9

Oracle Transactional Event Queue and Advanced Queuing Views

These topics describe the Transactional Event Queue (TxEventQ) and AQ Advanced Queuing (AQ) administrative interface views.

> **Note:**
>
> All views not detailed in the following sections are described in the *Oracle Database Reference*.

Oracle TxEventQ Views

- V$EQ_CACHED_PARTITIONS
- V$EQ_CROSS_INSTANCE_JOBS
- V$EQ_DEQUEUE_SESSIONS
- V$EQ_INACTIVE_PARTITIONS
- V$EQ_MESSAGE_CACHE
- V$EQ_MESSAGE_CACHE_ADVICE
- V$EQ_MESSAGE_CACHE_STAT
- V$EQ_NONDUR_SUBSCRIBER
- V$EQ_NONDUR_SUBSCRIBER_LWM
- V$EQ_PARTITION_STATS
- V$EQ_REMOTE_DEQUEUE_AFFINITY
- V$EQ_SUBSCRIBER_LOAD
- V$EQ_SUBSCRIBER_STAT
- V$EQ_UNCACHED_PARTITIONS

Oracle AQ Views

- V$AQ_MESSAGE_CACHE_STAT: Memory Management for Sharded Queues
- V$AQ_SHARDED_SUBSCRIBER_STAT: Sharded Queue Subscriber Statistics
- V$AQ_MESSAGE_CACHE_ADVICE: Simulated Metrics
- V$AQ_REMOTE_DEQUEUE_AFFINITY: Dequeue Affinity Instance List
- DBA_QUEUE_TABLES: All Queue Tables in Database
- USER_QUEUE_TABLES: Queue Tables in User Schema
- ALL_QUEUE_TABLES: Queue Tables Accessible to the Current User
- DBA_QUEUES: All Queues in Database

- USER_QUEUES: Queues In User Schema
- ALL_QUEUES: Queues for Which User Has Any Privilege
- DBA_QUEUE_SCHEDULES: All Propagation Schedules
- USER_QUEUE_SCHEDULES: Propagation Schedules in User Schema
- QUEUE_PRIVILEGES: Queues for Which User Has Queue Privilege
- AQ$<Queue_Table_Name>: Messages in Queue Table
- AQ$<Queue_Table_Name_S>: Queue Subscribers
- AQ$<Queue_Table_Name_R>: Queue Subscribers and Their Rules
- DBA_QUEUE_SUBSCRIBERS: All Queue Subscribers in Database
- USER_QUEUE_SUBSCRIBERS: Queue Subscribers in User Schema
- ALL_QUEUE_SUBSCRIBERS: Subscribers for Queues Where User Has Queue Privileges
- DBA_TRANSFORMATIONS: All Transformations
- DBA_ATTRIBUTE_TRANSFORMATIONS: All Transformation Functions
- USER_TRANSFORMATIONS: User Transformations
- USER_ATTRIBUTE_TRANSFORMATIONS: User Transformation Functions
- DBA_SUBSCR_REGISTRATIONS: All Subscription Registrations
- USER_SUBSCR_REGISTRATIONS: User Subscription Registrations
- AQ$INTERNET_USERS: Oracle Database Advanced Queuing Agents Registered for Internet Access
- V$AQ: Number of Messages in Different States in Database
- V$BUFFERED_QUEUES: All Buffered Queues in the Instance.
- V$BUFFERED_SUBSCRIBERS: Subscribers for All Buffered Queues in the Instance
- V$BUFFERED_PUBLISHERS: All Buffered Publishers in the Instance
- V$PERSISTENT_QUEUES: All Active Persistent Queues in the Instance
- V$PERSISTENT_SUBSCRIBERS: All Active Subscribers of the Persistent Queues in the Instance
- V$PERSISTENT_PUBLISHERS: All Active Publishers of the Persistent Queues in the Instance
- V$PROPAGATION_SENDER: Buffer Queue Propagation Schedules on the Sending (Source) Side
- V$PROPAGATION_RECEIVER: Buffer Queue Propagation Schedules on the Receiving (Destination) Side
- V$SUBSCR_REGISTRATION_STATS: Diagnosability of Notifications
- V$METRICGROUP: Information About the Metric Group
- V$AQ_BACKGROUND_COORDINATOR: Performance Statistics for AQ's Master Background Coordinator Process (AQPC)
- V$AQ_JOB_COORDINATOR: Performance Statistics per Coordinator
- V$AQ_SERVER_POOL: Performance Statistics for all Servers
- V$AQ_CROSS_INSTANCE_JOBS: Cross Process Jobs Description
- V$AQ_IPC_ACTIVE_MSGS

- V$AQ_IPC_MSG_STATS
- V$AQ_IPC_PENDING_MSGS
- V$AQ_NONDUR_REGISTRATIONS: Non-Durable Registrations
- V$AQ_NOTIFICATION_CLIENTS: Secure OCI Client Connections
- V$AQ_SUBSCRIBER_LOAD: Durable Subscribers
- V$AQ_NONDUR_SUBSCRIBER: Non-Durable Subscribers
- V$AQ_NONDUR_SUBSCRIBER_LWM: LWM of Non Durable Subscriber
- V$AQ_MESSAGE_CACHE: Performance Statistics

DBA_QUEUE_TABLES: All Queue Tables in Database

This view contains information about the owner instance for a queue table.

A queue table can contain multiple queues. In this case, each queue in a queue table has the same owner instance as the queue table. The `DBA_QUEUE_TABLES` columns are the same as those in `ALL_QUEUE_TABLES`.

> **See Also:**
>
> *Oracle Database Reference* for more information about `DBA_QUEUE_TABLES`.

USER_QUEUE_TABLES: Queue Tables in User Schema

This view is the same as `DBA_QUEUE_TABLES` with the exception that it only shows queue tables in the user's schema.

`USER_QUEUE_TABLES` does not contain a column for `OWNER`.

> **See Also:**
>
> *Oracle Database Reference* for more information about `USER_QUEUE_TABLES`.

ALL_QUEUE_TABLES: Queue Tables Accessible to the Current User

This view describes queue tables accessible to the current user.

> **See Also:**
>
> *Oracle Database Reference* for more information about `ALL_QUEUE_TABLES`.

DBA_QUEUES: All Queues in Database

The DBA_QUEUES view specifies operational characteristics for every queue in a database.

Its columns are the same as those ALL_QUEUES. Oracle Database 12*c* Release 1 (12.1) introduces a new column SHARDED with data type VARCHAR2(5). The value for this column is TRUE for sharded queue, otherwise FALSE.

> **See Also:**
>
> *Oracle Database Reference* for more information about DBA_QUEUES.

USER_QUEUES: Queues In User Schema

The USER_QUEUES view is the same as DBA_QUEUES with the exception that it only shows queues in the user's schema.

Oracle Database 12*c* Release 1 (12.1) introduces a new column SHARDED with data type VARCHAR2(5). The value for this column is TRUE for sharded queue, otherwise FALSE.

> **See Also:**
>
> *Oracle Database Reference* for more information about USER_QUEUES.

ALL_QUEUES: Queues for Which User Has Any Privilege

The ALL_QUEUES view describes all queues on which the current user has enqueue or dequeue privileges.

If the user has any Advanced Queuing system privileges, like MANAGE ANY QUEUE, ENQUEUE ANY QUEUE or DEQUEUE ANY QUEUE, this view describes all queues in the database. Oracle Database 12*c* Release 1 (12.1) introduces a new column SHARDED with data type VARCHAR2(5). The value for this column is TRUE for sharded queue, otherwise FALSE.

> **See Also:**
>
> *Oracle Database Reference* for more information about ALL_QUEUES.

DBA_QUEUE_SCHEDULES: All Propagation Schedules

The `DBA_QUEUE_SCHEDULES` view describes all the current schedules in the database for propagating messages.

> **See Also:**
>
> *Oracle Database Reference* for more information about `DBA_QUEUE_SCHEDULES`.

USER_QUEUE_SCHEDULES: Propagation Schedules in User Schema

The `USER_QUEUE_SCHEDULES` view is the same as `DBA_QUEUE_SCHEDULES` with the exception that it only shows queue schedules in the user's schema.

> **See Also:**
>
> *Oracle Database Reference* for more information about `USER_QUEUE_SCHEDULES`.

QUEUE_PRIVILEGES: Queues for Which User Has Queue Privilege

The `QUEUE_PRIVILEGES` view describes queues for which the user is the grantor, grantee, or owner.

It also shows queues for which an enabled role on the queue is granted to `PUBLIC`.

> **See Also:**
>
> *Oracle Database Reference* for more information about `QUEUE_PRIVILEGES`.

AQ$<*Queue_Table_Name*>: Messages in Queue Table

The `AQ$<Queue_Table_Name>` view describes the queue table in which message data is stored.

This view is automatically created with each queue table and should be used for querying the queue data. The dequeue history data (time, user identification and transaction identification) is only valid for single-consumer queues.

In a queue table that is created with the `compatible` parameter set to '8.1' or higher, messages that were not dequeued by the consumer are shown as "`UNDELIVERABLE`". You can dequeue these messages by `msgid`. If the Oracle Database Advanced Queuing queue process monitor

is running, then the messages are eventually moved to an exception queue. You can dequeue these messages from the exception queue with an ordinary dequeue.

A multiconsumer queue table created without the `compatible` parameter, or with the `compatible` parameter set to '8.0', does not display the state of a message on a consumer basis, but only displays the global state of the message.

> **Note:**
>
> Queues created in a queue table with `compatible` set to `8.0` (referred to in this guide as 8.0-style queues) are deprecated in Oracle Database Advanced Queuing 10*g* Release 2 (10.2). Oracle recommends that any new queues you create be 8.1-style or newer and that you migrate existing 8.0-style queues at your earliest convenience.

When a message is dequeued using the `REMOVE` mode, `DEQ_TIME`, `DEQ_USER_ID`, and `DEQ_TXN_ID` are updated for the consumer that dequeued the message.

You can use `MSGID` and `ORIGINAL_MSGID` to chain propagated messages. When a message with message identifier `m1` is propagated to a remote queue, `m1` is stored in the `ORIGINAL_MSGID` column of the remote queue.

Beginning with Oracle Database 10*g*, `AQ$`*`Queue_Table_Name`* includes buffered messages. For buffered messages, the value of `MSG_STATE` is one of the following:

- `IN MEMORY`

  Buffered messages enqueued by a user

- `DEFERRED`

  Buffered messages enqueued by a capture process

- `SPILLED`

  User-enqueued buffered messages that have been spilled to disk

- `DEFERRED SPILLED`

  Capture-enqueued buffered messages that have been spilled to disk

- `BUFFERED EXPIRED`

  Expired buffered messages

For JMS Sharded Queues, the columns `RETRY_COUNT`, `EXCEPTION_QUEUE_OWNER`, `EXCEPTION_QUEUE`, `PROPAGATED_MSGID`, `SENDER_NAME`, `SENDER_ADDRESS`, `SENDER_PROTOCOL`, `ORIGINAL_MSGID`, `ORIGINAL_QUEUE_NAME`, `ORIGINAL_QUEUE_OWNER`, `EXPIRATION_REASON` are always `NULL`.

For JMS Sharded Queues, this view shows messages only for durable subscribers because non durable subscribers are session specific. The view returns data from the in-memory Sharded Queue message cache if available, otherwise from the values on disk. A user is required to be one of the following in order to query from `AQ$<`*`queue_name`*`>` view for Sharded Queues:

- user is the owner
- user has "dequeue" privilege on queue
- user has "dequeue any queue" privilege

The view has the following difference for Sharded Queues for 12*c* and future releases:

- MSG_PRIORITY is defined as NUMBER(38)
- MSG_STATE in a queue table does not have BUFFERED_EXPIRED hence the max length of UNDELIVERABLE is taken as length got MSG_STATE.
- EXPIRATION is defined as TIMESTAMP(6) WITH TIME ZONE in a queue table.
- USER_DATA column is defined using a decode on USERDATA_RAW and USERDATA_BLOB with UTL_RAW.CAST_TO_VARCHAR2.
- CONSUMER_NAME is defined as VARCHAR2(128)

Table 9-1 AQ$<Queue_Table_Name> View

Column	Datatype	NULL	For JMS Sharded Queues 12c Release 1 (12.1)	Description
QUEUE	VARCHAR2(30)	-		Queue name
SHARD_ID	NUMBER	-		N/A for 11*g*
SUBSHARD_ID	NUMBER	-		N/A for 11*g*
MSG_ID	RAW(16)	NOT NULL		Unique identifier of the message
CORR_ID	VARCHAR2(128)	-		User-provided correlation identifier
MSG_PRIORITY	NUMBER	-	NUMBER(38)	Message priority
MSG_STATE	VARCHAR2(16)	-		Message state. 12*c* Release 1 (12.1) queue table doesnt have BUFFERED_EXPIRED. Hence for 12c Release 1 (12.1) the max length of UNDELIVERABLE is taken as length got MSG_STATE
DELAY	DATE	-		Time in date format at which the message in waiting state would become ready. Equals ENQUEUE_TIME + user specified DELAY
DELAY_TIMESTAMP	TIMESTAMP	-		Time as a timestamp format at which the message in waiting state would become ready. Equals ENQUEUE_TIMESTAMP + user specified DELAY
EXPIRATION	NUMBER	-	TIMESTAMP(6) WITH TIME ZONE	Number of seconds in which the message expires after being READY
RETENTION_TIMESTAMP	TIMESTAMP(6)	-		N/A for 11*g*
ENQ_TIME	DATE	-		Enqueue time
ENQ_TIMESTAMP	TIMESTAMP	-		Enqueue time
ENQ_USER_ID	NUMBER	-		Enqueue user ID
ENQ_USER_ID (10.1 queue tables)	VARCHAR2(30)	-		Enqueue user name
ENQ_TXN_ID	VARCHAR2(30)	-		Enqueue transaction ID

Table 9-1 (Cont.) AQ$<Queue_Table_Name> View

Column	Datatype	NULL	For JMS Sharded Queues 12c Release 1 (12.1)	Description
DEQ_TIME	DATE	-		Dequeue time
DEQ_TIMESTAMP	TIMESTAMP	-		Dequeue time
DEQ_USER_ID	NUMBER	-		Dequeue user ID
DEQ_USER_ID (10.1 queue tables)	VARCHAR2(30)	-		Dequeue user name
DEQ_TXN_ID	VARCHAR2(30)	-		Dequeue transaction ID
RETRY_COUNT	NUMBER	-	NULL	Number of retries
EXCEPTION_QUEUE_OWNER	VARCHAR2(30)	-	NULL	Exception queue schema
EXCEPTION_QUEUE	VARCHAR2(30)	-	NULL	Exception queue name
USER_DATA	-	-		User data. USER_DATA column is defined using a decode on USERDATA_RAW and USERDATA_BLOB with UTL_RAW.CAST_TO_VARCHAR2 for 12c Release 1 (12.1).
SENDER_NAME	VARCHAR2(30)	-	NULL	Name of the agent enqueuing the message (valid only for 8.1-compatible queue tables)
SENDER_ADDRESS	VARCHAR2(1024)	-	NULL	Queue name and database name of the source (last propagating) queue (valid only for 8.1-compatible queue tables). The database name is not specified if the source queue is in the local database.
SENDER_PROTOCOL	NUMBER	-	NULL	Protocol for sender address (reserved for future use and valid only for 8.1-compatible queue tables)
ORIGINAL_MSGID	RAW(16)	-	NULL	Message ID of the message in the source queue (valid only for 8.1-compatible queue tables)
CONSUMER_NAME	VARCHAR2(30)	-	VARCHAR2(128)	Name of the agent receiving the message (valid only for 8.1-compatible multiconsumer queue tables)
ADDRESS	VARCHAR2(1024)	-		Queue name and database link name of the agent receiving the message.The database link name is not specified if the address is in the local database. The address is NULL if the receiving agent is local to the queue (valid only for 8.1-compatible multiconsumer queue tables)

Table 9-1 (Cont.) AQ$<Queue_Table_Name> View

Column	Datatype	NULL	For JMS Sharded Queues 12c Release 1 (12.1)	Description
PROTOCOL	NUMBER	-		Protocol for address of receiving agent (valid only for 8.1-compatible queue tables)
PROPAGATED_MSGID	RAW(16)	-	NULL	Message ID of the message in the queue of the receiving agent (valid only for 8.1-compatible queue tables)
ORIGINAL_QUEUE_NAME	VARCHAR2(30)	-	NULL	Name of the queue the message came from
ORIGINAL_QUEUE_OWNER	VARCHAR2(30)	-	NULL	Owner of the queue the message came from
EXPIRATION_REASON	VARCHAR2(19)	-	NULL	Reason the message came into exception queue. Possible values are TIME_EXPIRATION (message expired after the specified expired time), MAX_RETRY_EXCEEDED (maximum retry count exceeded), and PROPAGATION_FAILURE (message became undeliverable during propagation).

> **Note:**
>
> A message is moved to an exception queue if RETRY_COUNT is greater than MAX_RETRIES. If a dequeue transaction fails because the server process dies (including ALTER SYSTEM KILL SESSION) or SHUTDOWN ABORT on the instance, then RETRY_COUNT is not incremented.

AQ$<Queue_Table_Name_S>: Queue Subscribers

The AQ$<*Queue_Table_Name_S*> view provides information about subscribers for all the queues in any given queue table.

It shows subscribers created by users with DBMS_AQADM.ADD_SUBSCRIBER and subscribers created for the apply process to apply user-created events. It also displays the transformation for the subscriber, if it was created with one. It is generated when the queue table is created.

This view provides functionality that is equivalent to the DBMS_AQADM.QUEUE_SUBSCRIBERS() procedure. For these queues, Oracle recommends that the view be used instead of this procedure to view queue subscribers. This view is created only for 8.1-compatible queue tables.

Table 9-2 AQ$<Queue_Table_Name_S> View

Column	Datatype	NULL	Description
QUEUE	VARCHAR2(30)	NOT NULL	Name of queue for which subscriber is defined
NAME	VARCHAR2(30)	-	Name of agent
ADDRESS	VARCHAR2(1024)	-	Address of agent
PROTOCOL	NUMBER	-	Protocol of agent
TRANSFORMATION	VARCHAR2(61)	-	Name of the transformation (can be null)

AQ$<Queue_Table_Name_R>: Queue Subscribers and Their Rules

The AQ$<*Queue_Table_Name*_R> view displays only the subscribers based on rules for all queues in a given queue table, including the text of the rule defined by each subscriber.

It also displays the transformation for the subscriber, if one was specified. It is generated when the queue table is created.

This view is created only for 8.1-compatible queue tables.

Table 9-3 AQ$<Queue_Table_Name_R> View

Column	Datatype	NULL	Description
QUEUE	VARCHAR2(30)	NOT NULL	Name of queue for which subscriber is defined
NAME	VARCHAR2(30)	-	Name of agent
ADDRESS	VARCHAR2(1024)	-	Address of agent
PROTOCOL	NUMBER	-	Protocol of agent
RULE	CLOB	-	Text of defined rule
RULE_SET	VARCHAR2(65)	-	Set of rules
TRANSFORMATION	VARCHAR2(61)	-	Name of the transformation (can be null)

AQ$Queue_Name_R: Queue Subscribers and Their Rules for Multi-consumer Queue

This table shows queue subscribers and their rules for multi-consumer queue.

Table 9-4 AQ$Queue_Name_R: Queue Subscribers and Their Rules for Multi-consumer Queue

Column	Datatype	NULL
QUEUE	VARCHAR2(30)	NOT NULL
NAME	VARCHAR2(30)	-

Table 9-4 (Cont.) AQ$Queue_Name_R: Queue Subscribers and Their Rules for Multi-consumer Queue

Column	Datatype	NULL
ADDRESS	VARCHAR2(1024)	-
PROTOCOL	NUMBER	-
RULE	CLOB	-
RULE_SET	VARCHAR2(65)	-
TRANSFORMATION	VARCHAR2(65)	-

AQ$Queue_Name_S: Queue Subscribers and Their Rules for Multi-consumer Queue

This table shows queue subscribers and their rules for multi-consumer queue.

Table 9-5 AQ$Queue_Name_S: Queue Subscribers and Their Rules for Multi-consumer Queue

Column	Datatype	NULL
QUEUE	VARCHAR2(30)	NOT NULL
NAME	VARCHAR2(30)	-
ADDRESS	VARCHAR2(1024)	-
PROTOCOL	NUMBER	-
TRANSFORMATION	VARCHAR2(65)	-
QUEUE_TO_QUEUE	VARCHAR2(5)	-

DBA_QUEUE_SUBSCRIBERS: All Queue Subscribers in Database

The DBA_QUEUE_SUBSCRIBERS view returns a list of all subscribers on all queues in the database.

Its columns are the same as those in ALL_QUEUE_SUBSCRIBERS.

> **See Also:**
>
> *Oracle Database Reference* for more information about DBA_QUEUE_SUBSCRIBERS.

USER_QUEUE_SUBSCRIBERS: Queue Subscribers in User Schema

The `USER_QUEUE_SUBSCRIBERS` view returns a list of subscribers on queues in the schema of the current user.

Its columns are the same as those in `ALL_QUEUE_SUBSCRIBERS` except that it does not contain the `OWNER` column.

> **See Also:**
>
> *Oracle Database Reference* for more information about `USER_QUEUE_SUBSCRIBERS`.

ALL_QUEUE_SUBSCRIBERS: Subscribers for Queues Where User Has Queue Privileges

The `ALL_QUEUE_SUBSCRIBERS` view returns a list of subscribers to queues that the current user has privileges to dequeue from.

> **See Also:**
>
> *Oracle Database Reference* for more information about `ALL_QUEUE_SUBSCRIBERS`.

DBA_TRANSFORMATIONS: All Transformations

The `DBA_TRANSFORMATIONS` view displays all the transformations in the database.

These transformations can be specified with Advanced Queue operations like enqueue, dequeue and subscribe to automatically integrate transformations in messaging. This view is accessible only to users having DBA privileges.

> **See Also:**
>
> *Oracle Database Reference* for more information about `DBA_TRANSFORMATIONS`.

DBA_ATTRIBUTE_TRANSFORMATIONS: All Transformation Functions

The `DBA_ATTRIBUTE_TRANSFORMATIONS` view displays the transformation functions for all the transformations in the database.

> **See Also:**
>
> *Oracle Database Reference* for more information about `DBA_ATTRIBUTE_TRANSFORMATIONS`.

USER_TRANSFORMATIONS: User Transformations

The `USER_TRANSFORMATIONS` view displays all the transformations owned by the user.

To view the transformation definition, query `USER_ATTRIBUTE_TRANSFORMATIONS`.

> **See Also:**
>
> *Oracle Database Reference* for more information about `USER_TRANSFORMATIONS`.

USER_ATTRIBUTE_TRANSFORMATIONS: User Transformation Functions

The `USER_ATTRIBUTE_TRANSFORMATIONS` view displays the transformation functions for all the transformations of the user.

> **See Also:**
>
> *Oracle Database Reference* for more information about `USER_ATTRIBUTE_TRANSFORMATIONS`.

DBA_SUBSCR_REGISTRATIONS: All Subscription Registrations

The DBA_SUBSCR_REGISTRATIONS view lists all the subscription registrations in the database.

> **See Also:**
>
> *Oracle Database Reference* for more information about DBA_SUBSCR_REGISTRATIONS.

USER_SUBSCR_REGISTRATIONS: User Subscription Registrations

The USER_SUBSCR_REGISTRATIONS view lists the subscription registrations in the database for the current user.

Its columns are the same as those in DBA_SUBSCR_REGISTRATIONS.

> **See Also:**
>
> *Oracle Database Reference* for more information about USER_SUBSCR_REGISTRATIONS.

AQ$INTERNET_USERS: Oracle Database Advanced Queuing Agents Registered for Internet Access

The AQ$INTERNET_USERS view provides information about the agents registered for Internet access to Oracle Database Advanced Queuing. It also provides the list of database users that each Internet agent maps to.

Table 9-6 AQ$INTERNET_USERS View

Column	Datatype	NULL	Description
AGENT_NAME	VARCHAR2(30)	-	Name of the Oracle Database Advanced Queuing Internet agent
DB_USERNAME	VARCHAR2(30)	-	Name of database user that this Internet agent maps to
HTTP_ENABLED	VARCHAR2(4)	-	Indicates whether this agent is allowed to access Oracle Database Advanced Queuing through HTTP (YES or NO)
FTP_ENABLED	VARCHAR2(4)	-	Indicates whether this agent is allowed to access Oracle Database Advanced Queuing through FTP (always NO in current release)

V$AQ: Number of Messages in Different States in Database

The `V$AQ` view provides information about the number of messages in different states for the whole database.

In a Oracle Real Application Clusters environment, each instance keeps its own Oracle Database Advanced Queuing statistics information in its own System Global Area (SGA), and does not have knowledge of the statistics gathered by other instances. When a `GV$AQ` view is queried by an instance, all other instances funnel their Oracle Database Advanced Queuing statistics information to the instance issuing the query.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$AQ`.

V$BUFFERED_QUEUES: All Buffered Queues in the Instance

The `V$BUFFERED_QUEUES` view displays information about all buffered queues in the instance. There is one row per queue.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$BUFFERED_QUEUES`.

V$BUFFERED_SUBSCRIBERS: Subscribers for All Buffered Queues in the Instance

The `V$BUFFERED_SUBSCRIBERS` view displays information about the subscribers for all buffered queues in the instance. There is one row per subscriber per queue.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$BUFFERED_SUBSCRIBERS`.

V$BUFFERED_PUBLISHERS: All Buffered Publishers in the Instance

The `V$BUFFERED_PUBLISHERS` view 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.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$BUFFERED_PUBLISHERS`.

V$PERSISTENT_QUEUES: All Active Persistent Queues in the Instance

The `V$PERSISTENT_QUEUES` view displays information about all active persistent queues in the database since the queues' first activity time.

There is one row per queue. The rows are deleted when the database (or instance in an Oracle RAC environment) restarts.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$PERSISTENT_QUEUES`.

V$PERSISTENT_QMN_CACHE: Performance Statistics on Background Tasks for Persistent Queues

The `V$PERSISTENT_QMN_CACHE` view displays detailed statistics about all background activities relating to all queue tables in the database.

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

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$PERSISTENT_QMN_CACHE`.

V$PERSISTENT_SUBSCRIBERS: All Active Subscribers of the Persistent Queues in the Instance

The `V$PERSISTENT_SUBSCRIBERS` view displays information about all active subscribers of the persistent queues in the database.

There is one row per instance per queue per subscriber. The rows are deleted when the database (or instance in an Oracle RAC environment) restarts.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$PERSISTENT_SUBSCRIBERS`.

V$PERSISTENT_PUBLISHERS: All Active Publishers of the Persistent Queues in the Instance

The `V$PERSISTENT_PUBLISHERS` view displays information about all active publishers of the persistent queues in the database.

There is one row per instance per queue per publisher. The rows are deleted when the database (or instance in an Oracle RAC environment) restarts.

> **See Also:**
>
> *Oracle Database Reference* for more information about V$PERSISTENT_PUBLISHERS.

V$PROPAGATION_SENDER: Buffer Queue Propagation Schedules on the Sending (Source) Side

The `V$PROPAGATION_SENDER` view displays information about buffer queue propagation schedules on the sending (source) side.

The values are reset to zero when the database (or instance in a Oracle Real Application Clusters (Oracle RAC) environment) restarts, when propagation migrates to another instance, or when an unscheduled propagation is attempted.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$PROPAGATION_SENDER` .

V$PROPAGATION_RECEIVER: Buffer Queue Propagation Schedules on the Receiving (Destination) Side

The `V$PROPAGATION_RECEIVER` view displays information about buffer queue propagation schedules on the receiving (destination) side.

The values are reset to zero when the database (or instance in a Oracle Real Application Clusters (Oracle RAC) environment) restarts, when propagation migrates to another instance, or when an unscheduled propagation is attempted.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$PROPAGATION_RECEIVER`.

V$SUBSCR_REGISTRATION_STATS: Diagnosability of Notifications

The `V$SUBSCR_REGISTRATION_STATS` view provides information for diagnosability of notifications.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$SUBSCR_REGISTRATION_STATS`.

V$METRICGROUP: Information About the Metric Group

This `V$METRICGROUP` view displays information about the metric group for each of the four major Streams components: capture, propagation, apply, and queue.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$METRICGROUP`.

V$AQ_MESSAGE_CACHE_STAT: Memory Management for Sharded Queues

The `V$AQ_MESSAGE_CACHE_STAT` view displays statistics about memory management for sharded queues in `streams_pool` within the System Global Area (SGA). Sharded queue uses `streams_pool` in units of subshards. Thus columns of this view shows statistics at subshard level irrespective of the queue. This view shows statistics across all sharded queues.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$AQ_MESSAGE_CACHE_STAT`.

> **Note:**
>
> Some of the above mentioned columns will be used by sharded queue memory advisor during analysis.

V$AQ_SHARDED_SUBSCRIBER_STAT: Sharded Queue Subscriber Statistics

The `V$AQ_SHARDED_SUBSCRIBER_STAT` view displays statistical information about the subscribers of sharded queues. This statistics is used by the memory advisor.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$AQ_SHARDED_SUBSCRIBER_STAT`.

V$AQ_MESSAGE_CACHE_ADVICE: Simulated Metrics

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

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$AQ_MESSAGE_CACHE_ADVICE`.

V$AQ_REMOTE_DEQUEUE_AFFINITY: Dequeue Affinity Instance List

The `V$AQ_REMOTE_DEQUEUE_AFFINITY` view 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.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$AQ_REMOTE_DEQUEUE_AFFINITY`.

V$AQ_BACKGROUND_COORDINATOR: Performance Statistics for AQ's Primary Background Coordinator Process (AQPC)

The `V$AQ_BACKGROUND_COORDINATOR` view is applicable for Oracle Database 12*c* Release 1 (12.1) onwards.

This view lists performance statistics for the Oracle Database Advanced Queuing primary background coordinator process (AQPC).

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$AQ_BACKGROUND_COORDINATOR`.

V$AQ_JOB_COORDINATOR: Performance Statistics per Coordinator

The `V$AQ_JOB_COORDINATOR` view is applicable for Oracle Database 12*c* Release 1 (12.1) onwards.

This view lists performance statistics per coordinator, for every AQ coordinator controlled by the AQ's primary coordinator.

> **See Also::**
>
> *Oracle Database Reference* for more information about `V$AQ_JOB_COORDINATOR`.

V$AQ_SERVER_POOL: Performance Statistics for all Servers

The `V$AQ_SERVER_POOL` view is applicable for Oracle Database 12*c* Release 1 (12.1) onwards. This view lists performance statistics for all the servers in the pool.

> **See Also::**
>
> *Oracle Database Reference* for more information about `V$AQ_SERVER_POOL`.

V$AQ_CROSS_INSTANCE_JOBS: Cross Process Jobs Description

The `V$AQ_CROSS_INSTANCE_JOBS` view is applicable for Oracle Database 12*c* Release 1 (12.1) onwards. This view describes each of the cross process jobs.

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

> **See Also::**
>
> *Oracle Database Reference* for more information about `V$AQ_CROSS_INSTANCE_JOBS`.

V$AQ_IPC_ACTIVE_MSGS

`V$AQ_IPC_ACTIVE_MSGS` displays information about long and priority messages being processed by secondary processes and the short message being processed by the primary process.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$AQ_IPC_ACTIVE_MSGS`.

V$AQ_IPC_MSG_STATS

V$AQ_IPC_MSG_STATS displays cumulative statistics for each message class, for example., cumulative calls, average pending/processing time, and last failure.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$AQ_IPC_MSG_STATS`.

V$AQ_IPC_PENDING_MSGS

V$AQ_IPC_PENDING_MSGS displays information about pending messages, present in the local primary context.

> **See Also:**
>
> *Oracle Database Reference* for more information about `V$AQ_IPC_PENDING_MSGS`.

V$AQ_NONDUR_REGISTRATIONS: Non-Durable Registrations

The `V$AQ_NONDUR_REGISTRATIONS` view is applicable for Oracle Database 12*c* Release 1 (12.1) onwards. This view provides information about non-durable subscriptions.

> **See Also::**
>
> *Oracle Database Reference* for more information about `V$AQ_NONDUR_REGISTRATIONS`.

V$AQ_NOTIFICATION_CLIENTS: Secure OCI Client Connections

The `V$AQ_NOTIFICATION_CLIENTS` view is applicable for Oracle Database 12*c* Release 1 (12.1) onwards. This view displays performance statistics for secure OCI client connections.

> **See Also::**
>
> *Oracle Database Reference* for more information about `V$AQ_NOTIFICATION_CLIENTS`.

V$AQ_SUBSCRIBER_LOAD: Durable Subscribers

The `V$AQ_SUBSCRIBER_LOAD` view is applicable for Oracle Database 12*c* Release 1 (12.1) onwards. This view 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.

> **See Also::**
>
> *Oracle Database Reference* for more information about `V$AQ_SUBSCRIBER_LOAD`.

V$AQ_NONDUR_SUBSCRIBER: Non-Durable Subscribers

The `V$AQ_NONDUR_SUBSCRIBER` view is applicable for Oracle Database 12*c* Release 1 (12.1) onwards. `V$AQ_NONDUR_SUBSCRIBER` provides information about non-durable subscribers on sharded queues.

> **See Also::**
>
> *Oracle Database Reference* for more information about `V$AQ_NONDUR_SUBSCRIBER`.

V$AQ_NONDUR_SUBSCRIBER_LWM: LWM of Non Durable Subscriber

The `V$AQ_NONDUR_SUBSCRIBER_LWM` view is applicable for Oracle Database 12*c* Release 1 (12.1) onwards. The LWM of a non durable subscriber is a combination of shard, priority and LWM (sub-shard).

> **See Also::**
>
> *Oracle Database Reference* for more information about `V$AQ_NONDUR_SUBSCRIBER_LWM`.

V$AQ_MESSAGE_CACHE: Performance Statistics

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

> **See Also::**
>
> *Oracle Database Reference* for more information about `V$AQ_MESSAGE_CACHE`.