**AWR – Automatic Workload Repository**

The Automatic Workload Repository is used to collecting performance statistics including:

* Active Session History (ASH) statistics from the v$active\_session\_history view.
* Wait events used to identify performance.
* Time model statistics including the amount of DB time associated with the process from the v$sess\_time\_model and v$sys\_time\_mode views.
* Object usage statistics.
* Some system and session statistics from the v$sysstat and v$sesstat views.
* Resource intensive SQL statements.

**ADDM – Automatic Database Diagnostic Monitor**

Analyses data in the Automatic Workload Repository to identify potential performance bottlenecks and we use if for the following cases:

* CPU bottlenecks
* I/O capacity issues
* Undersized Memory Structures
* High load SQL statements
* RAC specific issues
* Database configuration issues
* It also provides recommendations on Hardware Changes, Database Configuration & Schema changes.

**ASH – Active Session History**

Statistics from the in-memory performance monitoring tables also used to track session activity and simplify performance tuning.

ASH reports give the following information:

* Top user events (frequent wait events)
* Details to the wait events
* Top sessions
* Top Queries
* Top blocking sessions
* Top DB objects
* Activity over time

**SOURCE: https://ocptechnology.com/awr-vs-addm-vs-ash/**