME	DATE	Time when the backup of the SPFILE completed
DB_UNIQUE_NAME	VARCHAR2(30)	Unique database name
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
GUID	RAW (16)	The GUID of the PDB to which the backup belongs. This is useful after the PDB is dropped to identify which PDB the backup belongs to.

8.106 V\$BACKUP_SPFILE_DETAILS

 ${\tt V\$BACKUP_SPFILE_DETAILS} \ \ \textbf{displays} \ \ \textbf{information about all restorable SP files backed up in the backup set}.$

Column	Datatype	Description
SESSION_KEY	NUMBER	Session identifier
SESSION_RECID	NUMBER	Session recid
SESSION_STAMP	NUMBER	Session stamp
BS_KEY	NUMBER	Unique backup set identifier
SET_STAMP	NUMBER	Backup set stamp
SET_COUNT	NUMBER	Backup set count
MODIFICATION_TIME	DATE	Time the backup set was modified
FILESIZE	NUMBER	Size, in bytes, of the SPFILE that was backed up
FILESIZE_DISPLAY	VARCHAR2 (4000)	Same value as the FILESIZE column, but converted to a user-displayable format, for example nM , nG , nT , nP , and so on



Column	Datatype	Description
CON_ID NUMBER	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.107 V\$BACKUP_SPFILE_SUMMARY

V\$BACKUP_SPFILE_SUMMARY provides summary information for input SP file, based on either a backup job or time range applicable to jobs.

Column	Datatype	Description
NUM_FILES_BACKED	NUMBER	Number of files backed up
NUM_DISTINCT_FILES_BACKE D	NUMBER	Number of distinct SP files backed up (with modification timestamp)
MIN_MODIFICATION_TIME	DATE	Minimum modification time
MAX_MODIFICATION_TIME	DATE	Maximum modification time
INPUT_BYTES	NUMBER	Total input bytes for all SP files backed up
INPUT_BYTES_DISPLAY	VARCHAR2 (4000)	Displayable format for all input bytes
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.108 V\$BACKUP_SYNC_IO

V\$BACKUP_SYNC_IO displays performance information about ongoing and recently completed RMAN backups and restores.

For each backup, it contains one row for each input data file, one row for the aggregate total performance of all data files, and one row for the output backup piece. This data is not stored persistently, and is not preserved when the instance is re-started.

Column	Datatype	Description
SID	NUMBER	The Oracle SID of the session doing the backup or restore
SERIAL	NUMBER	The use count for the SID doing the backup or restore
USE_COUNT	NUMBER	A counter that can be used to identify rows from different backup sets
RMAN_STATUS_RECID	NUMBER	Owning V\$RMAN_STATUS record ID
RMAN_STATUS_STAMP	NUMBER	Owning V\$RMAN_STATUS record stamp



Column	Datatype	Description
DEVICE_TYPE	VARCHAR2 (17)	The device type where the file is located
TYPE	VARCHAR2(9)	INPUT, OUTPUT, or AGGREGATE
STATUS	VARCHAR2(11)	NOT STARTED, IN PROGRESS, Or FINISHED
FILENAME	VARCHAR2 (513)	The name of the backup file being read or written
SET_COUNT	NUMBER	The set count of the backup set being read or written
SET_STAMP	NUMBER	The set stamp of the backup set being read or written
BUFFER_SIZE	NUMBER	The size of the buffers being used to read/write this file, in bytes
BUFFER_COUNT	NUMBER	The number of buffers being used to read/write this file
TOTAL_BYTES	NUMBER	The total number of bytes that will be read or written for this file, if known. If not known, this column will be null.
OPEN_TIME	DATE	The time this file was opened. If TYPE='AGGREGATE', then this is the time that the first file in the aggregate was opened.
CLOSE_TIME	DATE	The time this file was closed. If TYPE='AGGREGATE', then this is the time that the last file in the aggregate was closed.
ELAPSED_TIME	NUMBER	The time, in hundredths of a second, that the file was open
MAXOPENFILES	NUMBER	The number of concurrently open DISK files. This value is only present in rows where TYPE='AGGREGATE'.
BYTES	NUMBER	The number of bytes read or written so far
EFFECTIVE_BYTES_PER_SECO ND	NUMBER	The I/O rate that was achieved with this device during this backup
IO_COUNT	NUMBER	The number of I/Os that were performed to this file
IO_TIME_TOTAL	NUMBER	The total time, in hundredths of a second, taken to do I/O for this file
IO_TIME_MAX	NUMBER	The maximum time taken for a single I/O request
DISCRETE_BYTES_PER_SECON D	NUMBER	The average transfer rate for this file
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only
		 the root n: Where n is the applicable container ID for the rows containing data

8.109 V\$BGPROCESS

 ${\tt V\$BGPROCESS} \ \textbf{displays} \ \textbf{information} \ \textbf{about the background processes}.$

RAW(4 8)	Address of the process state object
NUMBER	Process state object serial number
VARCHAR2(5)	Name of this background process
VARCHAR2(64)	Description of the background process
NUMBER	Error encountered
	NUMBER VARCHAR2 (5) VARCHAR2 (64)



Column	Datatype	Description
ATTRIBUTES	VARCHAR2 (512)	Attributes of the background process, in JSON format
TYPE	VARCHAR2(5)	This column has a value of ${\tt SLAVE}$ for all background worker processes, otherwise it is null.
PRIORITY	VARCHAR2(8)	Lists the current priority with which the process is running. This column has string values based on the operating system. On Linux, the values that can appear in this column are:
		TS: Time sharing
		RT: Real time priority
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.110 V\$BH

 ${\tt V\$BH} \ displays \ the \ status \ and \ number \ of \ pings \ for \ every \ buffer \ in \ the \ SGA. \ This \ is \ an \ Oracle \ Real \ Application \ Clusters \ view.$

Column	Datatype	Description
FILE#	NUMBER	Data file identifier number (to find the file name, query DBA_DATA_FILES or V\$DBFILE)
BLOCK#	NUMBER	Block number
CLASS#	NUMBER	Class number
STATUS	VARCHAR2 (10)	Status of the buffer: cr - Consistent read flashcur - A current flash cache buffer flashfree - A free flash cache buffer free - Not currently in use irec - In instance recovery mode mrec - In media recovery mode pi - A past image in RAC mode pmemfree - A free PMEM buffer pmemcr - pmemcr - A consistent-read/previous version of a PMEM buffer pmemcur - A current PMEM buffer med - Being read from disk scur - Shared current securefile - A secured file buffer
XNC	NUMBER	xcur - Exclusive This column is obsolete. Its value is hard-coded to 0.
FORCED READS	NUMBER	This column is obsolete. Its value is hard-coded to 0.
FORCED_WRITES	NUMBER	This column is obsolete. Its value is hard-coded to 0.



Column	Datatype	Description
LOCK_ELEMENT_ADDR	RAW(4 8)	Address of the lock element that contains the PCM lock that is covering the buffer. If more than one buffer has the same address, then these buffers are covered by the same PCM lock.
LOCK_ELEMENT_NAME	NUMBER	The address of the lock element that contains the PCM lock that is covering the buffer. If more than one buffer has the same address, then these buffers are covered by the same PCM lock.
LOCK_ELEMENT_CLASS	NUMBER	The address of the lock element that contains the PCM lock that is covering the buffer. If more than one buffer has the same address, then these buffers are covered by the same PCM lock.
DIRTY	VARCHAR2(1)	Y - block modified
TEMP	VARCHAR2(1)	Y - temporary block
PING	VARCHAR2(1)	Y - block pinged
STALE	VARCHAR2(1)	Y - block is stale
DIRECT	VARCHAR2(1)	Y - direct block
NEW	CHAR(1)	Always set to $\ensuremath{\mathbb{N}}.$ This column is obsolete and maintained for backward compatibility.
OBJD	NUMBER	Database object number of the block that the buffer represents
TS#	NUMBER	Tablespace number of block
LOBID	NUMBER	If the buffer belongs to a SecureFiles object, the value in this column is the unique identifier for the SecureFiles object. For other buffer types, the value in this column is meaningless.
CACHEHINT	NUMBER	Numeric representation of the values in the FLASH_CACHE and CELL_FLASH_CACHE columns. See the descriptions and possible values for the FLASH_CACHE and CELL_FLASH_CACHE columns in this view.
FLASH_CACHE	VARCHAR2(7)	Database Smart Flash Cache hint to be used for segment blocks: DEFAULT KEEP NONE Solaris and Oracle Linux functionality only.
CELL_FLASH_CACHE	VARCHAR2(7)	Cell flash cache hint to be used for segment blocks: DEFAULT KEEP NONE See Also: Oracle Exadata Storage Server Software documentation for more information
XCUR_PIN_HOLDER	NUMBER	ID of the Oracle process that holds the exclusive pin
		You can join this column with the PID column of the V\$PROCESS and V\$WAIT_CHAINS views to obtain details about the process.
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing



8.111 V\$BLOCK_CHANGE_TRACKING

V\$BLOCK CHANGE TRACKING displays the status of block change tracking for the database.

Column	Datatype	Description
STATUS	VARCHAR2(10)	Status of block change tracking in the database:
		DISABLED - Block change tracking is disabled
		 TRANSITION - Block change tracking is in the process of transitioning between the enabled and disabled states. The TRANSITION state should usually never be observed, because it only exists while enabling or disabling block change tracking. This state might be observed if the instance crashed while enabling or disabling block change tracking, in which case it will be cleaned up automatically the next time that the database is opened. ENABLED - Block change tracking is enabled
FILENAME	VARCHAR2 (513)	Name of the block change tracking file for the database
BYTES	NUMBER	Size of the block change tracking file (in bytes)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



Oracle Database Backup and Recovery User's Guide for information on setting up block change tracking

8.112 V\$BLOCKING_QUIESCE

 $\verb|V$BLOCKING_QUIESCE| indicates if a session is blocking, or would block, a quiesce operation.\\$

Column	Datatype	Description
SID	NUMBER	Session identifier
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



8.113 V\$BT_SCAN_CACHE

 ${\tt V\$BT_SCAN_CACHE} \ \ \textbf{shows the parameters and status of the big table cache section}.$

Column	Datatype	Description
BT_CACHE_ALLOC	NUMBER	Current ratio of the big table cache section to the buffer cache
BT_CACHE_TARGET	NUMBER	Target ratio of the big table cache section to the buffer cache
OBJECT_COUNT	NUMBER	Number of objects tracked by the big table cache section
MEMORY_BUF_ALLOC	NUMBER	Number of memory buffers allocated by the big table cache section to objects
MIN_CACHED_TEMP	NUMBER	Minimum temperature of any object that is allowed to be cached by the big table cache section
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



"DB_BIG_TABLE_CACHE_PERCENT_TARGET" for more information about enabling the big table cache

8.114 V\$BT_SCAN_OBJ_TEMPS

 $\verb|V\$BT_SCAN_OBJ_TEMPS| shows the active objects currently tracked by the big table cache.$

Column	Datatype	Description
TS#	NUMBER	Tablespace number
DATAOBJ#	NUMBER	Data object number (objd)
SIZE_IN_BLKS	NUMBER	Size of the object being scanned on this instance, in blocks
TEMPERATURE	NUMBER	Temperature of this object
POLICY	VARCHAR2 (10)	 Caching policy of this object. Possible values: MEM_ONLY: This object will be fully cached in memory. MEM_PART: This object will be partially cached in memory and some portion will remain on disk and will not be cached. DISK: this object will not be cached in memory or flash for the scan at all. INVALID: The caching policy is not valid.
CACHED_IN_MEM	NUMBER	The number of blocks that are cached/allocated in memory for this object



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

✓ See Also:

"DB_BIG_TABLE_CACHE_PERCENT_TARGET" for more information about enabling the big table cache

8.115 V\$BUFFER_POOL

 ${\tt V\$BUFFER_POOL} \ \ \textbf{displays information about all buffer pools available for the instance}.$

Column	Datatype	Description
ID	NUMBER	Buffer pool identifier number
NAME	VARCHAR2 (20)	Name of the buffer pool: DEFAULT KEEP RECYCLE Note: Currently, KEEP and RECYCLE pools only exist for the standard block size. All nonstandard block size pools are DEFAULT.
BLOCK_SIZE	NUMBER	Block size (in bytes) for buffers in this pool. Possible values: the standard block size, the power of 2 nonstandard block sizes, 2048, 4096, 8192, 16384, 32768.
RESIZE_STATE	VARCHAR2(10)	Current state of the resize operation:
		STATIC - Not being resized
		ALLOCATING - Memory is being allocated (can be canceled by the user)
		ACTIVATING - New buffers are being created (user cannot cancel)
		SHRINKING - Buffers are being deleted (can be canceled by the user)
CURRENT_SIZE	NUMBER	Present size of the sub-cache (in megabytes)
BUFFERS	NUMBER	Current instantaneous number of buffers
TARGET_SIZE	NUMBER	If a resize is in progress (state is not STATIC), records new target size (in megabytes). If the pool is STATIC, the value in this column is the same as the current size of the pool.
TARGET_BUFFERS	NUMBER	If a resize is in progress, records new target size in terms of buffers. Otherwise, the value in this column is the same as the current number of buffers.
PREV_SIZE	NUMBER	Previous buffer pool size. If the buffer pool has never been resized, the previous size is zero.



Column	Datatype	Description
PREV_BUFFERS	NUMBER	Previous number of buffers in the buffer pool. Value is zero if the buffer pool has never been resized.
LO_BNUM	NUMBER	Obsolete column
HI_BNUM	NUMBER	Obsolete column
LO_SETID	NUMBER	Obsolete column
HI_SETID	NUMBER	Obsolete column
SET_COUNT	NUMBER	Obsolete column
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

See Also:

"DB_BLOCK_SIZE"

8.116 V\$BUFFER_POOL_STATISTICS

V\$BUFFER POOL STATISTICS displays statistics about all buffer pools available for the instance.

Column	Datatype	Description
ID	NUMBER	Buffer pool identifier number
NAME	VARCHAR2(20)	Name of the buffer pool
BLOCK_SIZE	NUMBER	Block size (in bytes) for buffers in this pool. Possible values: the standard block size, the power of 2 nonstandard block sizes, 2048, 4096, 8192, 16384, 32768.
SET_MSIZE	NUMBER	Buffer pool maximum set size
CNUM_REPL	NUMBER	Number of buffers on replacement list
CNUM_WRITE	NUMBER	Number of buffers on write list
CNUM_SET	NUMBER	Number of buffers in set
BUF_GOT	NUMBER	Number of buffers gotten by the set
SUM_WRITE	NUMBER	Number of buffers written by the set
SUM_SCAN	NUMBER	Number of buffers scanned in the set
FREE_BUFFER_WAIT	NUMBER	Free buffer wait statistic
WRITE_COMPLETE_WAIT	NUMBER	Write complete wait statistic
BUFFER_BUSY_WAIT	NUMBER	Buffer busy wait statistic
FREE_BUFFER_INSPECTED	NUMBER	Free buffer inspected statistic
DIRTY_BUFFERS_INSPECTED	NUMBER	Dirty buffers inspected statistic

Column	Datatype	Description
DB_BLOCK_CHANGE	NUMBER	Database blocks changed statistic
DB_BLOCK_GETS	NUMBER	Database blocks gotten statistic
CONSISTENT_GETS	NUMBER	Consistent gets statistic
PHYSICAL_READS	NUMBER	Physical reads statistic
PHYSICAL_WRITES	NUMBER	Physical writes statistic
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



"DB_CACHE_SIZE"

8.117 V\$BUFFERED_PUBLISHERS

V\$BUFFERED_PUBLISHERS displays information about all buffered publishers in the instance.

There is one row per queue per sender. The values are reset to zero when the database (or instance in an Oracle RAC environment) restarts.

Column	Datatype	Description
QUEUE_ID	NUMBER	Identifier for the queue
QUEUE_SCHEMA	VARCHAR2 (128)	Owner of the queue
QUEUE_NAME	VARCHAR2 (128)	Name of the queue
SENDER_NAME	VARCHAR2 (128)	Name of the agent enqueuing the message (the Streams name assigned for a capture process)
SENDER_ADDRESS	VARCHAR2 (1024)	Queue name and database name of the source (last propagating) queue; database name is not specified if the source queue is in the local database
SENDER_PROTOCOL	NUMBER	Protocol used by the sender's address
NUM_MSGS	NUMBER	Current number of messages that have yet to be dequeued from the buffer queue
CNUM_MSGS	NUMBER	Cumulative total number of messages enqueued into the buffered queue since the database last started
LAST_ENQUEUED_MSG	NUMBER	Most recently enqueued message identifier
JNBROWSED_MSGS	NUMBER	Number of messages that have been enqueued but not browsed
OVERSPILLED_MSGS	NUMBER	Number of messages that have been spilled but not browsed
MEMORY_USAGE	NUMBER	Percentage of the Streams pool that is being used (or ${\tt 0}$ if there is no Streams pool)



Column	Datatype	Description
ELAPSED_ENQUEUE_TIME	NUMBER	Total time spent in enqueue (in hundredths of a second)
ENQUEUE_CPU_TIME	NUMBER	Total CPU time for enqueue (in hundredths of a second)
LAST_ENQUEUE_TIME	TIMESTAMP(3) WITH TIME ZONE	Last message enqueue time
PUBLISHER_STATE	VARCHAR2 (59)	State of the publisher: • IN FLOW CONTROL: TOO MANY UNBROWSED MESSAGES
		 IN FLOW CONTROL: OVERSPILLED MESSAGES IN FLOW CONTROL: INSUFFICIENT MEMORY AND UNBROWSED MESSAGES
		• PUBLISHING MESSAGES - Normal
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		• <i>n</i> : Where <i>n</i> is the applicable container ID for the rows containing data

8.118 V\$BUFFERED_QUEUES

 ${\tt V\$BUFFERED_QUEUES} \ \ \textbf{displays information about all buffered queues in the instance.} \ \ \textbf{There is one row per queue.}$

Column	Datatype	Description
QUEUE_ID	NUMBER	Identifier for the queue
QUEUE_SCHEMA	VARCHAR2(128)	Owner of the queue
QUEUE_NAME	VARCHAR2(128)	Name of the queue
STARTUP_TIME	DATE	Startup time
NUM_MSGS	NUMBER	Total number of messages currently in the buffered queue
SPILL_MSGS	NUMBER	Current number of overflow messages spilled to disk from the buffered queue
CNUM_MSGS	NUMBER	Cumulative total number of messages enqueued into the buffered queue since the database last started
CSPILL_MSGS	NUMBER	Cumulative total number of overflow messages spilled to disk from the buffered queue since the database last started
EXPIRED_MSGS	NUMBER	Number of expired messages
OLDEST_MSGID	RAW(16)	Message ID of the oldest message
OLDEST_MSG_ENQTM	TIMESTAMP(3)	Enqueue time of the oldest message
QUEUE_STATE	VARCHAR2 (25)	Indicates whether the queue is in recovery mode (QUEUE IS IN RECOVERY MODE) or not (NORMAL)
ELAPSED_ENQUEUE_TIME	NUMBER	Total time spent in enqueue (in hundredths of a second)
ELAPSED_DEQUEUE_TIME	NUMBER	Total time spent in dequeue (in hundredths of a second)
ELAPSED_TRANSFORMATION_T IME	NUMBER	Total time for evaluating transformations (in hundredths of a second)



Column	Datatype	Description
ELAPSED_RULE_EVALUATION_ TIME	NUMBER	Total time for rule evaluations (in hundredths of a second)
ENQUEUE_CPU_TIME	NUMBER	Total CPU time for enqueue (in hundredths of a second)
DEQUEUE_CPU_TIME	NUMBER	Total CPU time for dequeue (in hundredths of a second)
AVG_MSG_AGE	NUMBER	Average age of messages in the queue
LAST_ENQUEUE_TIME	TIMESTAMP(3) WITH TIME ZONE	Last message enqueue time
LAST_DEQUEUE_TIME	TIMESTAMP(3) WITH TIME ZONE	Last message dequeue time
QUEUE_SIZE	NUMBER	Size of queue, which is the total number of bytes allocated for all messages and metadata
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing

8.119 V\$BUFFERED_SUBSCRIBERS

 ${\tt V\$BUFFERED_SUBSCRIBERS} \ \ \textbf{displays} \ \ \textbf{information about the subscribers for all buffered queues in the instance.} \ \ \textbf{There is one row per subscriber per queue.}$

Column	Datatype	Description
QUEUE_ID	NUMBER	Identifier for the queue
QUEUE_SCHEMA	VARCHAR2 (128)	Owner of the queue
QUEUE_NAME	VARCHAR2 (128)	Name of the queue
SUBSCRIBER_ID	NUMBER	Internal subscriber number (for identification)
SUBSCRIBER_NAME	VARCHAR2 (512)	Name of the subscriber
SUBSCRIBER_ADDRESS	VARCHAR2 (1024)	Address of the subscribing agent
PROTOCOL	NUMBER	Protocol of the subscribing agent
SUBSCRIBER_TYPE	VARCHAR2 (128)	Type of the subscriber:
		 PROXY - Proxy subscriber SUBSCRIBER
STARTUP_TIME	DATE	Startup time
LAST_BROWSED_SEQ	NUMBER	Sequence number of the most recently browsed message for the subscriber (comparable to the number of messages in the V\$STREAMS_APPLY_READER view)
LAST_BROWSED_NUM	NUMBER	Internal Message number for the most recently browsed message for the subscriber
LAST_DEQUEUED_SEQ	NUMBER	Sequence number of the most recently dequeued message for the subscriber (comparable to the number of messages in the V\$STREAMS_APPLY_COORDINATOR view)



Column	Datatype	Description
LAST_DEQUEUED_NUM	NUMBER	Internal Message number for the most recently dequeued message for the subscriber
CURRENT_ENQ_SEQ	NUMBER	Current sequence number of the most recently enqueued message for the subscriber
NUM_MSGS	NUMBER	Total number of outstanding messages currently enqueued in the buffered queue for the subscriber (includes the count of the messages overflowed to disk)
CNUM_MSGS	NUMBER	Cumulative total number of messages enqueued for the subscriber since the database last started
TOTAL_DEQUEUED_MSG	NUMBER	Total number of messages dequeued by the subscriber
TOTAL_SPILLED_MSG	NUMBER	Total number of spilled messages for the subscriber
EXPIRED_MSGS	NUMBER	Number of expired messages
MESSAGE_LAG	NUMBER	Message lag of the subscriber
ELAPSED_DEQUEUE_TIME	NUMBER	Total time spent in dequeue (in hundredths of a second)
DEQUEUE_CPU_TIME	NUMBER	Total CPU time for dequeue (in hundredths of a second)
AVG_MSG_AGE	NUMBER	Average age of messages currently enqueued in the buffered queue for the subscriber
LAST_DEQUEUE_TIME	TIMESTAMP(3) WITH TIME ZONE	Last message dequeue time
OLDEST_MSGID	RAW(16)	Message ID of the oldest message
OLDEST_MSG_ENQTM	TIMESTAMP(3)	Enqueue time of the oldest message
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.120 V\$CACHE

 ${\tt V\$CACHE} \ displays \ information \ from \ the \ block \ header \ of \ each \ block \ in \ the \ SGA \ of \ the \ current instance \ as \ related \ to \ particular \ database \ objects. \ This is \ an \ Oracle \ Real \ Application \ Clusters \ view.$

Column	Datatype	Description
FILE#	NUMBER	Data file identifier number (to find the file name, query DBA_DATA_FILES or V\$DBFILE)
BLOCK#	NUMBER	Block number
CLASS#	NUMBER	Class number



Column	Datatype	Description
STATUS	VARCHAR2 (10)	Status of the block: • free - Not currently in use • xcur - Exclusive • scur - Shared current • cr - Consistent read • read - Being read from disk • mrec - In media recovery mode • irec - In instance recovery mode
XNC	NUMBER	Number of PCM x to null lock conversions due to contention with another instance. This column is obsolete and maintained for backward compatibility.
FORCED_READS	NUMBER	Number of times the block had to be reread from the cache because another instance has forced it out of this instance's cache by requesting the lock on the block in exclusive mode
FORCED_WRITES	NUMBER	Number of times GCS had to write this block to cache because this instance had used the block and another instance had requested the lock on the block in a conflicting mode
NAME	VARCHAR2(128)	Name of the database object containing the block
PARTITION_NAME	VARCHAR2 (128)	Name of the partition (null for nonpartitioned objects)
KIND	VARCHAR2 (15)	Type of the database object: INDEX TABLE CLUSTER VIEW SYNONYM SEQUENCE PROCEDURE FUNCTION PACKAGE NON-EXISTENT PACKAGE BODY TRIGGER TYPE TYPE TYPE TYPE TYPE BODY LIBRARY JAVA SOURCE JAVA CLASS JAVA RESOURCE JAVA DATA UNDO
OWNER#	NUMBER	Owner number
LOCK_ELEMENT_ADDR	RAW(4 8)	Address of the lock element that contains the PCM lock that is covering the buffer. If more than one buffer has the same address, then these buffers are covered by the same PCM lock.
LOCK_ELEMENT_NAME	NUMBER	Name of the lock element that contains the PCM lock that is covering the buffer. If more than one buffer has the same address, then these buffers are covered by the same PCM lock.



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.121 V\$CACHE_FUSION_HISTOGRAM

 ${\tt V\$CACHE_FUSION_HISTOGRAM\ displays\ a\ breakdown\ of\ various\ processing\ latencies\ in\ the\ Global\ Cache\ Service\ processes\ (LMS)\ used\ in\ cache\ fusion.}$

This view is a superset of the V\$CURRENT_BLOCK_SERVER view, which reports just pin and flush statistics.

Column	Datatype	Description
STATISTIC_NAME	VARCHAR2(34)	Name of the statistic
TOTAL	NUMBER	Total histogram count for the statistic
BKT10US	NUMBER	Histogram count for values taking less than 10 microseconds
BKT100US	NUMBER	Histogram count for values taking 10 to 100 microseconds
BKT1MS	NUMBER	Histogram count for values taking 100 microseconds to 1 millisecond
BKT10MS	NUMBER	Histogram count for values taking 1 to 10 milliseconds
BKT100MS	NUMBER	Histogram count for values taking 10 to 100 milliseconds
BKT1S	NUMBER	Histogram count for values taking 100 milliseconds to 1 second
BKT10S	NUMBER	Histogram count for values taking 1 to 10 seconds
BKTOVERFLOW	NUMBER	Histogram count for values taking more than 10 seconds
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



This view is available starting with Oracle Database 23ai, Release Update 23.8.

See Also:

"V\$CURRENT_BLOCK_SERVER"

8.122 V\$CACHE_LOCK

 $\label{thm:cache_lock} $$ v$ cache_lock is deprecated. The information that was provided in this view is now provided in the $$ v$ instance_cache_transfer and $$ v$ segment_statistics views. $$$

Column	Datatype	Description
FILE#	NUMBER	Data file identifier number (to find file name, query DBA_DATA_FILES or V\$DBFILE)
BLOCK#	NUMBER	Block number
STATUS	VARCHAR2(10)	Status of the block:
		 free - Not currently in use
		• xcur - Exclusive
		scur - Shared current
		cr - Consistent read
		 read - Being read from disk
		 mrec - In media recovery mode
		irec - In instance recovery mode
XNC	NUMBER	Number of parallel cache management (PCM) lock conversions due to contention with another instance
FORCED_READS	NUMBER	Number of times the block had to be reread from the cache because another instance has forced it out of this instance's cache by requesting the lock on the block in exclusive mode
FORCED_WRITES	NUMBER	Number of times GCS had to write this block to cache because this instance had used the block and another instance had requested the lock on the block in a conflicting mode
NAME	VARCHAR2 (128)	Name of the database object containing the block



Column	Datatype	Description
KIND	VARCHAR2 (15)	Type of database object: 1 - Index 2 - Table 3 - Cluster 4 - View 5 - Synonym 6 - Sequence 7 - Procedure 8 - Function 9 - Package 10 - Nonexistent 11 - Package body 12 - Trigger 13 - Type 14 - Type body 19 - Table partition 20 - Index partition 21 - LOB 22 - Library Null - Unknown
OWNER# LOCK_ELEMENT_ADDR	NUMBER RAW(4 8)	Owner number Address of the lock element that contains the PCM lock that is covering
		the buffer. If more than one buffer has the same address, then these buffers are covered by the same PCM lock.
LOCK_ELEMENT_NAME	NUMBER	Address of the lock element that contains the PCM lock that is covering the buffer. If more than one buffer has the same address, then these buffers are covered by the same PCM lock.
INDX	NUMBER	Platform-specific lock manager identifier
CLASS	NUMBER	Platform-specific lock manager identifier
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.123 V\$CACHE_TRANSFER

 ${\tt V\$CACHE_TRANSFER} \ \ \textbf{is identical to the} \ \ {\tt V\$CACHE} \ \ \textbf{view but only displays blocks that have been pinged at least once}.$

This view contains information from the block header of each block in the SGA of the current instance as related to particular database objects. This is an Oracle Real Application Clusters view.

Column	Datatype	Description
FILE#	NUMBER	Data file identifier number (to find the file name, query DBA_DATA_FILES or V\$DBFILE)
BLOCK#	NUMBER	Block number
CLASS#	NUMBER	Class number
STATUS	VARCHAR2(10)	Status of the block:
		free - Not currently in use
		• xcur - Exclusive
		scur - Shared current
		• cr - Consistent read
		 read - Being read from disk
		mrec - In media recovery mode
		irec - In instance recovery mode
XNC	NUMBER	Number of PCM lock conversions due to contention with another instance. This column is obsolete and maintained for backward compatibility.
FORCED_READS	NUMBER	Number of times the block had to be reread from the cache because another instance has forced it out of this instance's cache by requesting the lock on the block in exclusive mode
FORCED_WRITES	NUMBER	Number of times GCS had to write this block to cache because this instance had used the block and another instance had requested the lock on the block in a conflicting mode
NAME	VARCHAR2(128)	Name of the database object containing the block
PARTITION_NAME	VARCHAR2(128)	NULL for nonpartitioned objects
KIND	VARCHAR2 (15)	Type of database object
		See Also: Table 9-1
OWNER#	NUMBER	Owner number
LOCK_ELEMENT_ADDR	RAW(4 8)	Address of the lock element that contains the PCM lock that is covering the buffer. If more than one buffer has the same address, then these buffers are covered by the same PCM lock.
LOCK_ELEMENT_NAME	NUMBER	The name of the lock that contains the PCM lock that is covering the buffer
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing

✓ See Also:

"V\$CACHE"



8.124 V\$CHUNK_METRIC

 ${\tt V\$CHUNK_METRIC} \ displays \ the \ metric \ values \ captured \ for \ the \ most \ recent \ 30-second \ intervals \ for \ the \ workload \ against \ each \ chunk \ available \ on \ the \ database.$

Column	Datatype	Description
BEGIN_TIME	DATE	Begin time of the interval
END_TIME	DATE	End time of the interval
INTSIZE_CSEC	NUMBER	Interval size (in hundredths of a second)
CHUNK_ID	NUMBER	Chunk number (internal)
CALLSPERSEC	NUMBER	Number of user calls per second to the chunks
CON_ID NUM	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

"V\$SERVICE_REGION_METRIC"

8.125 V\$CIRCUIT

 ${\tt V\$CIRCUIT}\ contains\ information\ about\ virtual\ circuits,\ which\ are\ user\ connections\ to\ the\ database\ through\ dispatchers\ and\ servers.$

Column	Datatype	Description
CIRCUIT	RAW(4 8)	Circuit address
DISPATCHER	RAW(4 8)	Current dispatcher process address
SERVER	RAW(4 8)	Current server process address
WAITER	RAW (4 8)	Address of the server process that is waiting for the (currently busy) circuit to become available
SADDR	RAW(4 8)	Address of the session bound to the circuit
STATUS	VARCHAR2 (16)	Status of the circuit:
		 BREAK - currently interrupted EOF - about to be removed OUTBOUND - an outward link to a remote database NORMAL - normal circuit into the local database



Column	Datatype	Description
QUEUE	VARCHAR2 (16)	Queue the circuit is currently on: COMMON - on the common queue, waiting to be picked up by a server process DISPATCHER - waiting for the dispatcher SERVER - currently being serviced NONE - idle circuit
MESSAGE0	NUMBER	Size in bytes of the messages in the first message buffer
MESSAGE1	NUMBER	Size in bytes of the messages in the second message buffer
MESSAGE2	NUMBER	Size in bytes of the messages in the third message buffer
MESSAGE3	NUMBER	Size in bytes of the messages in the fourth message buffer
MESSAGES	NUMBER	Total number of messages that have gone through this circuit
BYTES	NUMBER	Total number of bytes that have gone through this circuit
BREAKS	NUMBER	Total number of breaks (interruptions) for this circuit
PRESENTATION	VARCHAR2 (257)	Presentation protocol used by the client and server
PCIRCUIT	RAW(4 8)	Address of the parent circuit
BOUND_TIME	NUMBER	Time that a circuit and shared server have been bound (in centiseconds)
BOUND_REASON	VARCHAR2(32)	Provides a reason (a short explanation) for why a shared server and circuit could not be unbound.
		This column is empty when a circuit is not bound to a server.
		When the server starts serving a circuit, BOUND_REASON is empty and remains empty unless the server tries unsuccessfully to unbind the circuit (after it finishes serving the current request).
		When this column is not empty, it will be cleared once the server and circuit are unbound (that is, once the resources preventing the session migration to another shared server are released).
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only
		 the root n: Where n is the applicable container ID for the rows containing data

8.126 V\$CLASS_CACHE_TRANSFER

V\$CLASS_CACHE_TRANSFER is deprecated. The information that was provided in this view is now provided in the V\$INSTANCE CACHE TRANSFER and V\$SEGMENT STATISTICS views.

Column	Datatype	Description
CLASS	CHAR(10)	Block class; always data block
X_2_NULL	NUMBER	Number of blocks with Exclusive-to-NULL conversions; always 0
X_2_NULL_FORCED_WRITE	NUMBER	Number of Exclusive-to-NULL forced writes; always 0
X_2_NULL_FORCED_STALE	NUMBER	Number of Exclusive-to-NULL blocks converted to CR; always 0
X_2_S	NUMBER	Number of blocks with Exclusive-to-Shared conversions; always 0



Column	Datatype	Description
X_2_S_FORCED_WRITE	NUMBER	Number of Exclusive-to-Shared forced writes; always 0
S_2_NULL	NUMBER	Number of blocks with Shared-to-NULL conversions; always 0
S_2_NULL_FORCED_STALE	NUMBER	Number of Shared-to-NULL blocks converted to CR; always 0
NULL_2_X	NUMBER	Number of blocks with NULL-to-Exclusive conversions; always 0
S_2_X	NUMBER	Number of blocks with Shared-to-Exclusive conversions; always 0
NULL_2_S	NUMBER	Number of blocks with NULL-to-Shared conversions; always 0
CR_TRANSFER	NUMBER	Number of CR blocks transferred; always 0
CURRENT_TRANSFER	NUMBER	Number of current blocks transferred; always 0
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

- "V\$INSTANCE_CACHE_TRANSFER"
- "V\$SEGMENT_STATISTICS"

8.127 V\$CLEANUP_PROCESS

 ${\tt V\$CLEANUP_PROCESS}\ provides\ information\ on\ the\ PMON\ processes.$

Column	Datatype	Description
NAME	VARCHAR2(5)	Name of the cleanup process (PMON, CLMN, CL**)
PADDR	RAW(8)	Process pointer for the cleanup process (can join with V\$PROCESS)
SADDR	RAW(8)	Session pointer for the cleanup process (can join with V\$SESSION)
STATE	VARCHAR2(4)	Cleanup process state: IDLE: Not currently performing cleanup BUSY: Currently performing cleanup
DEAD_IN_CLEANUP	RAW(8)	Pointer to the root of the tree in cleanup (can join with ROOT_ADDR in V\$DEAD_CLEANUP)
CLEANUP_TIME	NUMBER	If STATE = BUSY, the time spent in the current cleanup attempt (in seconds). Otherwise, 0 .
TIME_SINCE_LAST_CLEANUP	NUMBER	If $\mathtt{STATE} = \mathtt{IDLE}$, time since last needed to perform cleanup (in seconds). Otherwise, 0.
NUM_CLEANED	NUMBER	Number of trees cleaned up by the cleanup process. Increased by one every time a root tree is attempted.



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire multitenant container database (CDB). This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

✓ See Also:

"V\$DEAD_CLEANUP"

8.128 V\$CLIENT_SECRETS

 ${\tt V\$CLIENT_SECRETS} \ \textbf{lists} \ \textbf{the secrets} \ \textbf{that are present in the keystore}.$

Only SYS, SYSKM, and users with the ADMINISTER KEY MANAGEMENT privilege can access this view.

Column	Datatype	Description
CLIENT	VARCHAR2 (2000)	Name provided by the client
SECRET_TAG	VARCHAR2 (4000)	Associated information with the client
CREATION_TIME	TIMESTAMP(6) WITH TIME ZONE	Time when the secret was created
ACTIVATION_TIME	TIMESTAMP(6) WITH TIME ZONE	Time when the secret was actually put to use
OWNER	VARCHAR2 (128)	User who created the secret
OWNER_ID	NUMBER	User ID of the user who created the secret
KEYSTORE_TYPE	VARCHAR2 (17)	Type of keystore in which the secret is stored: OKV - Oracle Key Vault SOFTWARE KEYSTORE UNDEFINED - This value is shown if the database has no information about the type of keystore where the master key resides
BACKED_UP	VARCHAR2 (9)	Indicates whether the secret has been backed up or not
OWNER_DBNAME	VARCHAR2 (128)	Database that created the secret
OWNER_DBID	NUMBER	Database ID where the secret was created
OWNER_INSTANCE_NAME	VARCHAR2(30)	Instance name of the instance where the secret was created
OWNER_INSTANCE_NUMBER	NUMBER	Instance number of the instance where the secret was created
OWNER_INSTANCE_SERIAL	NUMBER	Serial number of the instance where the secret was created
OWNER_PDBNAME	VARCHAR2 (128)	Pluggable database (PDB) where the secret was created
OWNER_PDBID	NUMBER	PDB ID where the secret was created



Column	Datatype	Description
OWNER_PDBUID	NUMBER	PDB UID where the secret was created
OWNER_PDBGUID	RAW(16)	PDB GUID where the secret was created
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

Oracle Database Transparent Data Encryption Guide for information about keystore management

8.129 V\$CLIENT_STATS

 ${\tt V\$CLIENT_STATS} \ displays \ measures \ for \ all \ sessions \ that \ are \ active \ for \ the \ client \ identifier \ per instance.$

The statistics available in this view are a subset of those available in V\$SESSTAT and V\$SESS TIME MODEL.

Column	Datatype	Description
CLIENT_IDENTIFIER	VARCHAR2 (64)	Client identifier
STAT_ID	NUMBER	Statistic identifier
STAT_NAME	VARCHAR2(64)	Derived statistic name from V\$STATNAME and V\$SESS_TIME_MODEL
VALUE	NUMBER	Cumulative value (in microseconds)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

- "V\$SESSTAT"
- "V\$SESS_TIME_MODEL"



8.130 V\$CLONEDFILE

V\$CLONEDFILE provides CloneDB file information.

Column	Datatype	Description
SNAPSHOTFILENAME	VARCHAR2 (513)	Snapshot file name. This file is the snapshot file from the snapshot database. The snapshot file is also sometimes referred to as the srcfile.
CLONEFILENAME	VARCHAR2 (513)	CloneDB file name. This file is the cloned file (of the snapshot file) which resides in the current (cloned database). The cloned file is sometimes referred to as the destfile.
SNAPSHOTBLKREAD	NUMBER	Number of blocks reads to the snapshot file
SNAPSHOTREQUEST	NUMBER	Number of read requests to the snapshot file
FILENUMBER	NUMBER	File number of the cloned file
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing
		data
BLOCKS_ALLOCATED	NUMBER	Amount of space allocated in blocks in the file system. This is less than or equal to the actual file size.

Note:

When this view is queried in an Oracle Database environment, rows are returned for every opened file, even those without a parent file backing them (in those cases the column is empty/NULL).

In an Oracle ASM environement, rows are returned for files that an Oracle ASM instance has mounted in disk groups only if those files are children (a clonefile) of a parent snapshot file.

8.131 V\$CLUSTER_INTERCONNECTS

V\$CLUSTER_INTERCONNECTS displays one or more interconnects that are being used for cluster communication.

Column	Datatype	Description
NAME	VARCHAR2 (15)	Name of the interconnect (such as eth0)
IP_ADDRESS	VARCHAR2 (46)	IP address of the interconnect



Column	Datatype	Description
IS_PUBLIC	VARCHAR2(3)	If the value is YES, the interface is known to the public.
		If the value is NO, the interface is known to be private. Note that if the CLUSTER_INTERCONNETS initialization parameter is also specified, then it is expected that the interconnect is private. Oracle expects cluster traffic to be run on private interconnects only.
		f the value is empty, it is unknown whether the interface is public or private.
		Oracle recommends that you set the interface for Oracle Real Application Clusters (Oracle RAC) communication in the Oracle Cluster Registry (OCR).
SOURCE	VARCHAR2(31)	Indicates where this interface was picked up from:
		 Oracle Cluster Registry - Interface was configured in the OCR and Oracle Database found the interface in the OCR
		 Operating-system dependent software - Oracle Database automatically detects this
		 CLUSTER_INTERCONNECTS parameter - This initialization parameter was set
PNAME	VARCHAR2(15)	Name of the physical interface of the interconnect
		This value may differ from the NAME value if the IP address is bound to a device alias. For example, if NAME is eth0:1, then PNAME is eth0.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.132 V\$CODE_CLAUSE

V\$CODE_CLAUSE contains the supported clause names and parameter names for the Oracle Data Vault Alter System and Alter Session commands.

Column	Datatype	Description
CODE_ID#	NUMBER	The OCT code ID:
		• 42: For alter session
		• 49: For Alter system
CLAUSE_ID#	NUMBER	Clause ID
CLAUSE_NAME	VARCHAR2 (100)	The clause name that is supported by the Oracle Data Vault command rule (for example, SET or ADVICE)
PARAMETER_NAME	VARCHAR2(100)	The parameter name that is supported by the Oracle Data Vault command rule. For example, for ALTER SYSTEM SET EVENTS, EVENTS is the parameter.



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.133 V\$CON_EVENT_HISTOGRAM_MICRO

V\$CON_EVENT_HISTOGRAM_MICRO displays a histogram of the number of waits, the maximum wait, and total wait time on an event basis for a container, in microseconds. The histogram has buckets of time intervals from < 1 us, < 2 us, < 4 us, < 8 us, ... < 2^{31} us, < 2^{32} us, and >= 2^{32} us.

The histogram will not be filled unless the ${\tt TIMED_STATISTICS}$ initialization parameter is set to true.

Column	Datatype	Description
EVENT#	NUMBER	Event number
EVENT	VARCHAR2 (64)	Name of the event
WAIT_TIME_FORMAT	VARCHAR2(30)	A human readable time string which is converted from WAIT_TIME_MICRO. When WAIT_TIME_MICRO < 1 millisecond, WAIT_TIME_FORMAT is shown in microseconds. When WAIT_TIME_MICRO < 1 second, WAIT_TIME_FORMAT is shown in milliseconds. When WAIT_TIME_MICRO < 1 minute, WAIT_TIME_FORMAT is shown in seconds. When WAIT_TIME_MICRO > 1 minute, WAIT_TIME_FORMAT is shown in minutes and seconds.
WAIT_TIME_MICRO	NUMBER	Amount of time the bucket represents (in microseconds). If the duration = num, then this column represents waits of duration < num that are not included in any smaller bucket.
WAIT_COUNT	NUMBER	Number of waits of the duration belonging to the bucket of the histogram
LAST_UPDATE_TIME	VARCHAR2 (73)	Indicates the last time the bucket was updated (the ending timestamp of the last wait falling into the bucket's duration)
CON_ID	NUMBER	When queried from a non-CDB, the wait event data in that instance are returned, and the CON_ID value is 0.
		When queried from the root of a CDB, the wait event data in every container is returned, and the CON_ID value indicates the container to which the wait event data belong.
		When queried from a PDB, wait event data in that PDB are returned, and the <code>CON_ID</code> value is the container ID for that PDB.



8.134 V\$CON_SYS_TIME_MODEL

V\$CON_SYS_TIME_MODEL displays the systemwide accumulated times for various operations for the container from which it is queried.

The time reported is the total elapsed or CPU time (in microseconds). Any timed operation will buffer at most 5 seconds of time data. Specifically, this means that if a timed operation (such as SQL execution) takes a long period of time to perform, the data published to this view is at most missing 5 seconds of the time accumulated for the operation.

The time values are 8-byte integers and can therefore hold approximately 580,000 years worth of time before wrapping. Background process time is not included in a statistic value unless the statistic is specifically for background processes.

Column	Datatype	Description
STAT_ID	NUMBER	Statistic identifier for the time statistic
STAT_NAME	VARCHAR2 (64)	Name of the statistic (see Table 10-1)
VALUE	NUMBER	Amount of time (in microseconds) that the system has spent in this operation
CON_ID	NUMBER	When queried from a non-CDB, the accumulated times for operations in that instance are returned, and the CON_ID value is 0.
		When queried from the root of a CDB, accumulated times for operations in every container are returned, and the <code>CON_ID</code> value indicates the container to which the times belong.
		When queried from a PDB, accumulated times for operations in that PDB are returned, and the CON_ID value is the container ID for that PDB.

8.135 V\$CON_SYSMETRIC

 ${\tt V$CON_SYSMETRIC} \ displays \ the \ system \ metric \ values \ captured \ for \ the \ most \ current \ time \ interval for \ the \ PDB \ long \ duration \ (60-second) \ system \ metrics.$

Column	Datatype	Description
BEGIN_TIME	DATE	Begin time of the interval
END_TIME	DATE	End time of the interval
INTSIZE_CSEC	NUMBER	Interval size (in hundredths of a second)
GROUP_ID	NUMBER	Metric group ID
METRIC_ID	NUMBER	Metric ID
METRIC_NAME	VARCHAR2 (64)	Metric name
VALUE	NUMBER	Metric value
METRIC_UNIT	VARCHAR2 (64)	Metric unit description



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• When queried from a non-CDB, the statistics for that instance are returned, and the CON ID value is 0.
		 When queried from the root of a CDB, the statistics for every container are returned, and the CON_ID value indicates the container to which the statistics belong.
		 When queried from a PDB, statistics from that PDB are returned, and the CON_ID value is the container ID for that PDB.

✓ See Also:

- "DBA_HIST_CON_SYS_TIME_MODEL"
- "DBA_HIST_SYS_TIME_MODEL"
- "V\$SYSMETRIC"

8.136 V\$CON_SYSMETRIC_HISTORY

 $\label{thm:con_sysmetric_history} $$ v$con_sysmetric_history $$ displays all PDB long duration (60-second with 1 hour history) $$ system metric values available in the database.$

Column	Datatype	Description
BEGIN_TIME	DATE	Begin time of the interval
END_TIME	DATE	End time of the interval
INTSIZE_CSEC	NUMBER	Interval size (in hundredths of a second)
GROUP_ID	NUMBER	Metric group ID
METRIC_ID	NUMBER	Metric ID
METRIC_NAME	VARCHAR2(64)	Metric name
VALUE	NUMBER	Metric value
METRIC_UNIT	VARCHAR2(64)	Metric unit description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• When queried from a non-CDB, the statistics for that instance are returned, and the CON ID value is 0.
		 When queried from the root of a CDB, the statistics for every container are returned, and the CON_ID value indicates the container to which the statistics belong.
		 When queried from a PDB, statistics from that PDB are returned, and the CON_ID value is the container ID for that PDB.



✓ See Also:

- "DBA_HIST_CON_SYSMETRIC_HIST"
- "DBA_HIST_SYSMETRIC_HISTORY"
- "V\$SYSMETRIC_HISTORY"

8.137 V\$CON_SYSMETRIC_SUMMARY

V\$CON_SYSMETRIC_SUMMARY displays a summary of all system metric values for the PDB long-duration system metrics. The average, maximum value, minimum value, and the value of one standard deviation for the last hour are displayed for each metric item.

Column	Datatype	Description
BEGIN_TIME	DATE	Begin time of the interval
END_TIME	DATE	End time of the interval
INTSIZE_CSEC	NUMBER	Interval size (in hundredths of a second)
GROUP_ID	NUMBER	Metric group ID
METRIC_ID	NUMBER	Metric ID
METRIC_NAME	VARCHAR2 (64)	Metric name
NUM_INTERVAL	NUMBER	Number of intervals observed
MAXVAL	NUMBER	Maximum value observed
MINVAL	NUMBER	Minimum value observed
AVERAGE	NUMBER	Average value over the period
STANDARD_DEVIATION	NUMBER	One standard deviation
METRIC_UNIT	VARCHAR2 (64)	Metric unit description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 When queried from a non-CDB, the statistics for that instance are returned, and the CON_ID value is 0.
		 When queried from the root of a CDB, the statistics for every container are returned, and the CON_ID value indicates the container to which the statistics belong.
		 When queried from a PDB, statistics from that PDB are returned, and the CON_ID value is the container ID for that PDB.

See Also:

- "V\$SYSMETRIC_HISTORY"
- "DBA_HIST_SYSMETRIC_SUMMARY"
- "V\$SYSMETRIC SUMMARY"



8.138 V\$CON_SYSSTAT

V\$CON_SYSSTAT displays system statistics, including OLAP kernel statistics for the container from which it is queried. To find the name of the statistic associated with each statistic number (STATISTIC#), query the V\$STATNAME view.

Column	Datatype	Description	
STATISTIC#	NUMBER	Statistic number	
		Note: Statistics numbers are not guaranteed to remain constant from one release to another. Therefore, you should rely on the statistics name rather than its number in your applications.	
NAME	VARCHAR2 (64)	Statistic name. You can get a complete listing of statistic names by querying the V\$STATNAME view.	
CLASS	NUMBER	A number representing one or more statistics class. The following class numbers are additive: 1 - User 2 - Redo 4 - Enqueue 8 - Cache 16 - OS 32 - Real Application Clusters 64 - SQL 128 - Debug 256 - Instance level	
VALUE	NUMBER	Statistic value	
STAT_ID	NUMBER	Identifier of the statistic	
CON_ID	NUMBER	When queried from a non-CDB, the statistics in that instance are returned, and the CON_ID value is 0.	
		When queried from the root of a CDB, the statistics in every container are returned, and the ${\tt CON_ID}$ value indicates the container to which the statistics belong.	
		When queried from a PDB, statistics in that PDB are returned, and the ${\tt CON_ID}$ value is the container ID for that PDB.	

See Also:

"V\$STATNAME" and " Statistics Descriptions"

8.139 V\$CON_SYSTEM_EVENT

V\$CON SYSTEM EVENT displays information on total waits for an event in a container.

Note that the <code>TIME_WAITED</code> and <code>AVERAGE_WAIT</code> columns will contain a value of zero on those platforms that do not support a fast timing mechanism. If you are running on one of these platforms and you want this column to reflect true wait times, then you must set <code>TIMED_STATISTICS</code> to <code>TRUE</code> in the parameter file; doing this will have a small negative effect on system performance.



See Also:

"TIMED_STATISTICS"

Column	Datatype	Description
EVENT	VARCHAR2 (64)	Name of the wait event; derived statistic name from V\$EVENT_NAME
		See Also: " Oracle Wait Events"
TOTAL_WAITS	NUMBER	Total number of waits for the event
TOTAL_TIMEOUTS	NUMBER	Total number of timeouts for the event
TIME_WAITED	NUMBER	Total amount of time waited for the event (in hundredths of a second)
AVERAGE_WAIT	NUMBER	Average amount of time waited for the event (in hundredths of a second)
TIME_WAITED_MICRO	NUMBER	Total amount of time waited for the event (in microseconds)
CPU	NUMBER	Total amount of CPU time consumed while implementing the wait event itself (in microseconds)
TOTAL_WAITS_FG	NUMBER	Total number of waits for the event, from foreground sessions
TOTAL_TIMEOUTS_FG	NUMBER	Total number of timeouts for the event, from foreground sessions
TIME_WAITED_FG	NUMBER	Total amount of time waited for the event, from foreground sessions (in hundredths of a second)
AVERAGE_WAIT_FG	NUMBER	Average amount of time waited for the event, from foreground sessions (in hundredths of a second)
TIME_WAITED_MICRO_FG	NUMBER	Total amount of time waited for the event, from foreground sessions (in microseconds)
CPU_FG	NUMBER	Total amount of CPU time consumed while implementing the wait event itself, from foreground sessions (in microseconds)
EVENT_ID	NUMBER	Identifier of the wait event
WAIT_CLASS_ID	NUMBER	Identifier of the wait class of the wait event
WAIT_CLASS#	NUMBER	Number of the wait class of the wait event
WAIT_CLASS	VARCHAR2 (64)	Name of the wait class of the wait event
CON_ID	NUMBER	When queried from a non-CDB, the wait event data in that instance are returned, and the $\texttt{CON_ID}$ value is 0.
		When queried from the root of a CDB, the wait event data in every container is returned, and the CON_ID value indicates the container to which the wait event data belong.
		When queried from a PDB, wait event data in that PDB are returned, and the CON_ID value is the container ID for that PDB.

8.140 V\$CON_SYSTEM_WAIT_CLASS

 $\verb|V$CON_SYSTEM_WAIT_CLASS| \ displays \ the \ time \ totals \ for \ each \ registered \ wait \ class \ in \ a \ container.$

Column	Datatype	Description
WAIT_CLASS_ID	NUMBER	Identifier of the wait class
WAIT_CLASS#	NUMBER	Number of the wait class
WAIT_CLASS	VARCHAR2 (64)	Name of the wait class



Column	Datatype	Description
TOTAL_WAITS	NUMBER	Total number of waits from this wait class
TIME_WAITED	NUMBER	Total amount of time spent in waits from this wait class (in hundredths of a second)
TIME_WAITED_MICRO	NUMBER	Total amount of time spent in waits from this wait class (in microseconds)
CPU	NUMBER	Total amount of CPU time consumed while implementing waits from this wait class (in microseconds)
TOTAL_WAITS_FG	NUMBER	Total number of waits from this wait class, from foreground sessions
TIME_WAITED_FG	NUMBER	Total amount of time spent in waits from this wait class, from foreground sessions (in hundredths of a second)
TIME_WAITED_MICRO_FG	NUMBER	Total amount of time spent in waits from this wait class, from foreground sessions (in microseconds)
CPU_FG	NUMBER	Total amount of CPU time consumed while implementing waits from this wait class, from foreground sessions (in microseconds)
CON_ID	NUMBER	When queried from a non-CDB, time totals for each registered wait class in that instance are returned, and the <code>CON_ID</code> value is 0.
		When queried from the root of a CDB, time totals for each registered wait class in every container is returned, and the <code>CON_ID</code> value indicates the container to which the time total belong.
		When queried from a PDB, time totals for each registered wait class in that PDB are returned, and the <code>CON_ID</code> value is the container ID for that PDB.

8.141 V\$CONFIGURED_INTERCONNECTS

V\$CONFIGURED_INTERCONNECTS displays all the interconnects that Oracle is aware of. This view attempts to answer the question of where Oracle found the information about a specific interconnect.

Column	Datatype	Description
NAME	VARCHAR2 (15)	Name of the interconnect (such as eth0)
IP_ADDRESS	VARCHAR2 (64)	IP address of the interconnect
IS_PUBLIC	VARCHAR2(3)	If the value is YES, the interface is known to the public.
		If the value is NO, the interface is known to be private. Note that if the CLUSTER_INTERCONNECTS initialization parameter is also specified, then it is expected that the interconnect is private. Oracle expects cluster traffic to be run on private interconnects only.
		If the value is empty, it is unknown whether the interface is public or private.
		Oracle recommends that you set the interface for Oracle Real Application Clusters (Oracle RAC) communication in the Oracle Cluster Registry (OCR).



Column	Datatype	Description
SOURCE	VARCHAR2 (31)	Indicates where this interface was picked up from:
		 Oracle Cluster Registry - Interface was configured in the OCR and Oracle Database found the interface in the OCR Operating-system dependent software - Oracle Database
		automatically detects this
		 CLUSTER_INTERCONNECTS parameter - This initialization parameter was set
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.142 V\$CONTAINER_TOPOLOGY

 ${\tt V\$CONTAINER_TOPOLOGY} \ \ \textbf{displays} \ \ \textbf{information about the containers associated with the current instance}.$

Column	Datatype	Description
INSTANCE_NUMBER	NUMBER	Instance number, as specified by the INSTANCE_NUMBER initialization parameter for the database in which the container resides
CON_NAME	VARCHAR2 (128)	Container name
OPEN_MODE	VARCHAR2(10)	Open mode for the container: MIGRATE MOUNTED READ ONLY READ WRITE
CPU_COUNT	NUMBER	CPU count, as specified by the $\mathtt{CPU}_\mathtt{COUNT}$ initialization parameter for the container
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data
RESTRICTED	VARCHAR2(3)	Indicates whether a user connecting to the container is required to have the RESTRICTED SESSION privilege (YES) or not (NO)
IS_HYBRID_READ_ONLY	VARCHAR2(3)	Indicates whether the container is in hybrid read-only mode (YES) or not (NO)



8.143 V\$CONTAINERS

 ${\tt V\$CONTAINERS} \ \ \text{displays information about PDBs and the root associated with the current instance}.$

Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing
DBID	NUMBER	data PDB identifier calculated when the PDB is created and stored in all file headers associated with the PDB
CON UID	NUMBER	Unique identifier associated with the PDB
GUID	RAW (16)	Globally unique identifier (GUID) of this PDB
NAME	VARCHAR2 (128)	Name of the PDB
OPEN_MODE	VARCHAR2 (10)	Open mode information. Possible values: MOUNTED READ WRITE READ ONLY MIGRATE
RESTRICTED	VARCHAR2(3)	Indicates whether only users possessing RESTRICTED SESSION privilege can connect to the PDB
OPEN_TIME	TIMESTAMP(3)	Date and time when the database was last opened
CREATE_SCN	NUMBER	System change number (SCN) for the creation of this PDB
TOTAL_SIZE	NUMBER	If a PDB is opened, disk space (in bytes) used by the container, including both data and temp files. If a PDB is closed, will be set to 0.
BLOCK_SIZE	NUMBER	The current block size for the PDB
RECOVERY_STATUS	VARCHAR2 (26)	 Shows the recovery status for the PDB. Possible values: DISABLED: The PDB is offline. This is similar to all files belonging to this PDB being offline, except that all files to be added to this PDB in the future will also be offline to begin with. DISABLED AUTOMATIC RECOVER: Same as DISABLED, except that standby Active Data Guard recovery will automatically attempt to spawn PDB recovery isolation for the PDB and transition the PDB into ENABLED.
		 ENABLED: The PDB is not offline at the PDB level. Individual files in the PDB may be online or offline at the file level.
SNAPSHOT_PARENT_CON_ID	NUMBER	This column shows the container ID of the PDB that this PDB is a snapshot clone of. This column shows a nonzero value only if the PDB is a snapshot clone. For all other cases, it shows a value of 0.
APPLICATION_ROOT	VARCHAR2(3)	Indicates whether the PDB is an application root
APPLICATION_PDB	VARCHAR2(3)	Indicates whether the PDB is an application PDB
APPLICATION_SEED	VARCHAR2(3)	Indicates whether the PDB is an application seed (an application seed is also an application PDB)



Column	Datatype	Description
APPLICATION_ROOT_CON_ID	NUMBER	If this PDB is an application PDB, the container ID of an application root to which this application PDB belongs.
		If this PDB is an application root clone, the container ID of an application root to which this application root clone belongs.
		Otherwise, NULL.
APPLICATION_ROOT_CLONE	VARCHAR2(3)	Indicates whether this PDB is an application root clone (YES) or not (NO)
PROXY_PDB	VARCHAR2(3)	Indicates whether this PDB is a proxy PDB (YES) or not (NO)
LOCAL_UNDO	NUMBER	Shows whether the PDB is in local undo. Possible values: 1 – PDB is in local undo mode
		 0 – PDB is in shared undo mode This column is not relevant for CDB\$ROOT.
UNDO_SCN	NUMBER	System change number (SCN) at which the PDB was last converted from shared to local undo, or from local to shared undo.
		This column is not relevant for CDB\$ROOT.
UNDO_TIMESTAMP	DATE	Date and time at which the PDB was last converted from shared to local undo, or from local to shared undo.
		This column is not relevant for CDB\$ROOT.
CREATION_TIME	DATE	Date and time at which the PDB was created.
PDB_COUNT	NUMBER	The number of user-created PDBs belonging to a given application root or CDB\$ROOT. For all other containers, its value is 0.
AUDIT_FILES_SIZE	NUMBER	Shows the current disk space usage (in bytes) by Unified Audit files (.bin format) in the container
MAX_SIZE	NUMBER	Shows the maximum amount of disk space (in bytes) that can be used by data and temp files in the container
MAX_DIAGNOSTICS_SIZE	NUMBER	Shows the maximum amount of disk space (in bytes) that can be used by diagnostic traces generated in the container
MAX_AUDIT_SIZE	NUMBER	Shows the maximum amount of disk space (in bytes) that can be used by Unified Audit files (.bin format) in the container
LAST_CHANGED_BY	VARCHAR2(11)	Indicates what type of user last changed the PDB. Possible values: COMMON USER LOCAL USER
MEMBER_CDB	VARCHAR2(3)	Indicates whether the row corresponds to a Member CDB part of the CDB Fleet (YES) or not (NO). This column is only meaningful in the Lead CDB of a CDB Fleet, which keeps track of other CDBs as containers in the CDB Fleet.
TENANT_ID	VARCHAR2 (256)	Pluggable database tenant key
UPGRADE_LEVEL	NUMBER	For internal use only
GUID_BASE64	VARCHAR2(30)	The GUID of the PDB, encoded in base64
CLOUD_IDENTITY	VARCHAR2 (32767)	Cloud identifier for the PDB
CLOSE_TIME	TIMESTAMP(3)	Date and time when the database was last closed
BACKUP_STATUS	VARCHAR2(8)	Reserved for future use

8.144 V\$CONTEXT

 ${\tt V\$CONTEXT} \ \textbf{displays set attributes in the current session}.$



Column	Datatype	Description
NAMESPACE	VARCHAR2(31)	Namespace that the attribute is in
ATTRIBUTE	VARCHAR2(31)	Name of the attribute
VALUE	VARCHAR2(4000)	Value of the attribute
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.145 V\$CONTROLFILE

 ${\tt V\$CONTROLFILE} \ \ \textbf{displays} \ \ \textbf{the names of the control files}.$

Column	Datatype	Description
STATUS	VARCHAR2(7)	INVALID if the name cannot be determined (which should not occur); NULL if the name can be determined
NAME	VARCHAR2 (513)	Name of the control file
IS_RECOVERY_DEST_FILE	VARCHAR2(3)	Indicates whether the file was created in the fast recovery area (YES) or not (NO)
BLOCK_SIZE	NUMBER	Control file block size
FILE_SIZE_BLKS	NUMBER	Control file size (in blocks)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.146 V\$CONTROLFILE_RECORD_SECTION

 $\verb|V\$CONTROLFILE_RECORD_SECTION| \ \textbf{displays information about the control file record sections}.$



Column	Datatype	Description
TYPE	VARCHAR2 (28)	Identifies the type of record section: DATABASE CKPT PROGRESS REDO THREAD REDO LOG DATAFILE FILENAME TABLESPACE TEMPORARY FILENAME RMAN CONFIGURATION LOG HISTORY OFFLINE RANGE ARCHIVED LOG BACKUP SET BACKUP PIECE BACKUP PIECE BACKUP REDOLOG DATAFILE COPY BACKUP CORRUPTION COPY CORRUPTION COPY CORRUPTION PIECE PROXY COPY BACKUP SPFILE DATABASE INCARNATION FLASHBACK LOG RECOVERY DESTINATION INSTANCE SPACE RESERVATION REMOVABLE RECOVERY FILES RMAN STATUS THREAD INSTANCE NAME MAPPING MTTR MTTR
		• PLUGGED IN DATAFILE
RECORD_SIZE	NUMBER	Record size in bytes
ECORDS_TOTAL	NUMBER	Number of records allocated for the section
ECORDS_USED	NUMBER	Number of records used in the section
IRST_INDEX	NUMBER	Index (position) of the first record
AST_INDEX	NUMBER	Index of the last record
AST_RECID	NUMBER	Record ID of the last record
ON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.147 V\$COPY_CORRUPTION

V\$COPY_CORRUPTION displays information about data file copy corruptions from the control file.

Column	Datatype	Description
RECID	NUMBER	Copy corruption record ID
STAMP	NUMBER	Copy corruption record stamp
COPY_RECID	NUMBER	Data file copy record ID
COPY_STAMP	NUMBER	Data file copy record stamp
FILE#	NUMBER	Data file number
BLOCK#	NUMBER	First block of the corrupted range
BLOCKS	NUMBER	Number of contiguous blocks in the corrupted range
CORRUPTION_CHANGE#	NUMBER	Change number at which the logical corruption was detected. Set to ${\tt 0}$ to indicate media corruption.
MARKED_CORRUPT	VARCHAR2(3)	(YES NO) If set to YES the blocks were not marked corrupted in the data file, but were detected and marked as corrupted while making the data file copy
CORRUPTION_TYPE	VARCHAR2(9)	Type of block corruption in the data file:
		 ALL ZERO - Block header on disk contained only zeros. The block may be valid if it was never filled and if it is in an Oracle7 file. The buffer will be reformatted to the Oracle8 standard for an empty block. FRACTURED - Block header looks reasonable, but the front and back of the block are different versions. CHECKSUM - optional check value shows that the block is not self-consistent. It is impossible to determine exactly why the check value fails, but it probably fails because sectors in the middle of the block are from different versions. CORRUPT - Block is wrongly identified or is not a data block (for example, the data block address is missing) LOGICAL - Block is logically corrupt NOLOGGING - Block does not have redo log entries (for example, NOLOGGING operations on primary database can introduce this type of corruption on a physical standby)
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.148 V\$COPY_NONLOGGED

V\$COPY_NONLOGGED displays information about nonlogged block ranges in data file copy blocks, recorded in the control file.

Column	Datatype	Description
INST_ID	NUMBER	Instance ID
RECID	NUMBER	Nonlogged copy record ID
STAMP	NUMBER	Nonlogged copy record stamp
COPY_RECID	NUMBER	Data file copy record ID
COPY_STAMP	NUMBER	Data file copy record stamp
FILE#	NUMBER	Absolute file number of the data file that contains this range of nonlogged blocks
BLOCK#	NUMBER	Block number of the first nonlogged block in the range of nologged blocks
BLOCKS	NUMBER	Number of nonlogged blocks found starting with BLOCK#
NONLOGGED_CHANGE#	NUMBER	The smallest SCN on which any block in this block range became nonlogged. NULL if unknown.
NONLOGGED_TIME	VARCHAR2	The time that corresponds to NONLOGGED_CHANGE#. NULL if unknown.
RESETLOGS_CHANGE#	VARCHAR2	The resetlogs SCN of the incarnation on which this block range was firs marked as nonlogged. NULL if unknown.
RESETLOGS_TIME	VARCHAR2	The resetlogs time of the incarnation on which this block range was first marked as nologged. NULL if unknown.
OBJECT#	VARCHAR2	The object ID this range belongs to. If this field is NULL, the object number is unknown.
REASON	CHAR (7)	The reason why this block range appears in this list, for example, primary file offline, could not talk to primary, non-standby recovery, and so on. For Oracle Database 12c and later releases, it is always UNKNOWN.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.149 V\$CORRUPT_XID_LIST

 ${\tt V\$CORRUPT_XID_LIST} \ \ \textbf{displays} \ \ \textbf{all} \ \ \textbf{corrupted} \ \ \textbf{XIDs}.$

Column	Datatype	Description
CORRUPT_XID	VARCHAR2 (256)	Name of corrupt XID
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



8.150 V\$CPOOL_CC_INFO

 ${\tt V\$CPOOL_CC_INFO} \ displays \ information \ about \ the \ pool-to-connection \ class \ mapping \ for \ the \ Database \ Resident \ Connection \ Pool \ per \ instance.$

Column	Datatype	Description
POOL_NAME	VARCHAR2(1024)	Name of the Database Resident Connection Pool
CCLASS_NAME	VARCHAR2(1024)	Name of the connection class
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.151 V\$CPOOL_CC_STATS

 $\verb|V\$CPOOL_CC_STATS| \ displays information about the connection class level statistics for the Database Resident Connection Pool per instance.$

Column	Datatype	Description
POOL_NAME	VARCHAR2 (1024)	Name of the Database Resident Connection Pool
CCLASS_NAME	VARCHAR2 (1024)	Name of the connection class
NUM_REQUESTS	NUMBER	Number of session requests
NUM_HITS	NUMBER	Total number of times a session that matches with the request was found in the pool
NUM_MISSES	NUMBER	Total number of times an exact match to the request was not found in the pool and a new session had to be created
NUM_WAITS	NUMBER	Total number of times session requests had to wait before getting served
WAIT_TIME	NUMBER	Reserved for future use
CLIENT_REQ_TIMEOUTS	NUMBER	Reserved for future use
NUM_AUTHENTICATIONS	NUMBER	Total number of authentications of clients done by the pool
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data





This view returns data only when queried from a CDB root. When queried from a PDB, this view returns 0 rows.

8.152 V\$CPOOL_CONN_INFO

Column	Datatype	Description
CMON_ADDR	RAW (4 8)	Address of the connection broker
SESSION_ADDR	RAW(4 8)	Address of the session associated with the connection; NULL if the connection does not have an associated session
CONNECTION_ADDR	RAW(4 8)	Address of the connection
POOL_NAME	VARCHAR2 (1024)	Name of the Database Resident Connection Pool
USERNAME	VARCHAR2 (1024)	Name of the user associated with the connection
PROXY_USER	VARCHAR2 (1024)	Name of the proxy user
CCLASS_NAME	VARCHAR2 (1024)	Connection class associated with the connection
PURITY	VARCHAR2 (1024)	Purity used to create the connection (can be SELF or NEW)
TAG	VARCHAR2 (1024)	Tag, if specified, at connection creation time
SERVICE	VARCHAR2 (64)	TNS service name for the connection
PROCESS_ID	VARCHAR2 (24)	Client process ID of the process which created the connection
PROGRAM	VARCHAR2(84)	Program name of the client process which created the connection
MACHINE	VARCHAR2 (64)	Machine name of the client process which created the connection
TERMINAL	VARCHAR2(30)	Terminal identifier of the client process which created the connection
CONNECTION_MODE	VARCHAR2 (1024)	Reserved for internal use
CONNECTION_STATUS	VARCHAR2 (10)	 Status of the connection: NONE CONNECTING ACTIVE: A pooled server has been mapped to this connection. WAITING: The connection is waiting for a pooled server based on the client request. IDLE: No pooled server has been mapped to this connection and there is no request to map one. CLOSING
CLIENT_REGID	NUMBER	Query cache registration ID sent by the client
CURSTATUS_TIME	NUMBER	Time in microseconds spent in the current state. See CONNECTION_STATUS above.
IDLE_TIME	NUMBER	Total time in IDLE state for the connection (in microseconds)
ACTIVE_TIME	NUMBER	Total time in ACTIVE state for the connection (in microseconds)
WAIT_TIME	NUMBER	Total time in WAITING state for the connection (in microseconds)
THINK_TIME	NUMBER	Total think time for the connection assigned to the pooled server, but no doing any database activity (in microseconds)
LAST_IDLE_TIME	NUMBER	Time in last IDLE state for this connection (in microseconds)



Column	Datatype	Description
LAST_ACTIVE_TIME	NUMBER	Time in last ACTIVE state for this connection (in microseconds)
LAST_WAIT_TIME	NUMBER	Time in last WAITING state for this connection (in microseconds)
LAST_THINK_TIME	NUMBER	Time for the connection assigned to the pooled server, but not doing any database activity during the last ACTIVE state (in microseconds)
NUMGETS	NUMBER	Total number of requests at the connection level
NUMHITS	NUMBER	Total number of hits at the connection level
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.153 V\$CPOOL_STATS

 ${\tt V\$CPOOL_STATS} \ displays \ information \ about \ the \ Database \ Resident \ Connection \ Pool \ statistics \ for \ an instance.$

Column	Datatype	Description
POOL_NAME	VARCHAR2 (1024)	Name of the Database Resident Connection Pool
NUM_OPEN_SERVERS	NUMBER	Total number of busy and free servers in the pool (including the authentication servers)
NUM_BUSY_SERVERS	NUMBER	Total number of busy servers in the pool (not including the authentication servers)
NUM_AUTH_SERVERS	NUMBER	Number of authentication servers in the pool
NUM_REQUESTS	NUMBER	Number of client requests
NUM_HITS	NUMBER	Total number of times client requests found matching pooled servers in the pool
NUM_MISSES	NUMBER	Total number of times client requests could not find a matching pooled server in the pool
NUM_WAITS	NUMBER	Total number of client requests that had to wait due to non-availability of free pooled servers
WAIT_TIME	NUMBER	Reserved for future use
CLIENT_REQ_TIMEOUTS	NUMBER	Reserved for future use
NUM_AUTHENTICATIONS	NUMBER	Total number of authentications of clients done by the pool
NUM_PURGED	NUMBER	Total number of sessions purged by the pool
HISTORIC_MAX	NUMBER	Maximum size that the pool has ever reached



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

Note:

This view returns data only when queried from a CDB root. When queried from a PDB, this view returns 0 rows.

8.154 V\$CR_BLOCK_SERVER

 ${\tt V\$CR_BLOCK_SERVER} \ \ \textbf{displays} \ \ \textbf{statistics} \ \ \textbf{on the Global Cache Service processes} \ \ \textbf{(LMS)} \ \ \textbf{used in cache fusion}.$

Column	Datatype	Description
CR_REQUESTS	NUMBER	Number of CR blocks served due to remote CR block requests
CURRENT_REQUESTS	NUMBER	Number of current blocks served due to remote CR block requests CR_REQUESTS + CURRENT_REQUESTS = global cache CR clocks served (from V\$SYSSTAT).
DATA_REQUESTS	NUMBER	Number of current or CR requests for data blocks
UNDO_REQUESTS	NUMBER	Number of CR requests for undo blocks
TX_REQUESTS	NUMBER	Number of CR requests for undo segment header blocks
OTHER_REQUESTS	NUMBER	Number of CR requests for other types of blocks
		DATA_REQUESTS + UNDO_REQUESTS + TX_REQUESTS + OTHER_REQUESTS = total number of requests handled by the LMS processes
CURRENT_RESULTS	NUMBER	Number of requests for which no changes were rolled out of the block returned to the requesting instance
PRIVATE_RESULTS	NUMBER	Number of requests for which changes were rolled out of the block returned to the requesting instance, and only the requesting transaction can use the resulting CR block
ZERO_RESULTS	NUMBER	Number of requests for which changes were rolled out of the block returned to the requesting instance. Only zero-XID transactions can use the block.
DISK_READ_RESULTS	NUMBER	Number of requests for which the requesting instance had to read the requested block from disk
FAIL_RESULTS	NUMBER	Number of requests that failed; the requesting transaction must reissue the request
STALE	NUMBER	Number of requests for which the disk read of the requested block was stale



Column	Datatype	Description
FAIRNESS_DOWN_CONVERTS	NUMBER	Number of times an instance receiving a request has down-converted an X lock on a block because it was not modifying the block
FAIRNESS_CLEARS	NUMBER	Number of times the "fairness counter" was cleared. This counter tracks the number of times a block was modified after it was served.
FREE_GC_ELEMENTS	NUMBER	Number of times a request was received from another instance and the X lock had no buffers
FLUSHES	NUMBER	Number of times the log has been flushed by an LMS process
FLUSHES_QUEUED	NUMBER	Number of flushes queued by an LMS process
FLUSH_QUEUE_FULL	NUMBER	Number of times the flush queue was full
FLUSH_MAX_TIME	NUMBER	Maximum time for flush
LIGHT_WORKS	NUMBER	Number of times the light-work rule was evoked. This rule prevents the LMS processes from going to disk while responding to CR requests for data, undo, or undo segment header blocks. This rule can prevent the LMS process from completing its response to the CR request.
ERRORS	NUMBER	Number of times an error was signalled by an LMS process
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



This view contains internal diagnostic information for use by Oracle Support Services. It is subject to change without notice.

8.155 V\$CURRENT_BLOCK_SERVER

 ${\tt V\$CURRENT_BLOCK_SERVER} \ \ \textbf{displays statistics on the Global Cache Service processes (LMS)} \\ \textbf{used in cache fusion}.$

Datatype	Description
NUMBER	Pins taking less than 10 microseconds
NUMBER	Pins taking 10 to 100 microseconds
NUMBER	Pins taking 100 microseconds to 1 millisecond
NUMBER	Pins taking 1 to 10 milliseconds
NUMBER	Pins taking 10 to 100 milliseconds
NUMBER	Pins taking 100 to 1000 milliseconds
NUMBER	Pins taking 1000 to 10000 milliseconds
NUMBER	Pins taking more than 10000 milliseconds
NUMBER	Flushes taking less than 10 microseconds
	NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER NUMBER



Column	Datatype	Description
FLUSH0	NUMBER	Flushes taking 10 to 100 microseconds
FLUSH1	NUMBER	Flushes taking 100 microseconds to 1 millisecond
FLUSH10	NUMBER	Flushes taking 1 to 10 milliseconds
FLUSH100	NUMBER	Flushes taking 10 to 100 milliseconds
FLUSH1000	NUMBER	Flushes taking 100 to 1000 milliseconds
FLUSH10000	NUMBER	Flushes taking 1000 to 10000 milliseconds
FLUSHOVER	NUMBER	Flushes taking more than 10000 milliseconds
CLEANDC	NUMBER	Reserved for internal use
RCVDC	NUMBER	Number of lock down-converts to S (shared) caused by instance recovery
QUEUEDC	NUMBER	Number of queued lock down-converts to NULL
EVICTDC	NUMBER	Number of lock down-converts to NULL caused by an SGA shrink
WRITEDC	NUMBER	Number of dirty blocks in read-mostly objects which were written and the X (exclusive) lock down-converted to S (shared) locks
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

¹ This column is available starting with Oracle Database 23ai, Release Update 23.8.

8.156 V\$DATABASE

 ${\tt V\$DATABASE} \ displays \ information \ about \ the \ database \ from \ the \ control \ file.$

Column	Datatype	Description
DBID	NUMBER	Database identifier calculated when the database is created and stored in all file headers
NAME	VARCHAR2(9)	Name of the database
CREATED	DATE	Creation date of the database. If the control file was re-created using the CREATE CONTROLFILE statement, then this column displays the date that the control file was re-created.
RESETLOGS_CHANGE#	NUMBER	System change number (SCN) at open resetlogs
RESETLOGS_TIME	DATE	Timestamp of open resetlogs
PRIOR_RESETLOGS_CHANGE#	NUMBER	SCN at prior resetlogs
PRIOR_RESETLOGS_TIME	DATE	Timestamp of prior resetlogs
LOG_MODE	VARCHAR2 (12)	Archive log mode: NOARCHIVELOG ARCHIVELOG MANUAL
CHECKPOINT_CHANGE#	NUMBER	Last SCN checkpointed



Column	Datatype	Description
ARCHIVE_CHANGE#	NUMBER	Database force archiving SCN. Any redo log with a start SCN below this will be forced to archive out.
CONTROLFILE_TYPE	VARCHAR2 (10)	Type of control file: BACKUP CREATED - Indicates the database is being recovered using a backup or created control file CLONE - Indicates a clone database CURRENT - Indicates that the database is available for general use FARSYNC - Indicates that the instance is a Far Sync instance STANDBY - Indicates that the database is in standby mode TRUE CACHE - Indicates that the instance is a True Cache
CONTROLFILE_CREATED	DATE	Creation date of the control file
CONTROLFILE_SEQUENCE#	NUMBER	Control file sequence number incremented by control file transactions
CONTROLFILE_CHANGE#	NUMBER	Last SCN in backup control file; null if the control file is not a backup
CONTROLFILE_TIME	DATE	Last timestamp in backup control file; null if the control file is not a backup
OPEN_RESETLOGS	VARCHAR2(11)	(NOT ALLOWED ALLOWED REQUIRED) Indicates whether the next database open allows or requires the resetlogs option
VERSION_TIME	DATE	Version time
OPEN_MODE	VARCHAR2(20)	Open mode information: MOUNTED READ WRITE READ ONLY READ ONLY WITH APPLY - A physical standby database is open in real-time query mode
PROTECTION_MODE	VARCHAR2 (20)	Protection mode currently in effect for the database: MAXIMUM PROTECTION - Database is running in maximized protection mode MAXIMUM AVAILABILITY - Database is running in maximized availability mode RESYNCHRONIZATION - Database is running in resynchronization mode MAXIMUM PERFORMANCE - Database is running in maximized
		 Performance mode UNPROTECTED - Database is unprotected (this normally occurs when the primary database is mounted and not open)
PROTECTION_LEVEL	VARCHAR2 (20)	Aggregated protection mode currently in effect for the database: MAXIMUM PROTECTION - Database is running in maximized protection mode MAXIMUM AVAILABILITY - Database is running in maximized availability mode RESYNCHRONIZATION - Database is running in resynchronization mode MAXIMUM PERFORMANCE - Database is running in maximized performance mode UNPROTECTED - Database is unprotected (this normally occurs when the primary database is mounted and not open) Note: This column is an aggregation of the PROTECTION_MODE of all standby archive log destinations.
REMOTE_ARCHIVE	VARCHAR2(8)	Value of the REMOTE_ARCHIVE_ENABLE initialization parameter



Column	Datatype	Description
ACTIVATION#	NUMBER	<u>'</u>
ACIIVATION#	NUMBER	Number assigned to the database instantiation
SWITCHOVER#	NUMBER	Number assigned to the database switchover
DATABASE_ROLE	VARCHAR2 (16)	Current role of the database:
		• SNAPSHOT STANDBY
		• LOGICAL STANDBY
		PHYSICAL STANDBY
		• PRIMARY
		• FAR SYNC
ARCHIVELOG_CHANGE#	NUMBER	Highest NEXT_CHANGE# (from the V\$ARCHIVED_LOG view) for an archive log
ARCHIVELOG_COMPRESSION	VARCHAR2(8)	Status of the archive log compression (ENABLED) or (DISABLED)



Column	Datatype	Description
SWITCHOVER_STATUS	VARCHAR2 (20)	Indicates whether switchover is allowed:
		 NOT ALLOWED - On a primary database, this status indicates that there are no valid and enabled standby databases. On a standby database, this status indicates that a switchover request has not been received from the primary database.
		 SESSIONS ACTIVE - The database has active sessions. On a physical standby database, the WITH SESSION SHUTDOWN SQL clause must be specified to perform a role transition while in this state. On a logical standby database, a role transition can be performed while in this state, but the role transition will not complete until all current transactions have committed.
		 SWITCHOVER PENDING - On a physical standby database, this status indicates that a switchover request has been received from the primary database and is being processed. A physical standby database cannot switch to the primary role while in this transient state.
		 SWITCHOVER LATENT - On a physical standby database, this status indicates that a switchover request was pending, but the original primary database has been switched back to the primary role.
		 TO PRIMARY - The database is ready to switch to the primary role.
		 TO STANDBY - The database is ready to switch to either the physical or logical standby role.
		 TO LOGICAL STANDBY - The database has received a data dictionary from a logical standby database and is ready to switch to the logical standby role.
		 RECOVERY NEEDED - On a physical standby database, this status indicates that additional redo must be applied before the database can switch to the primary role.
		 PREPARING SWITCHOVER - On a primary database, this status indicates that a data dictionary is being received from a logical standby database in preparation for switching to the logical standby role. On a logical standby database, this status indicates that the data dictionary has been sent to the primary database and other standby databases.
		 PREPARING DICTIONARY - On a logical standby database, this status indicates that the data dictionary is being sent to the primary database and other standby databases in preparation for switching to the primary role.
		• FAILED DESTINATION - On a primary database, this status indicates that one or more standby destinations are in an error state.
		 RESOLVABLE GAP - On a primary database, this status indicates that one or more standby databases have a redo gap that can be automatically resolved by fetching the missing redo from the primary database or from another standby database.
		 UNRESOLVABLE GAP - On a primary database, this status indicates that one or more standby databases have a redo gap that cannot be automatically resolved by fetching the missing redo from the primary database or from another standby database.
		 LOG SWITCH GAP - On a primary database, this status indicates that one or more standby databases are missing redo due to a recent log switch.



Column	Datatype	Description
DATAGUARD_BROKER	VARCHAR2(8)	 Data Guard broker information: ENABLED - Database is part of a broker configuration and broker management of the database is enabled DISABLED - Database is part of a broker configuration and broker management of the database is disabled. This value is displayed if the user disabled broker management of the database or configuration, or if broker management was disabled due to a role change (for example, the old primary was disabled after a failover operation).
GUARD_STATUS	VARCHAR2 (7)	 Protects data from being changed: ALL - Indicates all users other than SYS are prevented from making changes to any data in the database. STANDBY - Indicates all users other than SYS are prevented from making changes to any database object being maintained by logical standby. NONE - Indicates normal security for all data in the database.
SUPPLEMENTAL_LOG_DATA_MIN	VARCHAR2(8)	 Ensures that LogMiner (and any products building on LogMiner technology) will have sufficient information to support chained rows and various storage arrangements such as cluster tables: NO - None of the database-wide supplemental logging directives are enabled. In a CDB, a value of NO means that minimal supplemental logging is not enabled in all of the PDBs in the CDB. IMPLICIT - Minimal supplemental logging is enabled because all or a combination of primary key, unique key, and foreign key supplemental logging is enabled YES - Minimal supplemental logging is enabled through an ALTER DATABASE ADD SUPPLEMENTAL LOG DATA statement. In a CDB, a value of YES means that minimal supplemental logging is enabled in all of the PDBs in the CDB. See Also: Oracle Database SQL Language Reference for additional information about the ALTER DATABASE ADD SUPPLEMENTAL LOG DATA statement
SUPPLEMENTAL_LOG_DATA_PK	VARCHAR2(3)	For all tables with a primary key, indicates whether all columns of the primary key are placed into the redo log whenever an update is performed (YES) or not (NO). When a value of YES appears in a CDB, it means that primary key supplemental logging is enabled in all of the PDBs in the CDB. When a value of NO appears in a CDB, query the PRIMARY_KEY column in the DBA_SUPPLEMENTAL_LOGGING view for each PDB in the CDB to see whether primary key supplemental logging is enabled in the PDB. See Also: Oracle Database SQL Language Reference for more information about the ALTER DATABASE ADD SUPPLEMENTAL LOG supplemental_id_key_clause statement

Column	Datatype	Description
SUPPLEMENTAL_LOG_DATA_UI	VARCHAR2(3)	For all tables with a unique key, indicates whether all other columns belonging to the unique key are placed into the redo log if any of the unique key columns are modified (YES) or not (NO).
		When a value of YES appears in a CDB, it means that this value is enabled in all of the PDBs in the CDB.
		When a value of NO appears in a CDB, query the UNIQUE_INDEX column in the DBA_SUPPLEMENTAL_LOGGING view for each PDB in the CDB to see whether unique column supplemental logging is enabled in the PDB.
		See Also: Oracle Database SQL Language Reference for more information about the ALTER DATABASE ADD SUPPLEMENTAL LOG supplemental_id_key_clause statement
FORCE_LOGGING	VARCHAR2(39)	Indicates the type of logging mode that is currently in force. The valid values and their meanings are:
		 No - This value means that no logging mode has been enabled for the database
		 YES - This value means that FORCE LOGGING mode has been enabled for the database
		 STANDBY NOLOGGING FOR LOAD PERFORMANCE - This value is used when this is the current mode for the database STANDBY NOLOGGING FOR DATA AVAILABILITY - This value is used
PLATFORM ID	NUMBER	when this is the current mode for the database Platform identification number of the database
PLATFORM NAME	VARCHAR2 (101)	Platform name of the database
RECOVERY_TARGET_INCARNAT		The incarnation number to which all datafiles would be recovered by the RECOVER DATABASE command
LAST_OPEN_INCARNATION#	NUMBER	Record number of the incarnation in V\$DATABASE_INCARNATION that was last opened successfully
CURRENT_SCN	NUMBER	Current SCN; null if the database is not currently open. For a standby database, it is the checkpoint SCN of the mounted physical standby database during media recovery and is always less than the last applied SCN tracked in V\$RECOVERY_PROGRESS.
FLASHBACK_ON	VARCHAR2 (18)	Possible values are as follows:
		YES - Flashback is on
		 NO - Flashback is off RESTORE POINT ONLY - Flashback is on but one can only flashback to guaranteed restore points
SUPPLEMENTAL_LOG_DATA_FK	VARCHAR2(3)	For all tables with a foreign key, indicates whether all other columns belonging to the foreign key are placed into the redo log if any foreign key columns are modified (YES) or not (NO).
		When a value of YES appears in a CDB, it means that foreign key supplemental logging is enabled in all of the PDBs in the CDB.
		When a value of NO appears in a CDB, query the FOREIGN_KEY column in the DBA_SUPPLEMENTAL_LOGGING view for each PDB in the CDB to see whether foreign key supplemental logging is enabled in the PDB.
		See Also: Oracle Database SQL Language Reference for more information about the ALTER DATABASE ADD SUPPLEMENTAL LOG
		supplemental_id_key_clause statement

Column	Datatype	Description
SUPPLEMENTAL_LOG_DATA_AL L	VARCHAR2(3)	For all columns, indicates whether all the fixed-length maximum size columns of that row are placed into the redo log (YES) or not (NO). When a value of YES appears in a CDB, it means that all column supplemental logging is enabled in all of the PDBs in the CDB.
		When a value of NO appears in a CDB, query the ALL_COLUMN column in the DBA_SUPPLEMENTAL_LOGGING view for each PDB in the CDB to see whether all column supplemental logging is enabled in the PDB.
		See Also: Oracle Database SQL Language Reference for more information about the ALTER DATABASE ADD SUPPLEMENTAL LOG supplemental_id_key_clause statement
DB_UNIQUE_NAME	VARCHAR2(30)	Unique database name
STANDBY_BECAME_PRIMARY_S CN	NUMBER	SCN at which a physical standby database became a primary database. This SCN is useful for converting a failed primary database into a physical standby database after a forced failover.
		See Also: Oracle Data Guard Concepts and Administration for more information about Oracle Data Guard.
FS_FAILOVER_MODE ¹	VARCHAR2 (19)	Displays the current fast-start failover mode. Possible values are: • DISABLED - Fast-start failover is disabled.
		OBSERVE-ONLY - Fast-start failover is enabled in test drive mode.
		 ZERO DATA LOSS - Fast-start failover is enabled and a fast-start failover cannot incur any data loss.
		POTENTIAL DATA LOSS - Fast-start failover is enabled and a fast-start failover can incur data loss within FastStartFailoverLagLimit seconds.
		See Also: Oracle Data Guard Broker for more information about the FastStartFailoverLagLimit configuration property
FS_FAILOVER_STATUS ¹	VARCHAR2(22)	Fast-start failover status:
		• DISABLED
		BYSTANDER SYNCHRONIZED
		• UNSYNCHRONIZED
		• SUSPENDED
		• STALLED
		LOADING DICTIONARY DRIMARY INORGENIED
		 PRIMARY UNOBSERVED REINSTATE REQUIRED
		• REINSTATE FAILED
		TARGET OVER LAG LIMIT
		TARGET UNDER LAG LIMIT
		See Also: Oracle Data Guard Broker for detailed descriptions of these values
		Note: If the value of this column is DISABLED, then the values for the FS_FAILOVER_CURRENT_TARGET, FS_FAILOVER_THRESHOLD, FS_FAILOVER_OBSERVER_PRESENT, and FS_FAILOVER_OBSERVER_HOST columns in this table are not meaningful.
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	VARCHAR2(30)	DB_UNIQUE_NAME of the standby that is the current fail-safe failover observer target standby for the Data Guard configuration
FS_FAILOVER_THRESHOLD ¹	NUMBER	Time (in seconds) that the observer will attempt to reconnect with a disconnected primary before attempting fail-safe failover observer with the target standby



Column	Datatype	Description
FS_FAILOVER_OBSERVER_PRE SENT ¹	VARCHAR2 (7)	Indicates whether the master observer is currently connected to the local database (YES) or not (NO)
		Note: This column is consistent throughout an Oracle RAC environment; that is, if the observer is connected to any instance, then all instances will show a value of YES.
FS_FAILOVER_OBSERVER_HOS T1	VARCHAR2 (512)	Machine name that is currently hosting the master observer process, if fast-start failover is enabled. If fast-start failover is not enabled, this column returns a NULL string.
CONTROLFILE_CONVERTED	VARCHAR2(3)	Indicates whether the control file was implicitly converted from its original type during restore (YES) or not (NO)
		This column will be set to YES when RMAN restores a standby control file from a backup of the control file taken at the primary database or restores a backup control file from a backup taken at the physical standby database.
		This column will change to ${\tt NO}$ when the file names are fixed using information in the recovery catalog schema.
PRIMARY_DB_UNIQUE_NAME	VARCHAR2(30)	For any Standby database (Physical, Logical, or Snapshot), this column will contain the <code>DB_UNIQUE_NAME</code> of the Primary database that this Standby last received current redo from.
		If this standby has not received any current redo since last being started, then this column will be null.
		For a Primary database that had previously been a Standby, this column will contain the <code>DB_UNIQUE_NAME</code> of the last Primary that this database received current redo from while acting as a Standby.
		For a Primary database that has never been a Standby, this column will be null.
SUPPLEMENTAL_LOG_DATA_PL	VARCHAR2(3)	Indicates whether additional information is logged in the redo log (YES) or not (NO) during invocation of procedures in Oracle-supplied packages for which procedural replication is supported. When a value of YES appears in a CDB, it means that supplemental logging for procedural replication is enabled in all of the PDBs in the
		CDB.
		When a value of No appears in a CDB, query the PROCEDURAL column in the DBA_SUPPLEMENTAL_LOGGING view for each PDB in the CDB to see whether supplemental logging for procedural replication is supported in the PDB.
		See Also: Oracle Data Guard Concepts and Administration for a list of Oracle-supplied packages that are procedurally replicated to a logical standby database
MIN_REQUIRED_CAPTURE_CHANGE#	NUMBER	Minimum REQUIRED_CHECKPOINT_SCN for all local capture processes on the database
CDB	VARCHAR2(3)	Possible values are:
		YES if the database is a CDB
		 NO if the database is not a CDB



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
PENDING_ROLE_CHANGE_TASK S	VARCHAR2 (512)	Tasks remaining after an Oracle Data Guard role change. Possible values:
		NONE: No pending tasks remain
		 NOT APPLICABLE: The database is either standby or is not a DG_CONFIG member
		 BUILD_PENDING: The database was formerly a logical standby and has not yet taken a snapshot of its data dictionary into the redo stream
		 SRL_ARCHIVE_PENDING: The database was formerly a logical standby and the standby redo logs associated with the earlier failover operation have not yet been archived
		ERROR: The database was formerly a logical standby and the snapshot of the dictionary failed
		UNKNOWN: The database is not open or the query failed
CON_DBID	NUMBER	The database ID of the PDB
FORCE_FULL_DB_CACHING	VARCHAR2(3)	Indicates the status of the force full database caching feature in the database. Possible values:
		YES - The database is in force full database caching mode.
		 NO - The database is not in force full database caching mode.
		See Also: Oracle Database SQL Language Reference for information about the FORCE FULL DATABASE CACHING clause for the ALTER DATABASE statement
SUPPLEMENTAL_LOG_DATA_SR	VARCHAR2(3)	Indicates whether the database is enabled for subset database replication (YES) or not (NO). If the database is enabled for subset database replication, then redo overhead and feature restriction for tables without column data supplemental logging will be reduced.
GOLDENGATE_BLOCKING_MODE	VARCHAR2(8)	Reserved for future use

Oracle Database 23ai introduces the V\$FAST_START_FAILOVER_CONFIG view, which contains configuration details about Oracle Data Guard fast-start failover. As a result, the FS_FAILOVER_* columns in the V\$DATABASE view are deprecated. Instead, use the corresponding columns in the V\$FAST_START_FAILOVER_CONFIG view. See "V\$FAST_START_FAILOVER_CONFIG" for more information.



"DBA_SUPPLEMENTAL_LOGGING" for more information about supplemental logging in a PDB



8.157 V\$DATABASE_BLOCK_CORRUPTION

 ${\tt V$DATABASE_BLOCK_CORRUPTION} \ displays \ information \ about \ database \ blocks \ that \ were \ corrupted \ after \ the \ last \ backup.$

Column	Datatype	Description
FILE#	NUMBER	Absolute file number of the data file that contains the corrupt blocks
BLOCK#	NUMBER	Block number of the first corrupt block in the range of corrupted blocks
BLOCKS	NUMBER	Number of corrupted blocks found starting with BLOCK#
CORRUPTION_CHANGE#	NUMBER	Change number at which the logical corruption was detected. Set to 0 to indicate media corruption.
CORRUPTION_TYPE	VARCHAR2(9)	Type of block corruption in the data file:
		 ALL ZERO - Block header on disk contained only zeros. The block may be valid if it was never filled and if it is in an Oracle7 file. The buffer will be reformatted to the Oracle8 standard for an empty block. FRACTURED - Block header looks reasonable, but the front and back of the block are different versions. CHECKSUM - optional check value shows that the block is not self-consistent. It is impossible to determine exactly why the check value fails, but it probably fails because sectors in the middle of the block are from different versions. CORRUPT - Block is wrongly identified or is not a data block (for example, the data block address is missing) LOGICAL - Block is logically corrupt
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values
		 include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

See Also:

"V\$NONLOGGED_BLOCK" for information about nonlogged blocks

8.158 V\$DATABASE_INCARNATION

V\$DATABASE INCARNATION displays information about all database incarnations.

Oracle creates a new incarnation whenever a database is opened with the RESETLOGS option. Records about the current and immediately previous incarnation are also contained in the V\$DATABASE view.

Column	Datatype	Description
INCARNATION#	NUMBER	Record ID for the branch record in the control file



Column	Datatype	Description
RESETLOGS_CHANGE#	NUMBER	Resetlogs system change number (SCN) for the incarnation of the current row
RESETLOGS_TIME	DATE	Resetlogs timestamp for the incarnation of the current row
PRIOR_RESETLOGS_CHANGE#	NUMBER	Resetlogs SCN for the previous incarnation
PRIOR_RESETLOGS_TIME	DATE	Resetlogs timestamp for the previous incarnation
STATUS	VARCHAR2(7)	Incarnation status:
		ORPHAN - Orphan incarnation
		 CURRENT - Current incarnation of the database
		Parent - Parent of the current incarnation
RESETLOGS_ID	NUMBER	Branch ID for the incarnation of the current row (used by user-managed recovery/RMAN restore to get unique names for archived logs across incarnations)
PRIOR_INCARNATION#	NUMBER	Parent incarnation record ID if nonzero
FLASHBACK_DATABASE_ALLOW ED	VARCHAR2 (26)	Indicate whether or not Flashback Database can be performed into SCNs or timestamps in the incarnation. A value of YES means that you can flashback to some point in that incarnation. A value of NO indicates that you cannot flashback into the incarnation.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

"V\$DATABASE"

8.159 V\$DATABASE_KEY_INFO

V\$DATABASE_KEY_INFO provides the information of the default database key used to encrypt data blocks. Oracle uses the database key to encrypt sensitive information in SYSTEM, UNDO, and TEMP tablespaces when such data has dependency from encrypted tablespaces or encrypted columns

V\$DATABASE_KEY_INFO reflects the database key information stored in the control file. Generally it is the same as the system tablespace key recorded in the system tablespace. If the system tablespace is encrypted, it will also appear in V\$ENCRYPTED_TABLESPACES. If the system tablespace is not encrypted, this is the only view providing this information.



Column	Datatype	Description
ENCRYPTIONALG	VARCHAR2(7)	Encryption algorithm: NONE AES168 AES128 AES192 AES256 AES256 AES256 is the default encryption algorithm.
ENCRYPTEDKEY	RAW(48)	Encrypted version of the database key
MASTERKEYID	RAW(16)	ID of the master key that was used to encrypt the database key
MASTER_ACTIVATED	VARCHAR2(3)	Indicates whether the master key has been set (YES) or not (NO) for this database or container in the Oracle Key Store. In other words, indicates whether Transparent Data Encryption (TDE) has been activated for this database or container
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



"V\$ENCRYPTED_TABLESPACES"

8.160 V\$DATAFILE

V\$DATAFILE displays datafile information from the control file.

See Also:

"V\$DATAFILE_HEADER", which displays information from data file headers

Column	Datatype	Description
FILE#	NUMBER	Absolute file number
CREATION_CHANGE#	NUMBER	Change number at which the data file was created
CREATION_TIME	DATE	Timestamp of the data file creation
TS#	NUMBER	Tablespace number
RFILE#	NUMBER	Tablespace relative data file number
STATUS	VARCHAR2(7)	Type of file (system or user) and its status. Values: OFFLINE, ONLINE, SYSTEM, RECOVER, SYSOFF (an offline file from the SYSTEM tablespace)



Column	Datatype	Description
ENABLED	VARCHAR2(10)	Describes how accessible the file is from SQL:
		 DISABLED - No SQL access allowed
		 READ ONLY - No SQL updates allowed
		READ WRITE - Full access allowed
		UNKNOWN - Unknown whether SQL updates would be allowed or no
CHECKPOINT_CHANGE#	NUMBER	SCN at last checkpoint
CHECKPOINT_TIME	DATE	Timestamp of the checkpoint#
UNRECOVERABLE_CHANGE#	NUMBER	Last unrecoverable change number made to this data file. If the database is in ARCHIVELOG mode, then this column is updated when an unrecoverable operation completes. If the database is not in ARCHIVELOG mode, this column does not get updated.
UNRECOVERABLE_TIME	DATE	Timestamp of the last unrecoverable change. This column is updated only if the database is in ARCHIVELOG mode.
LAST_CHANGE#	NUMBER	Last change number made to this data file (null if the data file is being changed)
LAST_TIME	DATE	Timestamp of the last change
OFFLINE_CHANGE#	NUMBER	Offline change number of the last offline range. This column is updated only when the data file is brought online.
ONLINE_CHANGE#	NUMBER	Online change number of the last offline range
ONLINE_TIME	DATE	Online timestamp of the last offline range
BYTES	NUMBER	Current data file size (in bytes); 0 if inaccessible
BLOCKS	NUMBER	Current data file size (in blocks); 0 if inaccessible
CREATE_BYTES	NUMBER	Size when created (in bytes)
BLOCK_SIZE	NUMBER	Block size of the data file
NAME	VARCHAR2 (513)	Name of the data file
PLUGGED_IN	NUMBER	Describes whether the tablespace is plugged in. The value is 1 if the tablespace is plugged in and has not been made read/write, 0 if not.
BLOCK1_OFFSET	NUMBER	Offset from the beginning of the file to where the Oracle generic information begins. The exact length of the file can be computed as follows: BYTES + BLOCK1_OFFSET.
AUX_NAME	VARCHAR2 (513)	Auxiliary name that has been set for this file via CONFIGURE AUXNAME
FIRST_NONLOGGED_SCN	NUMBER	First nonlogged SCN (check in standby database)
FIRST_NONLOGGED_TIME	DATE	First nonlogged time (check in standby database)
FOREIGN_DBID	NUMBER	Foreign DBID from which this data file came from. The value is 0 if this file is not a foreign database file.
FOREIGN_CREATION_CHANGE#	NUMBER	Creation SCN of a foreign data file. The value is 0 if this file is not a foreign database file.
FOREIGN_CREATION_TIME	DATE	Creation time of a foreign data file. The value is 0 if this file is not a foreign database file.
PLUGGED_READONLY	VARCHAR2(3)	YES if this is a transported read-only foreign file; otherwise NO.
PLUGIN_CHANGE#	NUMBER	SCN at which the foreign data file was transported into the database. The value is 0 if this file is not a foreign database file.
PLUGIN_RESETLOGS_CHANGE#	NUMBER	The SCN of the RESETLOGS operation for the incarnation into which this foreign file was transported. The value is 0 if this file is not a foreign database file.



Column	Datatype	Description
PLUGIN_RESETLOGS_TIME	DATE	The time of the RESETLOGS operation for the incarnation into which this foreign file was transported. The value is 0 if this file is not a foreign database file.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.161 V\$DATAFILE_COPY

 ${\tt V\$DATAFILE_COPY} \ \textbf{displays} \ \textbf{data file copy information from the control file.}$

Column	Datatype	Description
RECID	NUMBER	Data file copy record ID
STAMP	NUMBER	Data file copy record stamp
NAME	VARCHAR2 (513)	File name of the data file copy. The maximum length of the name is operating system dependent.
TAG	VARCHAR2 (32)	Data file copy tag
FILE#	NUMBER	Absolute data file number
RFILE#	NUMBER	Tablespace relative data file number
CREATION_CHANGE#	NUMBER	Data file creation change#
CREATION_TIME	DATE	Data file creation timestamp
RESETLOGS_CHANGE#	NUMBER	Resetlogs change number of the data file when the copy was made
RESETLOGS_TIME	DATE	Resetlogs timestamp of the data file when the copy was made
INCREMENTAL_LEVEL	NUMBER	Normal full backups have a NULL value, level 0 incremental backups have a value of 0, and level 1 incremental backups have a value of 1
CHECKPOINT_CHANGE#	NUMBER	Checkpoint change number of the data file when the copy was made
CHECKPOINT_TIME	DATE	Checkpoint timestamp of the data file when the copy was made
ABSOLUTE_FUZZY_CHANGE#	NUMBER	Highest change seen when the data file was copied
RECOVERY_FUZZY_CHANGE#	NUMBER	Highest change written to the file by media recovery
RECOVERY_FUZZY_TIME	DATE	Timestamp of the highest change written to the file by media recovery
ONLINE_FUZZY	VARCHAR2(3)	(YES NO) If set to YES, this is a copy taken using an operating system utility after a crash or offline immediate (or an invalid copy taken while data file was online and the database open). Recovery will need to apply all redo up to the next crash recovery marker to make the file consistent.
BACKUP_FUZZY	VARCHAR2(3)	(YES NO) If set to YES, this is a copy taken using the BEGIN BACKUP/END BACKUP technique. Recovery will need to apply all redo up to the end backup marker to make this copy consistent.



Column	Datatype	Description
MARKED_CORRUPT	NUMBER	Number of blocks marked corrupt by this copy operation. That is, blocks that were not marked corrupted in the source data file, but were detected and marked as corrupted during the copy operation.
MEDIA_CORRUPT	NUMBER	Total number of media corrupt blocks. For example, blocks with checksum errors are marked media corrupt.
LOGICALLY_CORRUPT	NUMBER	Total number of logically corrupt blocks. For example, applying redo for unrecoverable operations will mark affected blocks logically corrupt.
BLOCKS	NUMBER	Size of the data file copy in blocks (also the size of the data file when the copy was made)
BLOCK_SIZE	NUMBER	Block size of the data file
OLDEST_OFFLINE_RANGE	NUMBER	RECID of the oldest offline range record in this control file copy; 0 for data file copies
DELETED	VARCHAR2(3)	(YES NO) If set to YES the data file copy has been deleted or overwritten
STATUS	VARCHAR2(1)	Identifies the status of this data file copy. Possible values are: A - Available D - Deleted U - Unavailable X - Expired
COMPLETION TIME	DATE	Time when the copy was completed
CONTROLFILE TYPE	VARCHAR2(1)	B indicates normal copies
_	,	s indicates standby copies
KEEP	VARCHAR2(3)	(YES/NO) Indicates whether or not this backup set has a retention policy that is different than the value for the configure retention policy
KEEP_UNTIL	DATE	If <code>KEEP_UNTIL</code> is specified, this is the date after which the backup becomes obsolete. If this column is null, then the backup never expires.
KEEP_OPTIONS	VARCHAR2(11)	Lists additional retention options for this backup set. Possible values are:
		LOGS - The logs need to recover this backup are kept
		NOLOGS - The logs needed to recover this backup will not be kept
SCANNED	VARCHAR2(3)	Indicates whether RMAN scanned the file (YES) or not (NO)
IS_RECOVERY_DEST_FILE	VARCHAR2(3)	Indicates whether the file was created in the fast recovery area (YES) or not (NO)
RMAN_STATUS_RECID	NUMBER	Owning V\$RMAN_STATUS record ID
RMAN_STATUS_STAMP	NUMBER	Owning V\$RMAN_STATUS record stamp
CONVERTED_FILE	VARCHAR2(3)	(YES/NO) Indicates whether or not the data file copy was created using the RMAN CONVERT command
SAME_ENDIAN	VARCHAR2(3)	If the value of the <code>CONVERTED_FILE</code> column is YES, then this column indicates whether the data file copy has the same endianness as the source data file (YES) or not (NO); otherwise NULL
FOREIGN_DBID	NUMBER	Foreign DBID from which this data file came from. The value is 0 if this file is not a foreign database file.
PLUGGED_READONLY	VARCHAR2(3)	${\tt YES}$ if this is a transported read-only foreign file; otherwise ${\tt NO}.$
PLUGIN_CHANGE#	NUMBER	SCN at which the foreign data file was transported into the database. The value is 0 if this file is not a foreign database file.



Column	Datatype	Description
PLUGIN_RESETLOGS_CHANGE#	NUMBER	The SCN of the RESETLOGS operation for the incarnation into which this foreign file was transported. The value is 0 if this file is not a foreign database file.
PLUGIN_RESETLOGS_TIME	DATE	The time of the RESETLOGS operation for the incarnation into which this foreign file was transported. The value is 0 if this file is not a foreign database file.
BACKED_BY_VSS	VARCHAR2(3)	Whether or not the file has been backed up by Volume Shadow Copy Service (VSS). This column is reserved for internal use.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
BACKED_BY_PDB	VARCHAR2(3)	Recovery Manager (RMAN) allows a PDB to be backed up in two ways. The value in this column indicates how the PDB backup was taken:
		 YES: The backup was taken when connected to the PDB
		No: The backup was taken when connected to the root container
SPARSE_BACKUP	VARCHAR2(3)	Indicates whether the file is sparse (YES) or not (NO)
GUID	RAW(16)	The GUID of the PDB to which the backup belongs. This is useful after the PDB is dropped to identify which PDB the backup belongs to.

8.162 V\$DATAFILE_HEADER

V\$DATAFILE_HEADER displays data file information from the data file headers.

Column	Datatype	Description
FILE#	NUMBER	Data file number (from control file)
STATUS	VARCHAR2(7)	ONLINE OFFLINE (from control file)
ERROR	VARCHAR2 (18)	NULL if the data file header read and validation were successful. If the read failed then the rest of the columns are NULL. If the validation failed then the rest of columns may display invalid data. If there is an error then usually the data file must be restored from a backup before it can be recovered or used.
FORMAT	NUMBER	Indicates the format for the header block. The possible values are 6, 7, 8, 10 or 0.
		6 - indicates Oracle Version 6
		7 - indicates Oracle Version 7
		8 - indicates Oracle Version 8
		10 - indicates Oracle Version 10
		0 - indicates the format could not be determined (for example, the header could not be read)
RECOVER	VARCHAR2(3)	File needs media recovery (YES NO)
FUZZY	VARCHAR2(3)	File is fuzzy (YES NO)
CREATION_CHANGE#	NUMBER	Data file creation change#



Column	Datatype	Description
CREATION_TIME	DATE	Data file creation timestamp
TABLESPACE_NAME	VARCHAR2(30)	Tablespace name
TS#	NUMBER	Tablespace number
RFILE#	NUMBER	Tablespace relative data file number
RESETLOGS_CHANGE#	NUMBER	Resetlogs change#
RESETLOGS_TIME	DATE	Resetlogs timestamp
CHECKPOINT_CHANGE#	NUMBER	Data file checkpoint change#
CHECKPOINT_TIME	DATE	Data file checkpoint timestamp
CHECKPOINT_COUNT	NUMBER	Data file checkpoint count
BYTES	NUMBER	Current data file size in bytes
BLOCKS	NUMBER	Current data file size in blocks
NAME	VARCHAR2 (513)	Data file name
SPACE_HEADER	VARCHAR2 (40)	Represents the block address of a space file header block of a locally managed data file
LAST_DEALLOC_CHANGE#	VARCHAR2 (16)	Last deallocated SCN
UNDO_OPT_CURRENT_CHANGE#	VARCHAR2 (40)	For internal use only
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the
		entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
IS_SPARSE	VARCHAR2(3)	Indicates whether the file is sparse (YES) or not (NO)
ENCRYPTED	VARCHAR2(3)	After file encryption is completed, this column indicates whether the file is encrypted (YES) or not (NO).
		When file encryption is still in progress, this column has a value of $\ensuremath{\mathtt{NO}}.$

8.163 V\$DATAGUARD_CONFIG

V\$DATAGUARD_CONFIG displays the unique database names defined with the DB_UNIQUE_NAME and LOG_ARCHIVE_CONFIG initialization parameters, providing a view of the Oracle Data Guard environment from any database in the configuration.

The first row of the view lists the unique database name of the current database that was specified with the $\mbox{DB_UNIQUE_NAME}$ initialization parameter. Additional rows reflect the unique database names of the other databases in the configuration that were specified with the $\mbox{DG_CONFIG}$ keyword of the $\mbox{LOG_ARCHIVE_CONFIG}$ initialization parameter.

Column	Datatype	Description
DB_UNIQUE_NAME	VARCHAR2(30)	Unique database name



Column	Datatype	Description
PARENT_DBUN VARCHAR2 (30)	DB_UNIQUE_NAME of the parent database, also known as the database that supplies live redo to the destination.	
		For example, suppose Boston is the DB_UNIQUE_NAME of the primary database, Chicago is the DB_UNIQUE_NAME of the Far Sync Instance, and Seattle is the DB_UNIQUE_NAME of the terminal standby database. Since Boston is the primary database, it has no parent database so the PARENT_DBUN for Boston will be NULL. Since Boston services Chicago, the PARENT_DBUN of Chicago will be Boston. Since Chicago services Seattle, Chicago will be the PARENT_DBUN for Seattle.
DEST_ROLE	VARCHAR2(17)	Type of archival destination database:
		BACKUP APPLIANCE
		FAR SYNC STANDBY
		• LOGICAL STANDBY
		PHYSICAL STANDBY
		PRIMARY DATABASE
		SNAPSHOT STANDBY
		TRUE CACHE
CURRENT_SCN	NUMBER	The SCN up to which the specified database has applied redo
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

- "DB_UNIQUE_NAME"
- "LOG_ARCHIVE_CONFIG"

8.164 V\$DATAGUARD_PROCESS

Column	Datatype	Description
NAME	VARCHAR2(5)	Name of the process whose information is being reported. Some of the possible values include:
		ARC <i>n</i> - Archiver process
		DTS - Data transport process
		FAL - File/announce process
		LGWR - Log Writer Process
		 MRP0 - Detached recovery server process
		 NSSn - SYNC Redo Transport process
		ORA - Foreground process
		RFS - Remote file server
		RMI - Remote message process
		 TMON - Redo Transport Process monitor
		 TTnn - Redo Transport Worker Process
PID	VARCHAR2 (24)	Operating system process identifier of the process
TYPE VARCHAR2(3)	Indicates which Oracle subsystem created the process. Possible values:	
		• KSB
		 KSV
		• NET
		• UNK



Column	Datatype	Description
ROLE	VARCHAR2(31)	Role of the process. Possible values:
		• test
		 async ORL multi
		 async ORL single
		async SRL multi
		async SRL single
		log writer
		• sync
		archive redo
		archive local
		archive gap
		RFS async
		RFS sync
		RFS archive
		RFS gap
		RFS SMON
		data transport
		data receive
		 redo transport monitor
		 heartbeat redo informer
		 process kill
		 post role transition
		gap manager
		update TMI
		 RFS ping
		FAL gap
		FAL announce
		 failover
		 switchover
		remote failover
		 remote switchover
		redo transport timer
		announce request
		 managed recovery PSBY BG
		 managed recovery PSBY FG
		controlfile update
		 broker monitor
		 broker worker
		 broker net worker
		 broker instance worker
		fast-start failover ping
		 recovery coordinator
		 recovery logmerger
		 recovery applier
		 recovery sender
		recovery receiver
		redo transport test
		 temporary
		datafile pre-create
		 redo log management
		 managed recovery DGPDB BG
		 managed recovery DGPDB FG



Column	Datatype	Description
	Danitype	 compress ORL master compress ORL worker compress SRL master compress SRL worker archive ORL master archive SRL master archive SRL master archive SRL worker collect information clear SRL True Cache data request receive True Cache data block receive True Cache data block send DGPDB query SCN True Cache control RMI thread info
PROC_TIME	TIMESTAMP(0)	 UNKNOWN Timestamp of when the process started or registered for inclusion in this fixed view
TASK TIME	TIMESTAMP(0)	Timestamp of when the first task of the process was requested
TASK_DONE	VARCHAR2(1)	Indicates whether the task performed by the process is done (Y) or not (N)
ACTION	VARCHAR2 (20)	Current action of the process. Possible values can include: ANNOUNCING APPLYING_LOG ATTACHED CLOSING CONNECTED ERROR IDLE OPENING PROCESSING RECEIVING REGISTERING STARTING TERMINATING UNKNOWN UNUSED WAIT_FOR_GAP WAIT_FOR_NEW_PRIMARY WRITING
CLIENT_PID	NUMBER	For RFS and DTS processes, the PID of the process communicating with this process
CLIENT_ROLE	VARCHAR2(31)	For RFS and DTS processes, the role of the process communicating with this process
GROUP#	NUMBER	Group number of the log that the process is operating upon
RESETLOG_ID	NUMBER	Resetlog ID (branch) of the log that the process is operating upon



Column	Datatype	Description
THREAD#	NUMBER	Thread number that the process is operating upon
SEQUENCE#	NUMBER	Sequence number that the process is operating upon
BLOCK#	NUMBER	Starting block number that the process is operating upon
BLOCK_COUNT	NUMBER	Number of blocks that the process is operating upon
DELAY_MINS	NUMBER	Archived redo log delay interval in minutes
DEST_ID	NUMBER	Destination ID that the process is currently operating upon
DEST_MASK	NUMBER	Mask of all destination IDs that the process will operate upon, where:
		Bit 0 is LOG_ARCHIVE_DEST1 Bit 1 is LOG_ARCHIVE_DEST2 Bit 2 is LOG_ARCHIVE_DEST3
		and so on.
TENANT_KEY	NUMBER	Unique identifier assigned to each customer in the Oracle Cloud If the database is not in the cloud, then the value of this columns is 0.
		The combination of TENANT_KEY and DBID can be used to uniquely identify a database.
DBID	NUMBER	Database ID of the redo that the process is operating upon
DGID	NUMBER	Data Guard ID that the process must communicate with
INSTANCE	NUMBER	Instance number that the process must communicate with at the specified DGID
STOP_STATE	VARCHAR2(7)	 Indicates the method by which the process has been requested to stop: NOW - Requested to stop immediately and exit SOON - Requested to stop on next log and exit COMMIT - Requested to write remaining redo and exit N/A - No request to stop
APPLY	NUMBER	SCN at which the database has applied redo
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



Oracle recommends that you use this view instead of V\$MANAGED STANDBY.

8.165 V\$DATAGUARD_STATS

V\$DATAGUARD_STATS displays information about Oracle Data Guard metrics when queried on a target database. No rows are returned when queried on a primary database. In the descriptions in this section, the originating database that is generating the redo is either a primary database or a logical standby database.

Column	Datatype	Description
SOURCE_DBID	NUMBER	Database ID of the originating database
SOURCE_DB_UNIQUE_NAME	VARCHAR2(32)	DB unique name of the originating database
NAME	VARCHAR2(32)	Name of the metric:
		 apply finish time - An estimate of the time needed to apply all received, but unapplied redo from the originating database. If there are one or more redo gaps on the target database, an estimate of the time needed to apply all received, but unapplied redo up to the end of the last archived redo log before the beginning of the earliest redo gap.
		 apply lag - Apply lag is a measure of the degree to which the data in a target database lags behind the data in the originating database, due to delays in propagating and applying redo to the target database. This value is relevant only to the applying instance.
		 estimated startup time - An estimate of the time needed to start and open the database.
		 transport lag - Transport lag is a measure of the degree to which the transport of redo to the target database lags behind the generation of redo on the originating database. If there are one or more redo gaps on the target database, the transport lag is calculated as if no redo has been received after the beginning of the earliest redo gap.
VALUE	VARCHAR2 (64)	Value of the metric
UNIT	VARCHAR2(30)	Unit of measurement
TIME_COMPUTED	VARCHAR2(30)	Local time at the target database when the metric was computed
DATUM_TIME	VARCHAR2(30)	Local time at the target database when the data used to compute the metric was received
		The apply lag and transport lag metrics are computed based on data that is periodically received from the source database. An unchanging value in this column across multiple queries indicates that the target database is not receiving data from the source database.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.166 V\$DATAGUARD_STATUS

V\$DATAGUARD_STATUS displays messages recently written to the alert log or server process trace files that concern physical standby databases or redo transport services for all standby database types.

Column	Datatype	Description
FACILITY	VARCHAR2(24)	Facility that encountered the event: Crash Recovery Log Transport Services Log Apply Services Role Management Services Remote File Server Fetch Archive Log Data Guard
SEVERITY	VARCHAR2 (13)	 Network Services Severity of the event: Informational - Informational message Warning - Warning message Error - Indicates the process has failed Fatal Control - An expected change in state such as the start or
DEST_ID	NUMBER	completion of an archival, log recovery, or switchover operation Destination ID number to which the event pertains. If the event does not pertain to a particular destination, then the value is 0.
MESSAGE_NUM	NUMBER	A chronologically increasing number giving each event a unique number
ERROR_CODE	NUMBER	Error ID pertaining to the event
CALLOUT	VARCHAR2(3)	Reserved for future use
TIMESTAMP	DATE	Message date
MESSAGE	VARCHAR2(256)	A text message describing the event
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.167 V\$DATAPUMP_PROCESS_INFO

 ${\tt V\$DATAPUMP_PROCESS_INFO} \ \ \textbf{displays information about currently active Oracle Data Pump processes}.$

Column	Datatype	Description
CUR_DATE	VARCHAR2(19)	Date and time at which process information was gathered
PROGRAM	VARCHAR2(84)	Operating system program name
SESSIONID	NUMBER	Session identifier



Column	Datatype	Description
STATUS	VARCHAR2(8)	Status of the session:
		ACTIVE - Session currently executing SQL
		 INACTIVE - Session which is inactive and either has no configured limits or has not yet exceeded the configured limits
		 KILLED - Session marked to be terminated
		 CACHED - Session temporarily cached for use by Oracle*XA
		 SNIPED - An inactive session that has exceeded some configured limits (for example, resource limits specified for the resource manager consumer group or idle_time specified in the user's profile). Such sessions will not be allowed to become active again
USERNAME	VARCHAR2(128)	Oracle user name
JOBNAME	VARCHAR2 (128)	User-supplied name for the job (or the default name generated by the server)
SPID	VARCHAR2(24)	Operating system process identifier
		The Oracle multiprocess/multithread feature is available for UNIX systems.
		When the Oracle multiprocess/multithread feature is enabled, RDBMS processes are mapped to threads running in operating system processes, and the SPID identifier is not unique for RDBMS processes.
		When the Oracle multiprocess/multithread feature is not enabled on UNIX systems, the SPID identifier is unique for RDBMS processes.
SERIALNUMBER	NUMBER	Session serial number
PROCESSID	NUMBER	Oracle process identifier
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



This view is available starting with Oracle Database 23ai.

8.168 V\$DATAPUMP_SESSIONWAIT_INFO

 ${\tt V\$DATAPUMP_SESSIONWAIT_INFO}\ displays\ information\ about\ the\ current\ or\ last\ wait\ for\ each\ session\ attached\ to\ a\ Data\ Pump\ job.$

Column	Datatype	Description
WAITING_SESSION	NUMBER	Session identifier; maps to V\$SESSION.SID
SERIAL_NUMBER	NUMBER	Session serial number (used to uniquely identify a session's objects); maps to ${\tt V\$SESSION.SERIAL\#}$



Column	Datatype	Description
SEQ_NUMBER	NUMBER	A number that uniquely identifies the current or last wait (incremented for each wait)
EVENT	VARCHAR2(64)	If the session is currently waiting, then the resource or event for which the session is waiting. If the session is not in a wait, then the resource or event for which the session most recently waited.
		See Also: " Oracle Wait Events"
DP_WAITTIME	NUMBER	If the session is currently waiting, then the value is 0. If the session is not in a wait, then the value is as follows:
		 > 0 - Value is the duration of the last wait in hundredths of a second
		 -1 - Duration of the last wait was less than a hundredth of a second -2 - Parameter TIMED_STATISTICS was set to false
DP_SECONDS_IN_WAIT	NUMBER	If the session is currently waiting, then the value is the amount of time waited for the current wait. If the session is not in a wait, then the value is the amount of time since the start of the last wait.
DP_STATE_IN_WAIT	VARCHAR2(19)	Wait state of the Data Pump session:
		 WAITING - Session is currently waiting
		 WAITED UNKNOWN TIME - Duration of the last wait is unknown; this is the value when the parameter TIMED_STATISTICS is set to false WAITED SHORT TIME - Last wait was less than a hundredth of a second
		 WAITED KNOWN TIME - Duration of the last wait is specified in the DP_WAITTIME column
DP_P1TEXT	VARCHAR2 (64)	Description of the first wait event parameter
DP_P1	NUMBER	First wait event parameter (in decimal)
DP_P2TEXT	VARCHAR2 (64)	Description of the second wait event parameter
DP_P2	NUMBER	Second wait event parameter (in decimal)
DP_P3TEXT	VARCHAR2 (64)	Description of the third wait event parameter
DP_P3	NUMBER	Third wait event parameter (in decimal)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

Note:

This view is available starting with Oracle Database 23ai.



8.169 V\$DB_CACHE_ADVICE

 ${\tt V$DB_CACHE_ADVICE} \ \ contains \ rows \ that \ predict \ the \ number \ of \ physical \ reads \ for \ the \ cache \ size \ corresponding \ to \ each \ row.$

The rows also compute a "physical read factor," which is the ratio of the number of estimated reads to the number of reads actually performed by the real buffer cache during the measurement interval.



"DB_CACHE_ADVICE"

Column	Datatype	Description
ID	NUMBER	Buffer pool identifier (ranges from 1 to 8)
NAME	VARCHAR2(20)	Buffer pool name
BLOCK_SIZE	NUMBER	Block size in bytes for buffers in this pool. Possible values: the standard block size, the power of 2 nonstandard block sizes, 2048, 4096, 8192, 16384, 32768.
ADVICE_STATUS	VARCHAR2(3)	Status of the advisory. ON indicates it is currently running; OFF indicates it is disabled (in this case the estimates are historical and calculated when last enabled).
SIZE_FOR_ESTIMATE	NUMBER	Cache size for prediction (in megabytes)
SIZE_FACTOR	NUMBER	Size factor with respect to the current cache size
BUFFERS_FOR_ESTIMATE	NUMBER	Cache size for prediction (in terms of buffers)
ESTD_PHYSICAL_READ_FACTOR	NUMBER	Physical read factor for this cache size, which is the ratio of the number of estimated physical reads to the number of reads in the real cache. If there are no physical reads in the real cache, the value of this column is null.
ESTD_PHYSICAL_READS	NUMBER	Estimated number of physical reads for this cache size
ESTD_PHYSICAL_READ_TIME	NUMBER	Estimated disk read time (in seconds)
ESTD_PCT_OF_DB_TIME_FOR_ READS	NUMBER	Estimated disk time as a percentage of the total time
ESTD_CLUSTER_READS	NUMBER	Estimated total number of blocks foreground processes read from the global cache (Oracle Real Application Clusters only)
ESTD_CLUSTER_READ_TIME	NUMBER	Estimated total amount of time, in seconds, foreground processes read from global cache (Oracle Real Application Clusters only)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.170 V\$DB_OBJECT_CACHE

 ${\tt V$DB_OBJECT_CACHE} \ displays \ database \ objects \ that \ are \ cached \ in \ the \ library \ cache. \ Objects \ include \ tables, \ indexes, \ clusters, \ synonym \ definitions, \ PL/SQL \ procedures \ and \ packages, \ and \ triggers.$

Column	Datatype	Description
OWNER	VARCHAR2 (64)	Owner of the object
NAME	VARCHAR2(1000)	Name of the object
DB_LINK	VARCHAR2 (64)	Database link name, if any
NAMESPACE	VARCHAR2 (64)	Library cache namespace of the object: TABLE/PROCEDURE, BODY, TRIGGER, INDEX, CLUSTER, OBJECT
TYPE	VARCHAR2(64)	Type of the object: INDEX, TABLE, CLUSTER, VIEW, SET, SYNONYM, SEQUENCE, PROCEDURE, FUNCTION, PACKAGE, PACKAGE BODY, TRIGGER, CLASS, OBJECT, USER, DBLINK
SHARABLE_MEM	NUMBER	Amount of sharable memory in the shared pool consumed by the object
LOADS	NUMBER	Number of times the object has been loaded. This count also increases when an object has been invalidated.
EXECUTIONS	NUMBER	Not used
		See Also: "V\$SQLAREA" to see actual execution counts
LOCKS	NUMBER	Number of users currently locking this object
PINS	NUMBER	Number of users currently pinning this object
KEPT	VARCHAR2(3)	(YES NO) Depends on whether this object has been "kept" (permanently pinned in memory) with the PL/SQL procedure <code>DBMS_SHARED_POOL.KEEP</code>
CHILD_LATCH	NUMBER	Child latch number that is protecting the object. This column is obsolete and maintained for backward compatibility.
INVALIDATIONS	NUMBER	Total number of times objects in the namespace were marked invalid because a dependent object was modified
HASH_VALUE	NUMBER	Hash value of the object
LOCK_MODE	VARCHAR2(9)	Current lock mode of the object
PIN_MODE	VARCHAR2(9)	Current pin mode of the object
STATUS	VARCHAR2(19)	Status of the object
TIMESTAMP	VARCHAR2(19)	Timestamp for the specification of the object
PREVIOUS_TIMESTAMP	VARCHAR2(19)	Previous timestamp for the specification of the object
LOCKED_TOTAL	NUMBER	Total number of times the object has been locked
PINNED_TOTAL	NUMBER	Total number of times the object has been pinned
PROPERTY	VARCHAR2(80)	Property of the object. Possible values include HOT or HOTCOPY when the library cache hot copy feature is used using DBMS_SHARED_POOL.MARKHOT.
FULL_HASH_VALUE	VARCHAR2(32)	Full hash value of the object



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
CON_NAME	VARCHAR2(64)	Container name of the object. The value of this column is ${\tt NULL}$ in non-CDBs.
ADDR	RAW(8)	Address of the handle for this object
EDITION	VARCHAR2 (138)	Edition name

✓ See Also:

- Oracle Database PL/SQL Packages and Types Reference for more information about the DBMS_SHARED_POOL.KEEP procedure
- Oracle Database PL/SQL Packages and Types Reference for more information about the DBMS SHARED POOL.MARKHOT procedure

8.171 V\$DB_PIPES

 ${\tt V$DB_PIPES} \ displays \ the \ pipes \ that \ are \ currently \ represented \ in \ the \ shared \ pool \ for \ this instance.$

Column	Datatype	Description
OWNERID	NUMBER	Owner ID of the owner (if this is a private pipe), else NULL
NAME	VARCHAR2 (1000)	Name of the pipe (for example, SCOTT.PIPE)
TYPE	VARCHAR2(7)	Type of the pipe: PUBLIC PRIVATE
PIPE_SIZE	NUMBER	Amount of memory the pipe uses Note: The value of this column may be larger than maxpipesize because of an internal algorithm.
SINGLETON	VARCHAR2(3)	Indicates whether the pipe is a singleton pipe (YES) or not (NO)
SHELFLIFE	NUMBER	The shelf life time (in seconds) for a message in a singleton pipe If the pipe is not a singleton pipe, then the value of this column is 0.



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
CON_NAME	VARCHAR2(64)	Container name of the object. The value of this column is ${\tt NULL}$ in non-CDBs.

8.172 V\$DB_TRANSPORTABLE_PLATFORM

V\$DB_TRANSPORTABLE_PLATFORM displays all platforms to which the database can be transported using the RMAN CONVERT DATABASE command.

The transportable database feature only supports transports of the same endian platform. Therefore, V\$DB_TRANSPORTABLE_PLATFORM displays fewer rows than V\$TRANSPORTABLE_PLATFORM.

Column	Datatype	Description
PLATFORM_ID	NUMBER	Platform identification number
PLATFORM_NAME	VARCHAR2(101)	Platform name
ENDIAN_FORMAT	VARCHAR2(14)	Platform endian format: Big Little UNKNOWN FORMAT
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

See Also:

"V\$TRANSPORTABLE_PLATFORM"

8.173 V\$DBFILE

V\$DBFILE displays all data files making up the database. This view is retained for historical compatibility. Use of V\$DATAFILE is recommended instead.

Column	Datatype	Description
FILE#	NUMBER	File identifier
NAME	VARCHAR2 (513)	Name of the file
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

"V\$DATAFILE"

8.174 V\$DBLINK

V\$DBLINK describes all database links (links with IN_TRANSACTION = YES) opened by the session issuing the query on V\$DBLINK. These database links must be committed or rolled back before being closed.

Column	Datatype	Description
DB_LINK	VARCHAR2 (128)	Name of the database link
OWNER_ID	NUMBER	Owner of the database link UID
LOGGED_ON	VARCHAR2(3)	Whether the database link is currently logged on
HETEROGENEOUS	VARCHAR2(3)	Whether the database link is heterogeneous
PROTOCOL	VARCHAR2(6)	Communication protocol for the database link
OPEN_CURSORS	NUMBER	Whether there are open cursors for the database link
IN_TRANSACTION	VARCHAR2(3)	Whether the database link is currently in a transaction
UPDATE_SENT	VARCHAR2(3)	Whether there has been an update on the database link
COMMIT_POINT_STRENGTH	NUMBER	Commit point strength of the transactions on the database link
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.175 V\$DEAD_CLEANUP

V\$DEAD_CLEANUP shows the terminated processes and sessions present in the instance and their cleanup status.

Column	Datatype	Description
TYPE	VARCHAR2(64)	Indicates whether a row contains a DEAD PROCESS or KILLED SESSION
PADDR	RAW(8)	Process pointer. Can be joined with V\$PROCESS. For a KILLED SESSION, this is the owner of the session, which can be NULL.
SADDR	RAW(8)	Session pointer. Can be joined with V\$SESSION. For a DEAD PROCESS, this is the user session.
ROOT_ADDR	RAW(8)	Pointer to the root of the tree
CLEANUP_OWNER	VARCHAR2(64)	 Indicates which process is responsible for cleanup of this tree: CLEANUP PROCESS - a cleanup process is responsible OWNER PROCESS - the root owner is responsible
STATE	VARCHAR2 (64)	 Cleanup state: CLEANUP PENDING - Occurs for a DEAD PROCESS or KILLED SESSION that can be cleaned up, but PMON has not yet made an attempt IN PROGRESS - A cleanup attempt is currently in progress RESOURCES FREED - Occurs for a DEAD PROCESS or KILLED SESSION where all children have been freed, but the process or session itself is not yet freed PARTIAL CLEANUP - Occurs if some of the children have been cleaned up
DEAD_TIME	NUMBER	Time since the DEAD PROCESS or KILLED SESSION was marked as such (in seconds)
CLEANUP_ATTEMPTS	NUMBER	Number of times PMON has attempted cleanup
LAST_ATTEMPT	NUMBER	How long ago the last cleanup attempt occurred (in seconds)
CLEANUP_PROCESS	RAW(8)	Process pointer for the cleanup process currently cleaning up this tree (can join with V\$CLEANUP_PROCESS). It will be NULL if cleanup is not currently in progress or if the owner is responsible for cleanup.
CLEANUP_TIME	NUMBER	Total amount of time PMON has spent on cleanup of the process/ session (in seconds)
NUM_BLOCKED	NUMBER	Number of sessions blocked on cleanup of this session
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the
		 entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

✓ See Also:

"V\$CLEANUP_PROCESS"



8.176 V\$DELETED_OBJECT

 ${\tt V\$DELETED_OBJECT} \ \ displays \ information \ about \ deleted \ archived \ logs, \ data \ file \ copies \ and \ backup \ pieces \ from \ the \ control \ file.$

The only purpose of this view is to optimize the recovery catalog resync operation. When an archived log, data file copy, or backup piece is deleted, the corresponding record is marked deleted.

Column	Datatype	Description
RECID	NUMBER	Deleted object record ID
STAMP	NUMBER	Deleted object record stamp
STAMP	NUMBER VARCHAR2 (26)	Deleted object record stamp Identifies the type of deleted object: ARCHIVED LOG BACKUP PIECE DATAFILE COPY PROXY COPY BACKUP PIECE AVAILABLE BACKUP PIECE EXPIRED PROXY COPY AVAILABLE PROXY COPY AVAILABLE PROXY COPY EXPIRED BACKUP PIECE UNAVAILABLE PROXY COPY UNAVAILABLE DATAFILE COPY AVAILABLE DATAFILE COPY EXPIRED ARCHIVED LOG AVAILABLE ARCHIVED LOG AVAILABLE ARCHIVED LOG EXPIRED ARCHIVED LOG EXPIRED ARCHIVED LOG UNAVAILABLE BACKUP SET KEEP OPTIONS BACKUP SET KEEP UNTIL PROXY COPY KEEP OPTIONS PROXY COPY KEEP OPTIONS DATAFILE COPY KEEP OPTIONS
OD TEOM DEGID	NUMBER	DATAFILE RENAME ON RESTORE
OBJECT_RECID	NUMBER	Record ID of the deleted object
OBJECT_STAMP OBJECT_DATA	NUMBER NUMBER	Record timestamp of the deleted object Displays additional internal information related to this deleted object. For internal Oracle use only.
SET_STAMP	NUMBER	Set stamp of the deleted object
SET_COUNT	NUMBER	Set count of the deleted object
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



8.177 V\$DG_BROKER_CONFIG

V\$DG BROKER CONFIG provides a summary of an Oracle Data Guard broker configuration.

This is similar to the DGMGRL CLI'S SHOW CONFIGURATION command. It provides a view of the entire Oracle Data Guard broker configuration from any database in the configuration.

Column	Datatype	Description
DATABASE	VARCHAR2(30)	Database unique name
CONNECT_IDENTIFIER	VARCHAR2 (512)	Net connect identifier used to reach the database
DATAGUARD_ROLE	VARCHAR2(20)	Oracle Data Guard role of the database:
		• FAR SYNC INSTANCE
		• LOGICAL STANDBY
		PHYSICAL STANDBY
		RECOVERY APPLIANCE
		REMOTE CONFIG MEMBER
		• PRIMARY
		SNAPSHOT STANDBY
REDO_SOURCE	VARCHAR (30)	The database unique name of the redo source
ENABLED	VARCHAR2(5)	Indicates whether the database is managed by Oracle Data Guard broker (TRUE) or not (FALSE)
STATUS	NUMBER	An Oracle error number denoting the database's current status
SEVERITY	VARCHAR2(30)	Severity of the Oracle error. Possible values:
		• FAILURE
		• SUCCESS
		• WARNING
STATUS_MESSAGE	VARCHAR2 (256)	Error message associated with the Oracle error number in the STATUS column
VERSION	VARCHAR2(30)	Version of the broker configuration
TRANSPORT_MODE ¹	VARCHAR2(30)	Transport mode of the standby databases
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

¹ This column is available starting with Oracle Database 23ai, Release Update 23.5.

8.178 V\$DG_BROKER_ROLE_CHANGE

V\$DG_BROKER_ROLE_CHANGE displays information about the last ten role changes across a Data Guard broker configuration.



Column	Datatype	Description
EVENT	VARCHAR2 (30)	Type of role change: • Failover • Fast-Start Failover • Immediate Failover • Switchover
STANDBY_TYPE	VARCHAR2(30)	Type of standby database: Logical Physical
OLD_PRIMARY	VARCHAR2(30)	Database unique name of the old primary database, that is, the primary database before the role change occurred
NEW_PRIMARY	VARCHAR2(30)	Database unique name of the new primary database, that is, the primary database after the role change occurred
FS_FAILOVER_REASON	VARCHAR2 (255)	If the role change was a fast-start failover, then this column displays the reason for the fast-start failover. For example, the primary database became disconnected.
		Otherwise, the value of this column is null.
BEGIN_TIME	TIMESTAMP(9)	 Begin time of the role change If the role change was a failover, then this column displays the time at which the ALTER DATABASE FAILOVER statement was issued on the target standby.
		 If the role change was a switchover, then this column displays the time at which the ALTER DATABASE SWITCHOVER statement was issued on the old primary database.
END_TIME	TIMESTAMP(9)	End time of the role change
		For both failover and switchover role changes, this column displays the time at which the ALTER DATABASE OPEN operation was completed on the first instance of the new primary database.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

Note:

This view is available starting with Oracle Database 23ai.

8.179 V\$DIAG_ALERT_EXT

V\$DIAG_ALERT_EXT shows the contents of the XML-based alert log in the Automatic Diagnostic Repository (ADR) for the current container (PDB).

Column	Datatype	Description
ORIGINATING_TIMESTAMP	TIMESTAMP(9) WITH TIME ZONE	Date and time when the message was generated
NORMALIZED_TIMESTAMP	TIMESTAMP(9) WITH TIME ZONE	Date and time when the message originated, normalized for clock drift to the Oracle Enterprise Manager repository time
ORGANIZATION_ID	VARCHAR2 (67)	ID of the organization that wrote the originating component, usually the domain of the organization
COMPONENT_ID	VARCHAR2 (67)	ID of the product or component that originated the message
HOST_ID	VARCHAR2 (67)	DNS hostname of originating host
HOST_ADDRESS	VARCHAR2 (49)	IP of other network address of the originating host for the mesaage
MESSAGE_TYPE	NUMBER	Type of the message, indicating that a different type of response is required. Possible values include:
		1 - UNKNOWN: Essentially the NULL type
		 2 - INCIDENT_ERROR: The program has encountered an error for some internal or unexpected reason, and it must be reported to Oracle Support
		 3 - ERROR: An error of some kind has occurred 4 - WARNING: An action occurred or a condition was discovered that should be reviewed and may require action
		 5 - NOTIFICATION: Reports a normal action or event. This could be a user action such as "logon completed." 6 - TRACE: Output of a diagnostic trace
MESSAGE_LEVEL	NUMBER	Level the message belongs to. Lower level values imply higher severity for errors. Possible values include:
		1 - CRITICAL: Critical errors
		2 - SEVERE: Severe errors
		8 - IMPORTANT: Important message16 - NORMAL: Normal message
MESSAGE ID	VARCHAR2 (67)	ID of the message
MESSAGE_GROUP	VARCHAR2 (67)	Name of the group to which the message belongs
CLIENT ID	VARCHAR2 (67)	ID of the client or security group that the message relates to
MODULE_ID	VARCHAR2 (67)	ID of the module that originated the message. This value is unique within a component.
PROCESS_ID	VARCHAR2(35)	ID of the process that originated the message
THREAD_ID	VARCHAR2 (67)	ID of the thread of the process that originated the message
USER_ID	VARCHAR2(131)	ID of the user that originated the message
INSTANCE_ID	VARCHAR2 (67)	For internal use only
DETAILED_LOCATION	VARCHAR2(163)	Absolute pathname of supplemental detail file on the originating host
UPSTREAM_COMP_ID	VARCHAR2(103)	ID of a component that the originating component is working with on the upstream (client) side
DOWNSTREAM_COMP_ID	VARCHAR2(103)	ID of a component that the originating component is working with on the downstream (server) side
EXECUTION_CONTEXT_ID	VARCHAR2(103)	Identifies the thread of execution that the originating component participates in
EXECUTION_CONTEXT_SEQUEN CE	NUMBER	Execution sequence of the thread that the originating component participates in
ERROR_INSTANCE_ID	NUMBER	ID of the instance where error occurred
ERROR_INSTANCE_SEQUENCE	NUMBER	Instance sequence where error occurred



Column	Datatype	Description
MESSAGE_TEXT	VARCHAR2 (2051)	Fully formed and localized text of the message
MESSAGE_ARGUMENTS	VARCHAR2 (515)	Arguments to be bound with the generic text of the message
SUPPLEMENTAL_ATTRIBUTES	VARCHAR2 (515)	Supplemental attributes that are specific to a message. This field contains the impacts for an incident type error message.
SUPPLEMENTAL_DETAILS	VARCHAR2 (515)	Supplemental data that is specific to a particular program and error message required to complete the diagnosis. Similar to the extra detail referred to in <code>DETAILED_LOCATION</code> but short enough to simply provide in the message itself
PARTITION	NUMBER	Segment number of physical file
RECORD_ID	NUMBER	Record number for the message (this value is same as the row number)
FILENAME	VARCHAR2 (515)	Physical file on disk
LOG_NAME	VARCHAR2(67)	For internal use only
PROBLEM_KEY	VARCHAR2 (553)	Describes the key for the current problem that the message is associated with
VERSION	NUMBER	ARB version number for the message
CON_UID	NUMBER	The unique ID of the container to which the data pertains
CONTAINER_ID	NUMBER	The ID of the container to which the data pertains
CONTAINER_NAME	VARCHAR2(67)	Name of the container to which the data pertains
ATTENTION_ID	NUMBER	Unique ID for the message
		This column is used primarily for attention messages. Alert messages may or may not have an ID. If the same attention message is triggered multiple times, it will have the same ID each time.
ID_SUFFIX	VARCHAR2 (67)	Reserved for future use
OPERATION_ID	VARCHAR2 (67)	Reserved for future use
CAUSE_TEXT	VARCHAR2 (2051)	Cause of the message
ACTION_TEXT	VARCHAR2 (2051)	Recommended action to resolve the issue triggering the message
ORACLE_PROCESS_ID	NUMBER	ID of the Oracle process triggering the message
DATABASE_ID	VARCHAR2(33)	Database identifier, as specified by the DB_NAME initialization parameter
SQL_ID	VARCHAR2 (16)	Identifier of the SQL statement being processed when the message was triggered
SESSION_ID	VARCHAR2(19)	Identifier of the session in which the message was triggered
IMPACT_ID	VARCHAR2 (35)	Reserved for future use



Column	Datatype	Description
IMPACT_SCOPE	VARCHAR2 (35)	Scope of impact of the issue triggering the message: ASM CLUSTER - The extent of damage or influence encompasses Oracle ASM at the cluster level. ASM INSTANCE (TRANSIENT) - The extent of damage or influence is limited to a specific Oracle ASM instance. CDB CLUSTER - The extent of damage or influence encompasses the entire CDB and its cluster. CDB Instance (TRANSIENT) - The extent of damage or influence encompasses the entire CDB. The issue is not permanent and can be resolved, for example, by an instance restart. CDB (PERSISTENT) - The extent of damage or influence encompasses the entire CDB. The issue is persistent, for example, an issue with persistent storage, and typically cannot be resolved by an instance restart. DISK GROUP - The extent of damage or influence is limited to the disk group. ORACLE INSTANCE - The extent of damage or influence is limited to the Oracle instance. For example, an Oracle database instance or an Oracle ASM instance. PDB Instance (TRANSIENT) - The extent of damage or influence encompasses the PDB. The issue is not permanent and can be resolved, for example, by a PDB restart. PDB (PERSISTENT) - The extent of damage or influence encompasses the PDB. The issue is persistent, for example, an issue with persistent storage, and typically cannot be resolved by a PDB restart. PDB restart. PROCESS - The extent of damage or influence is limited to the process in which the error happened. If the affected process terminates or restarts, the impact of the error will not be felt. SESSION - The extent of damage or influence is limited to the session in which the message was triggered. The issue will not be experienced in other sessions executing concurrently in the
TARGET_USER	VARCHAR2 (35)	system. User at whom the message is targeted: APP-DEV CDB-ADMIN CLUSTER-ADMIN DATAOPS-ADMIN NET-ADMIN PDB-ADMIN SEC-ADMIN SEC-ADMIN SERVER-ADMIN STORAGE-ADMIN
CALL_STACK	VARCHAR2 (1027)	Function call stack This column is populated when the MESSAGE_TYPE value is 2 (INCIDENT_ERROR), 3 (ERROR), or 4 (WARNING).
FLAGS	NUMBER	Reserved for internal use

Column	Datatype	Description
URGENCY	VARCHAR2 (19)	Time criticality of the message
		Possible values, ordered from highest urgency to lowest urgency:
		 IMMEDIATE - The issue must be looked at immediately by administrators. Examples: Database down, data corruption, instance down, or a memory leak that could cause a crash. SOON - The issue should be looked at in a reasonably short time frame, that is, the same day, but does not require immediate action. Examples: Isolated internal error or a disk filling up. DEFERABLE - The issue should be looked at, but it is acceptable to look at it later. Example: Configuration advice. INFO - Used mostly for notifications and does not require
		administrator attention. Example: Instance started. Frequently occurring messages are upgraded to higher urgency values.
START_VERSION	VARCHAR2 (19)	Version of the product for which this message first starts being used
		This column is populated only for messages that are registered, that is, messages that have a ${\tt MESSAGE_ID}.$
SECURITY_LABEL	VARCHAR2(19)	Reserved for internal use
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



"V\$DIAG_ATTENTION" to view only attention messages found in the alert log in the Automatic Diagnostic Repository (ADR)

8.180 V\$DIAG_APP_TRACE_FILE

V\$DIAG_APP_TRACE_FILE contains information about all trace files present in the Automatic Diagnostic Repository (ADR) for the current container (PDB) which contain application trace data (SQL_TRACE or OPTIMIZER_TRACE event data). This view also supports GV\$ global views.

Column	Datatype	Description
ADR_HOME	VARCHAR2 (444)	Path to the current ADR home
TRACE_FILENAME	VARCHAR2(68)	Displays the name of the process trace file
CHANGE_TIME	TIMESTAMP(3) WITH TIME ZONE	Displays the change time timestamp of the process trace fiile
MODIFY_TIME	TIMESTAMP(3) WITH TIME ZONE	Displays the last modification timestamp of the process trace file



Column	Datatype	Description
SQL_TRACE	VARCHAR2(1)	Identifies if the process trace file contains SQL_TRACE data. Possible values include:
		 Y: This value is used when the process trace file contains SQL_TRACE event data
		 N: This value indicates that the process trace does not contain SQL_TRACE data
OPTIMIZER_TRACE V.	VARCHAR2(1)	Identifies if the process trace file contains OPTIMIZER_TRACE data. Possible values include:
		 Y: This value is used when the process trace file contains OPTIMIZER_TRACE event data
		 N: This value indicates that the process trace does not contain OPTIMIZER_TRACE data
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.181 V\$DIAG_ATTENTION

V\$DIAG_ATTENTION displays attention messages in the XML-based alert log in the Automatic Diagnostic Repository (ADR) for the current container (PDB).

Column	Datatype	Description
ORIGINATING_TIMESTAMP	TIMESTAMP(9) WITH TIME ZONE	Date and time when the message was generated
NORMALIZED_TIMESTAMP	TIMESTAMP(9) WITH TIME ZONE	Date and time when the message originated, normalized for clock drift to the Oracle Enterprise Manager repository time
ORGANIZATION_ID	VARCHAR2(67)	ID of the organization that wrote the originating component, usually the domain of the organization
COMPONENT_ID	VARCHAR2(67)	ID of the product or component that originated the message
HOST_ID	VARCHAR2(67)	DNS hostname of originating host
HOST_ADDRESS	VARCHAR2 (49)	IP of other network address of the originating host for the mesaage
	Type of the message, indicating that a different type of response is required. Possible values include:	
		1 - UNKNOWN: Essentially the NULL type
		 2 - INCIDENT_ERROR: The program has encountered an error for some internal or unexpected reason, and it must be reported to Oracle Support
		 3 - ERROR: An error of some kind has occurred
		 4 - WARNING: An action occurred or a condition was discovered that should be reviewed and may require action
		 5 - NOTIFICATION: Reports a normal action or event. This could be a user action such as "logon completed."
		6 - TRACE: Output of a diagnostic trace



Column	Datatype	Description
MESSAGE_LEVEL	NUMBER	Level the message belongs to. Lower level values imply higher severity for errors. Possible values include:
		1 - CRITICAL: Critical errors
		2 - SEVERE: Severe errors
		 8 - IMPORTANT: Important message 16 - NORMAL: Normal message
MESSAGE_ID	VARCHAR2 (67)	ID of the message
MESSAGE GROUP	VARCHAR2 (67)	Name of the group to which the message belongs
CLIENT_ID	VARCHAR2 (67)	ID of the client or security group that the message relates to
MODULE ID	VARCHAR2 (67)	ID of the module that originated the message. This value is unique
	VIII.011111.2 (07)	within a component.
PROCESS_ID	VARCHAR2(35)	ID of the process that originated the message
THREAD_ID	VARCHAR2(67)	ID of the thread of the process that originated the message
USER_ID	VARCHAR2(131)	ID of the user that originated the message
INSTANCE_ID	VARCHAR2(67)	For internal use only
DETAILED_LOCATION	VARCHAR2(163)	Absolute pathname of supplemental detail file on the originating host
UPSTREAM_COMP_ID	VARCHAR2(103)	ID of a component that the originating component is working with on the upstream (client) side
DOWNSTREAM_COMP_ID	VARCHAR2(103)	ID of a component that the originating component is working with on the downstream (server) side
EXECUTION_CONTEXT_ID	VARCHAR2(103)	Identifies the thread of execution that the originating component participates in
EXECUTION_CONTEXT_SEQUEN CE	NUMBER	Execution sequence of the thread that the originating component participates in
ERROR_INSTANCE_ID	NUMBER	ID of the instance where error occurred
ERROR_INSTANCE_SEQUENCE	NUMBER	Instance sequence where error occurred
MESSAGE_TEXT	VARCHAR2(2051)	Fully formed and localized text of the message
MESSAGE_ARGUMENTS	VARCHAR2 (515)	Arguments to be bound with the generic text of the message
SUPPLEMENTAL_ATTRIBUTES	VARCHAR2 (515)	Supplemental attributes that are specific to a message. This field contains the impacts for an incident type error message.
SUPPLEMENTAL_DETAILS	VARCHAR2 (515)	Supplemental data that is specific to a particular program and error message required to complete the diagnosis. Similar to the extra detail referred to in <code>DETAILED_LOCATION</code> but short enough to simply provide in the message itself
PARTITION	NUMBER	Segment number of physical file
RECORD_ID	NUMBER	Record number for the message (this value is same as the row number)
FILENAME	VARCHAR2 (515)	Physical file on disk
LOG_NAME	VARCHAR2(67)	For internal use only
PROBLEM_KEY	VARCHAR2 (553)	Describes the key for the current problem that the message is associated with
VERSION	NUMBER	ARB version number for the message
CON_UID	NUMBER	The unique ID of the container to which the data pertains
CONTAINER_ID	NUMBER	The ID of the container to which the data pertains
CONTAINER NAME	VARCHAR2 (67)	Name of the container to which the data pertains



Column	Datatype	Description
ATTENTION_ID	NUMBER	Unique ID for the message
		This column is used primarily for attention messages. Alert messages may or may not have an ID. If the same attention message is triggered multiple times, it will have the same ID each time.
ID_SUFFIX	VARCHAR2 (67)	Reserved for future use
OPERATION_ID	VARCHAR2(67)	Reserved for future use
CAUSE_TEXT	VARCHAR2 (2051)	Cause of the message
ACTION_TEXT	VARCHAR2(2051)	Recommended action to resolve the issue triggering the message
ORACLE_PROCESS_ID	NUMBER	ID of the Oracle process triggering the message
DATABASE_ID	VARCHAR2(33)	Database identifier, as specified by the DB_NAME initialization parameter
SQL_ID	VARCHAR2(16)	Identifier of the SQL statement being processed when the message was triggered
SESSION_ID	VARCHAR2(19)	Identifier of the session in which the message was triggered
IMPACT_ID	VARCHAR2 (35)	Reserved for future use
IMPACT_SCOPE	VARCHAR2(35)	Scope of impact of the issue triggering the message:
		 ASM CLUSTER - The extent of damage or influence encompasses Oracle ASM at the cluster level.
		 ASM INSTANCE (TRANSIENT) - The extent of damage or influence is limited to a specific Oracle ASM instance.
		 CDB CLUSTER - The extent of damage or influence encompasses the entire CDB and its cluster.
		 CDB Instance (TRANSIENT) - The extent of damage or influence encompasses the entire CDB. The issue is not permanent and can be resolved, for example, by an instance restart.
		 CDB (PERSISTENT) - The extent of damage or influence encompasses the entire CDB. The issue is persistent, for example, an issue with persistent storage, and typically cannot be resolved by an instance restart.
		DISK GROUP - The extent of damage or influence is limited to the disk group.
		 ORACLE INSTANCE - The extent of damage or influence is limited to the Oracle instance. For example, an Oracle database instance or an Oracle ASM instance.
		 PDB Instance (TRANSIENT) - The extent of damage or influence encompasses the PDB. The issue is not permanent and can be resolved, for example, by a PDB restart.
		 PDB (PERSISTENT) - The extent of damage or influence encompasses the PDB. The issue is persistent, for example, an issue with persistent storage, and typically cannot be resolved by a PDB restart.
		 PROCESS - The extent of damage or influence is limited to the process in which the error happened. If the affected process terminates or restarts, the impact of the error will not be felt.
		 SESSION - The extent of damage or influence is limited to the session in which the message was triggered. The issue will not be experienced in other sessions executing concurrently in the system.



Column	Datatype	Description
TARGET_USER	VARCHAR2 (35)	User at whom the message is targeted: APP-DEV CDB-ADMIN CLUSTER-ADMIN DATAOPS-ADMIN NET-ADMIN PDB-ADMIN SEC-ADMIN SEC-ADMIN SERVER-ADMIN STORAGE-ADMIN
CALL_STACK	VARCHAR2 (1027)	Function call stack This column is populated when the MESSAGE_TYPE value is 2 (INCIDENT_ERROR), 3 (ERROR), or 4 (WARNING).
FLAGS	NUMBER	Reserved for internal use
URGENCY	VARCHAR2 (19)	 Time criticality of the message Possible values, ordered from highest urgency to lowest urgency: IMMEDIATE - The issue must be looked at immediately by administrators. Examples: Database down, data corruption, instance down, or a memory leak that could cause a crash. SOON - The issue should be looked at in a reasonably short time frame, that is, the same day, but does not require immediate action. Examples: Isolated internal error or a disk filling up. DEFERABLE - The issue should be looked at, but it is acceptable to look at it later. Example: Configuration advice. INFO - Used mostly for notifications and does not require administrator attention. Example: Instance started. Frequently occurring messages are upgraded to higher urgency values.
START_VERSION	VARCHAR2 (19)	Version of the product for which this message first starts being used This column is populated only for messages that are registered, that is, messages that have a MESSAGE_ID.
SECURITY_LABEL	VARCHAR2 (19)	Reserved for internal use
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

Note:

This view is available starting with Oracle Database 23ai.

✓ See Also:

"V\$DIAG_ALERT_EXT" to view the entire contents of the alert log in the Automatic Diagnostic Repository (ADR)

8.182 V\$DIAG_INCIDENT

V\$DIAG_INCIDENT contains information about all incident metadata records present in the Automatic Diagnostic Repository (ADR) for the current container (PDB).

Column	Datatype	Description
INCIDENT_ID	NUMBER	ID for the current incident
PROBLEM_ID	NUMBER	ID for the problem that the incident is associated with
CREATE_TIME	TIMESTAMP(9) WITH TIME ZONE	Displays the date and time when the incident was created
CLOSE_TIME	TIMESTAMP(9) WITH TIME ZONE	Displays the date and time when the incident was closed
STATUS	NUMBER	Describes the current status for the incident. Possible values include: 1: Incident is inflight 2: Incident is ready 3: Incident is tracked 4: Incident is closed 5: Incident data is removed 6: Incident has been purged 7: Incident is incomplete
FLAGS	NUMBER	For internal use only
FLOOD_CONTROLLED	NUMBER	Describes the flood control status for the current incident. Possible values include:
		0: Incident is not flood-controlled
		1: Incident is fully flood controlled (no dumps)
ERROR_FACILITY	VARCHAR2(12)	Displays the error facility for the current incident
ERROR_NUMBER	NUMBER	Displays the error number for the current incident
ERROR_ARG1	VARCHAR2 (66)	Displays error-arguments associated with the given incident
ERROR_ARG2	VARCHAR2 (66)	Displays error-arguments associated with the given incident
ERROR_ARG3	VARCHAR2 (66)	Displays error-arguments associated with the given incident
ERROR_ARG4	VARCHAR2(66)	Displays error-arguments associated with the given incident
ERROR_ARG5	VARCHAR2(66)	Displays error-arguments associated with the given incident
ERROR_ARG6	VARCHAR2 (66)	Displays error-arguments associated with the given incident
ERROR_ARG7	VARCHAR2(66)	Displays error-arguments associated with the given incident
ERROR_ARG8	VARCHAR2(66)	Displays error-arguments associated with the given incident
SIGNALLING_COMPONENT	VARCHAR2 (66)	Signalling component for the given incident
SIGNALLING_SUBCOMPONENT	VARCHAR2 (66)	Signalling sub-component for the given incident
SUSPECT_COMPONENT	VARCHAR2 (66)	Displays the suspect component for the given incident
SUSPECT SUBCOMPONENT	VARCHAR2(66)	Displays the suspect sub-component for the given incident



Column	Datatype	Description
ECID	VARCHAR2 (66)	Execution context ID for the current incident
IMPACT	NUMBER	Describes the internal representation of the incident impact for the given incident
ERROR_ARG9	VARCHAR2 (66)	Displays error-arguments associated with the given incident
ERROR_ARG10	VARCHAR2 (66)	Displays error-arguments associated with the given incident
ERROR_ARG11	VARCHAR2 (66)	Displays error-arguments associated with the given incident
ERROR_ARG12	VARCHAR2 (66)	Displays error-arguments associated with the given incident
CON_UID	NUMBER	Describes the container unique ID to which the data pertains
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.183 V\$DIAG_INCIDENT_FILE_CONTENTS

V\$DIAG_INCIDENT_FILE_CONTENTS contains trace data that is present in the incident trace files that are part of the current Automatic Diagnostic Repository (ADR).

Column	Datatype	Description
INCIDENT_ID	NUMBER	ID for the current incident
ADR_HOME	VARCHAR2(444)	Path to current ADR home
TRACE_FILENAME	VARCHAR2(68)	Displays the name of the process trace file
RECORD_LEVEL	NUMBER	Displays the level of the trace record
PARENT_LEVEL	NUMBER	Displays the top parent level of the trace record
RECORD_TYPE	NUMBER	Displays the type of the trace record. Possible values include: 1: Regular trace record 2: Freeform trace record 3: Begin Section trace record 4: Begin Dump trace record 5: Bucket Dump Begin trace record 6: Section End trace record 7: Dump End trace record 8: Bucket Dump End trace record
TIMESTAMP	TIMESTAMP(3) WITH TIME ZONE	Displays the timestamp when the trace record was produced
PAYLOAD	VARCHAR2(4000)	Describes the trace record payload (contents)
SECTION_ID	NUMBER	Displays the section ID / dump ID of the trace record
SECTION_NAME	VARCHAR2(64)	Displays the section name / dump name of the trace record
COMPONENT_NAME	VARCHAR2(64)	Displays the component name which produced the trace record
OPERATION_NAME	VARCHAR2 (64)	Displays the operation name which produced the trace record



Column	Datatype	Description
FILE_NAME	VARCHAR2 (64)	Displays the name of the code file where this trace record is produced
FUNCTION_NAME	VARCHAR2(64)	Displays the function which produced this trace record
LINE_NUMBER	NUMBER	Displays the line number in the code file which produced this trace record
THREAD_ID	VARCHAR2(64)	Displays the operating system thread ID of the process which produced the trace record
SESSION_ID	NUMBER	Displays the user session ID which generated the trace record
SERIAL#	NUMBER	Displays the user session serial number which produced the trace record
SECURITY_LABEL	VARCHAR2 (16)	Displays the trace record security label classification. Possible values: ALGORITHM CONFIG DATA INTERNAL KEYS METADATA NONE PROGRAM STATIC UNKNOWN
CON_UID	NUMBER	Displays the container unique ID where the trace record was produced
CONTAINER_NAME	VARCHAR2(64)	Displays the container name where the trace record was produced
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



This view is available starting with Oracle Database 23ai.

8.184 V\$DIAG_INFO

 ${\tt V\$DIAG_INFO}\ describes\ the\ state\ of\ Automatic\ Diagnostic\ Repository\ (ADR)\ functionality\ using\ {\tt NAME=VALUE\ pairs.}$

Column	Datatype	Description
INST_ID	NUMBER	Instance ID



Column	Datatype	Description
NAME VARCHAR2 (VARCHAR2 (64)	Identifies a piece of data that reflects the state of ADR, such as whether it is enabled, where the directories and files are located, and how many ongoing issues (incidents and problems) there are.
		Possible values include:
		Diag Enabled: Indicates whether ADR is enabled or not
		 ADR Base through Health Monitor: Display different directories (ADR base, ADR home, and then subdirectories within the ADR home)
		 Default Trace File: Specifies the current default trace file for the current process
		 Active Problem Count and Active Incident Count: Specify how many problems/incidents there are in this ADR that either happened in the last 24 hours or have a piece of metadata set indicating that it is a persistent error (like a disk corruption)
VALUE	VARCHAR2 (512)	Describes the current state of the piece of data identified in the NAME column
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.185 V\$DIAG_OPT_TRACE_RECORDS

V\$DIAG_OPT_TRACE_RECORDS contains all optimizer trace event data that is present in the trace files that are part of the current Automatic Diagnostic Repository (ADR). This view also supports GV\$ global views.

Column	Datatype	Description
ADR_HOME	VARCHAR2 (444)	Path to current ADR home
TRACE_FILENAME	VARCHAR2(68)	Displays the name of the process trace file
RECORD_LEVEL	NUMBER	Displays the level of the trace record
PARENT_LEVEL	NUMBER	Displays the top parent level of the trace record
RECORD_TYPE	NUMBER	Displays the type of the trace record. Possible values include: 1: Regular trace record 2: Freeform trace record 3: Begin Section trace record 4: Begin Dump trace record 5: Bucket Dump Begin trace record 6: Section End trace record 7: Dump End trace record 8: Bucket Dump End trace record
TIMESTAMP	TIMESTAMP(3) WITH TIME ZONE	Displays the timestamp when the trace record was produced
PAYLOAD	VARCHAR2 (4000)	Describes the trace record payload (contents)



Column	Datatype	Description
SECTION_ID	NUMBER	Displays the section ID / dump ID of the trace record
SECTION_NAME	VARCHAR2 (64)	Displays the section name / dump name of the trace record
COMPONENT_NAME	VARCHAR2(64)	Displays the component name which produced the trace record
OPERATION_NAME	VARCHAR2(64)	Displays the operation name which produced the trace record
FILE_NAME	VARCHAR2(64)	Displays the name of the code file where this trace record is produced
FUNCTION_NAME	VARCHAR2(64)	Displays the function which produced this trace record
LINE_NUMBER	NUMBER	Displays the line number in the code file which produced this trace record
THREAD_ID	VARCHAR2 (64)	Displays the operating system thread ID of the process which produced the trace record
SESSION_ID	NUMBER	Displays the user session ID which generated the trace record
SERIAL#	NUMBER	Displays the user session serial number which produced the trace record
SECURITY_LABEL	VARCHAR2 (16)	Displays the trace record security label classification. Possible values: ALGORITHM CONFIG DATA INTERNAL KEYS METADATA NONE PROGRAM STATIC UNKNOWN
CON_UID	NUMBER	Displays the container unique ID where the trace record was produced
CONTAINER_NAME	VARCHAR2(64)	Displays the container name where the trace record was produced
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.186 V\$DIAG_PROBLEM

V\$DIAG_PROBLEM contains information about all problem metadata records present in the Automatic Diagnostic Repository (ADR) for the current container (PDB).

Column	Datatype	Description
PROBLEM_ID	NUMBER	Displays the ID for the current problem
PROBLEM_KEY	VARCHAR2 (552)	Displays the problem key for the current problem
FIRST_INCIDENT	NUMBER	Displays the first incident ID for the current problem



Column	Datatype	Description
FIRSTINC_TIME	TIMESTAMP(9) WITH TIME ZONE	Displays the timestamp when the first incident occurred for the current problem
LAST_INCIDENT	NUMBER	Displays the last incident ID for the current problem
LASTINC_TIME	TIMESTAMP(9) WITH TIME ZONE	Displays the timestamp when the last incident occurred for the current problem
IMPACT1	NUMBER	Displays the first impact for the current problem
IMPACT2	NUMBER	Displays the second impact for the current problem
IMPACT3	NUMBER	Displays the third impact for the current problem
IMPACT4	NUMBER	Displays the fourth impact for the current problem
SERVICE_REQUEST	VARCHAR2 (66)	Displays the service request number for the current problem, if a number has been entered in Support Workbench
BUG_NUMBER	VARCHAR2 (66)	Displays the bug number for the current problem, if a number has been entered in Support Workbench
CON_UID	NUMBER	Displays the container unique ID to which the data pertains
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		• 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.187 V\$DIAG_SESS_OPT_TRACE_RECORDS

V\$DIAG_SESS_OPT_TRACE_RECORDS contains all optimizer trace event data that is present in the trace files for the current user session that is part of the current Automatic Diagnostic Repository (ADR).

Column	Datatype	Description
ADR_HOME	VARCHAR2 (444)	Path to current ADR home
TRACE_FILENAME	VARCHAR2 (68)	Displays the name of the process trace file
RECORD_LEVEL	NUMBER	Displays the level of the trace record
PARENT_LEVEL	NUMBER	Displays the top parent level of the trace record
RECORD_TYPE	NUMBER	Displays the type of the trace record. Possible values include: 1: Regular trace record 2: Freeform trace record 3: Begin Section trace record 4: Begin Dump trace record 5: Bucket Dump Begin trace record 6: Section End trace record 7: Dump End trace record 8: Bucket Dump End trace record
TIMESTAMP	TIMESTAMP(3) WITH TIME ZONE	Displays the timestamp when the trace record was produced



Column	Datatype	Description
PAYLOAD	VARCHAR2 (4000)	Displays the trace record payload (contents)
SECTION_ID	NUMBER	Displays the section ID / dump ID of the trace record
SECTION_NAME	VARCHAR2 (64)	Displays the section name / dump name of the trace record
COMPONENT_NAME	VARCHAR2 (64)	Displays the component name which produced the trace record
OPERATION_NAME	VARCHAR2 (64)	Displays the operation name which produced the trace record
FILE_NAME	VARCHAR2 (64)	Displays the name of the code file where this trace record is produced
FUNCTION_NAME	VARCHAR2 (64)	Displays the function which produced this trace record
LINE_NUMBER	NUMBER	Displays the line number in the code file which produced this trace record
THREAD_ID	VARCHAR2 (64)	Displays the operating system thread ID of the process which produced the trace record
SESSION_ID	NUMBER	Displays the user session ID which generated the trace record
SERIAL#	NUMBER	Displays the user session serial number which produced the trace record
SECURITY_LABEL	VARCHAR2 (16)	Displays the trace record security label classification. Possible values: ALGORITHM CONFIG DATA INTERNAL KEYS METADATA NONE PROGRAM STATIC UNKNOWN
CON_UID	NUMBER	Displays the container unique ID where the trace record was produced
CONTAINER_NAME	VARCHAR2 (64)	Displays the container name where the trace record was produced
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.188 V\$DIAG_SESS_SQL_TRACE_RECORDS

V\$DIAG_SESS_SQL_TRACE_RECORDS contains all SQL_TRACE data that is present in the trace files for the current user session that is part of the current Automatic Diagnostic Repository (ADR).

Column	Datatype	Description
ADR_HOME	VARCHAR2 (444)	Path to current ADR home
TRACE_FILENAME	VARCHAR2(68)	Displays the name of the process trace file



Column	Datatype	Description
RECORD_LEVEL	NUMBER	Displays the level of the trace record
PARENT_LEVEL	NUMBER	Displays the top parent level of the trace record
RECORD_TYPE	NUMBER	Displays the type of the trace record. Possible values include: 1: Regular trace record 2: Freeform trace record 3: Begin Section trace record 4: Begin Dump trace record 5: Bucket Dump Begin trace record 6: Section End trace record 7: Dump End trace record
TIMESTAMP	TIMESTAMP(3) WITH TIME ZONE	 8: Bucket Dump End trace record Displays the timestamp when the trace record was produced
PAYLOAD	VARCHAR2 (4000)	Displays the trace record payload (contents)
SECTION_ID	NUMBER	Displays the section ID / dump ID of the trace record
SECTION_NAME	VARCHAR2(64)	Displays the section name / dump name of the trace record
COMPONENT_NAME	VARCHAR2(64)	Displays the component name which produced the trace record
OPERATION_NAME	VARCHAR2(64)	Displays the operation name which produced the trace record
FILE_NAME	VARCHAR2(64)	Displays the name of the code file where this trace record is produced
FUNCTION_NAME	VARCHAR2(64)	Displays the function which produced this trace record
LINE_NUMBER	NUMBER	Displays the line number in the code file which produced this trace record
THREAD_ID	VARCHAR2(64)	Displays the operating system thread ID of the process which produced the trace record
SESSION_ID	NUMBER	Displays the user session ID which generated the trace record
SERIAL#	NUMBER	Displays the user session serial number which produced the trace record
SECURITY_LABEL	VARCHAR2 (16)	Displays the trace record security label classification. Possible values: ALGORITHM CONFIG DATA INTERNAL KEYS METADATA NONE PROGRAM STATIC
CON HITD	NUMBER	UNKNOWN Displays the container unique ID where the trace record was produced.
CONTAINED NAME		Displays the container unique ID where the trace record was produced
CONTAINER_NAME	VARCHAR2(64)	Displays the container name where the trace record was produced



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.189 V\$DIAG_SQL_TRACE_RECORDS

V\$DIAG_SQL_TRACE_RECORDS contains all SQL_TRACE data that is present in the trace files that are part of the current Automatic Diagnostic Repository (ADR). This view also supports GV\$ global views.

Column	Datatype	Description
ADR_HOME	VARCHAR2 (444)	Path to current ADR home
TRACE_FILENAME	VARCHAR2(68)	Displays the name of the process trace file
RECORD_LEVEL	NUMBER	Displays the level of the trace record
PARENT_LEVEL	NUMBER	Displays the top parent level of the trace record
RECORD_TYPE	NUMBER	Displays the type of the trace record. Possible values include: 1: Regular trace record 2: Freeform trace record 3: Begin Section trace record 4: Begin Dump trace record 5: Bucket Dump Begin trace record 6: Section End trace record 7: Dump End trace record 8: Bucket Dump End trace record
TIMESTAMP	TIMESTAMP(3) WITH TIME ZONE	Displays the timestamp when the trace record was produced
PAYLOAD	VARCHAR2(4000)	Displays the trace record payload (contents)
SECTION_ID	NUMBER	Displays the section ID / dump ID of the trace record
SECTION_NAME	VARCHAR2(64)	Displays the section name / dump name of the trace record
COMPONENT_NAME	VARCHAR2(64)	Displays the component name which produced the trace record
OPERATION_NAME	VARCHAR2(64)	Displays the operation name which produced the trace record
FILE_NAME	VARCHAR2(64)	Displays the name of the code file where this trace record is produced
FUNCTION_NAME	VARCHAR2(64)	Displays the function which produced this trace record
LINE_NUMBER	NUMBER	Displays the line number in the code file which produced this trace record
THREAD_ID	VARCHAR2 (64)	Displays the operating system thread ID of the process which produced the trace record
SESSION_ID	NUMBER	Displays the user session ID which generated the trace record
SERIAL#	NUMBER	Displays the user session serial number which produced the trace record



Column	Datatype	Description
SECURITY_LABEL	VARCHAR2 (16)	Displays the trace record security label classification. Possible values: ALGORITHM CONFIG DATA INTERNAL KEYS METADATA NONE PROGRAM STATIC UNKNOWN
CON_UID	NUMBER	Displays the container unique ID where the trace record was produced
CONTAINER_NAME	VARCHAR2 (64)	Displays the container name where the trace record was produced
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.190 V\$DIAG_TRACE_FILE

V\$DIAG_TRACE_FILE contains information about all trace files present in the Automatic Diagnostic Repository (ADR) for the current container (PDB). This view also supports GV\$ global views.

Column	Datatype	Description
ADR_HOME	VARCHAR2 (444)	Path to the current ADR home
TRACE_FILENAME	VARCHAR2(68)	Displays the name of the process trace file
CHANGE_TIME	TIMESTAMP(3) WITH TIME ZONE	Displays the change time timestamp of the process trace file
MODIFY_TIME	TIMESTAMP(3) WITH TIME ZONE	Displays the last modification timestamp of the process trace file
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



8.191 V\$DIAG_TRACE_FILE_CONTENTS

V\$DIAG_TRACE_FILE_CONTENTS contains trace data that is present in the trace files that are part of the current Automatic Diagnostic Repository (ADR). This view also supports GV\$ global views.

Column	Datatype	Description
ADR_HOME	VARCHAR2 (444)	Path to the current ADR home
TRACE_FILENAME	VARCHAR2(68)	Displays the name of the process trace file
RECORD_LEVEL	NUMBER	Displays the level of the trace record
PARENT_LEVEL	NUMBER	Displays the top parent level of the trace record
RECORD_TYPE	NUMBER	Displays the type of the trace record. Possible values include: 1: Regular trace record 2: Freeform trace record 3: Begin Section trace record 4: Begin Dump trace record 5: Bucket Dump Begin trace record 6: Section End trace record 7: Dump End trace record
		8: Bucket Dump End trace record
TIMESTAMP	TIMESTAMP(3) WITH TIME ZONE	Displays the timestamp when the trace record was produced
PAYLOAD	VARCHAR2(4000)	Displays the trace record payload (contents)
SECTION_ID	NUMBER	Displays the section ID / dump ID of the trace record
SECTION_NAME	VARCHAR2(64)	Displays the section name / dump name of the trace record
COMPONENT_NAME	VARCHAR2(64)	Displays the component name which produced the trace record
OPERATION_NAME	VARCHAR2(64)	Displays the operation name which produced the trace record
FILE_NAME	VARCHAR2(64)	Displays the name of the code file where this trace record is produced
FUNCTION_NAME	VARCHAR2(64)	Displays the function which produced this trace record
LINE_NUMBER	NUMBER	Displays the line number in the code file which produced this trace record
THREAD_ID	VARCHAR2(64)	Displays the operating system thread ID of the process which produced the trace record
SESSION_ID	NUMBER	Displays the user session ID which generated the trace record
SERIAL#	NUMBER	Displays the user session serial number which produced the trace record
SECURITY_LABEL	VARCHAR2 (16)	Displays the trace record security label classification. Possible values: ALGORITHM CONFIG DATA INTERNAL KEYS METADATA NONE PROGRAM STATIC UNKNOWN



Column	Datatype	Description
CON_UID	NUMBER	Displays the container unique ID where the trace record was produced
CONTAINER_NAME	VARCHAR2(64)	Displays the container name where the trace record was produced
CON_ID NU	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.192 V\$DISPATCHER

V\$DISPATCHER displays information about the dispatcher processes.

Column	Datatype	Description
NAME	VARCHAR2 (4)	Name of the dispatcher process
NETWORK	VARCHAR2(1024)	Network address of the dispatcher
PADDR	RAW(4 8)	Process address
STATUS	VARCHAR2 (16)	Status of the dispatcher: WAIT - Idle SEND - Sending a message RECEIVE - Receiving a message CONNECT - Establishing a connection DISCONNECT - Handling a disconnect request BREAK - Handling a break TERMINATE - In the process of terminating ACCEPT - Accepting connections (no further information available) REFUSE - Rejecting connections (no further information available)
ACCEPT	VARCHAR2(3)	Indicates whether the dispatcher is accepting new connections (YES) or not (NO)
MESSAGES	NUMBER	Number of messages processed by the dispatcher
BYTES	NUMBER	Size (in bytes) of messages processed by the dispatcher
BREAKS	NUMBER	Number of breaks occurring in the connection
OWNED	NUMBER	Number of circuits owned by the dispatcher
CREATED	NUMBER	Number of circuits created by the dispatcher
IDLE	NUMBER	Total idle time for the dispatcher (in hundredths of a second)
BUSY	NUMBER	Total busy time for the dispatcher (in hundredths of a second)
CPU	NUMBER	Total CPU time for the dispatcher (in millionths of a second)
LISTENER	NUMBER	Most recent Oracle error number the dispatcher received from the listener
CONF_INDX	NUMBER	Zero-based index of the DISPATCHERS configuration used by the dispatcher



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.193 V\$DISPATCHER_CONFIG

 ${\tt V\$DISPATCHER_CONFIG} \ displays \ information \ about \ the \ dispatcher \ configurations \ and \ their \ attributes.$

Column	Datatype	Description
CONF_INDX	NUMBER	Zero-based index of the DISPATCHERS configuration
NETWORK	VARCHAR2 (1024)	Network protocol or listening address of dispatchers (may be truncated)
DISPATCHERS	NUMBER	Number of dispatchers to maintain for the configuration
CONNECTIONS	NUMBER	Maximum number of concurrent connections per dispatcher
SESSIONS	NUMBER	Maximum number of concurrent sessions per dispatcher
MULTIPLEX	VARCHAR2(4)	Indicates whether Session Multiplexing is on: IN OUT BOTH OFF
LISTENER	VARCHAR2 (1200)	Listeners to register dispatchers with (may be truncated)
SERVICE	VARCHAR2 (512)	Service names supported (may be truncated)
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing

8.194 V\$DISPATCHER_RATE

 ${\tt V\$DISPATCHER_RATE} \ \ displays \ rate \ statistics \ for \ a \ number \ of \ activities \ performed \ by \ the \ dispatcher \ processes.$

Collected samples have an activity-specific "time-to-live" ($\mathtt{TTL}_{\underline{}}^*$ columns). Statistics are reported over the following two types of time intervals:

- Current statistics (CUR_ columns)
 - Current statistics use samples collected over the most recent time-to-live interval.
- Historical statistics (AVG_ and most of the MAX_ columns)



Historical statistics make use of all samples that are no longer current.

At the time of collection, a sample is current. After the time-to-live has elapsed, the sample becomes historical. Each type of activity has a specific scale (represented by the $SCALE_{\pm}$ columns) at which the statistics are reported.

Column	Datatype	Description
NAME	VARCHAR2(4)	Name of the dispatcher process
PADDR	RAW(4 8)	Address of the dispatcher process
CUR_LOOP_RATE	NUMBER	Rate at which the dispatcher has been iterating through its dispatching loop, reported over the past <code>TTL_LOOPS</code> , in iterations/SCALE_LOOPS
CUR_EVENT_RATE	NUMBER	Rate at which the dispatcher has been processing dispatcher events, reported over the past <code>TTL_LOOPS</code> , in events/ <code>SCALE_LOOPS</code> . Such dispatcher events include network events and shared server requests.
CUR_EVENTS_PER_LOOP	NUMBER	Average number of events the dispatcher has been processing in each iteration through its dispatching loop, reported over the past <code>TTL_LOOPS</code> in events/iteration
CUR_MSG_RATE	NUMBER	Rate at which the dispatcher has been relaying messages between clients and shared servers, reported over the past <code>TTL_MSG</code> , in messages/SCALE_MSG
CUR_SVR_BUF_RATE	NUMBER	Rate at which the dispatcher has been relaying buffers to shared servers, reported over the past <code>TTL_SVR_BUF</code> , in messages/ <code>SCALE_SVR_BUF</code>
CUR_SVR_BYTE_RATE	NUMBER	Rate at which the dispatcher has been relaying data to shared servers, reported over the past <code>TTL_SVR_BUF</code> , in bytes/ <code>SCALE_SVR_BUF</code>
CUR_SVR_BYTE_PER_BUF	NUMBER	Average number of data types in each buffer relayed to shared servers reported over the past ${\tt TTL_SVR_BUF}$, in bytes/buffer
CUR_CLT_BUF_RATE	NUMBER	Rate at which the dispatcher has been relaying buffers to clients, reported over the past TTL_CLT_BUF, in buffers/SCALE_CLT_BUF
CUR_CLT_BYTE_RATE	NUMBER	Rate at which the dispatcher has been relaying data to clients, reported over the past <code>TTL_CLT_BUF</code> , in bytes/SCALE_CLT_BUF
CUR_CLT_BYTE_PER_BUF	NUMBER	Average number of data bytes in each buffer relayed to clients, reported over the past <code>TTL_CLT_BUF</code> , in bytes/buffer
CUR_BUF_RATE	NUMBER	Rate at which the dispatcher has been relaying buffers to either clients or shared servers, reported over the past <code>TTL_BUF</code> , in bytes/SCALE_BUF
CUR_BYTE_RATE	NUMBER	Rate at which the dispatcher has been relaying data to either clients or shared servers, reported over the past <code>TTL_BUF</code> , in bytes/SCALE_BUF
CUR_BYTE_PER_BUF	NUMBER	Average number of data bytes in each buffer relayed to either clients or shared servers, reported over the past <code>TTL_BUF</code> , in bytes/buffer
CUR_IN_CONNECT_RATE	NUMBER	Rate at which the dispatcher has been accepting incoming client connections, reported over the past TTL_IN_CONNECT, in connections/SCALE_IN_CONNECT
CUR_OUT_CONNECT_RATE	NUMBER	Rate at which the dispatcher has been establishing outbound connections, reported over the past <code>TTL_OUT_CONNECT</code> , in connections/ <code>SCALE_OUT_CONNECT</code>
CUR_RECONNECT_RATE	NUMBER	In a connection pooling setup, the rate at which clients have been reconnecting to the dispatcher, reported over the past <code>TTL_RECONNECT</code> , in reconnections/SCALE_RECONNECT
MAX_LOOP_RATE	NUMBER	Maximum rate at which the dispatcher has ever iterated through its dispatching loop, reported in iterations/SCALE_LOOPS, over the dispatcher's lifetime excluding the past TTL_LOOPS



Column	Datatype	Description
MAX_EVENT_RATE	NUMBER	Maximum rate at which the dispatcher has ever processed dispatcher events, reported in events/SCALE_LOOPS, over the dispatcher's lifetime excluding the past TTL_LOOPS
MAX_EVENTS_PER_LOOP	NUMBER	Maximum number of events the dispatcher has ever processed in one iteration through its dispatching loop, reported in events/iteration, over the dispatcher's lifetime
MAX_MSG_RATE	NUMBER	Maximum rate at which the dispatcher has ever relayed messages between clients and shared servers, reported in messages/SCALE_MSG, over the dispatcher's lifetime excluding the past TTL_MSG
MAX_SVR_BUF_RATE	NUMBER	Maximum rate at which the dispatcher has ever relayed buffers to shared servers, reported in buffers/SCALE_SVR_BUF, over the dispatcher's lifetime excluding the past TTL_SVR_BUF
MAX_SVR_BYTE_RATE	NUMBER	Maximum rate at which the dispatcher has ever relayed data to shared servers, reported in bytes/SCALE_SVR_BUF, over the dispatcher's lifetime excluding the past ${\tt TTL_SVR_BUF}$
MAX_SVR_BYTE_PER_BUF	NUMBER	Maximum number of data bytes the dispatcher has ever relayed in one buffer to a client, reported in bytes/buffer, over the dispatcher's lifetime
MAX_CLT_BUF_RATE	NUMBER	Maximum rate at which the dispatcher has ever relayed buffers to either clients or shared servers, reported in buffers/SCALE_CLT_BUF, over the dispatcher's life time excluding the past TTL_CLT_BUF
MAX_CLT_BYTE_RATE	NUMBER	Maximum rate at which the dispatcher has ever relayed buffers to clients, reported in bytes/SCALE_CLT_BUF, over the dispatcher's lifetime excluding the last TTL_CLT_BUF
MAX_CLT_BYTE_PER_BUF	NUMBER	Maximum number of data bytes the dispatcher has ever relayed in one buffer to a client, reported in bytes/buffer, over the dispatcher's lifetime
MAX_BUF_RATE	NUMBER	Maximum rate at which the dispatcher has ever relayed buffers to either clients or shared servers, reported in buffers/SCALE_BUF, over the dispatcher's lifetime, excluding the past <code>TTL_BUF</code>
MAX_BYTE_RATE	NUMBER	Maximum rate at which the dispatcher has ever relayed data to either clients or shared servers, reported in bytes/SCALE_BUF, over the dispatcher's lifetime excluding the past TTL_BUF
MAX_BYTE_PER_BUF	NUMBER	Maximum number of data bytes the dispatcher has ever relayed in one buffer to either a client or a shared server, reported in bytes/buffer, over the dispatcher's lifetime
MAX_IN_CONNECT_RATE	NUMBER	Maximum rate at which the dispatcher has ever accepted incoming client connections, reported in connections/SCALE_IN_CONNECT, over the dispatcher's lifetime excluding the past TTL_IN_CONNECT
MAX_OUT_CONNECT_RATE	NUMBER	Maximum rate at which the dispatcher has ever established outbound connections, reported in connections/SCALE_OUT_CONNECT, over the dispatcher's lifetime excluding the past TTL_OUT_CONNECT
MAX_RECONNECT_RATE	NUMBER	In a connection pooling setup, the maximum rate at which clients have ever reconnected to this dispatcher, reported in reconnections/ SCALE_RECONNECT, over the dispatcher's lifetime excluding the past TTL_RECONNECT
AVG_LOOP_RATE	NUMBER	Historical average rate at which the dispatcher has iterated through its dispatching loop, reported in iterations/SCALE_LOOPS, over the dispatcher's lifetime excluding the past TTL_LOOPS
AVG_EVENT_RATE	NUMBER	Historical average rate at which the dispatcher has processed dispatcher events, reported in events/SCALE_LOOPS, over the dispatcher's lifetime excluding the past TTL_LOOPS



Column	Datatype	Description
AVG_EVENTS_PER_LOOP	NUMBER	Historical average number of events the dispatcher has processed in one iteration through its dispatching loop, reported in events/iteration, over the dispatcher's lifetime excluding the past <code>TTL_LOOPS</code>
AVG_MSG_RATE	NUMBER	Historical average rate at which the dispatcher has relayed messages between clients and shared servers, reported in messages/SCALE_MSG, over the dispatcher's lifetime excluding the past TTL_MSG
AVG_SVR_BUF_RATE	NUMBER	Historical average rate at which the dispatcher has relayed buffers to shared servers, reported in buffers/SCALE_SVR_BUF, over the dispatcher's lifetime excluding the past TTL_SVR_BUF
AVG_SVR_BYTE_RATE	NUMBER	Historical average rate at which the dispatcher has relayed data to shared servers, reported in bytes/SCALE_SVR_BUF, over the dispatcher's lifetime excluding the past TTL_SVR_BUF
AVG_SVR_BYTE_PER_BUF	NUMBER	Historical average number of data bytes per buffer the dispatcher has relayed to shared servers, reported in bytes/buffer, over the dispatcher's lifetime excluding the past <code>TTL_SVR_BUF</code>
AVG_CLT_BUF_RATE	NUMBER	Historical average rate at which the dispatcher has relayed buffers to clients, reported in buffers/SCALE_CLT_BUF, over the dispatcher's lifetime excluding the past TTL_CLT_BUF
AVG_CLT_BYTE_RATE	NUMBER	Historical average rate at which the dispatcher has relayed data to clients, reported in bytes/SCALE_CLT_BUF, over the dispatcher's lifetime excluding the past TTL_CLT_BUF
AVG_CLT_BYTE_PER_BUF	NUMBER	Historical average number of data bytes per buffer the dispatcher has relayed to clients, reported in bytes/buffer, over the dispatcher's lifetime excluding the past <code>TTL_CLT_BUF</code>
AVG_BUF_RATE	NUMBER	Historical average rate at which the dispatcher has relayed buffers to either clients or shared servers, reported in buffers/SCALE_BUF, over the dispatcher's lifetime excluding the past TTL_BUF
AVG_BYTE_RATE	NUMBER	Historical average rate at which the dispatcher has relayed data to either clients or shared servers, reported in bytes/SCALE_BUF, over the dispatcher's lifetime excluding the past TTL_BUF
AVG_BYTE_PER_BUF	NUMBER	Historical average number of data bytes per buffer the dispatcher has relayed to either clients or shared servers, reported in bytes/buffer, over the dispatcher's lifetime excluding the past <code>TTL_BUF</code>
AVG_IN_CONNECT_RATE	NUMBER	Historical average rate at which the dispatcher has accepted incoming client connections, reported in connections/SCALE_IN_CONNECT, over the dispatcher's lifetime excluding the past TTL_IN_CONNECT
AVG_OUT_CONNECT_RATE	NUMBER	Historical average rate at which the dispatcher has established outbound connections, reported in connections/SCALE_OUT_CONNECT, over the dispatcher's lifetime excluding the past TTL_OUT_CONNECT
AVG_RECONNECT_RATE	NUMBER	In a connection pooling setup, the historical average rate at which clients have reconnected to this dispatcher, reported in reconnections/SCALE_RECONNECT, over the dispatcher's lifetime excluding the past TTL_RECONNECT
TTL_LOOPS	NUMBER	Time-to-live for "loops" samples, reported in hundredths of a second. Default is 10 minutes.
TTL_MSG	NUMBER	Time-to-live for "messages" samples, reported in hundredths of a second. Default is 10 seconds.
TTL_SVR_BUF	NUMBER	Time-to-live for "buffers to servers" samples, reported in hundredths of a second. Default is ${\tt 1}$ second.



Column	Datatype	Description
TTL_CLT_BUF	NUMBER	Time-to-live for "buffers to clients" samples, reported in hundredths of a second. Default is ${\tt 1}$ second.
TTL_BUF	NUMBER	Time-to-live for "buffers to clients/servers" samples, reported in hundredths of a second. Default is 1 second.
TTL_IN_CONNECT	NUMBER	Time-to-live for "inbound connections" samples, reported in hundredths of a second. Default is 10 minutes.
TTL_OUT_CONNECT	NUMBER	Time-to-live for "outbound connections" samples, reported in hundredths of a second. Default is 10 minutes.
TTL_RECONNECT	NUMBER	Time-to-live for "reconnections" samples, reported in hundredths of a second. Default is 10 minutes.
SCALE_LOOPS	NUMBER	Scale for "loops" statistics, reported in hundredths of a second. Default is $\mbox{\ensuremath{\mathtt{1}}}$ minute.
SCALE_MSG	NUMBER	Scale for "messages" statistics, reported in hundredths of a second. Default is ${\tt 1}$ second.
SCALE_SVR_BUF	NUMBER	Scale for "buffers to servers" statistics, reported in hundredths of a second. Default is $1/10$ second.
SCALE_CLT_BUF	NUMBER	Scale for "buffers to clients" statistics, reported in hundredths of a second. Default is $1/10$ second.
SCALE_BUF	NUMBER	Scale for "buffers to clients/servers" statistics, reported in hundredths of a second. Default is $1/10$ second.
SCALE_IN_CONNECT	NUMBER	Scale for "inbound connections" statistics, reported in hundredths of a second. Default is ${\tt 1}$ minute.
SCALE_OUT_CONNECT	NUMBER	Scale for "outbound connections" statistics, reported in hundredths of a second. Default is ${\tt 1}$ minute.
SCALE_RECONNECT	NUMBER	Scale for "reconnections" statistics, reported in hundredths of a second. Default is ${\bf 1}$ minute.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.195 V\$DNFS_CHANNELS

 ${\tt V\$DNFS_CHANNELS} \ \ displays \ information \ about \ the \ Oracle \ process \ connections \ (channels) \ open \ to \ NFS \ servers.$

Datatype	Description
NUMBER	Oracle process number
VARCHAR2 (255)	NFS server name
VARCHAR2 (255)	Network path to the NFS server specified by IP address or by name
VARCHAR2 (255)	Local path on the database host specified by IP address or by name
NUMBER	Direct NFS channel identifier
	NUMBER VARCHAR2 (255) VARCHAR2 (255) VARCHAR2 (255)



Column	Datatype	Description
SVR_ID	NUMBER	Direct NFS server identifier
SENDS	NUMBER	Send operations over the channel since the last select
RECVS	NUMBER	Receive operations over the channel since the last select
PINGS	NUMBER	Ping operations over the channel since the last select
SPRECO	NUMBER	Reconnects for the channel on the same port since the last select, given that the reconnect occurred during the first series of reconnect attempts. If the first series of reconnect attempts fails and the reconnect process on that channel times out for 5 minutes, the next reconnect on that channel will not increment either the SPRECO or DPRECO columns, regardless of the port connected to.
DPRECO	NUMBER	Reconnects for the channel on a different port since the last select, given that the reconnect occurred during the first series of reconnect attempts. If the first series of reconnect attempts fails and the reconnect process on that channel times out for 5 minutes, the next reconnect on that channel will not increment either the SPRECO or DPRECO columns, regardless of the port connected to.
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data
RDMA	NUMBER	Indicates whether RDMA is enabled for the channel or not. Possible values: o: RDMA is not enabled for the channel
		1: RDMA is enabled for the channel
RDMA_CREDITS	NUMBER	The number of RDMA credits supported by the server
CLIENTPORT	NUMBER	The client port to which the channel is bounded
ACTIVE_SPEED	NUMBER	The active speed of the HCA card present (in Gb/second)
PEAK_FMR	NUMBER	The size of fast memory registration (FMR) memory registered by the channel (in bytes)
CURRENT_FMR	NUMBER	The current FMR memory registered (in bytes)
FMRREG_COUNT	NUMBER	The number of FMR memory registration calls for the channel



RDMA functionality is enabled only for the Exadata environment

8.196 V\$DNFS_FILES

 ${\tt V\$DNFS_FILES} \ \ \textbf{displays information about the Oracle process files open through Direct NFS.}$

Column	Datatype	Description
FILENAME	VARCHAR2 (513)	File name
FILESIZE	NUMBER	File Size
PNUM	NUMBER	Oracle process number which opened the file
SVR_ID	NUMBER	Direct NFS server identifier which identifies the server the file is open on
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.197 V\$DNFS_SERVERS

V\$DNFS_SERVERS displays information about the Direct NFS servers accessed by Direct NFS.

Column	Datatype	Description
ID	NUMBER	Direct NFS server identifier
SVRNAME	VARCHAR2 (255)	NFS server name
DIRNAME	VARCHAR2(1024)	Mounted directory
MNTPORT	NUMBER	NFS mount port
NFSPORT	NUMBER	NFS port
NFSVERSION	VARCHAR2(8)	NFS version
WTMAX	NUMBER	WTMAX exported by the NFS server
RTMAX	NUMBER	RTMAX exported by the NFS server
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
RDMAENABLE	VARCHAR2(16)	Indicates whether the server is RDMA enabled. Possible values:
		YES: The server is RDMA enabled.
		 NO: The server is not RDMA enabled.
RDMAPORT	NUMBER	The port number for RDMA communications on the server. The value is always 20049.
SECURITY	VARCHAR2(32)	NFS RPC authentication method used for the given NFS export





RDMA functionality is enabled only for the Exadata environment

8.198 V\$DNFS_STATS

 ${\tt V\$DNFS_STATS} \ displays \ information \ about \ the \ Oracle \ process \ NFS \ operation \ statistics \ is sued \ by \ Direct \ NFS.$

Column	Datatype	Description
PNUM	NUMBER	Oracle process number that statistics are relevant to
NFS_NULL	NUMBER	Null
NFS_GETATTR	NUMBER	Get attributes
NFS_SETATTR	NUMBER	Set attributes
NFS_LOOKUP	NUMBER	Lookup object
NFS_ACCESS	NUMBER	Access object
NFS_READLINK	NUMBER	Read link
NFS_READ	NUMBER	Read file
NFS_WRITE	NUMBER	Write file
NFS_CREATE	NUMBER	Create file
NFS_MKDIR	NUMBER	Make directory
NFS_SYMLINK	NUMBER	Symbolic link
IFS_MKNOD	NUMBER	Make node
IFS_REMOVE	NUMBER	Remove file
FS_RMDIR	NUMBER	Remove directory
IFS_RENAME	NUMBER	Rename
FS_LINK	NUMBER	Link
FS_READDIR	NUMBER	Read directory
IFS_READDIRPLUS	NUMBER	Read directory plus
IFS_FSSTAT	NUMBER	File system status
NFS_FSINFO	NUMBER	File system information
IFS_PATHCONF	NUMBER	Path configuration
IFS_COMMIT	NUMBER	Commit
IFS_MOUNT	NUMBER	Mount
IFS_READBYTES	NUMBER	Number of bytes read from NFS server
NFS_WRITEBYTES	NUMBER	Number of bytes written to NFS server
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing



8.199 V\$DYNAMIC_REMASTER_STATS

 ${\tt V$DYNAMIC_REMASTER_STATS} \ displays \ statistical \ information \ about \ the \ dynamic \ remastering process of object affinity and read-mostly. All times are given in hundredths of a second, except where otherwise noted, and total values reflect what has been collected since instance startup. \\$

Column	Datatype	Description
REMASTER_TYPE	VARCHAR2 (11)	Remaster process type. Possible values:
		 AFFINITY: This value is used for the row containing statistics that pertain to dynamic remastering activity on object affinity.
		• READ-MOSTLY: This value is used for the row containing statistics that pertain to dynamic remastering activity on read-mostly objects.
REMASTER_OPS	NUMBER	Total number of dynamic remastering operations
REMASTER_TIME	NUMBER	Total dynamic remastering time
REMASTERED_OBJECTS	NUMBER	Total number of objects dynamically remastered due to affinity
PERSISTENT_OBJECTS	NUMBER	Current number of objects that are marked persistent read-mostly in the cluster
QUIESCE_TIME	NUMBER	Total quiesce step time
FREEZE_TIME	NUMBER	Total freeze step time
CLEANUP_TIME	NUMBER	Total cleanup step time
REPLAY_TIME	NUMBER	Total replay step time
FIXWRITE_TIME	NUMBER	Total fixwrite step time
SYNC_TIME	NUMBER	Total synchronization step time
RESOURCES_CLEANED	NUMBER	Total number of resources cleaned in the cleanup steps
REPLAYED_LOCKS_SENT	NUMBER	Total number of locks replayed to other instances in the replay steps
REPLAYED_LOCKS_RECEIVED	NUMBER	Total number of locks received from other instances in the replay steps
CURRENT_OBJECTS	NUMBER	Current number of objects remastered on this instance due to affinity or the current number of objects that are marked read-mostly in the cluster
REMASTERED_BUFFERS	NUMBER	Total sum of the sizes (number of buffers) of all dynamically remastered objects
		The size of a buffer is specified by the DB_BLOCK_SIZE initialization parameter. The default is 8192 bytes.
AVG_BUFFER_AGE	NUMBER	Average time (in seconds) that buffers spent in the request queue, waiting to be processed
FILTERED_OBJECTS	NUMBER	Number of requests that were filtered (not processed)
FILTERED_BUFFERS	NUMBER	Total sum of the sizes (number of buffers) of all requests that were filtered
		The size of a buffer is specified by the <code>DB_BLOCK_SIZE</code> initialization parameter. The default is 8192 bytes.



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.200 V\$EDITIONABLE_TYPES

V\$EDITIONABLE_TYPES lists all the editionable types based on the current compatibility setting. The SELECT privilege on V\$EDITIONABLE TYPES will be granted to PUBLIC.

The database compatibility setting will determine the set of editionable types.

With compatibility set to 11.2 or 12, this set includes FUNCTION, LIBRARY, PACKAGE, PACKAGE BODY, PROCEDURE, SYNONYM, TRIGGER, TYPE, TYPE BODY, and VIEW. With compatibility set to 12, the set will include these types as well as the SQL TRANSLATION PROFILE.

Column	Datatype	Description	
EDITIONABLE_TYPE	VARCHAR2 (64)	The name of the type that is editionable	
TYPE#	NUMBER	The number of the type that is editionable	
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:	
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data 	



For more information about edition-based redefinitions, see *Oracle Database Development Guide*.

8.201 V\$EMON

V\$EMON displays performance statistics per event monitor (EMON) worker for diagnosability of notifications. All processing time and latency is in seconds.

Column	Datatype	Description
EMON#	NUMBER	EMON identifier (0 - 9)
SID	NUMBER	Session identifier



Column	Datatype	Description
STARTUP_TIME	TIMESTAMP(3) WITH TIME ZONE	Time when this EMON worker was started
SERVER_TYPE	VARCHAR2(8)	Notification quality of the service provided by EMON: REGULAR RELIABLE
STATUS	VARCHAR2(6)	EMON status: IDLE ACTIVE
STATUS_CHANGE_TIME	TIMESTAMP(3) WITH TIME ZONE	Time at which EMON switched to the current STATUS
NUM_NTFNS	NUMBER	Total number of notifications (including grouping notifications)
NUM_GROUPING_NTFNS	NUMBER	Number of grouping notifications
NUM_NTFNS_ALL_GROUPS	NUMBER	Total number of events in all notification groups
NUM_OCI_NTFNS	NUMBER	Number of OCI notifications
NUM_PLSQL_NTFNS	NUMBER	Number of PL/SQL notifications
NUM_EMAIL_NTFNS	NUMBER	Number of E-mail notifications
NUM_HTTP_NTFNS	NUMBER	Number of HTTP notifications
NUM_EVENTS_PROCESSED	NUMBER	Number of events posted by a publisher for which notifications have been delivered
NUM_EVENTS_PENDING	NUMBER	Number of events posted by a publisher for which notifications are not yet delivered
NUM_ANONYMOUS_NTFNS	NUMBER	Number of anonymous notifications
NUM_AQ_NTFNS	NUMBER	Number of AQ notifications
NUM_DBCHANGE_NTFNS	NUMBER	Number of DBChange notifications
TOTAL_ANONYMOUS_NTFN_TIM E	NUMBER	Total time to process Anonymous notifications
TOTAL_AQ_NTFN_TIME	NUMBER	Total time to process AQ notifications
TOTAL_DBCHANGE_NTFN_TIME	NUMBER	Total time to process dbchange notifications
TOTAL_PLSQL_NTFN_TIME	NUMBER	Total time to process PL/SQL notifications
TOTAL_OCI_NTFN_TIME	NUMBER	Total time to process OCI notifications
TOTAL_EMAIL_NTFN_TIME	NUMBER	Total time to process E-mail notifications
TOTAL_HTTP_NTFN_TIME	NUMBER	Total time to process HTTP notifications
TOTAL_EMON_LATENCY	NUMBER	Total latency in processing events
REGISTRATIONS_EXPIRED	NUMBER	Number of expired registrations
REGISTRATIONS_PURGED	NUMBER	Number of purged registrations
REGISTRATIONS_INVALID	NUMBER	Number of registrations invalidated due to notification delivery failure
LAST_UPDATE_TIME	TIMESTAMP(3) WITH TIME ZONE	Time when statistics were last updated
CON_ID	NUMBER	The ID of the container to which the data pertains. The ${\tt CON_ID}$ value in this view is always 0. The rows pertain to the entire CDB or to the non-CDB.



8.202 V\$ENABLEDPRIVS

V\$ENABLEDPRIVS displays the system privileges that have been granted to the current user directly or through the currently enabled roles.

Column	Datatype	Description
PRIV_NUMBER	NUMBER	Numeric identifier of the system privilege The matching privilege name for each PRIV_NUMBER can be found in the table SYSTEM PRIVILEGE MAP.
SCOPE	VARCHAR2(11)	Indicates the scope with which a privilege was granted. Possible values: COMMON APPLICATION LOCAL
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

See Also:

"SYSTEM_PRIVILEGE_MAP"

8.203 V\$ENABLEDSCHEMAPRIVS

V\$ENABLEDSCHEMAPRIVS displays the schema privileges that have been granted to the current user directly or through the currently enabled roles.

Column	Datatype	Description
PRIV_NUMBER	NUMBER	Numeric identifier of the schema privilege The matching privilege name for each PRIV NUMBER can be found in the
		table SYSTEM_PRIVILEGE_MAP.
SCHEMA	NUMBER	Schema on which the privilege was granted
SCOPE	VARCHAR2 (11)	Indicates the scope with which the privilege was granted. Possible values:
		• COMMON
		• APPLICATION
		• LOCAL



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



This view is available starting with Oracle Database 23ai.

8.204 V\$ENCRYPTED_TABLESPACES

V\$ENCRYPTED TABLESPACES displays information about tablespaces that are encrypted.

The information displayed by this view is meaningful only for tablespaces in open containers and for the data files that are online. This is because the information is derived after the file headers making up a tablespace have been examined during the open operation.

During an encryption or decryption operation, the encryption or decryption progress can be obtained by comparing the values of the <code>BLOCKS_ENCRYPTED</code> and <code>BLOCKS_DECRYPTED</code> columns in this view with the value of the <code>BLOCKS</code> column in the <code>DBA_DATA_FILES</code> view.

Column	Datatype	Description
TS#	NUMBER	Tablespace number
ENCRYPTIONALG	VARCHAR2(7)	Encryption algorithm:
		• NONE
		• 3DES168
		• AES128
		• AES192
		• AES256
ENCRYPTEDTS	VARCHAR2(3)	Indicates whether the tablespace is encrypted (YES) or not (NO)
ENCRYPTEDKEY	RAW(32)	Encrypted version of the tablespace key for the encrypted tablespace
MASTERKEYID	RAW(16)	ID of the master key that was used to encrypt the tablespace key
BLOCKS_ENCRYPTED	NUMBER	Number of tablespace blocks that have been encrypted during the lifetime of this instance
BLOCKS_DECRYPTED	NUMBER	Number of tablespace blocks that have been decrypted during the lifetime of this instance
KEY_VERSION	NUMBER	Every encrypt/decrypt/rekey of a tablespace adds a carnation/version of the tablespace key, and the key version is incremented. A decrypted tablespace could still have a none-zero key version. In certain scenarios, however, the tablespace key version might reset to 0; for example, when a tablespace or a pluggable database (PDB) is plugged into a foreign database, or if the control file is recreated.



Column	Datatype	Description
STATUS	VARCHAR2(10)	Shows the status of a tablespace. Possible values: NORMAL: Used when the tablespace is not in one of the other statuses. REKEYING: Used when a rekey operation is taking place
		 ENCRYPTING: Used when an encrypt operation is taking place DECRYPTING: Used when a decrypt operation is taking place UNKNOWN: Used when the database is mounted but not open (before the datafile is online and the key is known to the database) Note: The REKEYING, ENCRYPTING, and DECRYPTING values can also be reported after a datafile, whose encryption state is different from the tablespace definition, is restored. In such cases, the value represents the operation that is required to make all datafiles in the tablespace consistent by using the FINISH clause of the ALTER TABLESPACE ENCRYPTION statement. See Oracle Database Transparent Data Encryption Guide for information about changing the encryption state of a tablespace.
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

See Also:

"V\$DATABASE_KEY_INFO"

8.205 V\$ENCRYPTION_KEYS

 ${\tt V\$ENCRYPTION_KEYS} \ \textbf{displays} \ \textbf{master} \ \textbf{key} \ \textbf{description} \ \textbf{attributes}.$

Note that, even if Transparent Data Encryption (TDE) is not configured in the database, a query of V\$ENCRYPTION_KEYS checks for TDE configuration validity and may print warnings in alert log.

Column	Datatype	Description
KEY_ID	VARCHAR2 (78)	Master key identifier
HEX_MKID	VARCHAR2(78)	Master key identifier, in hex format
'AG	VARCHAR2(4000)	Associated user-defined Information with the master key
REATION_TIME	TIMESTAMP(6) WITH TIME ZONE	Time that the master key was created
CTIVATION_TIME	TIMESTAMP(6) WITH TIME ZONE	Time that the master key was put into use
REATOR	VARCHAR2(128)	User that created the master key
CREATOR_ID	NUMBER	User ID that created the master key



Column	Datatype	Description	
USER	VARCHAR2 (128)	User that activated the master key	
USER_ID	NUMBER	User ID that activated the master key	
KEY_USE	VARCHAR2 (10)	Indicates whether the master key is used for TDE operations in a PDB or not	
KEYSTORE_TYPE	VARCHAR2 (17)	Type of keystore in which the master key is stored: OKV - Oracle Key Vault SOFTWARE KEYSTORE UNDEFINED - This value is shown if the database has no information about the type of keystore where the master key resides	
ORIGIN	VARCHAR2 (41)	 Provides information about the origin of the master key: LOCAL - The master key was created locally in this database IMPORTED - The master key was imported from another database IMPORTED BUT KEY METADATA CREATED LOCALLY - The master key was imported from another database, but the key metadata was created locally due to activation UNKNOWN BUT KEY METADATA CREATED LOCALLY - It is unknown whether the master key was imported from another database or created locally, but the key metadata was created locally due to activation UNDEFINED - The status of the master key is unknown 	
BACKED UP	VARCHAR2(9)	Indicates whether the key has been backed up or not	
CREATOR_DBNAME	VARCHAR2 (128)	Database that created the key	
CREATOR_DBID	NUMBER	Database ID where the key was created	
CREATOR_INSTANCE_NAME	VARCHAR2 (30)	Instance name of the instance where the key was created	
CREATOR_INSTANCE_NUMBER	NUMBER	Instance number of the instance where the key was created	
CREATOR_INSTANCE_SERIAL	NUMBER	Serial number of the instance where the key was created	
CREATOR_PDBNAME	VARCHAR2 (128)	PDB where the key was created	
CREATOR_PDBID	NUMBER	PDB ID where the key was created	
CREATOR_PDBUID	NUMBER	PDB UID where the key was created	
CREATOR_PDBGUID	RAW(16)	PDB GUID where the key was created	
ACTIVATING_DBNAME	VARCHAR2 (128)	Database that activated the key	
ACTIVATING_DBID	NUMBER	Database ID where the key was activated	
ACTIVATING_INSTANCE_NAME	VARCHAR2(30)	Instance name of the instance where the key was activated	
ACTIVATING_INSTANCE_NUMB ER	NUMBER	Instance number of the instance where the key was activated	
ACTIVATING_INSTANCE_SERI AL	NUMBER	Serial number of the instance where the key was activated	
ACTIVATING_PDBNAME	VARCHAR2 (128)	PDB where the key was activated	
ACTIVATING_PDBID	NUMBER	PDB ID where the key was activated	
ACTIVATING_PDBUID	NUMBER	PDB UID where the key was activated	
ACTIVATING_PDBGUID	RAW(16)	PDB GUID where the key was activated	
ALGORITHM	VARCHAR2(9)	Master key encryption algorithm	



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



Oracle Database Transparent Data Encryption Guide for information about keystore management

8.206 V\$ENCRYPTION_WALLET

 ${\tt V\$ENCRYPTION_WALLET} \ displays \ information \ on \ the \ status \ of \ the \ wallet \ and \ the \ wallet \ location \ for \ Transparent \ Data \ Encryption \ (TDE).$

In a multitenant container database (CDB), this view displays information on the wallets for all pluggable database (PDBs) when queried from CDB\$ROOT. When queried from a PDB, this view only displays wallet details of that PDB.

Note that, even if TDE is not configured in the database, a query of V\$ENCRYPTION_WALLET checks for TDE configuration validity and may print warnings in alert log.

Column	Datatype	Description
WRL_TYPE	VARCHAR2(20)	Type of the wallet resource locator (for example, FILE)
WRL_PARAMETER	VARCHAR2 (4000)	Parameter of the wallet resource locator (for example, absolute directory location of the wallet or keystore, if WRL_TYPE = FILE)
STATUS	VARCHAR2(30)	Status of the wallet. Possible values:
		CLOSED: The wallet is closed
		 NOT_AVAILABLE: The wallet is not available in the location specified by the WALLET ROOT initialization parameter
		OPEN: The wallet is open
		 OPEN_NO_MASTER_KEY: The wallet is open, but no master key is set
		 OPEN_UNKNOWN_MASTER_KEY_STATUS: The wallet is open, but the database could not determine whether the master key is set. This situation can occur when the database is in the mounted state and cannot check if the master key for a hardware keystore is set because the data dictionary is not available.
		 UNDEFINED: The database could not determine the status of the wallet
WALLET_TYPE	VARCHAR2 (20)	Displays the type of keystore being used, FILE or OKV
		If the keystore was created with the mkstore utility, then the WALLET_TYPE is UNKNOWN. Oracle recommends that you create keystores with the ADMINISTER KEY MANAGEMENT statement.



Column	Datatype	Description
WALLET_ORDER	VARCHAR2(9)	Possible values:
		 SINGLE - This value is displayed:
		 When only a single wallet is configured In an auto-login OKV configuration. In this case, TDE_CONFIGURATION = OKV FILE, and the SINGLE value is displayed for both the OKV and FILE keystores. PRIMARY - When more than one wallet is configured, this value indicates that the wallet is primary (holds the current master key). SECONDARY - When more than one wallet is configured, this value indicates that the wallet is secondary (holds old keys). The lookup of master keys happens in the primary keystore first, and then in the secondary keystore, if required. If there is only one type of keystore being used, then SINGLE will appear.
		If both types are used, then the value in this column shows the order in which each keystore will be looked up.
KEYSTORE_MODE	VARCHAR2(8)	Displays the keystore mode:
		 NONE: This value is seen when this column is queried from the CDB\$ROOT, or when the database is a non-CDB. The keystore mode does not apply in these cases. UNITED: The PDB is configured to use the wallet of the CDB\$ROOT. To open the wallet in this configuration, the password of the wallet of the CDB\$ROOT must be used.
		 ISOLATED: The PDB is configured to use its own wallet. To open the wallet in this configuration, the password of the isolated wallet must be used.
FULLY_BACKED_UP	VARCHAR2(9)	Indicates whether all the keys in the keystore have been backed up
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

- "TDE_CONFIGURATION"
- "WALLET_ROOT"
- Oracle Database Transparent Data Encryption Guide for information about creating user-defined master encryption keys
- Oracle Database Transparent Data Encryption Guide for information about opening hardware keystores



8.207 V\$ENQUEUE_LOCK

 ${\tt V\$ENQUEUE_LOCK} \ displays \ all \ locks \ owned \ by \ enqueue \ state \ objects. \ The \ columns \ in \ this \ view \ are \ identical \ to \ the \ columns \ in \ {\tt V\$LOCK}.$



Column	Datatype	Description
ADDR	RAW(4 8)	Address of lock state object
KADDR	RAW(4 8)	Address of lock
SID	NUMBER	Identifier for session holding or acquiring the lock
TYPE	VARCHAR2(2)	Type of lock. Lists user and system types that can have locks.
ID1	NUMBER	Lock identifier #1 (depends on type)
ID2	NUMBER	Lock identifier #2 (depends on type)
LMODE	NUMBER	Lock mode in which the session holds the lock:
		 0 - none 1 - null (NULL) 2 - row-S (SS) 3 - row-X (SX) 4 - share (S) 5 - S/Row-X (SSX) 6 - exclusive (X)
REQUEST	NUMBER	Lock mode in which the process requests the lock: 0 - none 1 - null (NULL) 2 - row-S (SS) 3 - row-X (SX) 4 - share (S) 5 - S/Row-X (SSX) 6 - exclusive (X)
CTIME	NUMBER	Time since current mode was granted
BLOCK	NUMBER	The lock is blocking another lock
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



8.208 V\$ENQUEUE_STAT

 ${\tt V\$ENQUEUE_STAT} \ displays \ statistics \ on \ the \ number \ of \ enqueue \ (lock) \ requests \ for \ each \ type \ of \ lock.$

Column	Datatype	Description
INST_ID	NUMBER	ID of the instance
EQ_TYPE	VARCHAR2(2)	Type of enqueue requested
TOTAL_REQ#	NUMBER	Total number of enqueue requests or enqueue conversions for this type of enqueue
TOTAL_WAIT#	NUMBER	Total number of times an enqueue request or conversion resulted in a wait
SUCC_REQ#	NUMBER	Number of times an enqueue request or conversion was granted
FAILED_REQ#	NUMBER	Number of times an enqueue request or conversion failed
CUM_WAIT_TIME	NUMBER	Total amount of time (in milliseconds) spent waiting for the enqueue or enqueue conversion
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.209 V\$ENQUEUE_STATISTICS

V\$ENQUEUE_STATISTICS displays statistics on the number of enqueue (lock) requests for each type of lock.

 ${\tt V\$ENQUEUE_STATISTICS} \ \ \textbf{encompasses} \ {\tt V\$ENQUEUE_STAT} \ \ \textbf{and gives more detailed information} \ \ (\textbf{several rows for same enqueues with different reasons}).$

Column	Datatype	Description
EQ_NAME	VARCHAR2 (64)	Name of the enqueue request
EQ_TYPE	VARCHAR2(2)	Type of enqueue requested
REQ_REASON	VARCHAR2(64)	Reason for the enqueue request
TOTAL_REQ#	NUMBER	Total number of enqueue requests or enqueue conversions for this type of enqueue
TOTAL_WAIT#	NUMBER	Total number of times an enqueue request or conversion resulted in a wait
SUCC_REQ#	NUMBER	Number of times an enqueue request or conversion was granted
FAILED_REQ#	NUMBER	Number of times an enqueue request or conversion failed
CUM_WAIT_TIME	NUMBER	Total amount of time (in milliseconds) spent waiting for the enqueue or enqueue conversion
REQ_DESCRIPTION	VARCHAR2 (4000)	Description of the enqueue request
EVENT#	NUMBER	Event number



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



"V\$ENQUEUE_STAT"

8.210 V\$EQ_CACHED_PARTITIONS

Column	Datatype	Description
QUEUE	NUMBER	Queue ID
EVENT_STREAM_ID	NUMBER	Event stream ID
PRIORITY	NUMBER	Priority of the event stream partition
EVENT_STREAM_PARTITION_I	NUMBER	Event stream partition ID
OPT_STATE	VARCHAR2 (19)	Current message cache optimizer state of the event stream partition. Possible values: EMPTY READY EVICTION_PROGRESS UNEVICTED UNEVICTION_PROGRESS PREFETCH_PROGRESS RED_RELOAD RELOAD_PROGRESS NA: Error in the message cache optimizer state of the event stream partition
OPT_TIME	TIMESTAMP(3) WITH TIME ZONE	The predicted absolute time when the event stream partition could be accessed in future
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

See Also:

Oracle Database Advanced Queuing User's Guide for more information about Oracle Transactional Event Queues and Advanced Queuing

8.211 V\$EQ_CROSS_INSTANCE_JOBS

V\$EQ_CROSS_INSTANCE_JOBS describes Transactional Event Queue (TxEventQ) cross-instance jobs.

Each job forwards messages for an event stream from a source instance to a destination instance for a set of subscribers of a TxEventQ.

Column	Datatype	Description
JOB_ID	NUMBER	Job ID within this coordinator
SCHEMA_NAME	VARCHAR2 (128)	Source schema of the job
QUEUE_NAME	VARCHAR2 (128)	Source queue name of the job
EVENT_STREAM_ID	NUMBER	Source event stream ID
START_EVENT_STREAM_PARTITION_ID	NUMBER	Start event stream partition ID of the job
DESTINATION_INSTANCE_ID	NUMBER	Destination instance of the job
COORDINATOR_ID	NUMBER	Index of the coordinator serving the job
DEST_SERVER_PROCESS_ID	NUMBER	Process ID of the destination server
JOB_STATE	VARCHAR2 (13)	State of the job. Possible values: CRASHED INACTIVE PAUSED REQUESTED RUNNING STOPPED
FLOW_CONTROL	NUMBER	 Indicates whether the job is flow controlled. Possible values: 0 - The job is not flow controlled 1 - The job is flow controlled
MSGS_SENT	NUMBER	Number of messages sent during the job
BYTES_SENT	NUMBER	Number of bytes sent during the job
ACK_LATENCY	NUMBER	Latency for receiving ACK for the job
JOB_TYPE	VARCHAR2 (26)	 CROSS_STREAM: This job type is responsible for forwarding an event stream from its owner instance to a destination dequeue instance for all subscribers performing dequeue from that event stream at the destination dequeue instance. DEQUEUE_AFFINITY_TO_REMOTE: This job type is responsible for switching a subscriber's dequeue affinity from an event stream's owner instance to a remote dequeue instance. DEQUEUE_AFFINITY_TO_LOCAL: This job type is responsible for switching back a subscriber's dequeue affinity from a remote

dequeue instance to an event stream's owner instance.



Column	Datatype	Description
PRIORITYO_CROSS_LWM	NUMBER	ID of last priority 0 event stream partition received at DESTINATION_INSTANCE_ID
PRIORITY1_CROSS_LWM	NUMBER	ID of last priority 1 event stream partition received at DESTINATION_INSTANCE_ID
PRIORITY2_CROSS_LWM	NUMBER	ID of last priority 2 event stream partition received at DESTINATION_INSTANCE_ID
PRIORITY3_CROSS_LWM	NUMBER	ID of last priority 3 event stream partition received at DESTINATION_INSTANCE_ID
PRIORITY4_CROSS_LWM	NUMBER	ID of last priority 4 event stream partition received at DESTINATION_INSTANCE_ID
PRIORITY5_CROSS_LWM	NUMBER	ID of last priority 5 event stream partition received at DESTINATION_INSTANCE_ID
PRIORITY6_CROSS_LWM	NUMBER	ID of last priority 6 event stream partition received at DESTINATION_INSTANCE_ID
PRIORITY7_CROSS_LWM	NUMBER	ID of last priority 7 event stream partition received at DESTINATION_INSTANCE_ID
PRIORITY8_CROSS_LWM	NUMBER	ID of last priority 8 event stream partition received at DESTINATION_INSTANCE_ID
PRIORITY9_CROSS_LWM	NUMBER	ID of last priority 9 event stream partition received at DESTINATION_INSTANCE_ID
JOB_START_TIME	TIMESTAMP(3) WITH TIME ZONE	Start time of this job
SUBSCRIBER_ID	NUMBER	ID of the subscriber whose affinity is being switched for the DEQUEUE_AFFINITY_TO_REMOTE and DEQUEUE_AFFINITY_TO_LOCAL job types
SUBSCRIBER_NAME	VARCHAR2 (512)	Name of subscriber whose affinity is being switched for the DEQUEUE_AFFINITY_TO_REMOTE and DEQUEUE_AFFINITY_TO_LOCAL job types.
		This column is NULL for the CROSS_STREAM job type.
OWNER_INSTANCE_ID	NUMBER	ID of the instance that owns the event stream
QUEUE_ID	NUMBER	Queue ID
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

Oracle Database Advanced Queuing User's Guide for more information about Oracle Transactional Event Queues and Advanced Queuing



8.212 V\$EQ_INACTIVE_PARTITIONS

Column	Datatype	Description
QUEUE	NUMBER	Queue ID
EVENT_STREAM_ID	NUMBER	Event stream ID
PRIORITY	NUMBER	Priority of the event stream partition
EVENT_STREAM_PARTITION_I	NUMBER	Event stream partition ID
OPT_STATE	VARCHAR2(19)	Current message cache optimizer state of the event stream partition. Possible values: EMPTY
		 EMPTY CACHED EVICTION_PROGRESS EVICTED UNEVICTION_PROGRESS PREFETCH_PROGRESS NA: Error in the message cache optimizer state of the event stream partition
OPT_TIME	TIMESTAMP(3) WITH TIME ZONE	•
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

See Also:

Oracle Database Advanced Queuing User's Guide for more information about Oracle Transactional Event Queues and Advanced Queuing

8.213 V\$EQ_MESSAGE_CACHE

 $\label{eq:vseq_message} $$ vseq_{\tt MESSAGE_CACHE}$ provides performance statistics of the message cache for Transactional Event Queues (TxEventQs) at the event stream partition level in the instance.$

Column	Datatype	Description
QUEUE_ID	NUMBER	Queue ID
EVENT_STREAM_ID	NUMBER	Event stream ID
PRIORITY	NUMBER	Priority of the event stream partition for dequeue, range ${\tt 0}$ - ${\tt 9}$



Column	Datatype	Description
EVENT_STREAM_PARTITION_I	NUMBER	Event stream partition ID
PARTITION_ID	NUMBER	Queue partition ID
MAX_MSGS	NUMBER	Maximum number of messages for the event stream partition
ENQUEUED_MSGS	NUMBER	Number of messages enqueued for the event stream partition
MSGS_MADE_EXPIRED	NUMBER	Number of messages made expired
CHUNK_SIZE	NUMBER	The size of the memory chunk for storing messages
NUM_CHUNKS	NUMBER	Number of chunks for the event stream partition
NUM_FREE_CHUNKS	NUMBER	Number of free chunks for the event stream partition
USED_MEMORY_SIZE	NUMBER	Total estimated size of memory in use (in bytes) for the event stream partition
STATE	VARCHAR2 (13)	Event stream partition state. Possible values: CACHED (in memory) UNCACHED (on disk) UNCACHED_FREE CACHED_FREE UNKNOWN
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

Oracle Database Advanced Queuing User's Guide for more information about Oracle Transactional Event Queues and Advanced Queuing

8.214 V\$EQ_MESSAGE_CACHE_ADVICE

V\$EQ_MESSAGE_CACHE_ADVICE shows simulated metrics for a range of potential message cache sizes for Transactional Event Queues (TxEventQs). This view assists in cache sizing by providing information in the form of metrics as described below.

Column	Datatype	Description
SIZE_FOR_ESTIMATE	NUMBER	Cache size for simulation (in megabytes)
SIZE_FACTOR	NUMBER	Size factor with respect to the current cache size



Column	Datatype	Description
ESTD_SIZE_TYPE	VARCHAR2(9)	 Possible values: MINIMUM: This cache size is required to have all dequeues inmemory (no uncached). CURRENT: This is the current size of the message cache. MAXIMUM: This cache size is required to have zero evictions. NULL: This is the value in all other cases.
ESTD_CACHED_PARTITIONS	NUMBER	Estimated number of cached event stream partitions for this size
ESTD_UNCACHED_PARTITIONS	NUMBER	Estimated number of uncached event stream partitions for this size
ESTD_EVICTIONS	NUMBER	Estimated number of event stream partitions evicted for this size
ESTD_EVICTION_RATE	NUMBER	Estimated number of event stream partitions getting evicted per minute
ESTD_FG_UNEVICTIONS	NUMBER	Estimated number of event stream partitions unevicted by foreground processes
ESTD_FG_UNEVICTION_RATE	NUMBER	Estimated number of event stream partitions getting unevicted by foreground processes
ESTD_BG_UNEVICTIONS	NUMBER	Estimated number of event stream partitions unevicted by background processes
ESTD_BG_UNEVICTION_RATE	NUMBER	Estimated number of event stream partitions getting unevicted by background processes
ESTD_BG_PROCESSES	NUMBER	Estimated number of background processes required for this size
TOTAL_ENQUEUE_RATE	NUMBER	Simulated number of messages being enqueued per second
TOTAL_DEQUEUE_RATE	NUMBER	Simulated number of messages being dequeued per second
AVG_PARTITION_SIZE	NUMBER	Simulated average number of messages per cached event stream partitions
AVG_PARTITION_MEMORY	NUMBER	Simulated average memory per cached event stream partition (in megabytes)
AVG_EVICTION_TIME	NUMBER	Simulated average time to evict a cached event stream partition (in milliseconds)
AVG_UNEVICTION_TIME	NUMBER	Simulated average time to unevict a cached event stream partition (in milliseconds)
FLAGS	NUMBER	Reserved for internal use
SIMULATION_TIME	NUMBER	Amount of time that was simulated for (in minutes)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

Oracle Database Advanced Queuing User's Guide for more information about Oracle Transactional Event Queues and Advanced Queuing

8.215 V\$EQ_MESSAGE_CACHE_STAT

V\$EQ_MESSAGE_CACHE_STAT displays statistics about memory management for Transactional Event Queues (TxEventQs) in the Streams pool within the System Global Area (SGA). TxEventQs use the Streams pool in units of event queue partitions. Thus, columns of this view shows statistics at the event queue partition level. This view shows statistics across all TxEventQs.

Column	Datatype	Description
NUM_EVICTED	NUMBER	Number of evicted event queue partitions across all TxEventQs
NUM_PREFETCHED	NUMBER	Number of event queue partitions pre-fetched by an AQ background process
NUM_UNEVICTION	NUMBER	Number of event queue partitions unevicted by a foreground process, such as the dequeue process
NUM_UNCACHED	NUMBER	Number of event queue partitions stored as uncached
NUM_TRACKED	NUMBER	Number of event queue partitions which are actively tracking dequeue rates
NUM_CACHED	NUMBER	Number of event queue partitions stored as cached
MAX_SUBSH_SIZE	NUMBER	Maximum event queue partition size seen till now, in terms of number of messages per event queue partition
MIN_SUBSH_SIZE	NUMBER	Minimum event queue partition size seen till now, in terms of number of messages per event queue partition
MEAN_SUBSH_SIZE	NUMBER	Mean event queue partition size seen till now, in terms of number of messages per event queue partition
AVG_EVICTION_RATE	NUMBER	Average number of event queue partitions evicted per second
AVG_LOAD_RATE	NUMBER	Average number of event queue partitions pre-fetched or unevicted per second
AVG_EVICTION_TIME	NUMBER	Average time taken to evict one event queue partition (in milliseconds)
AVG_LOAD_TIME	NUMBER	Average time taken to un-evict one event queue partition (in milliseconds)
AVG_MISS_RATIO	NUMBER	Average ratio of number of foreground un-evictions versus background pre-fetch
AVG_THRASH_RATIO	NUMBER	Average ratio of number of event queue partitions pre-fetched by background without dequeue attempt versus total number of event queue partitions prefetched
MANDATORY_AFF_SWITCH_ATT EMPTS	NUMBER	An affinity switch is a change in dequeue instance for a TxEventQ-subscriber pair. A mandatory affinity switch is when there are local enqueues in the queue at the instance but no local dequeues present, so the dequeue affinity is switched to another instance for that TxEventQ-subscriber pair. This column shows the number of times mandatory affinity switches were attempted across all instances. Populated at the smallest instance ID only.
OPTIONAL_AFF_SWITCH_ATTE MPTS	NUMBER	Optional affinity switches are affinity switches that are not mandatory. Optional affinity switches are done for global load balancing across the Oracle Real Application Clusters (Oracle RAC) database. This column shows the number of times optional affinity switches were attempted across all instances. Populated at the smallest instance ID only.
MIN_EVICT_PERCENT	NUMBER	Percentage of streams_pool memory beyond which event queue partition eviction is triggered

Column	Datatype	Description
LAST_AVG_CACHED_HORIZON	NUMBER	Last average number of cached event queue partitions seen in TxEventQ memory manager horizon
LAST_AVG_MEMORY_HORIZON	NUMBER	Last average memory of cached event queue partitions seen in TxEventQ memory manager horizon
LAST_AVG_SUBSHARD_HORIZO N	NUMBER	Last average number of event queue partitions seen in TxEventQ memory manager horizon
LAST_LEEWAY_SHIFT	NUMBER	Internal leeway for memory threshold
AVG_OPTTIME_DRIFT	NUMBER	Average drift of opt_time for all event queue partitions. A drift is defined as a difference between opt_time as set on an event queue partition and the actual time at which an event queue partition is first dequeueed after prefetch/uneviction.
NUM_THRESHOLD_DRIFT	NUMBER	Number of times drift value has gone over threshold time. A typical threshold time can be horizon_time/2.
MAX_OPT_TIME_DRIFT	NUMBER	Maximum drift until now
MIN_OPT_TIME_DRIFT	NUMBER	Minimum drift until now
AVG_OPT_TIME_ERROR	NUMBER	An opt_time error occurs when a cached event queue partition is unevicted by a foreground process (instead of being prefetched by the AQ background). Thus, opt_time error is the difference between the actual opt_time set for an event queue partition and the absolute time at which foreground unevicts the same event queue partition. This column represents the average time of this error.
MAX_OPT_TIME_ERROR	NUMBER	Maximum opt_time error
MIN_OPT_TIME_ERROR	NUMBER	Minimum opt_time error
NUM_FG_RELOADED	NUMBER	Number of event stream partitions reloaded from disk into message cache by foreground processes
NUM_PRERELOADED	NUMBER	Number of event stream partitions reloaded from disk into message cache in advance by background processes
AVG_RELOAD_TIME	NUMBER	Average time to reload an event stream partition from disk into message cache (in milliseconds)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

Oracle Database Advanced Queuing User's Guide for more information about Oracle Transactional Event Queues and Advanced Queuing

8.216 V\$EQ_NONDUR_SUBSCRIBER

 ${\tt V\$EQ_NONDUR_SUBSCRIBER}\ provides\ information\ about\ the\ non-durable\ subscriptions\ on\ Transactional\ Event\ Queues\ (TxEventQs).$

Column	Datatype	Description
QUEUE_ID	NUMBER	Queue ID
SUBSCRIBER_ID	NUMBER	ID of the non-durable subscriber
SUBSCRIBER_NAME	VARCHAR2 (128)	Subscriber name
RULE_CONDITION	VARCHAR2 (4000)	Rule condition of the subscriber
TRANSFORMATION_OWNER	VARCHAR2 (128)	Owner of the transformation (for JMS queues)
TRANSFORMATION_NAME	VARCHAR2 (128)	Name of the transformation (for JMS queues)
CREATION_TIME	TIMESTAMP(1) WITH	Non-durable subscriber creation time
FLAGS	NUMBER	Property of the subscriber. Possible values: 0x0001 – Persistent subscriber 0x0002 – Buffered subscriber 0x0004 – JMS subscriber 0x0008 – Rule-based subscriber 0x0010 – Subscriber has transformation 0x0020 – Notification-only non-durable subscriber subscriber
SUBSCRIBER_TYPE	NUMBER	 Type of subscriber. Possible values: 1 – JMS non-durable subscriber 2 – Service layer dummy non-durable subscriber 3 – Notification-only non-durable subscriber
BITPOS	NUMBER	Position of subscriber in subscriber bitmap
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

See Also:

Oracle Database Advanced Queuing User's Guide for more information about Oracle Transactional Event Queues and Advanced Queuing



8.217 V\$EQ_NONDUR_SUBSCRIBER_LWM

V\$EQ_NONDUR_SUBSCRIBER_LWM projects the low watermarks (LWMs) of non-durable subscribers in a Transactional Event Queue (TxEventQ). The LWM of a non-durable subscriber is a combination of event stream, priority, and LWM (event queue partition).

Column	Datatype	Description
QUEUE_ID	NUMBER	Queue ID
SUBSCRIBER_ID	NUMBER	ID of the non-durable subscriber
EVENT_STREAM_ID	NUMBER	Event stream ID
PRIORITY	NUMBER	Priority of the event stream
LWM	NUMBER	Lower watermark (in an event stream partition) of the non-durable subscriber
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



Oracle Database Advanced Queuing User's Guide for more information about Oracle Transactional Event Queues and Advanced Queuing

8.218 V\$EQ_PARTITION_STATS

 VEQ_PARTITION_STATS$ displays usage statistics for the Transactional Event Queue (TxEventQ) queue partition cache and the dequeue log partition cache.

Column	Datatype	Description
INST_ID	NUMBER	Current instance ID
QUEUE_ID	NUMBER	Queue ID
QUEUE_TABLE_ID	NUMBER	Queue table object ID
QUEUE_SCHEMA	VARCHAR2 (128)	Queue schema name
QUEUE_NAME	VARCHAR2 (128)	Queue name
PT_TUNED_SIZ_QT	NUMBER	Current tuned size of the queue partition cache, expressed in number of partition cache elements
PT_CACHED_PTNS_QT	NUMBER	Current number of cached partitions in the queue partition cache
PT_OVER_CACHED_PTNS_QT	NUMBER	Current number of over-cached partitions in the queue partition cache, that is, the number of cached partitions whose partition cache elements exceed the current tuned size of the queue partition cache



Column	Datatype	Description
PT_TOTAL_UPTUNE_QT	NUMBER	Total amount of space added to the queue partition cache due to tune- ups, since the cache was initialized, expressed in number of partition cache elements
PT_NO_OF_UPTUNES_QT	NUMBER	Total number of times a tune-up was triggered on the queue partition cache, since the cache was initialized
PT_TOTAL_DOWNTUNE_QT	NUMBER	Total amount of space removed from the queue partition cache due to tune-downs, since the cache was initialized, expressed in number of partition cache elements
PT_NO_OF_DOWNTUNES_QT	NUMBER	Total number of times a tune-down was triggered on the queue partition cache, since the cache was initialized
PT_CACHE_MISS_QT	NUMBER	Total number of cache misses during partition lookups on the queue partition cache
PT_CACHE_HIT_QT	NUMBER	Total number of cache hits during partition lookups on the queue partition cache
PT_TOTAL_CACH_GET_QT	NUMBER	Total number of successful fetches from the queue partition cache
PT_TOTAL_CACH_PUT_QT	NUMBER	Total number of caching operations that occurred on the queue partition cache
PT_UNBOUNDINGS_QT	NUMBER	Total number of times queue partitions were unbounded
PT_TUNED_SIZ_DQ	NUMBER	Current tuned size of the dequeue log partition cache, expressed in number of partition cache elements
PT_CACHED_PTNS_DQ	NUMBER	Current number of cached partitions in the dequeue log partition cache
PT_OVER_CACHED_PTNS_DQ	NUMBER	Current number of over-cached partitions in the dequeue log partition cache, that is, the number of cached dequeue log partitions whose partition cache elements exceed the current tuned size of the dequeue log partition cache
PT_TOTAL_UPTUNE_DQ	NUMBER	Total amount of space added to the dequeue log partition cache due to tune-ups, since the cache was initialized, expressed in number of partition cache elements
PT_NO_OF_UPTUNES_DQ	NUMBER	Total number of times a tune-up was triggered on the dequeue log partition cache, since the cache was initialized
PT_TOTAL_DOWNTUNE_DQ	NUMBER	Total amount of space removed from the dequeue log partition cache due to tune-downs, since the cache was initialized, expressed in number of partition cache elements
PT_NO_OF_DOWNTUNES_DQ	NUMBER	Total number of times a tune-down was triggered on the dequeue log partition cache, since the cache was initialized
PT_CACHE_MISS_DQ	NUMBER	Total number of cache misses during partition lookups on the dequeue log partition cache
PT_CACHE_HIT_DQ	NUMBER	Total number of cache hits during partition lookups on the dequeue log partition cache
PT_TOTAL_CACH_GET_DQ	NUMBER	Total number of successful fetches from the dequeue log partition cache
PT_TOTAL_CACH_PUT_DQ	NUMBER	Total number of caching operations that occurred on the dequeue log partition cache
PT_UNBOUNDINGS_DQ	NUMBER	Total number of times dequeue log partitions were unbounded
ADD_PARTITION_FG_QT	NUMBER	Total number of queue partitions created inline during foreground AQ enqueue operations
ADD_PARTITION_BG_QT	NUMBER	Total number of queue partitions created asynchronously by the AQ partitioning background process



Column	Datatype	Description
ADD_PARTITION_FG_DQLOG	NUMBER	Total number of dequeue log partitions created inline during foreground AQ dequeue operations
ADD_PARTITION_BG_DQLOG	NUMBER	Total number of dequeue log partitions created asynchronously by the AQ partitioning background process
TRUNC_PARTITION_QT	NUMBER	Total number of truncated and recycled queue partitions
TRUNC_PARTITION_DQLOG	NUMBER	Total number of truncated and recycled dequeue log partitions
CON_ID NUMBER	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



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8.219 V\$EQ_REMOTE_DEQUEUE_AFFINITY

V\$EQ_REMOTE_DEQUEUE_AFFINITY lists the for Transactional Event Queue (TxEventQ) dequeue affinity instance of the subscribers not dequeuing locally from the event streams's owner instance. Cross-instance message forwarding is used for these subscribers.

Column	Datatype	Description
QUEUE_ID	NUMBER	Queue ID
EVENT_STREAM_ID	NUMBER	Event stream ID, which is being forwarded from <code>SOURCE_INSTANCE</code> to <code>INST_ID</code> for the subscriber
SOURCE_INSTANCE_ID	NUMBER	Owner instance ID from which the event stream is being forwarded
SUBSCRIBER_ID	NUMBER	Subscriber ID
QUEUE_SCHEMA	VARCHAR2 (128)	Owner of the queue
QUEUE_NAME	VARCHAR2 (128)	Queue name
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only
		the root
		• <i>n</i> : Where <i>n</i> is the applicable container ID for the rows containing data





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8.220 V\$EQ_SUBSCRIBER_LOAD

V\$EQ_SUBSCRIBER_LOAD describes the load of all subscribers of Transactional Event Queue (TxEventQ) event streams in terms of latency at every instance in an Oracle RAC environment.

Latency denotes the predicted amount of time (in seconds) required from the current time to drain all the messages for that subscriber at each respective instance. The latency calculation considers past enqueue/dequeue rates and future enqueue/dequeue rates based on history.

Column	Datatype	Description
QUEUE_ID	NUMBER	Queue ID
QUEUE_SCHEMA	VARCHAR2 (128)	Queue schema
QUEUE_NAME	VARCHAR2 (128)	Queue name
SUBSCRIBER_ID	NUMBER	Subscriber ID
SUBSCRIBER_NAME	VARCHAR2 (128)	Subscriber name
LATENCY_STATE	VARCHAR2(8)	Latency state. Possible values:
		 FINITE - The subscriber will be able to dequeue all the messages in a finite amount of time INFINITE - The subscriber's dequeue rate may not catch up to the enqueue rate UNKNOWN - Latency is not yet known
LATENCY	NUMBER	Latency (in seconds). Valid only when LATENCY STATE is FINITE.
DEQUEUE REQUESTS	NUMBER	Approximate number of dequeue requests noted recently
ACTIVE_EVENT_STREAM_ID	NUMBER	Number of event streams that have messages for this subscriber
ACTIVE_LISTENER	VARCHAR2(5)	Indicates whether the subscriber is actively listening at this instance for messages (TRUE) or not (FALSE)
DEQUEUE_SESSIONS	NUMBER	Displays the number of active dequeue sessions for this subscriber
FLAGS	NUMBER	For internal use only
MANDATORY_AFF_SWITCHES	NUMBER	An affinity switch is a change in the dequeue instance for an event stream-subscriber pair. A mandatory affinity switch is when there are local enqueues in the queue at the instance but no local dequeues present, so the dequeue affinity is switched to another instance for that event stream-subscriber pair. This column shows the number of times mandatory affinity switches were needed from this instance to another for this subscriber.
OPTIONAL_AFF_SWITCHES	NUMBER	Optional affinity switches are affinity switches that are not mandatory. Optional affinity switches are done for global load balancing across the Oracle Real Application Clusters (Oracle RAC) database. This column shows the number of times optional affinity switches were needed from this instance to another for this subscriber.



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

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8.221 V\$EQ_SUBSCRIBER_STAT

V\$EQ_SUBSCRIBER_STAT displays basic statistical information about the subscribers of Transactional Event Queue (TxEventQ) event streams. There is one row per queue per event stream per subscriber.

Column	Datatype	Description
QUEUE_ID	NUMBER	Queue identifier
SUBSCRIBER_ID	NUMBER	Subscriber identifier
EVENT_STREAM_ID	NUMBER	Event stream identifier
PRIORITY	NUMBER	Priority value of the event stream
MSG_SN	NUMBER	Message serial number
DEQUEUE_PARTITION_ID	NUMBER	Last known dequeue position in this event stream
ENQUEUED_MSGS	NUMBER	Number of enqueued messages
DEQUEUED_MSGS	NUMBER	Number of dequeued messages
ELAPSED_DEQUEUE_TIME	NUMBER	Amount of time spent performing dequeues (in seconds)
CPU_DEQUEUE_TIME	NUMBER	Actual amount of CPU time spent performing dequeues (in seconds)
DEQUEUE_RATE	NUMBER	Number of messages dequeued per second
DEQUEUE_POSITION	RAW(16)	Message ID at the dequeue position of the subscriber in this event stream
		A NULL value indicates that either the event stream is empty or no dequeues have been done on this event stream.
TIME_SINCE_LAST_DEQUEUE	NUMBER	Time since last dequeue activity (in seconds)
ESTD_TIME_TO_DRAIN	NUMBER	Estimated amount of time to drain the event stream (in seconds) with current enqueue and dequeue rates. Null, if the enqueue rate is greater than the dequeue rate.
ESTD_TIME_TO_DRAIN_NO_ENQ	NUMBER	Estimated amount of time to drain the event stream (in seconds) with no new enqueues



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



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8.222 V\$EQ_UNCACHED_PARTITIONS

 $\label{thm:condition} $$ $$ $$ V$EQ_UNCACHED_PARTITIONS$$ $$ describes all uncached Transactional Event Queue (TxEventQ) event stream partitions.$

Column	Datatype	Description
QUEUE_ID	NUMBER	Queue ID
EVENT_STREAM_ID	NUMBER	Event stream ID
PRIORITY	NUMBER	Priority of the event stream partition
EVENT_STREAM_PARTITION_I	NUMBER	Event stream partition ID
OPT_STATE	VARCHAR2(19)	Current message cache optimizer state of the event stream partition. Possible values:
		EMPTY READY
		• EVICTION_PROGRESS
		• EVICTED
		• UNEVICTION PROGRESS
		• PREFETCH PROGRESS
		• NEED_RELOAD
		RELOAD_PROGRESS
		 NA: Error in the message cache optimizer state of the event stream partition
OPT_TIME	TIMESTAMP(3) WITH TIME ZONE	The predicted absolute time when the event stream partition could be accessed in future
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data





Oracle Database Advanced Queuing User's Guide for more information about Oracle Transactional Event Queues and Advanced Queuing

8.223 V\$EVENT HISTOGRAM

V\$EVENT_HISTOGRAM displays a histogram of the number of waits, the maximum wait, and total wait time on an event basis, in milliseconds. The histogram has buckets of time intervals from $< 1 \text{ ms}, < 2 \text{ ms}, < 4 \text{ ms}, < 8 \text{ ms}, ... < 2^{21} \text{ ms}, < 2^{22} \text{ ms}, and >= 2^{22} \text{ ms}.$

The histogram will not be filled unless the <code>TIMED_STATISTICS</code> initialization parameter is set to true.

Column	Datatype	Description
EVENT#	NUMBER	Event number
EVENT	VARCHAR2 (64)	Name of the event
WAIT_TIME_MILLI	NUMBER	Amount of time the bucket represents (in milliseconds). If the duration = num , then this column represents waits of duration < num that are not included in any smaller bucket.
WAIT_COUNT	NUMBER	Number of waits of the duration belonging to the bucket of the histogram
LAST_UPDATE_TIME	VARCHAR2(64)	Indicates the last time the bucket was updated (the ending timestamp of the last wait falling into the bucket's duration)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

"TIMED STATISTICS"

8.224 V\$EVENT_HISTOGRAM_MICRO

V\$EVENT_HISTOGRAM_MICRO displays a histogram of the number of waits, the maximum wait, and total wait time on an event basis, in microseconds. The histogram has buckets of time intervals from < 1 us, < 2 us, < 4 us, < 8 us, ... < 2^{31} us, < 2^{32} us, and >= 2^{32} us.

The histogram will not be filled unless the <code>TIMED_STATISTICS</code> initialization parameter is set to true.

Column	Datatype	Description
EVENT#	NUMBER	Event number
EVENT	VARCHAR2 (64)	Name of the event
WAIT_TIME_FORMAT	VARCHAR2(30)	A human readable time string which is converted from WAIT_TIME_MICRO. When WAIT_TIME_MICRO < 1 millisecond, WAIT_TIME_FORMAT is shown in microseconds. When WAIT_TIME_MICRO < 1 second, WAIT_TIME_FORMAT is shown in milliseconds. When WAIT_TIME_MICRO < 1 minute, WAIT_TIME_FORMAT is shown in seconds. When WAIT_TIME_MICRO > 1 minute, WAIT_TIME_FORMAT is shown in minutes and seconds.
WAIT_TIME_MICRO	NUMBER	Amount of time the bucket represents (in microseconds). If the duration $= num$, then this column represents waits of duration $< num$ that are not included in any smaller bucket.
WAIT_COUNT	NUMBER	Number of waits of the duration belonging to the bucket of the histogram
LAST_UPDATE_TIME	VARCHAR2(64)	Indicates the last time the bucket was updated (the ending timestamp of the last wait falling into the bucket's duration)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.225 V\$EVENT_NAME

 ${\tt V\$EVENT_NAME} \ \ \textbf{displays} \ \ \textbf{information} \ \ \textbf{about} \ \ \textbf{wait} \ \ \textbf{events}.$

Column	Datatype	Description
EVENT#	NUMBER	Number of the wait event
EVENT_ID	NUMBER	Identifier of the wait event
NAME	VARCHAR2 (64)	Name of the wait event. Names that appear in this column remain stable across Oracle Database releases, and they can be relied on by customer scripts.
PARAMETER1	VARCHAR2 (64)	Description of the first parameter for the wait event
PARAMETER2	VARCHAR2 (64)	Description of the second parameter for the wait event
PARAMETER3	VARCHAR2 (64)	Description of the third parameter for the wait event
WAIT_CLASS_ID	NUMBER	Identifier of the class of the wait event
WAIT_CLASS#	NUMBER	Number of the class of the wait event
WAIT_CLASS	VARCHAR2 (64)	Name of the class of the wait event
		See Also: "Classes of Wait Events" for a description of the different wait event classes



Column	Datatype	Description
DISPLAY_NAME	VARCHAR2(64)	A clearer and more descriptive name for the wait event that appears in the NAME column. Names that appear in the DISPLAY_NAME column can change across Oracle Database releases, therefore customer scripts should not rely on names that appear in the DISPLAY_NAME column across releases.
CON_ID NUMBER	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.226 V\$EVENTMETRIC

V\$EVENTMETRIC displays values of wait event metrics for the most recent 60-second interval.

Column	Datatype	Description
BEGIN_TIME	DATE	Begin time of the interval
END_TIME	DATE	End time of the interval
INTSIZE_CSEC	NUMBER	Interval size (in hundredths of a second)
EVENT#	NUMBER	Number of the event
EVENT_ID	NUMBER	Identifier of the event
NUM_SESS_WAITING	NUMBER	Number of sessions waiting at the end of the interval
TIME_WAITED	NUMBER	Time waited (in hundredths of a second)
WAIT_COUNT	NUMBER	Number of times waited
TIME_WAITED_FG	NUMBER	Time waited (in hundredths of a second), from foreground sessions
WAIT_COUNT_FG	NUMBER	Number of times waited, from foreground sessions
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.227 V\$EXADIRECT_ACL

 $\verb|V\$EXADIRECT_ACL| monitors current ACLs propagated to the database instance.$

Column	Datatype	Description
SERVICE_NAME	VARCHAR2 (512)	Database service name
SGID	VARCHAR2(39)	Identifier of the VM allowed access to the specified service name



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing
		data

8.228 V\$EXECUTION

V\$EXECUTION displays information on parallel execution.

Column	Datatype	Description
PID	NUMBER	Session ID
DEPTH	NUMBER	The depth
FUNCTION	VARCHAR2(10)	Session serial number
TYPE	VARCHAR2(7)	Name of the OBJECT_NODE in plan table
NVALS	NUMBER	Elapsed time for OBJECT_NODE
VAL1	NUMBER	The value for number 1
VAL2	NUMBER	The value for number 2
SEQH	NUMBER	A sequence
SEQL	NUMBER	A sequence
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.229 V\$EXP_STATS

 ${\tt V\$EXP} \ \ {\tt STATS} \ \ {\tt stores} \ \ {\tt the} \ \ {\tt expression} \ \ {\tt tracking} \ \ {\tt statistics} \ \ {\tt of} \ \ {\tt recently} \ \ {\tt executed} \ \ {\tt queries}.$

Column	Datatype	Description
EXPID	NUMBER	Expression ID of the current expression
OBJNUM	NUMBER	The object number contained in the expression
DYNCOST	NUMBER	Optimizer dynamic cost of evaluating the expression
EVALCNT	NUMBER	Number of times the expression has been evaluated



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

✓ See Also:

- "ALL_EXPRESSION_STATISTICS"
- "DBA_EXPRESSION_STATISTICS"
- "ALL_EXPRESSION_STATISTICS"

8.230 V\$FALSE_PING

 ${\tt V\$FALSE_PING} \ is \ deprecated. \ The \ information \ that \ was \ provided \ in \ this \ view \ is \ now \ provided \ in \ the \ {\tt V\$INSTANCE_CACHE_TRANSFER} \ and \ {\tt V\$SEGMENT_STATISTICS} \ views.$

Column	Datatype	Description
FILE#	NUMBER	Data file identifier number (to find the file name, query DBA_DATA_FILES or V\$DBFILE)
BLOCK#	NUMBER	Block number
STATUS	VARCHAR2(10)	Status of the block: • free - Not currently in use • xcur - Exclusive • scur - Shared current • cr - Consistent read • read - Being read from disk • mrec - In media recovery mode
XNC	NUMBER	 irec - In instance recovery mode Number of PCM lock conversions from Exclusive mode due to contention with another instance. This column is obsolete and maintained for backward compatibility.
FORCED_READS	NUMBER	Number of times the block had to be reread from the cache because another instance has forced it out of this instance's cache by requesting the lock on the block in exclusive mode
FORCED_WRITES	NUMBER	Number of times GCS had to write this block to cache because this instance had used the block and another instance had requested the lock on the block in a conflicting mode
NAME	VARCHAR2(128)	Name of the database object containing the block
PARTITION_NAME	VARCHAR2(128)	NULL for nonpartitioned objects
KIND	VARCHAR2 (15)	Type of database object



Column	Datatype	Description
OWNER#	NUMBER	Owner number
LOCK_ELEMENT_ADDR	RAW(4 8)	Address of the lock element that contains the PCM lock that is covering the buffer. If more than one buffer has the same address, then these buffers are covered by the same PCM lock.
LOCK_ELEMENT_NAME	NUMBER	Name of the lock that contains the PCM lock that is covering the buffer
CLASS#	NUMBER	Lock element class
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

- "V\$INSTANCE_CACHE_TRANSFER"
- "V\$SEGMENT_STATISTICS"

8.231 V\$FAST_START_FAILOVER_CONFIG

V\$FAST_START_FAILOVER_CONFIG displays configuration details about Oracle Data Guard fast-start failover.

Column	Datatype	Description
FAST_START_FAILOVER_MODE VARCE	VARCHAR2 (19)	Displays the current fast-start failover mode. Possible values are: • DISABLED - Fast-start failover is disabled.
		OBSERVE-ONLY - Fast-start failover is enabled in test drive mode.
		 POTENTIAL DATA LOSS - Fast-start failover is enabled and a fast-start failover can incur data loss within FastStartFailoverLagLimit seconds.
		 ZERO DATA LOSS - Fast-start failover is enabled and a fast-start failover cannot incur any data loss.



Column	Datatype	Description
STATUS	VARCHAR2 (22)	Fast-start failover status: BYSTANDER DISABLED LOADING DICTIONARY PRIMARY UNOBSERVED REINSTATE FAILED REINSTATE REQUIRED STALLED SUSPENDED
		 SYNCHRONIZED TARGET OVER LAG LIMIT TARGET UNDER LAG LIMIT UNSYNCHRONIZED See Also: Oracle Data Guard Broker for detailed descriptions of these
		values Note: If the value of this column is DISABLED, then the values for the CURRENT_TARGET, THRESHOLD, OBSERVER_PRESENT, and OBSERVER_HOST columns in this table are not meaningful.
CURRENT_TARGET	VARCHAR2(30)	DB_UNIQUE_NAME of the standby that is the current fail-safe failover observer target standby for the Data Guard configuration
THRESHOLD	NUMBER	Time (in seconds) that the observer will attempt to reconnect with a disconnected primary before attempting fail-safe failover observer with the target standby
OBSERVER_PRESENT	VARCHAR2(7)	Indicates whether the master observer is currently connected to the local database (YES) or not (NO) Note: This column is consistent throughout an Oracle RAC
		environment; that is, if the observer is connected to any instance, then all instances will show a value of YES.
OBSERVER_HOST	VARCHAR2 (512)	Machine name that is currently hosting the master observer process, if fast-start failover is enabled. If fast-start failover is not enabled, this column returns a NULL string.
PING_INTERVAL	NUMBER	ObserverPingInterval value for the fast-start failover configuration
		This value specifies how frequently the observer must ping the primary database (in milliseconds).
		See Also: Oracle Data Guard Broker for more information about the ObserverPingInterval configuration property
PING_RETRY	NUMBER	ObserverPingRetry value for the fast-start failover configuration
		This value specifies the number of times that the observer retries a failed ping before it initiates a failover to the target standby database.
		See Also: Oracle Data Guard Broker for more information about the ObserverPingRetry configuration property
PROTECTION_MODE	VARCHAR2 (120)	Protection mode for the fast-start failover configuration: MAXAVAILABILITY MAXPERFORMANCE MAXPROTECTION
		See Also: Oracle Data Guard Broker for more information about protection modes



Column	Datatype	Description
LAG_LIMIT	NUMBER	FastStartFailoverLagLimit value for the fast-start failover configuration
		This value establishes an acceptable limit (in seconds) that the standby is allowed to fall behind the primary in terms of redo applied.
		See Also: Oracle Data Guard Broker for more information about the FastStartFailoverLagLimit configuration property
AUTO_REINSTATE	VARCHAR2(5)	FastStartFailoverAutoReinstate value (TRUE or FALSE) for the fast- start failover configuration
		This value specifies whether the former primary database is to be automatically reinstated if a fast-start failover was initiated because the primary database was either isolated or had crashed.
		See Also: Oracle Data Guard Broker for more information about the FastStartFailoverAutoReinstate configuration property
OBSERVER_RECONNECT	NUMBER	ObserverReconnect value for the fast-start failover configuration
		This value specifies how often (in seconds) the observer establishes a new connection to the primary database.
		See Also: Oracle Data Guard Broker for more information about the ObserverReconnect configuration property
OBSERVER_OVERRIDE	VARCHAR2(5)	ObserverOverride value (TRUE or FALSE) for the fast-start failover configuration
		This value specifies whether an automatic failover is allowed to occur when the observer has lost connectivity to the primary.
		See Also: Oracle Data Guard Broker for more information about the ObserverOverride configuration property
SHUTDOWN_PRIMARY	VARCHAR2(5)	FastStartFailoverPmyShutdown value (TRUE or FALSE) for the fast-start failover configuration
		This value specifies whether the primary database should shut down under certain conditions.
		See Also: Oracle Data Guard Broker for more information about the FastStartFailoverPmyShutdown configuration property
LAG_TYPE	VARCHAR2(4000)	FastStartFailoverLagType value (APPLY or TRANSPORT) for the fast- start failover configuration
		This value specifies the type of lag (apply lag or transport lag) that is used to specify the data loss threshold.
		See Also: Oracle Data Guard Broker for more information about the FastStartFailoverLagType configuration property
LAG_GRACE_TIME	NUMBER	FastStartFailoverLagGraceTime value for the fast-start failover configuration
		This value specifies the maximum amount of time (in seconds) that can pass before the lag limit (FastStartFailoverLagLimit) is reached when the primary database requests permission to move to the lagging state.
		See Also: Oracle Data Guard Broker for more information about the FastStartFailoverLagGraceTime configuration property



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



This view is available starting with Oracle Database 23ai.

8.232 V\$FAST_START_SERVERS

V\$FAST_START_SERVERS provides information about all the recovery workers performing parallel transaction recovery.

Column	Datatype	Description
STATE	VARCHAR2(11)	State of the server (IDLE or RECOVERING)
UNDOBLOCKSDONE	NUMBER	Number of undo blocks done so far
PID	NUMBER	Process ID
XID	RAW(8)	Transaction ID
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.233 V\$FAST_START_TRANSACTIONS

This view displays only transactions recovered in parallel. Recovery progress for serial transactions is not displayed.

Column	Datatype	Description	
USN	NUMBER	Undo segment number of the transaction	
SLT	NUMBER	Slot within the rollback segment	
SEQ	NUMBER	Incarnation number of the slot	



Column	Datatype	Description
STATE	VARCHAR2 (16)	State of the transaction (may be TO BE RECOVERED, RECOVERED, or RECOVERING)
UNDOBLOCKSDONE	NUMBER	Number of undo blocks completed on the transaction
UNDOBLOCKSTOTAL	NUMBER	Total number of undo blocks that need recovery
PID	NUMBER	ID of the current server it has been assigned to
CPUTIME	NUMBER	Time for which recovery has progressed (in seconds)
PARENTUSN	NUMBER	Undo segment number of the parent transaction in PDML
PARENTSLT	NUMBER	Slot of the parent transaction in PDML
PARENTSEQ	NUMBER	Sequence number of the parent transaction in PDML
XID	RAW(8)	Transaction ID
PXID	RAW(8)	Parent transaction ID
RCVSERVERS	NUMBER	Number of servers used in the last recovery
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.234 V\$FILE_CACHE_TRANSFER

 ${\tt V\$FILE_CACHE_TRANSFER} \ is \ deprecated. \ The information \ that \ was \ provided \ in \ this \ view \ is \ now \ provided \ in \ the \ {\tt V\$INSTANCE_CACHE_TRANSFER} \ and \ {\tt V\$SEGMENT_STATISTICS} \ views.$

Column	Datatype	Description
FILE_NUMBER	NUMBER	Number of the data file
X_2_NULL	NUMBER	Number of blocks with Exclusive-to-NULL conversions; always 0
X_2_NULL_FORCED_WRITE	NUMBER	Number of Exclusive-to-NULL forced writes; always 0
X_2_NULL_FORCED_STALE	NUMBER	Number of Exclusive-to-NULL blocks converted to CR; always 0
X_2_S	NUMBER	Number of blocks with Exclusive-to-Shared conversions; always 0
X_2_S_FORCED_WRITE	NUMBER	Number of Exclusive-to-Shared forced writes; always 0
S_2_NULL	NUMBER	Number of blocks with Shared-to-NULL conversions; always 0
S_2_NULL_FORCED_STALE	NUMBER	Number of Shared-to-NULL blocks converted to CR; always 0
RBR	NUMBER	Number of reuse blocks cross-instance calls; always 0
RBR_FORCED_WRITE	NUMBER	Number of blocks written due to reuse blocks cross-instance calls; always $\ensuremath{\text{0}}$
RBR_FORCED_STALE	NUMBER	Number of blocks marked as flushed due to reuse blocks cross-instance calls; always $\ensuremath{\text{0}}$
NULL_2_X	NUMBER	Number of blocks with NULL-to-Exclusive conversions; always 0
s_2_x	NUMBER	Number of blocks with Shared-to-Exclusive conversions; always 0



Column	Datatype	Description
NULL_2_S	NUMBER	Number of blocks with NULL-to-Shared conversions; always 0
CR_TRANSFERS	NUMBER	Number of CR blocks received; always 0
CUR_TRANSFERS	NUMBER	Number of current blocks received; always 0
CON_ID NUM	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

- "V\$INSTANCE_CACHE_TRANSFER"
- "V\$SEGMENT_STATISTICS"

8.235 V\$FILE_HISTOGRAM

V\$FILE_HISTOGRAM displays a histogram of all synchronous single block reads on a per-file basis (for data files). The histogram has buckets of time intervals from < 1 ms, < 2 ms, < 4 ms, < 8 ms, ... < 2^{21} ms, < 2^{22} ms, and >= 2^{22} ms.

The histogram will not be filled unless the ${\tt STATISTICS_LEVEL}$ initialization parameter is set to ${\tt ALL}$.

Column	Datatype	Description
FILE#	NUMBER	File number
SINGLEBLKRDTIM_MILLI	NUMBER	Amount of time the bucket represents (in milliseconds). If the duration = num, then this column represents waits of duration < num that are not included in any smaller bucket.
SINGLEBLKRDS	NUMBER	Number of waits of the duration belonging to the bucket of the histogram
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.236 V\$FILEMETRIC

 ${\tt V\$FILEMETRIC} \ displays \ values \ of file \ metrics \ for \ the \ most \ recent \ 10-minute \ interval. \ A \ history \ of \ the \ last \ one \ hour \ will \ be \ kept \ in \ the \ system.$

Column	Datatype	Description
BEGIN_TIME	DATE	Begin time of the interval
END_TIME	DATE	End time of the interval
INTSIZE_CSEC	NUMBER	Interval size (in hundredths of a second)
FILE_ID	NUMBER	File number
CREATION_TIME	NUMBER	Timestamp of the file creation
AVERAGE_READ_TIME	NUMBER	Average file read time (in hundredths of a second)
AVERAGE_WRITE_TIME	NUMBER	Average file write time (in hundredths of a second)
PHYSICAL_READS	NUMBER	Number of physical reads
PHYSICAL_WRITES	NUMBER	Number of physical writes
PHYSICAL_BLOCK_READS	NUMBER	Number of physical block reads
PHYSICAL_BLOCK_WRITES	NUMBER	Number of physical block writes
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.237 V\$FILEMETRIC_HISTORY

 $\verb|V\$FILEMETRIC_HISTORY| \ displays \ values \ of file \ metrics \ for \ all \ intervals \ in \ the \ last \ one \ hour.$

Column	Datatype	Description
BEGIN_TIME	DATE	Begin time of the interval
END_TIME	DATE	End time of the interval
INTSIZE_CSEC	NUMBER	Interval size (in hundredths of a second)
FILE_ID	NUMBER	File number
CREATION_TIME	NUMBER	Timestamp of the file creation
AVERAGE_READ_TIME	NUMBER	Average file read time (in hundredths of a second)
AVERAGE_WRITE_TIME	NUMBER	Average file write time (in hundredths of a second)
PHYSICAL_READS	NUMBER	Number of physical reads
PHYSICAL_WRITES	NUMBER	Number of physical writes
PHYSICAL_BLOCK_READS	NUMBER	Number of physical block reads
PHYSICAL_BLOCK_WRITES	NUMBER	Number of physical block writes



Column	Datatype	Description
CON_ID N	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.238 V\$FILESPACE_USAGE

V\$FILESPACE_USAGE summarizes space allocation information of each data file and temp file.

Column	Datatype	Description
TABLESPACE_ID	NUMBER	ID of the tablespace to which the file belongs
RFNO	NUMBER	Relative file number of the file
ALLOCATED_SPACE	NUMBER	Total allocated space in the file
FILE_SIZE	NUMBER	Current file size
FILE_MAXSIZE	NUMBER	Maximum file size
CHANGESCN_BASE	NUMBER	SCN base of the last change to the file
CHANGESCN_WRAP	NUMBER	SCN wrap of the last change to the file
CHANGESCN8	NUMBER	The 8-byte representation of the SCN at which the last change happened to the file
FLAG	NUMBER	Flags for file attributes
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing
		 n: Where n is the applicable container ID for the rows containing data

8.239 V\$FILESTAT

V\$FILESTAT displays the number of physical reads and writes done and the total number of single-block and multiblock I/Os done at file level.

As of Oracle Database 10g Release 2 (10.2), this view also includes reads done by RMAN processes for backup operations.

Column	Datatype	Description
FILE#	NUMBER	Number of the file
PHYRDS	NUMBER	Number of physical reads done
PHYWRTS	NUMBER	Number of times DBWR is required to write
PHYBLKRD	NUMBER	Number of physical blocks read



Column	Datatype	Description
OPTIMIZED_PHYBLKRD	NUMBER	Number of physical reads from Database Smart Flash Cache blocks
PHYBLKWRT	NUMBER	Number of blocks written to disk, which may be the same as ${\tt PHYWRTS}$ if all writes are single blocks
SINGLEBLKRDS	NUMBER	Number of single block reads
READTIM	NUMBER	Time (in hundredths of a second) spent doing reads if the TIMED_STATISTICS parameter is true; 0 if false
WRITETIM	NUMBER	Time (in hundredths of a second) spent doing writes if the TIMED_STATISTICS parameter is true; 0 if false
SINGLEBLKRDTIM	NUMBER	Cumulative single block read time (in hundredths of a second)
AVGIOTIM	NUMBER	Average time (in hundredths of a second) spent on I/O, if the TIMED_STATISTICS parameter is true; 0 if false
LSTIOTIM	NUMBER	Time (in hundredths of a second) spent doing the last I/O, if the <code>TIMED_STATISTICS</code> parameter is true; 0 if false
MINIOTIM	NUMBER	Minimum time (in hundredths of a second) spent on a single I/O, if the TIMED_STATISTICS parameter is true; 0 if false
MAXIORTM	NUMBER	Maximum time (in hundredths of a second) spent doing a single read, if the <code>TIMED_STATISTICS</code> parameter is <code>true</code> ; 0 if <code>false</code>
MAXIOWTM	NUMBER	Maximum time (in hundredths of a second) spent doing a single write, if the <code>TIMED_STATISTICS</code> parameter is <code>true</code> ; 0 if <code>false</code>
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		This value is used for rows containing data that pertain to the
		entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.240 V\$FIXED_TABLE

 ${\tt V\$FIXED_TABLE} \ \ \text{displays all dynamic performance tables, views, and derived tables in the database.}$

Some V\$ tables (for example, V\$ROLLNAME) refer to real tables and are therefore not listed.

Column	Datatype	Description
NAME	VARCHAR2 (128)	Name of the object
OBJECT_ID	NUMBER	Identifier of the fixed object
TYPE	VARCHAR2(5)	Object type (TABLE VIEW)
TABLE_NUM	NUMBER	Number that identifies the dynamic performance table if it is of type ${\tt TABLE}$



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.241 V\$FIXED_VIEW_DEFINITION

 $V\$FIXED_VIEW_DEFINITION$ contains the definitions of all the fixed views (views beginning with V\$).

Use this table with caution. Oracle tries to keep the behavior of fixed views the same from release to release, but the definitions of the fixed views can change without notice. Use these definitions to optimize your queries by using indexed columns of the dynamic performance tables.

Column	Datatype	Description
VIEW_NAME	VARCHAR2 (128)	Name of the fixed view
VIEW_DEFINITION	VARCHAR2(4000)	Definition of the fixed view
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.242 V\$FLASHBACK_DATABASE_LOG

V\$FLASHBACK_DATABASE_LOG displays information about the flashback data. Use this view to help estimate the amount of flashback space required for the current workload.

Column	Datatype	Description
OLDEST_FLASHBACK_SCN	NUMBER	Lowest system change number (SCN) in the flashback data, for any incarnation
OLDEST_FLASHBACK_TIME	DATE	Time of the lowest SCN in the flashback data, for any incarnation
RETENTION_TARGET	NUMBER	Target retention time (in minutes)
FLASHBACK_SIZE	NUMBER	Current size (in bytes) of the flashback data
ESTIMATED_FLASHBACK_SIZE	NUMBER	Estimated size of flashback data needed (in bytes) for the current target retention



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.243 V\$FLASHBACK_DATABASE_LOGFILE

V\$FLASHBACK DATABASE LOGFILE displays information about the flashback log files.

Column	Datatype	Description
NAME	VARCHAR2 (513)	Name of the log file
LOG#	NUMBER	Log file number
THREAD#	NUMBER	Log file thread number
SEQUENCE#	NUMBER	Log file sequence number
BYTES	NUMBER	Log file size (in bytes)
FIRST_CHANGE#	NUMBER	Lowest system change number (SCN) in the log file
FIRST_TIME	DATE	Time of the first SCN in the log file
TYPE	VARCHAR2 (9)	Log type: NORMAL RESERVED FREE TO DELETE
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.244 V\$FLASHBACK_DATABASE_STAT

V\$FLASHBACK_DATABASE_STAT displays statistics for monitoring the I/O overhead of logging flashback data. This view also displays the estimated flashback space needed based on previous workloads.

Column	Datatype	Description
BEGIN_TIME	DATE	Beginning of the time interval
END_TIME	DATE	End of the time interval
FLASHBACK_DATA	NUMBER	Number of bytes of flashback data written during the interval
DB_DATA	NUMBER	Number of bytes of database data read and written during the interval



Column	Datatype	Description
REDO_DATA	NUMBER	Number of bytes of redo data written during the interval
ESTIMATED_FLASHBACK_SIZE	NUMBER	Value of ${\tt ESTIMATED_FLASHBACK_SIZE}$ in ${\tt V\$FLASHBACK_DATABASE_LOG}$ at the end of the time interval
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.245 V\$FLASHBACK_LOG_DEST

 ${\tt V\$FLASHBACK_LOG_DEST} \ displays \ information \ about \ the \ disk \ quota \ and \ current \ disk \ usage \ for \ the \ flashback \ database \ log \ storage \ area.$

Column	Datatype	Description
NAME	VARCHAR2 (513)	Location of the flashback database log storage area This value is specified by the DB_FLASHBACK_LOG_DEST initialization parameter.
SPACE_LIMIT	NUMBER	Maximum amount of disk space (in bytes) that the database can use for the flashback database log storage area
		This is the value specified by the <code>DB_FLASHBACK_LOG_DEST_SIZE</code> initialization parameter.
SPACE_USED	NUMBER	Amount of disk space (in bytes) currently used by flashback database log files in the flashback database log storage area
NUMBER_OF_FILES	NUMBER	Number of files currently in the flashback database log storage area
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



This view is available starting with Oracle Database 23ai.



- "DB_FLASHBACK_LOG_DEST"
- "DB_FLASHBACK_LOG_DEST_SIZE"

8.246 V\$FLASHBACK_TXN_GRAPH

 ${\tt V\$FLASHBACK_TXN_GRAPH} \ displays \ a \ tabular \ representation \ of the \ transaction \ dependency \ graph. For each dependency edge, there could be multiple rows, one for each conflicting operation.$

This view is relevant AFTER a compensating transaction has been started through the <code>DBMS_FLASHBACK.TRANSACTION_BACKOUT()</code> set of functions, and is no longer relevant once the compensating transaction is either committed or rolled back. It also provides a tabular representation of the undo SQL that is not available through the CLOB XML construct in the <code>DBA_FLASHBACK_TXN_REPORT_view</code>.

Column	Datatype	Description
COMPENSATING_XID	RAW(8)	Transaction ID of the compensating transaction
COMPENSATING_TXN_NAME	VARCHAR2 (255)	Name of the compensating transaction
XID	RAW(8)	Transaction ID of a relevant transaction found in memory
TXN_NAME	VARCHAR2 (255)	Name of the transaction with XID as the transaction ID; NULL if none
PARENT_XID	RAW(8)	Parent transaction ID (for a PDML transaction)
INTERESTING	NUMBER	If the transaction is in the transaction dependency graph
ORIGINAL	NUMBER	If the transaction is part of the input set provided
BACKOUT_SEQ	NUMBER	Order in which the transaction has been backed out
NUM_PREDS	NUMBER	Number of predecessors of the transaction specified by ${\tt XID}$ in the transaction graph
NUM_SUCCS	NUMBER	Number of successors of the transaction specified by XID in the transaction graph
DEP_XID	RAW(8)	One dependent transaction ID of the transaction specified by XID. This is a particular child of XID.
DEP_TXN_NAME	VARCHAR2 (255)	Transaction name, if any, for the transaction specified by <code>DEP_XID</code>
IXN_CONF_SQL_ID	NUMBER	SQL ID of undo SQL executed in the context of ${\tt XID}$ which conflicts wit the dependent transaction
DEP_TXN_CONF_SQL_ID	NUMBER	SQL ID of undo SQL executed in the context of $\mathtt{DEP}_\mathtt{XID}$ which conflict with \mathtt{XID}
CONFLICT_TYPE	VARCHAR2(32)	The type of conflict that the conflict resolution method is used to resolve: delete, uniqueness, or update
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing.
		 n: Where n is the applicable container ID for the rows containing data



- "DBA_FLASHBACK_TXN_REPORT"
- Oracle Database PL/SQL Packages and Types Reference for more information about the DBMS FLASHBACK.TRANSACTION BACKOUT procedures

8.247 V\$FLASHBACK_TXN_MODS

 ${\tt V\$FLASHBACK_TXN_MODS} \ \ \textbf{displays} \ \ \textbf{the individual modifications of all the transactions in memory}.$

This view is relevant AFTER a compensating transaction has been started through the <code>DBMS_FLASHBACK.TRANSACTION_BACKOUT()</code> set of functions, and is no longer relevant once the compensating transaction is either committed or rolled back. It also provides a tabular representation of the undo SQL that is not available through the CLOB XML construct in the <code>DBA_FLASHBACK_TXN_REPORT view</code>.

Column	Datatype	Description
COMPENSATING_XID	RAW(8)	Transaction ID of the compensating transaction
COMPENSATING_TXN_NAME	VARCHAR2 (255)	Name of the compensating transaction
XID	RAW(8)	Transaction ID of a relevant transaction found in memory
TXN_NAME	VARCHAR2 (255)	Name of the transaction with XID as the transaction ID; NULL if none
PARENT_XID	RAW(8)	Parent transaction ID (for a PDML transaction)
INTERESTING	NUMBER	If the transaction is in the transaction dependency graph
ORIGINAL	NUMBER	If the transaction is part of the input set provided
BACKOUT_SEQ	NUMBER	Order in which the transaction has been backed out
UNDO_SQL	VARCHAR2 (4000)	Undo SQL for the modification
UNDO_SQL_SQN	NUMBER	Order in which the given SQL has been executed to back out this transaction
UNDO_SQL_SUB_SQN	NUMBER	If the undo SQL is greater than 4000 bytes, then a sequence number, starting from 1, of a 4000-byte division of the undo SQL
BACKOUT_SQL_ID	NUMBER	SQL ID of the undo SQL (used only for this compensating transaction)
OPERATION	VARCHAR2 (128)	Operation (such as insert/update/delete) performed by the forward-going operation
BACKEDOUT	NUMBER	Indicates whether the transaction has been backed out as of now
CONFLICT_MOD	NUMBER	If the concerned modification is causing a conflict
MODS_PER_LCR	NUMBER	Sometimes an LCR could cause multiple modifications (for example, an update of an IOT could actually be a delete followed by an insert)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



- "DBA_FLASHBACK_TXN_REPORT"
- Oracle Database PL/SQL Packages and Types Reference for more information about the DBMS FLASHBACK.TRANSACTION BACKOUT procedures

8.248 V\$FLASHFILESTAT

V\$FLASHFILESTAT displays statistics about Database Smart Flash Cache.

By taking snapshots of SINGLEBLKRDS and SINGLEBLKRDTIM_MICRO, you can easily calculate the average latency of all the flash files in a given time period

Column	Datatype	Description
FLASHFILE#	NUMBER	The file number of the flash file
NAME	VARCHAR2 (513)	Name and path of the flash file
BYTES	NUMBER	Size of the flash file, in bytes
ENABLED	NUMBER	Indicates whether this flash file is enabled or not
SINGLEBLKRDS	NUMBER	Number of reads to the flash file
SINGLEBLKRDTIM_MICRO	NUMBER	Cumulative latency of reading blocks from this particular flash file/device, in microseconds
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

Oracle Database Administrator's Guide for more information about configuring Database Smart Flash Cache

8.249 V\$FOREIGN ARCHIVED LOG

V\$FOREIGN_ARCHIVED_LOG can be queried on a logical standby database to find out the list of foreign archived logs received by a database.

No rows are returned for this view on a physical standby database.

Column	Datatype	Description
RECID	NUMBER	Archived log record ID
STAMP	NUMBER	Archived log record stamp



Column	Datatype	Description
NAME	VARCHAR2 (513)	Archived log file name. If set to NULL, either the log file was cleared before it was archived or an RMAN BACKUP command with the delete input option was executed to back up archivelog all (RMAN> backup archivelog all delete input;).
DEST_ID	NUMBER	Original destination from which the archive log was generated. The value is 0 if the destination identifier is not available
THREAD#	NUMBER	Redo thread number
SEQUENCE#	NUMBER	Redo log sequence number
RESETLOGS_CHANGE#	NUMBER	Resetlogs change number of the database when the log was written
RESETLOGS_TIME	DATE	Resetlogs time of the database when the log was written
RESETLOGS_ID	NUMBER	Resetlogs identifier associated with the archived redo log
FIRST_CHANGE#	NUMBER	First change number in the archived log
FIRST_TIME	DATE	Timestamp of the first change
NEXT_CHANGE#	NUMBER	First change in the next log
NEXT_TIME	DATE	Timestamp of the next change
BLOCKS	NUMBER	Size of the archived log (in blocks)
BLOCK_SIZE	NUMBER	Redo log block size. This is the logical block size of the archived log, which is the same as the logical block size of the online log from which the archived log was copied. The online log logical block size is a platform-specific value that is not adjustable by the user.
CREATOR	VARCHAR2(7)	Creator of the archive log:
		ARCH - Archiver process
		FGRD - Foreground process
		RMAN - Recovery Manager
		SRMN - RMAN at standby
DECICEDAD	177 DC117 D 2 / 7 \	LGWR - Logwriter process
REGISTRAR	VARCHAR2(7)	Registrar of the entry: RFS - Remote File Server process
		ARCH - Archiver process
		FGRD - Foreground process
		RMAN - Recovery Manager
		SRMN - RMAN at standby
		LGWR - Logwriter process
ARCHIVED	VARCHAR2(3)	Indicates whether the online redo log was archived (YES) or whether RMAN only inspected the log and created a record for future application of redo logs during recovery (NO).
APPLIED	VARCHAR2(3)	Indicates whether the archivelog has been applied to its corresponding standby database (YES) or not (NO). The value is always NO for local
		destinations. This column is meaningful at the standby site for the ARCHIVED_LOG entries with REGISTRAR='RFS' (which means this log is shipped from the primary to the standby database). If REGISTRAR='RFS' and APPLIED is NO, then the log has arrived at the standby but has not yet been applied If REGISTRAR='RFS' and APPLIED is YES, the log has arrived and been applied at the standby database. You can use this field to identify archivelogs that can be backed up and removed from disk.



Column	Datatype	Description
DELETED	VARCHAR2(3)	Indicates whether an RMAN DELETE command has physically deleted the archived log file from disk, as well as logically removing it from the control file of the target database and from the recovery catalog (YES) or not (NO)
STATUS	VARCHAR2(1)	Status of the archived log: A - Available D - Deleted U - Unavailable X - Expired
COMPLETION_TIME	DATE	Time when the archiving completed
DICTIONARY_BEGIN	VARCHAR2(3)	Indicates whether the log contains the start of a LogMiner dictionary (YES) or not (NO)
DICTIONARY_END	VARCHAR2(3)	Indicates whether the log contains the end of a LogMiner dictionary (YES) or not (NO)
END_OF_REDO	VARCHAR2(3)	Indicates whether the archived redo log contains the end of all redo information from the primary database () or not ()
ARCHIVAL_THREAD#	NUMBER	Redo thread number of the instance that performed the archival operation. This column differs from the THREAD# column only when a closed thread is archived by another instance.
IS_RECOVERY_DEST_FILE	VARCHAR2(3)	Indicates whether the file was created in the fast recovery area (YES) or not (NO)
COMPRESSED	VARCHAR2(3)	Reserved for internal use
FAL	VARCHAR2(3)	Indicates whether the archive log was generated as the result of a FAL request (YES) or not (NO)
END_OF_REDO_TYPE	VARCHAR2 (10)	Possible values are as follows: SWITCHOVER - Shows archived redo log files that are produced at the end of a switchover TERMINAL - Shows archived redo log files produced after a failover RESETLOGS - Shows online redo log files archived on the primary database after an ALTER DATABASE OPEN RESETLOGS statement is issued ACTIVATION - Shows any log files archived on a physical standby database after an ALTER DATABASE ACTIVATE STANDBY DATABASE statement is issued "empty string" - Any empty string implies that the log is just a normal archival and was not archived due to any of the other events
SOURCE DBID	NUMBER	•
CON_ID	NUMBER	 Database ID of the source database that generated this archived log The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.250 V\$FS_FAILOVER_OBSERVERS

 ${\tt V\$FS_FAILOVER_OBSERVERS}\ \ \textbf{provides}\ \ \textbf{information}\ \ \textbf{about}\ \ \textbf{fast-start}\ \ \textbf{failover}\ \ \textbf{observers}.$

If you are querying on the primary database, this view returns three rows, each describing one observer. However, only a row having an non-empty value in column NAME corresponds to a started observer. If you are querying on a non-primary database, the behavior of this view is not defined.

Column	Datatype	Description
NAME	VARCHAR2 (513)	The fast-start failover observer name
REGISTERED	VARCHAR2(4)	Indicates if this observer is registered (YES) or not (NO). Note that the observer is registered <i>only</i> if HOST is not NULL.
HOST	VARCHAR2 (513)	The name of the host where this observer is running
ISMASTER	VARCHAR2(4)	Indicates if this observer is the master observer (YES) or not (NO)
TIME_SELECTED	TIMESTAMP(9)	Shows when this observer became master observer, if ISMASTER is YES; otherwise the following constant appears: 1990-01-01 00:00:00.00
PINGING_PRIMARY	VARCHAR2(4)	Possible values: YES: Observer is currently connected to the primary database No: Observer is not connected to the primary database
		Note : This field is consistent throughout an Oracle Real Application Clusters (Oracle RAC) environment; that is, if the observer is connected to any instance of the primary database in the Oracle RAC environment, all instances will show a value of YES.
PINGING_TARGET	VARCHAR2(4)	Possible values: YES: Observer is currently connected to the target standby database No: Observer is not connected to the target standby database
		Note: This field is consistent throughout an Oracle Real Application Clusters (Oracle RAC) environment; that is, if the observer is connected to any instance of the target standby database in the Oracle RAC environment, all instances will show a value of YES.
LAST_PING_PRIMARY	NUMBER	Amount of time (in seconds) since the observer last pinged the primary database
LAST_PING_TARGET	NUMBER	Amount of time (in seconds) since the observer last pinged the target standby database
LOG_FILE	VARCHAR2 (513)	Full path to the observer log file
STATE_FILE	VARCHAR2 (513)	Full path to the observer runtime data file
CURRENT_TIME	TIMESTAMP(9)	Date and time at which this view was queried
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.251 V\$FS_FAILOVER_STATS

V\$FS FAILOVER STATS displays statistics about fast-start failovers occurring on the system.

Column	Datatype	Description
LAST_FAILOVER_TIME	VARCHAR2(20)	Timestamp of the last fast-start failover
LAST_FAILOVER_REASON	VARCHAR2 (255)	Reason for the last fast-start failover
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



This view is deprecated in Oracle Database 23ai. Oracle recommends that you instead use the V\$DG_BROKER_ROLE_CHANGE view. V\$FS_FAILOVER_STATS displays one row with limited information about the most recent fast-start failover. The data is available in the primary database only, and is not persisted across database restarts. V\$DG_BROKER_ROLE_CHANGE contains detailed information about the ten most recent role changes, including switchover, failover, and reinstate, across the Data Guard broker configuration, and provides richer information than V\$FS_FAILOVER_STATS. See "V\$DG_BROKER_ROLE_CHANGE" for more information.

8.252 V\$FS OBSERVER HISTOGRAM

V\$FS_OBSERVER_HISTOGRAM displays statistics that are based on the frequency of successful pings between the observer and primary database for different time intervals. The wait event in this histogram is the observer's wait until pings to the primary succeed.

The histogram displays only when there were ping failures between the observer and the primary database.

No rows are shown in this view for unregistered observers.

These statistics can be used to select an appropriate value for the FastStartFailoverThreshold configuration property for your environment.

Column	Datatype	Description
OBSERVER_NAME	VARCHAR2 (513)	The Fast-Start Failover observer name
OBSERVER_HOST	VARCHAR2 (513)	The name of the host where this observer is running



Column	Datatype	Description
WAIT_TIME	NUMBER	The time interval between a pair of successful observer pings (pingpairs) to this instance. Note that the values in this column are the upper bound of the inter-ping interval samples represented by a given histogram bucket. If WAIT_TIME = number, then this column represents inter-ping intervals <= number that are not included in any smaller bucket.
		The value in this column is the time (in seconds) that a ping failure lasted.
WAIT_COUNT	NUMBER	The number of ping-pairs with an inter-ping interval that corresponds with this histogram bucket.
		If all pings have been successful so far, this column has a value of 0.
LAST_UPDATE_TIME	VARCHAR2 (20)	The last time this row was updated
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



Oracle Data Guard Broker for more information about the FastStartFailoverThreshold configuration property

Example

Assume that the following shows the status of observer's pings to the primary:

Ping time	Ping resu	ılt					
		-					
1:00:00	SUCCESS						
1:00:03	FAIL						
1:00:06	FAIL						
1:00:09	SUCCESS	=>	Wait	time	of	6	seconds
1:00:12	SUCCESS						
1:00:15	FAIL						
1:00:18	FAIL						
1:00:21	SUCCESS	=>	Wait	time	of	6	seconds
1:00:24	SUCCESS						
1:00:27	FAIL						
1:00:30	SUCCESS	=>	Wait	time	of	3	seconds

These ping results will result in the histogram view below:

WAIT_TIME 3	WAIT_COUNT 1	LAST_UPDATE_TIME 1:00:30
6	2	1:00:21
Q	0	



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. . .

In this case, the FastStartFailoverThreshold value should be set to larger than 6 because communication between the observer and the primary sometimes fails for 6 seconds.

8.253 V\$GC_ELEMENT

V\$GC_ELEMENT displays one entry for each global cache resource that is used by the buffer cache. The name of the global cache resource that corresponds to a lock element is {'BL', indx, class}. This is an Oracle Real Application Clusters view.

Column	Datatype	Description
GC_ELEMENT_ADDR	RAW(4 8)	Address of the lock element that contains the PCM lock that is covering the buffer. If more than one buffer has the same address, then these buffers are covered by the same PCM lock.
INDX	NUMBER	Platform specific lock manager identifier
CLASS	NUMBER	Platform specific lock manager identifier
GC_ELEMENT_NAME	NUMBER	Name of the lock that contains the PCM lock that is covering the buffer
MODE_HELD	NUMBER	Platform dependent value for lock mode held; often: 3 = share; 5 = exclusive
BLOCK_COUNT	NUMBER	Number of blocks covered by PCM lock
RELEASING	NUMBER	Nonzero if PCM lock is being downgraded
ACQUIRING	NUMBER	Nonzero if PCM lock is being upgraded
WRITING	NUMBER	If the GC_ELEMENT is being written, the write status
RECOVERING	NUMBER	If the GC_ELEMENT is being recovered, the recovery status
LOCAL	NUMBER	Zero if the GC_ELEMENT is local, one if it is global
FLAGS	NUMBER	Process level flags for the lock element
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.254 V\$GC_ELEMENTS_WITH_COLLISIONS

V\$GC_ELEMENTS_WITH_COLLISIONS is deprecated. The information that was provided in this view is now provided in the V\$INSTANCE CACHE TRANSFER and V\$SEGMENT STATISTICS views.

Column	Datatype	Description
GC_ELEMENT_ADDR	RAW(4 8)	Address of the lock element that contains the PCM lock covering the buffer. If more than one buffer has the same address, then these buffers are covered by the same PCM lock.



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

✓ See Also:

- "V\$INSTANCE_CACHE_TRANSFER"
- "V\$SEGMENT_STATISTICS"

8.255 V\$GCR_ACTIONS

 ${\tt V\$GCR_ACTIONS} \ displays \ information \ about \ the \ current \ status \ of \ the \ actions \ defined \ to \ the \ GCR \ component \ that \ runs \ under \ the \ LMHB \ background \ process \ to \ detect \ and \ mitigate \ potential \ issues \ in \ the \ cluster \ instances.$

Column	Datatype	Description
ACTION_ID	NUMBER	Action identification number as used internally to refer to the metric
ACTION_NAME	VARCHAR2(40)	Name of the action
ENVIRONMENT	NUMBER	Environment that the action should run in: 0: Nowhere (do not run) 1: Oracle ASM instance only 2: Oracle Database instance only 3: Oracle ASM and Oracle Database instance 4: Standby instance 5: Oracle ASM and Standby instance 6: Oracle Database and Standby instance 7: Oracle Database, Oracle ASM, and Standby instance 15: All instance types
FLAGS	NUMBER	Various flags describing the action. Used only by Oracle for diagnosis.
ACTIVE	VARCHAR2 (9)	Whether the action is active or not:ACTIVE: Action is active.INACTIVE: Action is disabled.
STATUS_CHANGE_TIME	TIMESTAMP(6)	Time of last action change of status
LAST_RAN_ITERATION	NUMBER	Iteration of the last time the action ran
LAST_RAN_TIME	TIMESTAMP(6)	Time of last run



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.256 V\$GCR_LOG

 ${\tt V\$GCR_LOG}\ provides\ information\ on\ the\ last\ 30\ significant\ events\ that\ have\ occurred\ in\ GCR\ in\ the\ recent\ past.$

Column	Datatype	Description
INST_ID	NUMBER	Instance identier
ITERATION	NUMBER	GCR internal iteration count
TIME	TIMESTAMP(6)	Timestamp of record
TYPE	VARCHAR2 (14)	Type of record: • METRIC • METRIC ENABLE • METRIC DISABLE • GLOBAL METRIC • ACTION RAN • RESET RAN
DESCRIPTION	VARCHAR2 (40)	Description of function
RESULT	VARCHAR2 (7)	Result: OK FAIL
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data.

8.257 V\$GCR_METRICS

V\$GCR_METRICS displays information about the current status of the metrics defined to the GCR component that runs under the LMHB background process to detect and mitigate potential issues in the cluster instances.

Column	Datatype	Description
METRIC_ID	NUMBER	Metric identification number as used internally to refer to the metric



Column	Datatype	Description
METRIC_NAME	VARCHAR2 (40)	Name of the metric
ENVIRONMENT	NUMBER	 Environment that the metric should run in: 0: Nowhere (do not run) 1: Oracle ASM instance only 2: Oracle Database instance only 3: Oracle ASM and Oracle Database instance 4: Standby instance 5: Oracle ASM and Standby instance 6: Oracle Database and Standby instance 7: Oracle Database, Oracle ASM, and Standby instance 15: All instance types
FREQUENCY	NUMBER	How often the metric runs, in seconds
SCOPE	NUMBER	 The scope of sharing of the metric: 0: The metric does not have associated data 1: Global - shared with all other instances in the cluster 2: Local - used only locally (not shared) 4: Node Global - shared with other instances in the cluster on the same node only 8: DB Only - Shared with other instances of the same database only
DATA_TYPE	VARCHAR2 (7)	The type of the data associated with this metric: 0: None 1: Boolean 2: Numeric 3: Process
STATUS	VARCHAR2(9)	Indicates the status of the metric: ACTIVE: Indicates that the metric is active. INACTIVE: Indicates that the metric is turned off.
STATUS_CHANGE_TIME	TIMESTAMP(6)	Time of last metric change of status
LAST_RAN_ITERATION	NUMBER	Iteration of the last time the metric ran
LAST_RAN_TIME	TIMESTAMP(6)	Time of last run
LAST_PASS_ITERATION	NUMBER	Iteration of last time the metric passed
LAST_PASS_TIME	TIMESTAMP(6)	Time of last metric pass
TOTAL_PASSES	NUMBER	Total number of times the metric passed since start of LMHB
LAST_FAIL_ITERATION	NUMBER	Iteration of last time the metric failed
LAST_FAIL_TIME	TIMESTAMP(6)	Time of last metric failure
TOTAL_FAILS	NUMBER	Total number of times the metric has failed since start of LMHB
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



8.258 V\$GCR_STATUS

 $V\$GCR_STATUS$ provides information on the current GCR status, what metrics ran and their result. It records the last 100 events.

Column	Datatype	Description
INST_ID	NUMBER	Instance identifier
ITERATION	NUMBER	GCR internal iteration count
TIME	TIMESTAMP(6)	Timestamp of record
TYPE	VARCHAR2 (14)	Type of record: • METRIC • GLOBAL METRIC • ACTION RAN • RESET RAN
DESCRIPTION	VARCHAR2(40)	Description of function
RESULT	VARCHAR2(7)	Result: OK FAIL
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data.

8.259 V\$GCSHVMASTER_INFO

V\$GCSHVMASTER_INFO describes the current and previous master instances and the number of re-masterings of Global Cache Service resources except those belonging to files mapped to a particular master.

Column	Datatype	Description
HV_ID	NUMBER	PCM hash value ID
CURRENT_MASTER	NUMBER	Master instance of this PCM hash value ID
PREVIOUS_MASTER	NUMBER	Previous master instance of this PCM hash value ID
REMASTER_CNT	NUMBER	Number of times this has been remastered
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data



8.260 V\$GCSPFMASTER_INFO

V\$GCSPFMASTER_INFO describes the current and previous master instances and the number of re-masterings of Global Cache Service resources belonging to files mapped to instances.

Column	Datatype	Description	
FILE_ID	NUMBER	File number	
DATA_OBJECT_ID	NUMBER	Data object ID	
GC_MASTERING_POLICY	VARCHAR2(11)	Data object type.	
		The possible values are Affinity or Read mostly.	
CURRENT_MASTER	NUMBER	Master instance of this file	
PREVIOUS_MASTER	NUMBER	Previous master instance of this file	
REMASTER_CNT	NUMBER	Number of times this has been remastered	
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:	
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 	
		 1: This value is used for rows containing data that pertain to only the root 	
		 n: Where n is the applicable container ID for the rows containing data 	

8.261 V\$GES_BLOCKING_ENQUEUE

V\$GES_BLOCKING_ENQUEUE describes all locks currently known to lock manager that are being blocked or blocking others.

The output of this view is a subset of the output from <code>V\$GES_ENQUEUE</code>. This is an Oracle Real Application Clusters view.

See Also:

"V\$GES_ENQUEUE" for a description of all locks known to the lock manager

Column	Datatype	Description
HANDLE	RAW(4 8)	Lock pointer
GRANT_LEVEL	VARCHAR2(9)	Granted level of the lock
REQUEST_LEVEL	VARCHAR2(9)	Requested level of the lock
RESOURCE_NAME1	VARCHAR2(30)	Resource name for the lock
RESOURCE_NAME2	VARCHAR2(30)	Resource name for the lock
PID	NUMBER	Process identifier which holds the lock
TRANSACTION_ID0	NUMBER	Lower 4 bytes of the transaction identifier where the lock belongs to
TRANSACTION_ID1	NUMBER	Upper 4 bytes of the transaction identifier where the lock belongs to
GROUP_ID	NUMBER	Group identifier for the lock



Column	Datatype	Description	
OPEN_OPT_DEADLOCK	NUMBER	1 if DEADLOCK open option is set, otherwise 0	
OPEN_OPT_PERSISTENT	NUMBER	1 if PERSISTENT open option is set, otherwise 0	
OPEN_OPT_PROCESS_OWNED	NUMBER	1 if PROCESS_OWNED open option is set, otherwise 0	
OPEN_OPT_NO_XID	NUMBER	1 if NO_XID open option is set, otherwise 0	
CONVERT_OPT_GETVALUE	NUMBER	1 if GETVALUE convert option is set, otherwise 0	
CONVERT_OPT_PUTVALUE	NUMBER	1 if PUTVALUE convert option is set, otherwise 0	
CONVERT_OPT_NOVALUE	NUMBER	1 if NOVALUE convert option is set, otherwise 0	
CONVERT_OPT_DUBVALUE	NUMBER	1 if DUBVALUE convert option is set, otherwise 0	
CONVERT_OPT_NOQUEUE	NUMBER	1 if NOQUEUE convert option is set, otherwise 0	
CONVERT_OPT_EXPRESS	NUMBER	1 if EXPRESS convert option is set, otherwise 0	
CONVERT_OPT_NODEADLOCKWA	NUMBER	1 if NODEADLOCKWAIT convert option is set, otherwise 0	
CONVERT_OPT_NODEADLOCKBL OCK	NUMBER	1 if NODEADLOCKBLOCK convert option is set, otherwise 0	
WHICH_QUEUE	NUMBER	Which queue the lock is currently located. 0 for NULL queue; 1 for GRANTED queue; 2 for CONVERT queue.	
STATE	VARCHAR2(64)	State of lock as owner sees it	
AST_EVENT0	NUMBER	Last AST event	
OWNER_NODE	NUMBER	Node identifier	
BLOCKED	NUMBER	1 if this lock request is blocked by others, otherwise 0	
BLOCKER	NUMBER	1 if this lock is blocking others, otherwise 0	
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:	
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 	
		 1: This value is used for rows containing data that pertain to only the root 	
		 n: Where n is the applicable container ID for the rows containing data 	

8.262 V\$GES_CONVERT_LOCAL

 ${\tt V\$GES_CONVERT_LOCAL} \ displays \ statistics \ for \ local \ GES \ enqueue \ operations. \ This \ view \ records \ average \ convert \ times, \ count \ information, \ and \ timed \ statistics \ for \ global \ enqueue \ requests.$

Column	Datatype	Description
INST_ID	NUMBER	ID of the instance



Column	Datatype	Description
CONVERT_TYPE	VARCHAR2 (16)	Conversion type:
		 NULL -> SS - NULL mode to subshared mode
		 NULL -> SX - NULL mode to shared exclusive mode
		 NULL -> S - NULL mode to shared mode
		 NULL -> SSX - NULL mode to subshared exclusive mode
		 NULL -> X - NULL mode to exclusive mode
		 SS -> SX - Subshared mode to shared exclusive mode
		 SS -> S - Subshared mode to shared mode
		 SS -> SSX - Subshared mode to subshared exclusive mode
		 SS -> X - Subshared mode to exclusive mode
		 SX -> S - Shared exclusive mode to shared mode
		• SX -> SSX - Shared exclusive mode to subshared exclusive mode
		 SX -> X - Shared exclusive mode to exclusive mode
		 S -> SX - Shared mode to shared exclusive mode
		 S -> SSX - Shared mode to subshared exclusive mode
		 S -> X - Shared mode to exclusive mode
		 SSX -> X - Sub-shared exclusive mode to exclusive mode
AVERAGE_CONVERT_TIME	NUMBER	Average conversion time for each type of lock operation (in hundredths of a second)
CONVERT_COUNT	NUMBER	Number of operations
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		0: This value is used for rows containing data that pertain to the
		entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.263 V\$GES_CONVERT_REMOTE

 ${\tt V\$GES_CONVERT_REMOTE} \ \ displays \ \ values \ for \ remote \ GES \ enqueue \ conversions. \ This \ view \ records \ average \ convert \ times, \ count \ information, \ and \ timed \ statistics \ for \ global \ enqueue \ requests.$

Column	Datatype	Description
INST ID	NUMBER	ID of the instance



Column	Datatype	Description
CONVERT_TYPE	VARCHAR2 (16)	Conversion type:
		 NULL -> SS - NULL mode to subshared mode
		 NULL -> SX - NULL mode to shared exclusive mode
		 NULL -> S - NULL mode to shared mode
		 NULL -> SSX - NULL mode to subshared exclusive mode
		 NULL -> X - NULL mode to exclusive mode
		 SS -> SX - Subshared mode to shared exclusive mode
		 SS -> S - Subshared mode to shared mode
		 SS -> SSX - Subshared mode to subshared exclusive mode
		 SS -> X - Subshared mode to exclusive mode
		 SX -> S - Shared exclusive mode to shared mode
		SX -> SSX - Shared exclusive mode to subshared exclusive mode
		 SX -> X - Shared exclusive mode to exclusive mode
		 S -> SX - Shared mode to shared exclusive mode
		 S -> SSX - Shared mode to subshared exclusive mode
		 S -> X - Shared mode to exclusive mode
		 SSX -> X - Sub-shared exclusive mode to exclusive mode
AVERAGE_CONVERT_TIME	NUMBER	Average conversion time for each type of lock operation (in hundredths of a second)
CONVERT_COUNT	NUMBER	Number of operations
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.264 V\$GES_DEADLOCK_SESSIONS

This view displays a maximum of 20 sessions per deadlock.

Column	Datatype	Description
DID	VARCHAR2(30)	Deadlock ID
SID	NUMBER	Waiting session ID
SERIAL#	NUMBER	Waiting session serial number
INSTANCE	NUMBER	Waiting session instance
BLOCKER_SID	NUMBER	Blocker session ID
BLOCKER_SERIAL#	NUMBER	Blocker session serial number
BLOCKER_INSTANCE	NUMBER	Blocker session instance
OSUSER	VARCHAR2(128)	Waiting OS user
APP_NAME	VARCHAR2 (64)	Waiting application name



Column	Datatype	Description
BLOCKED_RES_NAME	VARCHAR2 (64)	Resource on which the waiting session is blocked
REQUEST_LEVEL	VARCHAR2(16)	Waiting session requested level
BLOCKER_RES_NAME	VARCHAR2 (64)	Resource on which the blocker is blocked
GRANT_LEVEL	VARCHAR2(16)	Granted level of the blocker
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.265 V\$GES_DEADLOCKS

V\$GES_DEADLOCKS displays information about global enqueue service deadlocks detected by the distributed lock manager. This is an Oracle Real Application Clusters view.

This view displays the 20 most recent deadlocks.

Column	Datatype	Description
DID	VARCHAR2(30)	Deadlock ID
DD_TIME	DATE	Deadlock timestamp
NUMBER_OF_SESSIONS	NUMBER	Number of sessions involved in the deadlock
MASTER_INSTANCE	NUMBER	Master instance of the resource
VICTIM_INSTANCE	NUMBER	Victim instance
VICTIM_PID	VARCHAR2 (24)	OS process ID of the victim
VICTIM_RESNM	VARCHAR2 (64)	Resource involved in the deadlock
VICTIM_SID	NUMBER	Session ID of the victim
VICTIM_SERIAL#	NUMBER	Session serial number of the victim
VICTIM_REQ_LEVEL	VARCHAR2(16)	Level of the lock being requested by the victim
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing
		data



8.266 V\$GES_ENQUEUE

 ${\tt V\$GES_ENQUEUE} \ \ describes \ all \ locks \ currently \ known \ to \ lock \ manager. \ This \ is \ an \ Oracle \ Real \ Application \ Clusters \ view.$



"V\$GES_BLOCKING_ENQUEUE" for a description of all such locks that are currently blocking or being blocked

Granted level of the lock REQUEST_LEVEL VARCHAR2 (9) Requested level of the lock RESOURCE_NAME1 VARCHAR2 (30) Resource name for the lock RESOURCE_NAME2 VARCHAR2 (30) Resource name for the lock REANSACTION_IDO NUMBER Process identifier which holds the lock REANSACTION_IDO NUMBER Lower 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Group identifier for the lock DEEN_OPT_DEADLOCK NUMBER 1 if DEADLOCK open option is set, otherwise 0 DEEN_OPT_PERSISTENT NUMBER 1 if PROCESS_OWNED open option is set, otherwise 0 DEEN_OPT_PROCESS_OWNED NUMBER 1 if PROCESS_OWNED open option is set, otherwise 0 DEEN_OPT_OPT_OR_XID NUMBER 1 if GETVALUE convert option is set, otherwise 0 DEEN_OPT_OPT_ETVALUE NUMBER 1 if PUTVALUE convert option is set, otherwise 0 DEEN_OPT_OPT_PUTVALUE NUMBER 1 if NOVALUE convert option is set, otherwise 0 DEEN_OPT_OPT_NOVALUE NUMBER 1 if NOVALUE convert option is set, otherwise 0 DEEN_OPT_OPT_NOVALUE NUMBER 1 if NOVALUE convert option is set, otherwise 0 DEEN_OPT_OPT_NOUGULE NUMBER 1 if NOVALUE convert option is set, otherwise 0 DEEN_OPT_OPT_NOUGLABLOCKWA NUMBER 1 if NODEADLOCKWAIT convert option is set, otherwise 0 DEEN_OPT_NODEADLOCKWA NUMBER 1 if NODEADLOCKWAIT convert option is set, otherwise 0 DEEN_OPT_NODEADLOCKWA NUMBER 1 if NODEADLOCKWAIT convert option is set, otherwise 0 DEEN_OPT_NODEADLOCKWA NUMBER 1 if NODEADLOCKWAIT convert option is set, otherwise 0 DEEN_OPT_NODEADLOCKWA NUMBER 1 if NODEADLOCKWAIT convert option is set, otherwise 0 DEEN_OPT_NODEADLOCKWA NUMBER 1 if NODEADLOCKWAIT convert option is set, otherwise 0 DEEN_OPT_NODEADLOCKWAIT convert option is set, otherwise 0 DEEN_OPT_NODEADLOCKWAIT convert option is set, otherwise 0 DEEN_OPT_NODEADLOCKWAIT convert option is set, otherwise 0 DEEN_OPT_	Column	Datatype	Description	
Requested level of the lock RESOURCE_NAME1 VARCHAR2 (30) Resource name for the lock RESOURCE_NAME2 VARCHAR2 (30) Resource name for the lock is currently located. 0 for NULL queue; 1 for GRANTED queue; 2 for CONVERT queue. STATE VARCHAR2 (64) State of the lock as the owner sees it Last AST event NUMBER 1 if this lock request is blocked by others, otherwise 0	HANDLE	RAW(4 8)	Lock pointer	
RESOURCE_NAME1 VARCHAR2 (30) Resource name for the lock RESOURCE_NAME2 VARCHAR2 (30) R	GRANT_LEVEL	VARCHAR2(9)	Granted level of the lock	
RESOURCE_NAME2 VARCHAR2 (30) Resource name for the lock PID NUMBER Process identifier which holds the lock REANSACTION_ID0 NUMBER Lower 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock belongs REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock is currently located. REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock as the owner sees it REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock as the owners, otherwise 0 REANSACTION_ID1 NUMBER Upper 4 bytes of the transaction identifier to which the lock as the owners, otherwise 0 REANSACTION_ID1 NUMBER Upper 4 bytes of the lock as the owner sees it REANSACTION_ID1 NUMBER Upper 4 bytes of the lock as the owner sees it REANSACTION_ID1 NUMBER Upper 4 bytes of the lock as the owner sees it REANSACTION_ID1 NUMBER Upper 4 bytes of the lock as the owner sees it REANSACTION_ID1 NUMBER Upper 4 bytes of the lock as the owner sees it REANSACTION_	REQUEST_LEVEL	VARCHAR2(9)	Requested level of the lock	
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Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.267 V\$GES_LATCH

V\$GES LATCH is deprecated.



"V\$LATCH" for statistics about GES latch performance

8.268 V\$GES_RESOURCE

 ${\tt V\$GES_RESOURCE} \ \ is \ an \ Oracle \ Real \ Application \ Clusters \ view. \ It \ displays \ information \ of \ all \ resources \ currently \ known \ to \ the \ lock \ manager.$

Column	Datatype	Description
RESP	RAW(4 8)	Resource pointer
RESOURCE_NAME	VARCHAR2(30)	Resource name in hexadecimal for the lock
ON_CONVERT_Q	NUMBER	1 if on convert queue, 0 otherwise
ON_GRANT_Q	NUMBER	1 if on granted queue, 0 otherwise
PERSISTENT_RES	NUMBER	1 if it is a persistent resource, 0 otherwise
MASTER_NODE	NUMBER	Primary node ID
NEXT_CVT_LEVEL	VARCHAR2(9)	Next lock level to convert on global convert queue
VALUE_BLK_STATE	VARCHAR2(32)	State of the value block
VALUE_BLK	VARCHAR2(64)	First 64 bytes of the value block
CACHE_LEVEL	NUMBER	Level at which the resource is cached (0, 1, or 2; 255 if not on cache)
PDBSCOPE	NUMBER	Indicates whether an enqueue is PDB-scoped (1) or not (0)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.269 V\$GES_STATISTICS

V\$GES STATISTICS displays miscellaneous GES statistics.

Column	Datatype	Description
STATISTIC#	NUMBER	Statistic number
NAME	VARCHAR2(38)	Name of the statistic
VALUE	NUMBER	Value associated with the statistic
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.270 V\$GG_APPLY_COORDINATOR

 ${\tt V\$GG_APPLY_COORDINATOR} \ \ \textbf{displays information about each GoldenGate apply process coordinator.}$

The coordinator for an apply process gets transactions from the apply process reader and passes them to apply servers. An apply process coordinator is a subcomponent of an apply process used by Oracle GoldenGate Integrated Replicat.

Column	Datatype	Description
SID	NUMBER	Session ID of the coordinator's session
SERIAL#	NUMBER	Serial number of the coordinator's session
STATE	VARCHAR2(21)	State of the coordinator: INITIALIZING - Starting up IDLE - Performing no work APPLYING - Passing transactions to apply servers SHUTTING DOWN CLEANLY - Stopping without an error ABORTING - Stopping because of an apply error
APPLY#	NUMBER	Apply process number. An apply process coordinator is an Oracle background process, prefixed by ap.
APPLY_NAME	VARCHAR2 (128)	Name of the apply process
TOTAL_APPLIED	NUMBER	Total number of transactions applied by the apply process since the apply process was last started
TOTAL_WAIT_DEPS	NUMBER	Number of times since the apply process was last started that an apply server waited to apply a logical change record (LCR) in a transaction until another apply server applied a transaction because of a dependency between the transactions
TOTAL_WAIT_COMMITS	NUMBER	Number of times since the apply process was last started that an apply server waited to commit a transaction until another apply server committed a transaction to serialize commits
TOTAL_ADMIN	NUMBER	Number of administrative jobs issued since the apply process was last started



Column	Datatype	Description
TOTAL_ASSIGNED	NUMBER	Number of transactions assigned to apply servers since the apply process was last started
TOTAL_RECEIVED	NUMBER	Total number of transactions received by the coordinator process since the apply process was last started
TOTAL_IGNORED	NUMBER	Number of transactions which were received by the coordinator but were ignored because they had been previously applied
TOTAL_ROLLBACKS	NUMBER	Number of transactions which were rolled back due to unexpected contention
TOTAL_ERRORS	NUMBER	Number of transactions applied by the apply process that resulted in an apply error since the apply process was last started
UNASSIGNED_COMPLETE_TXNS	NUMBER	Total number of complete transactions that the coordinator has not assigned to any apply servers
LWM_TIME	DATE	Time when the message with the lowest message number was recorded. The creation time of the message with the lowest message number was also recorded at this time.
LWM_MESSAGE_NUMBER	NUMBER	Number of the message corresponding to the low watermark. That is, messages with a commit message number less than or equal to this message number have definitely been applied, but some messages with a higher commit message number also may have been applied.
LWM_MESSAGE_CREATE_TIME	DATE	For captured messages, creation time at the source database of the message corresponding to the low watermark. For user-enqueued messages, time when the message corresponding to the low watermark was enqueued into the queue at the local database.
HWM_TIME	DATE	Time when the message with the highest message number was recorded. The creation time of the message with the highest message number was also recorded at this time.
HWM_MESSAGE_NUMBER	NUMBER	Number of the message corresponding to the high watermark. That is, no messages with a commit message number greater than this message number have been applied.
HWM_MESSAGE_CREATE_TIME	DATE	For captured messages, creation time at the source database of the message corresponding to the high watermark. For user-enqueued messages, time when the message corresponding to the high watermark was enqueued into the queue at the local database.
STARTUP_TIME	DATE	Time when the apply process was last started
ELAPSED_SCHEDULE_TIME	NUMBER	Time elapsed (in hundredths of a second) scheduling messages since the apply process was last started
ELAPSED_IDLE_TIME	NUMBER	Elapsed idle time
LWM_POSITION	RAW(64)	Position of the low-watermark LCR
HWM_POSITION	RAW(64)	Position of the high-watermark LCR
PROCESSED_MESSAGE_NUMBER	NUMBER	Message number currently processed by the apply coordinator
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
ACTIVE_SERVER_COUNT	NUMBER	Active server count



Note:

The <code>ELAPSED_SCHEDULE_TIME</code> column is only populated if the <code>TIMED_STATISTICS</code> initialization parameter is set to <code>true</code>, or if the <code>STATISTICS_LEVEL</code> initialization parameter is set to <code>TYPICAL</code> or <code>ALL</code>.

See Also:

- "TIMED_STATISTICS"
- "STATISTICS_LEVEL"

8.271 V\$GG_APPLY_READER

V\$GG APPLY READER displays information about each GoldenGate apply reader.

The apply reader is a process which reads (dequeues) messages from the queue, computes message dependencies, and builds transactions. It passes the transactions on to the coordinator in commit order for assignment to the apply servers. An apply reader is a subcomponent of an apply process used by Oracle GoldenGate Integrated Replicat.

Column	Datatype	Description
SID	NUMBER	Session ID of the reader's session
SERIAL#	NUMBER	Serial number of the reader's session
APPLY#	NUMBER	Apply process number. An apply process is an Oracle background process, prefixed by ap.
APPLY_NAME	VARCHAR2 (128)	Name of the apply process
STATE	VARCHAR2 (36)	Shows the state of the apply reader and the hash server. The possible values include: INITIALIZING - Starting up IDLE - Performing no work DEQUEUE MESSAGES - Dequeuing messages from the queue SCHEDULE MESSAGES - Computing dependencies between messages and assembling messages into transactions SPILLING - Spilling unapplied messages from memory to hard disk PAUSED - WAITING FOR DDL TO COMPLETE - Waiting for a data definition language (DDL) logical change record (LCR) to be applied The state of the apply reader is displayed first, followed by the state of the hash server. A semicolon separates the apply reader state from the
TOTAL_MESSAGES_DEQUEUED	NUMBER	hash server state. Total number of messages dequeued since the apply process was last started
TOTAL_MESSAGES_SPILLED	NUMBER	Number of messages spilled by the reader since the apply process was last started
DEQUEUE_TIME	DATE	Time when the last message was received



Column	Datatype	Description
DEQUEUED_MESSAGE_CREATE_ TIME	DATE	For captured messages, creation time at the source database of the last message received. For user-enqueued messages, time when the message was enqueued into the queue at the local database.
SGA_USED	NUMBER	Amount (in bytes) of SGA memory used by the apply process since it was last started
ELAPSED_DEQUEUE_TIME	NUMBER	Time elapsed (in hundredths of a second) dequeuing messages since the apply process was last started
ELAPSED_SCHEDULE_TIME	NUMBER	Time elapsed (in hundredths of a second) scheduling messages since the apply process was last started. Scheduling includes computing dependencies between messages and assembling messages into transactions.
ELAPSED_SPILL_TIME	NUMBER	Elapsed time (in hundredths of a second) spent spilling messages since the apply process was last started
SPILL_LWM_SCN	NUMBER	Spill low-watermark SCN
PROXY_SID	NUMBER	When the apply process uses combined capture and apply, the session ID of the propagation receiver that is responsible for direct communication between capture and apply. If the apply process does not use combined capture and apply, then this column is 0.
PROXY_SERIAL	NUMBER	When the apply process uses combined capture and apply, the serial number of the propagation receiver that is responsible for direct communication between capture and apply. If the apply process does not use combined capture and apply, then this column is 0.
PROXY_SPID	VARCHAR2 (12)	When the apply process uses combined capture and apply, the process identification number of the propagation receiver that is responsible for direct communication between capture and apply. If the apply process does not use combined capture and apply, then this column is 0.
BYTES_RECEIVED	NUMBER	When the apply process uses combined capture and apply, the number of bytes received by the apply process from the capture process since the apply process last started. If the apply process does not use combined capture and apply, then this column is not populated.
DEQUEUED_POSITION	RAW(64)	Dequeued position. This column is populated only for an apply process that is functioning as a GoldenGate inbound server.
SPILL_LWM_POSITION	RAW(64)	Spill low-watermark position. This column is populated only for an apply process that is functioning as a GoldenGate inbound server.
OLDEST_TRANSACTION_ID	VARCHAR2 (128)	Oldest transaction ID
TOTAL_LCRS_WITH_DEP	NUMBER	Total number of LCRs with row-level dependencies since the apply process last started
TOTAL_LCRS_WITH_WMDEP	NUMBER	Total number of LCRs with watermark dependencies since the apply process last started. A watermark dependency occurs when an apply process must wait until the apply process's low watermark reaches a particular threshold.
TOTAL_IN_MEMORY_LCRS	NUMBER	Total number of LCRs currently in memory
SGA_ALLOCATED	NUMBER	The total amount of shared memory (in bytes) allocated from the GoldenGate pool for the apply process since the apply process last started



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

Note:

The <code>ELAPSED_SCHEDULE_TIME</code> column is only populated if the <code>TIMED_STATISTICS</code> initialization parameter is set to <code>true</code>, or if the <code>STATISTICS_LEVEL</code> initialization parameter is set to <code>TYPICAL</code> or <code>ALL</code>.

See Also:

- "TIMED_STATISTICS"
- "STATISTICS_LEVEL"

8.272 V\$GG_APPLY_RECEIVER

V\$GG_APPLY_RECEIVER displays information about the message receiver of the Replicat process.

The values are reset to zero when the database (or instance in an Oracle Real Application Clusters (Oracle RAC) environment) restarts and when the Replicat process is stopped.

Column	Detetune	Description
Column	Datatype	Description
SID	NUMBER	Session ID of the apply receiver
SERIAL#	NUMBER	Serial number of the apply receiver
APPLY_NAME	VARCHAR2(128)	Name of the apply process
STARTUP_TIME	DATE	Startup time of the apply process
SOURCE_DATABASE_NAME	VARCHAR2(128)	Name of the source database
ACKNOWLEDGEMENT	NUMBER	acknowledgment of the messages received by the receiver
LAST_RECEIVED_MSG	NUMBER	Last received message
TOTAL_MESSAGES_RECEIVED	NUMBER	Total number of messages received
TOTAL_AVAILABLE_MESSAGES	NUMBER	Number of available messages



Column	Datatype	Description
STATE	VARCHAR2 (46)	State of the apply receiver: Initializing Sending unapplied txns Waiting for message from client Receiving LCRs Evaluating rules Enqueueing LCRS Waiting for memory Waiting for apply to read Waiting for Replicat flush request to complete Waiting for Replicat commit to complete
LAST_RECEIVED_MSG_POSITION	VARCHAR2 (64)	Last received message position
ACKNOWLEDGEMENT_POSITION	VARCHAR2 (64)	acknowledgment position of the messages received by the receiver. Corresponds to ACKNOWLEDGEMENT, except the value is in position rather than SCN.
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data
OS_PROCESS_ID	VARCHAR2 (12)	The OS process ID of the apply receiver process
CURRENT POSITION	VARCHAR2 (81)	The trail position of the current record processed by the apply receiver
TOTAL_TRANSACTIONS	NUMBER	The total number of transactions processed by the apply receiver
TOTAL_COMMITS	NUMBER	The total number of commits executed by the apply receiver
TOTAL_ERRORS	NUMBER	The total number of errors encountered by the apply receiver

8.273 V\$GG_APPLY_SERVER

 ${\tt V\$GG_APPLY_SERVER} \ displays \ information \ about \ each \ GoldenGate \ apply \ server \ and \ its \ activities.$

An apply server receives messages from the apply coordinator for an apply process. For each message received, an apply server either applies the message or sends the message to the appropriate apply handler. An apply server is a subcomponent of an apply process used by Oracle GoldenGate Integrated Replicat.

Column	Datatype	Description
SID	NUMBER	Session ID of the apply server's session
SERIAL#	NUMBER	Serial number of the apply server's session
APPLY#	NUMBER	Apply process number. An apply process is an Oracle background process, prefixed by ap.
APPLY_NAME	VARCHAR2 (128)	Name of the apply process
SERVER_ID	NUMBER	Parallel execution server number of the apply server



Column	Datatype	Description
STATE	VARCHAR2 (20)	State of the apply server:
		INITIALIZING - Starting up
		IDLE - Performing no work
		 RECORD LOW-WATERMARK - Performing an administrative job that maintains information about the apply progress, which is used in the ALL_APPLY_PROGRESS and DBA_APPLY_PROGRESS data dictionary views
		 ADD PARTITION - Performing an administrative job that adds a partition that is used for recording information about in-progress transactions
		 DROP PARTITION - Performing an administrative job that purges rows that were used to record information about in-progress transactions
		EXECUTE TRANSACTION - Applying a transaction
		 WAIT COMMIT - Waiting to commit a transaction until all other transactions with a lower commit SCN are applied. This state is possible only if the COMMIT_SERIALIZATION apply process parameter is set to a value other than DEPENDENT_TRANSACTIONS and the PARALLELISM apply process parameter is set to a value greater than 1.
		 WAIT DEPENDENCY - Waiting to apply a logical change record (LCR) in a transaction until another transaction, on which it has a dependency, is applied. This state is possible only if the PARALLELISM apply process parameter is set to a value greater than 1.
		ROLLBACK TRANSACTION - Rolling back a transaction
		• TRANSACTION CLEANUP - Cleaning up an applied transaction, which includes removing LCRs from the apply process's queue
		 WAIT FOR CLIENT - Waiting for an XStream client application to request more LCRs
		 WAIT FOR NEXT CHUNK - Waiting for the next set of LCRs for a large transaction
XIDUSN	NUMBER	Transaction ID undo segment number of the transaction currently being applied
XIDSLT	NUMBER	Transaction ID slot number of the transaction currently being applied
XIDSQN	NUMBER	Transaction ID sequence number of the transaction currently being applied
COMMITSCN	NUMBER	Commit system change number (SCN) of the transaction currently being applied
DEP_XIDUSN	NUMBER	Transaction ID undo segment number of a transaction on which the transaction being applied by this apply server depends
DEP_XIDSLT	NUMBER	Transaction ID slot number of a transaction on which the transaction being applied by this apply server depends
DEP_XIDSQN	NUMBER	Transaction ID sequence number of a transaction on which the transaction being applied by this apply server depends
DEP_COMMITSCN	NUMBER	Commit system change number (SCN) of the transaction on which this apply server depends
MESSAGE_SEQUENCE	NUMBER	Number of the current message being applied by the apply server. This value is reset to ${\tt l}$ at the beginning of each transaction.
TOTAL_ASSIGNED	NUMBER	Total number of transactions assigned to the apply server since the apply process was last started



Column	Datatype	Description	
TOTAL_ADMIN	NUMBER	Total number of administrative jobs done by the apply server since the apply process was last started. See the STATE information in this view for the types of administrative jobs.	
TOTAL_ROLLBACKS	NUMBER	Number of transactions assigned to this server which were rolled back	
TOTAL_MESSAGES_APPLIED	NUMBER	Total number of messages applied by this apply server since the apply process was last started	
APPLY_TIME	DATE	Time the last message was applied	
ELAPSED_APPLY_TIME	NUMBER	Time elapsed (in hundredths of a second) applying messages since the apply process was last started	
COMMIT_POSITION	RAW(64)	Commit position of the transaction. This column is populated only for an apply process that is functioning as a GoldenGate Integrated Replicat.	
DEP_COMMIT_POSITION	RAW(64)	Commit position of the transaction the worker depends on. This column is populated only for an apply process that is functioning as a GoldenGate inbound server.	
LAST_APPLY_POSITION	RAW(64)	For inbound servers, the position of the last message applied; for outbound servers, the position of the last message sent to the XStream client application. This column is populated only for an apply process that is functioning as a GoldenGate outbound server or inbound server.	
TRANSACTION_ID	VARCHAR2 (128)	Transaction ID that the worker is applying. This column is populated only for an apply process that is functioning as a GoldenGate inbound server.	
DEP_TRANSACTION_ID	VARCHAR2 (128)	Transaction ID of the transaction the worker depends on. This column is populated only for an apply process that is functioning as a GoldenGate inbound server.	
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:	
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data 	
TOTAL_LCRS_RETRIED	NUMBER	Total number of LCRs retried by this server	
LCR_RETRY_ITERATION	NUMBER	Retry iteration for this transaction by this server	
TOTAL_TXNS_RETRIED	NUMBER	Total transactions retried by this server	
TXN_RETRY_ITERATION	NUMBER	Retry iteration for this transaction by this server	
TOTAL_TXNS_RECORDED	NUMBER	Total transactions recorded in error queue by this server	

Note:

The <code>ELAPSED_SCHEDULE_TIME</code> column is only populated if the <code>TIMED_STATISTICS</code> initialization parameter is set to <code>true</code>, or if the <code>STATISTICS_LEVEL</code> initialization parameter is set to <code>TYPICAL</code> or <code>ALL</code>.



See Also:

- "TIMED_STATISTICS"
- "STATISTICS_LEVEL"

8.274 V\$GLOBAL_BLOCKED_LOCKS

V\$GLOBAL_BLOCKED_LOCKS displays global blocked locks.

Column	Datatype	Description
ADDR	RAW (4 8)	Address of lock state object
KADDR	RAW(4 8)	Address of lock
SID	NUMBER	Identifier of session holding the lock (number)
TYPE	VARCHAR2(2)	Resource type (char)
ID1	NUMBER	Resource identifier #1 (number)
ID2	NUMBER	Resource identifier #2 (number)
LMODE	NUMBER	Lock mode held (number)
REQUEST	NUMBER	Lock mode requested (number)
CTIME	NUMBER	Time since current mode was granted
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.275 V\$GLOBAL_TRANSACTION

V\$GLOBAL TRANSACTION displays information on the currently active global transactions.

Column	Datatype	Description
FORMATID	NUMBER	Format identifier of the global transaction
GLOBALID	RAW(64)	Global transaction identifier of the global transaction
BRANCHID	RAW(64)	Branch qualifier of the global transaction
BRANCHES	NUMBER	Total number of branches in the global transaction
REFCOUNT	NUMBER	Number of siblings for the global transaction (must be the same as branches)
PREPARECOUNT	NUMBER	Number of branches of the global transaction that have prepared



Column	Datatype	Description
STATE	VARCHAR2 (38)	State of the branch of the global transaction: ACTIVE COLLECTING FINALIZED FAILED RECOVERING UNASSOCIATED FORGOTTEN READY FOR RECOVERY NO-READONLY FAILED SIBLING INFO WRITTEN [ORACLE COORDINATED]ACTIVE [ORACLE COORDINATED]FINALIZED [ORACLE COORDINATED]FINALIZED [ORACLE COORDINATED]FAILED [ORACLE COORDINATED]FAILED [ORACLE COORDINATED]FORGOTTEN [ORACLE COORDINATED]PORGOTTEN [ORACLE COORDINATED]READY FOR RECOVERY [ORACLE COORDINATED]NO-READONLY FAILED [MULTINODE] ACTIVE [MULTINODE] FINALIZED [MULTINODE]FAILED [MULTINODE]FORGOTTEN [MULTINODE]FORGOTTEN [MULTINODE]FORGOTTEN [MULTINODE]FORGOTTEN [MULTINODE]FORGOTTEN [MULTINODE]FORGOTTEN [MULTINODE] FORGOTTEN [MULTINODE] SIBLING INFO WRITTEN COMBINATION
FLAGS	NUMBER	The numeric representation of the state
COUPLING	VARCHAR2 (15)	Indicates whether the branches are free (FREE), loosely coupled (LOOSELY COUPLED), or tightly coupled (TIGHTLY COUPLED)
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.276 V\$GOLDENGATE_CAPABILITIES

 ${\tt V\$GOLDENGATE_CAPABILITIES} \ \ displays \ information \ about \ the \ usage \ of \ various \ Oracle \ GoldenGate \ features, \ as \ well \ as \ database \ features \ used \ by \ Oracle \ GoldenGate.$

Column	Datatype	Description	
NAME	VARCHAR2 (22)	Feature name. Possible values:	
		• AUTOCDR	
		• DBENCRYPTION	
		• DDLTRIGGEROPTIMIZATION	
		• DELETECASCADEHINT	
		• GGSESSION	
		• PROCREPLICATION	
		• SUPPLEMENTALLOG	
		• TRANSIENTDUPLICATE	
		• TRIGGERSUPPRESSION	
COUNT	NUMBER	Number of times the feature has been used since instance startup	
LAST_USED	DATE	Date on which the feature was last used	
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:	
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 	
		 1: This value is used for rows containing data that pertain to only the root 	
		 n: Where n is the applicable container ID for the rows containing data 	

8.277 V\$GOLDENGATE_CAPTURE

 ${\tt V\$GOLDENGATE_CAPTURE} \ displays \ information \ about \ each \ capture \ process \ that \ sends \ LCRs \ to \ an \ Oracle \ Golden Gate \ outbound \ server.$

Column	Datatype	Description
SID	NUMBER	Session identifier of the capture process
SERIAL#	NUMBER	Session serial number of the capture process session
CAPTURE#	NUMBER	Capture process number. A capture process is an Oracle background process prefixed by $\mathtt{cp}\xspace$
CAPTURE_NAME	VARCHAR2 (128)	Name of the capture process
LOGMINER_ID	NUMBER	Session ID of the Oracle LogMiner session associated with the capture process
STARTUP_TIME	DATE	Time when the capture process was last started



Column	Datatype	Description
STATE	Datatype VARCHAR2 (589)	State of the capture process and state of the network. The two states are separated by a semicolon. The possible values are: INITIALIZING - Starting up. WAITING FOR DICTIONARY REDO - Waiting for redo log files containing the dictionary build related to the first SCN to be added to the capture process session. A capture process cannot begin to scan the redo log files until all of the log files containing the dictionary build have been added. DICTIONARY INITIALIZATION - Processing a dictionary build. MINING (PROCESSED SCN = scn_value) - Mining a dictionary build at the SCN scn_value. LOADING (step x of y) - Processing information from a dictionary build and currently at step x in a process that involves y steps, where x and y are numbers. CAPTURING CHANGES - Scanning the redo log for changes that satisfithe capture process rule sets. WAITING FOR REDO - Waiting for new redo log files to be added to the capture process session. The capture process has finished processing all of the redo log files added to its session. This state is possible if there is no activity at a source database. For a downstream capture process, this state is possible if the capture process is waiting for new log files to be added to its session. EVALUATING RULE - Evaluating a change against a capture process rule set. CREATING LCR - Converting a change into an LCR. ENQUEUING MESSAGE - Enqueuing an LCR that satisfies the capture process rule sets into the capture process queue. PAUSED FOR FLOW CONTROL - Unable to enqueue LCRs either because of low memory or because propagations and outbound servers are consuming messages slower than the capture process is creating them. This state indicates flow control that is used to reduce spilling of captured LCRs when propagation or apply has fallen behind or is unavailable. WAITING FOR THE BUFFERED QUEUE TO SHRINK - Waiting for the buffered queue to change to a smaller size. The buffered queue shrinks when there is a memory limitation or when an administrato reduces its size. WAITING FOR T
TOTAL_PREFILTER_DISCARDE	NUMBER	ABORTING - Terminating. Total number of prefiltered messages discarded
D		· · · · · · · · · · · · · · · · · · ·
TOTAL_PREFILTER_KEPT	NUMBER	Total number of prefiltered messages kept
TOTAL_PREFILTER_EVALUATI ONS	NUMBER	Total number of prefilter evaluations



Column	Datatype	Description
TOTAL_MESSAGES_CAPTURED	NUMBER	Total number of redo entries passed by LogMiner to the capture process for detailed rule evaluation since the capture process last started. A capture process converts a redo entry into a message and performs detailed rule evaluation on the message when capture process prefiltering cannot discard the change.
CAPTURE_TIME	DATE	Time when the most recent message was captured
CAPTURE_MESSAGE_NUMBER	NUMBER	Number of the most recently captured message
CAPTURE_MESSAGE_CREATE_TIME	DATE	Creation time of the most recently captured message
TOTAL_MESSAGES_CREATED	NUMBER	Count associated with <code>ELAPSED_LCR_TIME</code> to calculate rate
TOTAL_FULL_EVALUATIONS	NUMBER	Count associated with <code>ELAPSED_RULE_TIME</code> to calculate rate
TOTAL_MESSAGES_ENQUEUED	NUMBER	Total number of messages enqueued since the capture process was last started
ENQUEUE_TIME	DATE	Time when the last message was enqueued
ENQUEUE_MESSAGE_NUMBER	NUMBER	Number of the last enqueued message
ENQUEUE_MESSAGE_CREATE_TIME	DATE	Creation time of the last enqueued message
AVAILABLE_MESSAGE_NUMBER	NUMBER	For local capture, the last redo SCN flushed to the log files. For downstream capture, the last SCN added to LogMiner through the archived redo log files.
AVAILABLE_MESSAGE_CREATE _TIME	DATE	For local capture, the time the SCN was written to the log file. For downstream capture, the time the most recent archived redo log file (containing the most recent SCN) was added to LogMiner.
ELAPSED_CAPTURE_TIME	NUMBER	Elapsed time (in hundredths of a second) scanning for changes in the redo log since the capture process was last started
ELAPSED_RULE_TIME	NUMBER	Elapsed time (in hundredths of a second) evaluating rules since the capture process was last started
ELAPSED_ENQUEUE_TIME	NUMBER	Elapsed time (in hundredths of a second) enqueuing messages since the capture process was last started
ELAPSED_LCR_TIME	NUMBER	Elapsed time (in hundredths of a second) creating LCRs since the capture process was last started
ELAPSED_REDO_WAIT_TIME	NUMBER	Elapsed time (in hundredths of a second) spent by the capture process in the ${\tt WAITING}$ FOR REDO state
ELAPSED_PAUSE_TIME	NUMBER	Elapsed flow control pause time (in hundredths of a second)
STATE_CHANGED_TIME	DATE	Time at which the state of the capture process changed
SGA_USED	NUMBER	The total amount of shared memory used (in bytes) by the capture process
SGA_ALLOCATED	NUMBER	The total amount of shared memory (in bytes) allocated from the Streams pool for the capture process
BYTES_OF_REDO_MINED	VARCHAR2 (64)	The total amount of redo data mined (in bytes) since the capture process last started
SESSION_RESTART_SCN	VARCHAR2(64)	The SCN from which the capture process started mining redo data when it was last started



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
SPID	VARCHAR2(12)	Operating system process identifier of the capture process
EXTRACT_NAME	VARCHAR2(128)	Name of the extract process
SERVER_SID	NUMBER	Session ID of the capture server
SERVER_SERIAL#	NUMBER	Session serial number of the capture server
SERVER_SPID	VARCHAR2(12)	Operating system process identifier of the capture server
TOTAL_MESSAGES_SENT	NUMBER	Total number of LCRs sent by the capture process to the GoldenGate extract process since the last time the extract attached to the capture
SEND_TIME	DATE	Time the last LCR was sent by the capture process to the extract process
LAST_SENT_MESSAGE_NUMBER	NUMBER	Message number of the last LCR sent by the capture process to the extract process
LAST_SENT_MESSAGE_CREATE _TIME	DATE	Creation time at the source database of the last LCR sent by the capture process to the extract process
ELAPSED_SEND_TIME	NUMBER	Time elapsed (in hundredths of a second) sending LCRs to the extract process since the last time the extract process attached to the capture process
BYTES_SENT	NUMBER	Total number of bytes sent by the capture process to the extract process since the last time the extract process attached to the capture process

8.278 V\$GOLDENGATE_MESSAGE_TRACKING

V\$GOLDENGATE_MESSAGE_TRACKING displays information about LCRs tracked through the stream that are processed by Oracle GoldenGate components.

You can track an LCR through a stream using one of the following methods:

- Set the message_tracking_frequency apply process parameter to 1 or another relatively low value via the Oracle GoldenGate DBOPTIONS INTEGRATEDPARAMS parameter.
- Use the DBMS_XSTREAM_ADM.SET_MESSAGE_TRACKING procedure to specify a tracking label that becomes part of each LCR generated by the current session.

When the actions parameter in the <code>DBMS_XSTREAM_ADM.SET_MESSAGE_TRACKING</code> procedure is set to <code>DBMS_XSTREAM_ADM.ACTION_MEMORY</code>, information about the LCRs is tracked in memory, and this view is populated with information about the LCRs. Currently, <code>DBMS_XSTREAM_ADM.ACTION_MEMORY</code> is the only valid setting for the <code>actions</code> parameter in the procedure.

Column	Datatype	Description
TRACKING_LABEL	VARCHAR2(128)	User-specified tracking label



Column	Datatype	Description
TAG	RAW(128)	First 128 bytes of the tag of the LCR
COMPONENT_NAME	VARCHAR2 (128)	Name of the component that processed the LCR
COMPONENT_TYPE	VARCHAR2 (128)	Type of the component that processed the LCR
ACTION	VARCHAR2(50)	Action performed on the LCR
ACTION_DETAILS	VARCHAR2(312)	Details of the action
TIMESTAMP	TIMESTAMP(9) WITH TIME ZONE	Time when the action was performed
MESSAGE_CREATION_TIME	DATE	Time when the message was created
MESSAGE_NUMBER	NUMBER	SCN of the message
TRACKING_ID	RAW (16)	Globally unique OID of the LCR
SOURCE_DATABASE_NAME	VARCHAR2 (128)	Name of the source database
OBJECT_OWNER	VARCHAR2 (128)	Owner of the object
OBJECT_NAME	VARCHAR2 (128)	Name of the object
XID	VARCHAR2 (128)	Transaction ID
COMMAND_TYPE	VARCHAR2 (128)	Command type of the LCR
MESSAGE_POSITION	RAW(64)	Position of the message
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		• 1: This value is used for rows containing data that pertain to only the root
		• <i>n</i> : Where <i>n</i> is the applicable container ID for the rows containing data



8.279 V\$GOLDENGATE_PROCEDURE_STATS

V\$GOLDENGATE_PROCEDURE_STATS displays procedural replication statistics processed by each Oracle GoldenGate apply server.

Column	Datatype	Description
APPLY_NAME	VARCHAR2 (128)	Name of the apply process
SERVER_ID	NUMBER	Parallel apply server worker ID
PROCEDURE_OWNER	VARCHAR2 (128)	Owner of the replicated procedure
PACKAGE_NAME	VARCHAR2 (128)	Replicated procedure package
PROCEDURE_NAME	VARCHAR2 (128)	Replicated procedure name
LAST_UPDATE	DATE	Time of the last update of the statistics



Column	Datatype	Description
TOTAL_EXECUTIONS	NUMBER	Number of executions of the procedure by this apply server
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.280 V\$GOLDENGATE_TABLE_STATS

 ${\tt V\$GOLDENGATE_TABLE_STATS} \ displays \ table \ statistics \ for \ all \ the \ tables \ used \ by \ each \ Oracle \ GoldenGate \ apply \ server.$

Caluman	Detet in a	Description
Column	Datatype	Description
APPLY_NAME	VARCHAR2 (128)	Name of the apply process
SERVER_ID	NUMBER	Parallel apply server worker ID
SOURCE_TABLE_OWNER	VARCHAR2 (128)	Source owner of the captured or replicated table
SOURCE_TABLE_NAME	VARCHAR2 (128)	Source name of the captured or replicated table
DESTINATION_TABLE_OWNER	VARCHAR2 (128)	Target owner of the captured or replicated table
DESTINATION_TABLE_NAME	VARCHAR2(30)	Target name of the captured or replicated table
LAST_UPDATE	DATE	Time of the last update of the statistics
TOTAL_INSERTS	NUMBER	Number of insert operations on this table processed by this apply server
TOTAL_UPDATES	NUMBER	Number of update operations on this table processed by this apply server
TOTAL_DELETES	NUMBER	Number of delete operations on this table processed by this apply server
INSERT_COLLISIONS	NUMBER	Number of insert collisions on this table encountered by this apply server
UPDATE_COLLISIONS	NUMBER	Number of update collisions on this table encountered by this apply server
DELETE_COLLISIONS	NUMBER	Number of delete collisions on this table encountered by this apply server
REPERROR_RECORDS	NUMBER	Number of change records that resulted in an error that were recorded on this table by this apply server
REPERROR_IGNORES	NUMBER	Number of change records that resulted in an error that were ignored on this table by this apply server
WAIT_DEPENDENCIES	NUMBER	Number of waits for this table due to dependency



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data
CDR_INSERT_ROW_EXISTS	NUMBER	Number of conflicts where an insert gets an ORA-00001 error
CDR_UPDATE_ROW_EXISTS	NUMBER	Number of conflicts where an update gets an ORA-26786 error
CDR_UPDATE_ROW_MISSING	NUMBER	Number of conflicts where an update gets an ORA-26787 error
CDR_DELETE_ROW_EXISTS	NUMBER	Number of conflicts where a delete gets an ORA-26786 error
CDR_DELETE_ROW_MISSING	NUMBER	Number of conflicts where a delete gets an ORA-26787 error
CDR_SUCCESSFUL_RESOLUTIO	NUMBER	Number of successfully resolved conflicts
CDR_FAILED_RESOLUTIONS	NUMBER	Number of conflicts that could not be resolved due to an error during resolution
LOB_OPERATIONS	NUMBER	The number of LOB updates (LOB writes, LOB trims, and LOB erases) applied by the inbound server.

8.281 V\$GOLDENGATE_TRANSACTION

V\$GOLDENGATE_TRANSACTION displays information about transactions that are being processed by Oracle GoldenGate capture processes, outbound servers, and inbound servers.

This view can identify long running transactions and display how many LCRs are being processed in each transaction. This view only contains information about captured LCRs. It does not contain information about user-enqueued LCRs or user messages.

This view only shows information about LCRs that are being processed because they satisfied the rule sets for the component at the time of the query. For capture processes, this view only shows information about changes in transactions that the capture process has converted into LCRs. It does not show information about all the active transactions present in the redo log.

For outbound servers, this view only shows information about LCRs that the outbound server has dequeued. It does not show information about LCRs in the outbound server's queue. For outbound servers, information about a transaction remains in the view until the transaction is sent to the Oracle GoldenGate client application.

For inbound servers, information about a transaction remains in the view until the transaction commits or until the entire transaction is rolled back.

Column	Datatype	Description
COMPONENT_NAME	VARCHAR2(138)	Name of the component
COMPONENT_TYPE	VARCHAR2(20)	Type of component CAPTURE - Capture process APPLY - Apply reader subcomponent in an outbound server or inbound server PROPAGATION_SENDER - Propagation sender that sends LCRs from a capture process to an outbound server



Column	Datatype	Description
XIDUSN	NUMBER	Transaction ID undo segment number of the transaction
XIDSLT	NUMBER	Transaction ID slot number of the transaction
XIDSQN	NUMBER	Transaction ID sequence number of the transaction
BATCH_XIDUSN	NUMBER	Transaction ID undo segment number of the batch parent transaction.
		When using BATCHSQL mode in Oracle GoldenGate Integrated Replicat the BATCH_XID columns identify the parent transaction of the batch the current transaction belongs to. The parent transaction is the first transaction of each batch.
		This column is populated only if COMPONENT_TYPE is APPLY and BATCHSQI mode is enabled.
BATCH_XIDSLT	NUMBER	Transaction ID slot number of the batch parent transaction.
		When using BATCHSQL mode in Oracle GoldenGate Integrated Replicat the BATCH_XID columns identify the parent transaction of the batch the current transaction belongs to. The parent transaction is the first transaction of each batch.
		This column is populated only if COMPONENT_TYPE is APPLY and BATCHSQI mode is enabled.
BATCH_XIDSQN	NUMBER	Transaction ID sequence number of the batch parent transaction.
		When using BATCHSQL mode in Oracle GoldenGate Integrated Replicat the BATCH_XID columns identify the parent transaction of the batch the current transaction belongs to. The parent transaction is the first transaction of each batch.
		This column is populated only if COMPONENT_TYPE is APPLY and BATCHSQL mode is enabled.
CUMULATIVE_MESSAGE_COUNT	NUMBER	Number of LCRs processed in the transaction. If a component is restarted while the transaction is being processed, then this column shows the number of LCRs processed in the transaction since the component was started.
TOTAL_MESSAGE_COUNT	NUMBER	Total number of LCRs processed in the transaction by an outbound server or inbound server. This column does not pertain to capture processes.
FIRST_MESSAGE_TIME	DATE	Time stamp of the first LCR processed in the transaction. If a capture process is restarted while the transaction is being processed, then this column shows the time stamp of the first LCR processed after the capture process was started.
FIRST_MESSAGE_NUMBER	NUMBER	SCN of the first message in the transaction. If a capture process is restarted while the transaction is being processed, then this column shows the SCN of the first message processed after the capture process was started.
LAST_MESSAGE_TIME	DATE	Time stamp of the last LCR processed in the transaction
LAST_MESSAGE_NUMBER	NUMBER	SCN of the most recent message encountered for the transaction
FIRST_MESSAGE_POSITION	RAW(64)	Position of the first message seen by an XStream inbound server
		This column is populated only for an apply process that is functioning as an Oracle GoldenGate inbound server.
LAST_MESSAGE_POSITION	RAW(64)	Position of the last message seen by an Oracle GoldenGate inbound server
		This column is populated only for an apply process that is functioning as an Oracle GoldenGate inbound server.



Column	Datatype	Description
TRANSACTION_ID	VARCHAR2 (128)	Transaction ID for an Oracle GoldenGate inbound server
		This column is populated only for an apply process that is functioning as an Oracle GoldenGate inbound server.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.282 V\$HANG_INFO

 ${\tt V\$HANG_INFO}\ displays\ information\ about\ hangs\ found\ on\ the\ cluster.$

A hang can be an open wait chain or closed wait chain (cycle or deadlock). A wait chain is a series of sessions that are blocking one another. Each row represents a hang and describes how severe the hang is. This view also includes the victim or final blocker of the hang.

Column	Datatype	Description
HANG_ID	NUMBER	A number identifying the hang
HANG_CHAIN_SESSIONS	NUMBER	Indicates how many sessions are in the main wait chain of the hang
TOTAL_HUNG_SESSIONS	NUMBER	Indicates how many total sessions are affected by the hang, including the main wait chain and any wait chains branching off of the main wait chain
HANG_TYPE	VARCHAR2(18)	Is set to \mathtt{Hang} if this is an open wait chain or $\mathtt{Deadlock}$ if this is a cycle or closed wait chain
HANG_STATUS	VARCHAR2(20)	Status of the hang. Possible values:
		 Invalid - The hang is about to be removed because its hung status has become in doubt
		 Pending Resolution - The hang or deadlock has been marked for resolution and will be resolved shortly
		 Reconfiguration - A reconfiguration occurred and the hang or deadlock must be re-detected and verified before any action can be taken toward resolution
		 Requires Verification - The hang is about to be verified to confirm if its sessions are still hung
		 Resolved - The hang or deadlock was resolved by terminating the final blocker (or root) or, if necessary, by terminating the instance Self-Resolved - The hang was detected but resolved on its own without Blocker Resolver intervention
		 Unresolvable - The hang was determined to be a special case that is not resolvable
		 Valid - The hang or deadlock was detected but not yet verified
		 Verified Hung - The hang has been verified and a decision will be made soon on whether the hang will be resolved or ignored
		 Victim Selected - A victim has been selected. If the hang is marked for resolution, the victim will be terminated.
HANG_CREATE_TIME	VARCHAR2(20)	Date and time that the hang was detected



Column	Datatype	Description
HANG_RESOLVE_TIME	VARCHAR2 (20)	Time that the hang may be automatically resolved
IGNORED_HANG	VARCHAR2(1)	Y - Hang was ignored and will not be automatically resolved at this time
		$\ensuremath{\mathtt{N}}$ - The hang has not yet been verified
RESOLUTION_ATTEMPTED	VARCHAR2(1)	Y - An attempt was made to resolve the hang
		$\ensuremath{\mathbb{N}}$ - No attempt was made to resolve the hang
GLOBAL_HANG	VARCHAR2(1)	Y - The hang spans multiple nodes in the cluster
		$\ensuremath{\mathtt{N}}$ - All of the sessions in the hang reside on a single instance
ESCALATED_HANG	VARCHAR2(1)	Y - An attempt was made to resolve the hang but was unsuccessful, and the hang is becoming more severe. Another resolution attempt will be made.
		${\tt N}$ - The first resolution attempt was successful and it was not necessary to escalate the hang to a higher resolution level.
RESOLUTION_STATUS	VARCHAR2 (45)	Contains the reason why the hang was resolved or ignored
VICTIM_INSTANCE	NUMBER	Instance number of the instance on which the victim or final blocker session resides
VICTIM_SESSION_ID	NUMBER	Victim or final blocker's Oracle session ID
VICTIM_SERIAL#	NUMBER	Victim or final blocker's Oracle session serial number
VICTIM_OSPID	VARCHAR2(24)	Victim or final blocker's operating system process ID
FATAL_BACKGROUND	VARCHAR2(1)	Y - Victim or final blocker is a critical background process
		$\ensuremath{\mathtt{N}}$ - Victim or final blocker is not a critical background process
PNAME	VARCHAR2(5)	Name of the victim or final blocker process
VICTIM_PDB_ID	NUMBER	Victim or final blocker's container ID or PDB ID
WAIT_EVENT_TEXT	VARCHAR2(64)	Resource or event for which the victim or final blocker is waiting; set to not in a wait if the session is not waiting on a resource
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

- "V\$HANG_SESSION_INFO"
- "V\$HANG_STATISTICS"
- "DBA_BLOCKER_RESOLVER_PARAMETERS"



8.283 V\$HANG_SESSION_INFO

Each row with the same ${\tt HANG_ID}$ describes a session that is in the hang wait chain described by the row with the same ${\tt HANG_ID}$ in ${\tt V\$HANG_INFO}$. This session is blocked by the victim or final blocker of that hang.

Column	Datatype	Description
HANG_ID	NUMBER	A number identifying the hang including this session. This column can be used to join V\$HANG_INFO with V\$HANG_SESSION_INFO.
INSTANCE	NUMBER	Instance number of the instance on which this session resides
SID	NUMBER	Oracle session ID of this session
SERIAL#	NUMBER	Oracle session serial number of this session
OSPID	VARCHAR2(24)	Operating system process ID of this session
FATAL_BACKGROUND	VARCHAR2(1)	Y - Session is a critical background process
		$\ensuremath{\mathtt{N}}$ - Session is not a critical background process
ROOT	VARCHAR2(1)	Y - This session is the victim or final blocker of the hang
		$\ensuremath{\mathbb{N}}$ - This session is not the victim or final blocker of the hang
PNAME	VARCHAR2(5)	Name of the victim or final blocker process
PDB_ID	NUMBER	Oracle session's container ID or PDB ID
WAIT_EVENT_TEXT	VARCHAR2 (64)	Resource or event for which this session is waiting; set to ${\tt not\ in\ a\ wait}$ if the session is not waiting on a resource
WAIT_TIME	NUMBER	Time spent in wait for this session (in seconds). If the value of ${\tt WAIT_EVENT_TEXT}$ is not in a wait, then this column returns the number of seconds since the last wait.
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

- "V\$HANG_INFO"
- "V\$HANG_STATISTICS"
- "DBA_BLOCKER_RESOLVER_PARAMETERS"

8.284 V\$HANG_STATISTICS

V\$HANG STATISTICS displays statistics about hangs found on the cluster.



Column	Datatype	Description
STATISTIC#	NUMBER	Statistic number
NAME	VARCHAR2 (45)	Name of the statistic
VALUE	NUMBER	Value associated with the statistic
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		• 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

See Also:

- "V\$HANG_INFO"
- "V\$HANG_SESSION_INFO"
- "DBA_BLOCKER_RESOLVER_PARAMETERS"

8.285 V\$HEAT_MAP_SEGMENT

 ${\tt V\$HEAT_MAP_SEGMENT} \ \ \textbf{displays} \ \ \textbf{real-time} \ \ \textbf{segment} \ \ \textbf{access} \ \ \textbf{information}.$

Column	Datatype	Description
OBJECT_NAME	VARCHAR2(128)	Name of the object
SUBOBJECT_NAME	VARCHAR2(128)	Name of the subobject
OBJ#	NUMBER	Object number
DATAOBJ#	NUMBER	Data object number
TS#	NUMBER	ID of the tablespace containing the segment whose heat map is tracked
TRACK_TIME	DATE	Timestamp of current activity tracking
SEGMENT_WRITE	VARCHAR2(3)	Indicates whether the segment has write access: (YES or NO)
SEGMENT_READ	VARCHAR2(3)	Indicates whether the segment has read access: (YES or NO)
FULL_SCAN	VARCHAR2(3)	Indicates whether the segment has full table scan: (YES or NO)
LOOKUP_SCAN	VARCHAR2(3)	Indicates whether the segment has lookup scan: (YES or NO)
N_SEGMENT_WRITE	NUMBER	Number of segment writes
N_FULL_SCAN	NUMBER	Number of table scans
N_LOOKUP_SCAN	NUMBER	Number of lookup scans
N_FASTFULLINDEX_SCAN	NUMBER	Number of fast full index scans
N_RANGEINDEX_SCAN	NUMBER	Number of range index scans
N_DML_SCAN	NUMBER	Number of scans originating from DMLs



Column	Datatype	Description
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

See Also:

"ALL_HEAT_MAP_SEGMENT"

8.286 V\$HM_CHECK

 $V\$HM_CHECK$ displays information about all the checks registered with Health Monitor. Each check is uniquely identified by a name or an ID.

Column	Datatype	Description
ID	NUMBER	Health check ID
NAME	VARCHAR2 (64)	Health check name
NAME_NLS	VARCHAR2 (1024)	Internationalized names of the health checks
CLSID	NUMBER	Class ID to which this check belongs
CLS_NAME	VARCHAR2 (15)	Class name of the check: GENERIC PERSISTENT_DATA
FLAGS	NUMBER	Reserved for internal use
INTERNAL_CHECK	VARCHAR2(1)	Internal check
OFFLINE_CAPABLE	VARCHAR2(1)	Ability to run when database is not open yet (Y or N)
DESCRIPTION	VARCHAR2 (1024)	Description of what the check does
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.287 V\$HM_CHECK_PARAM

 ${\tt V$HM_CHECK_PARAM} \ displays \ information \ about \ the \ input \ parameters \ of \ all \ Health \ Monitor \ checks.$



Column	Datatype	Description
ID	NUMBER	Parameter ID
NAME	VARCHAR2 (64)	Parameter name
CHECK_ID	NUMBER	ID of the check to which this parameter belongs
TYPE	VARCHAR2 (20)	Data type of the input parameter: DBKH_PARAM_UB4 DBKH_PARAM_UB8 DBKH_PARAM_TEXT DBKH_PARAM_DATE DBKH_PARAM_UB4_LIST DBKH_PARAM_UB8_LIST DBKH_PARAM_UB8_LIST DBKH_PARAM_TEXT_LIST DBKH_PARAM_DATE_LIST
DEFAULT_VALUE	VARCHAR2 (64)	Default value for this parameter
FLAGS	NUMBER	Reserved for internal use
DESCRIPTION	VARCHAR2(1024)	Description of the parameter
CON_ID	NUMBER	 The ID of the container to which the data pertains. Possible values include: 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.288 V\$HM_FINDING

 ${\tt V\$HM_FINDING} \ displays \ information \ about \ all \ the \ findings \ of \ various \ Health \ Monitor \ runs.$

Column	Datatype	Description
FINDING_ID	NUMBER	Unique ID to represent the finding
RUN_ID	NUMBER	ID of the run that created this finding
NAME	VARCHAR2 (32)	Name of the finding
PARENT_ID	NUMBER	Parent finding ID for this finding
CHILD_COUNT	NUMBER	Number of active (open) child findings, if this finding is a parent finding type
CLASS_NAME	VARCHAR2 (32)	Name of the class to which this finding belongs
TIME_DETECTED	TIMESTAMP(6)	Time this finding was detected
MODIFIED	TIMESTAMP(6)	Time that this finding was last modified
PRIORITY	VARCHAR2(8)	Priority of the finding: LOW, HIGH CRITICAL
STATUS	VARCHAR2 (12)	Status of the finding: OPEN CLOSED



Column	Datatype	Description
TYPE	VARCHAR2 (13)	Type of the finding: INFORMATIONAL FAILURE
DESCRIPTION	VARCHAR2 (1024)	Description of the finding
DAMAGE_DESCRIPTION	VARCHAR2 (1024)	Possible damage description of the finding
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.289 V\$HM_INFO

V\$HM INFO displays information about Health Monitor runs, findings, and recommendations.

The information for a run/finding/recommendation is organized as a name, value pair.

If the type of information is RUN, then the data represents the input parameters for that run. If the type of information is FINDING or RECOMMENDATION, then the data represents the information about that particular finding/recommendation.

Column	Datatype	Description
ID	NUMBER	Unique identifier of the information
TYPE	VARCHAR2 (14)	Type of the information: RUN RUN-RESUME FINDING RECOMMENDATION
NAME	VARCHAR2(32)	Information parameter name
VALUE	VARCHAR2 (513)	Information parameter value
CON_ID NUMBER	The ID of the container to which the data pertains. Possible values include:	
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.290 V\$HM RECOMMENDATION

 ${\tt V\$HM_RECOMMENDATION} \ \ displays \ information \ about \ all \ the \ recommendations \ made \ to \ various \ Health \ Monitor \ findings.$

Column	Datatype	Description
RECOMMENDATION_ID	NUMBER	Unique ID to represent the recommendation
FDG_ID	NUMBER	Unique ID to represent either the finding ID or the finding set ID for which the recommendation was made
RUN_ID	NUMBER	ID of the run that may have generated the recommendation If the ID is 0, then the recommendations were generated by RMAN.
NAME	VARCHAR2 (32)	Name of the recommendation
TYPE	VARCHAR2(7)	Type of the recommendation: MANUAL REPAIR
RANK	NUMBER	Rank of the recommendation
TIME_DETECTED	TIMESTAMP(6)	Time that the recommendation was made
EXECUTED	TIMESTAMP(6)	Time that the recommendation (repair) was implemented
STATUS	VARCHAR2(7)	Status of the recommendation (repair) execution: NOT RUN RUNNING SUCCESS FAILED
DESCRIPTION	VARCHAR2 (1024)	Description of the recommendation
REPAIR_SCRIPT	VARCHAR2 (512)	Location of the repair script file
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

8.291 V\$HM_RUN

 ${\tt V\$HM_RUN} \ displays \ information \ about \ all \ Health \ Monitor \ checks \ and \ their \ status.$

Column	Datatype	Description
RUN_ID	NUMBER	Unique ID to represent the run
NAME	VARCHAR2(32)	Unique name used to identify the run
CHECK_NAME	VARCHAR2 (32)	Name of the check
RUN_MODE	VARCHAR2(8)	Mode of the run: MANUAL REACTIVE AUTO
TIMEOUT	NUMBER	Number of seconds allowed for this run to complete before it is terminated
START_TIME	TIMESTAMP(6)	Start time of the run
LAST_RESUME_TIME	TIMESTAMP(6)	Last resumed time for the run
END_TIME	TIMESTAMP(6)	End time of the run



Column	Datatype	Description
MODIFIED_TIME	TIMESTAMP(6)	Last modified time of the run record
STATUS	VARCHAR2 (11)	Status of the run:
		• INITIAL
		• EXECUTING
		• INTERRUPTED
		• TIMEDOUT
		• CANCELLED
		• COMPLETED
		• ERROR
SRC_INCIDENT	NUMBER	Source incident ID that activated this run
NUM_INCIDENT	NUMBER	Number of incidents created by this run
ERROR_NUMBER	NUMBER	Error number if the run failed to complete because of an error
PROBLEM_ID	NUMBER	Problem ID of the source incident ID that may have activated this Run
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data

8.292 V\$HS_AGENT

 ${\tt V\$HS_AGENT} \ \ displays \ the \ set \ of \ HS \ agents \ currently \ running \ on \ a \ given \ host. \ There \ is \ one \ row \ per \ agent \ process.$

Column	Datatype	Description
AGENT_ID	NUMBER	Oracle Net session identifier used for connections to the agent (the identifier used in the LISTENER.ORA file)
MACHINE	VARCHAR2 (64)	Operating system machine name
PROCESS	VARCHAR2(9)	Operating system process identifier of the agent
PROGRAM	VARCHAR2 (48)	Program name of the agent
OSUSER	VARCHAR2 (128)	Operating system user
STARTTIME	DATE	Starting time
AGENT_TYPE	NUMBER	Type of the agent
FDS_CLASS_ID	NUMBER	ID of the Foreign Data Store class
FDS_INST_ID	NUMBER	Instance name of the Foreign Data Store
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.293 V\$HS_PARAMETER

 ${\tt V\$HS_PARAMETER} \ \ \textbf{describes} \ \ \textbf{the initialization parameters in use by the server and agent}.$

Column	Datatype	Description
HS_SESSION_ID	NUMBER	Unique HS session identifier (maps to the HS_SESSION_ID column of V\$HS_SESSION)
PARAMETER	VARCHAR2 (128)	Name of the parameter
VALUE	VARCHAR2 (64)	Value of the parameter
SOURCE	VARCHAR2(1)	Indicates whether the parameter was defined in the agent (A) or server (S) $$
ENV	VARCHAR2(1)	Indicates whether the parameter was set as an environment variable in the agent (T) or elsewhere (F)
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only
		the root
		 n: Where n is the applicable container ID for the rows containing data

8.294 V\$HS_SESSION

V\$HS SESSION describes the current HS session.

Column	Datatype	Description
HS_SESSION_ID	NUMBER	Unique HS session identifier
AGENT_ID	NUMBER	Oracle Net session identifier used for connections to the agent (maps to the <code>AGENT_ID</code> column of <code>V\$HS_AGENT</code>)
SID	NUMBER	User session identifier (maps to the SID column of V\$SESSION)
DB_LINK	VARCHAR2 (128)	Server database link name used to access the agent; blank if no database link is used (for example, when using external procedures)
DB_LINK_OWNER	NUMBER	Owner of the database link in DB_LINK
STARTTIME	DATE	Time the connection was initiated
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs.
		 1: This value is used for rows containing data that pertain to only the root
		 n: Where n is the applicable container ID for the rows containing data



8.295 V\$HVMASTER_INFO

 ${\tt V\$HVMASTER_INFO}\ describes\ the\ current\ and\ previous\ master\ instances\ and\ the\ number\ of\ remasterings\ of\ Global\ Enqueue\ Service\ resources.$

Column	Datatype	Description
HV_ID	NUMBER	Hash value ID
CURRENT_MASTER	NUMBER	Master instance of this hash value ID
PREVIOUS_MASTER	NUMBER	Previous master instance of this hash value ID
REMASTER_CNT	NUMBER	Number of times this has been remastered
CON_ID	NUMBER	The ID of the container to which the data pertains. Possible values include:
		 0: This value is used for rows containing data that pertain to the entire CDB. This value is also used for rows in non-CDBs. 1: This value is used for rows containing data that pertain to only the root n: Where n is the applicable container ID for the rows containing data

