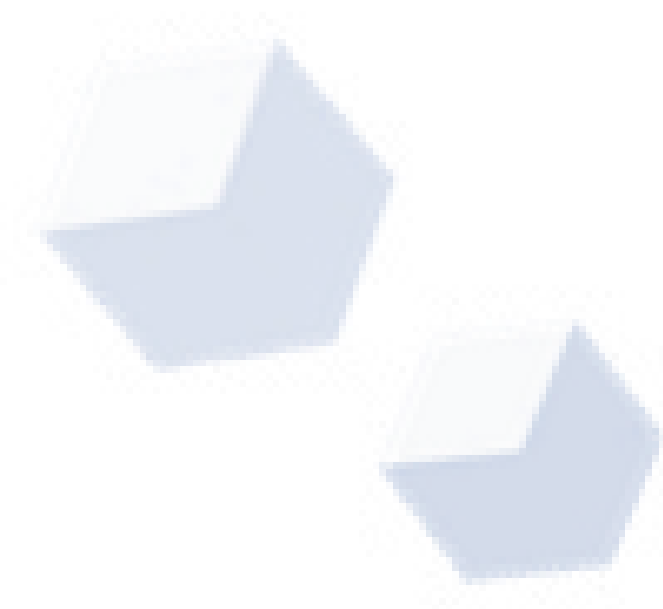


**dbWatch
Control Center**

for

ORACLE



dbWatch Control Center for Oracle Databases

dbWatch Control Center is a database monitoring and management solution for Oracle databases. It provides automated monitoring, keeps track of different performance metrics, and analyzes performance and resource trends across your database farm. It generates key performance reports for management and end-users.

Benefits of using dbWatch Control Center for Oracle:

dbWatch Control Center is highly flexible and scalable solution that can connect to any database anytime, anywhere. It offers security at a granular level that limits access to databases within authorized users.

With dbWatch Control Center, you can add, remove, and edit databases using the User Interface. It scales easily from a handful of instances to the largest database farms with thousands of instances. Its structure ensures that scaling up or down has minimum impact on networks or servers while maintaining maximum performance in monitoring and management.

dbWatch Control Center enables DBAs to manage more instances effectively. With the power of dbWatch Control Center, DBAs can:

- Build workflows, customize reports, and automate the DBA tasks
- Have a better overview and insight of their databases health
- Spend less time on routine monitoring and maintenance
- Attain higher productivity with fewer incidents

dbWatch Control Center - Oracle Key Features

- Cross platform database monitoring and management
- Manage different database platforms/versions in a single view
- Resource tracking- keep track of your Oracle resource usage
- Database farm performance, capacity and resource management
- Full monitoring for On-Premises, Cloud or Hybrid setups/multi-site support
- Web dashboards
- Bulk installation of instances
- Flexible Alerts and Notification configuration
- SQL Worksheet for easy query across the server farm
- Autodiscover of new instances in network
- Customizable views and integration with 3rd party infrastructure monitoring solutions
- Chat system for inter-DBA communication
- Advanced, customizable Reporting features



dbWatch Control Center provides full overview and insight into key performance indicators, on all your Oracle database instances across the database farm, whether it is a standalone database, container/pluggable database, or a clustered database.

dbWatch Control Center enables users to easily identify and pinpoint performance bottlenecks across their Oracle database farm, provides a complete overview of your databases resources, utilization rate, tablespace usage, file growth rate, and other critical information.

With **dbWatch Control Center** you can proactively monitor and control different configurations of your Oracle databases, whether it is On-premise, in the Cloud, or a hybrid setup - combination of OnPrem and on the Cloud databases.

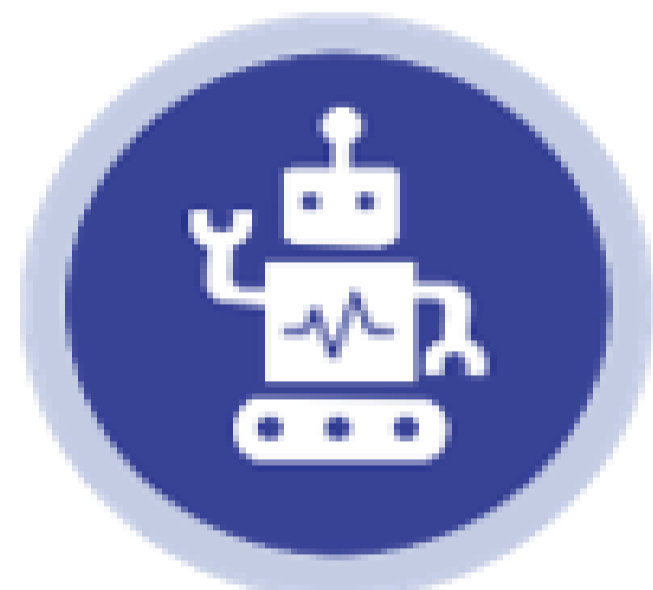
What dbWatch Control Center offers:

1. Cross Platform Monitoring



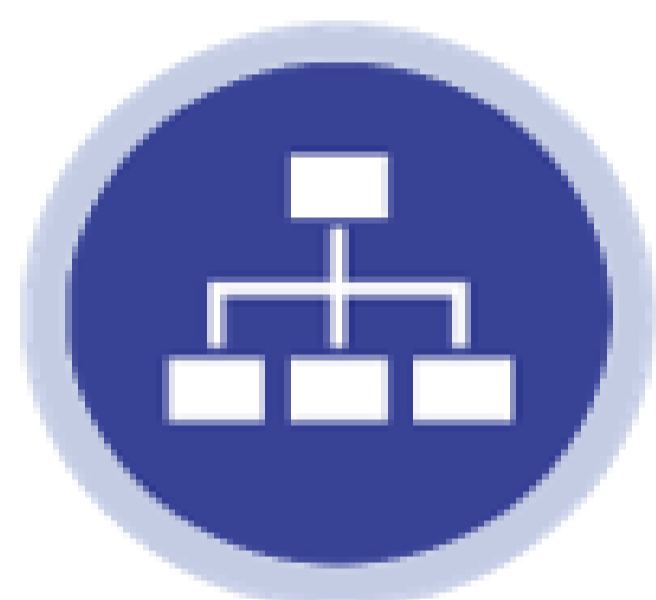
dbWatch Control Center handles most major database platforms such as Microsoft SQL, Postgres, MySQL and Oracle, on-premises or in Azure or AWS.

2. Automated Monitoring



Database jobs captures database status and performance data, memory information, back-up information, and other database-related information. Fully agentless, the dbWatch server handle all scheduling and information collection.

3. Database Monitoring and Management in a single window

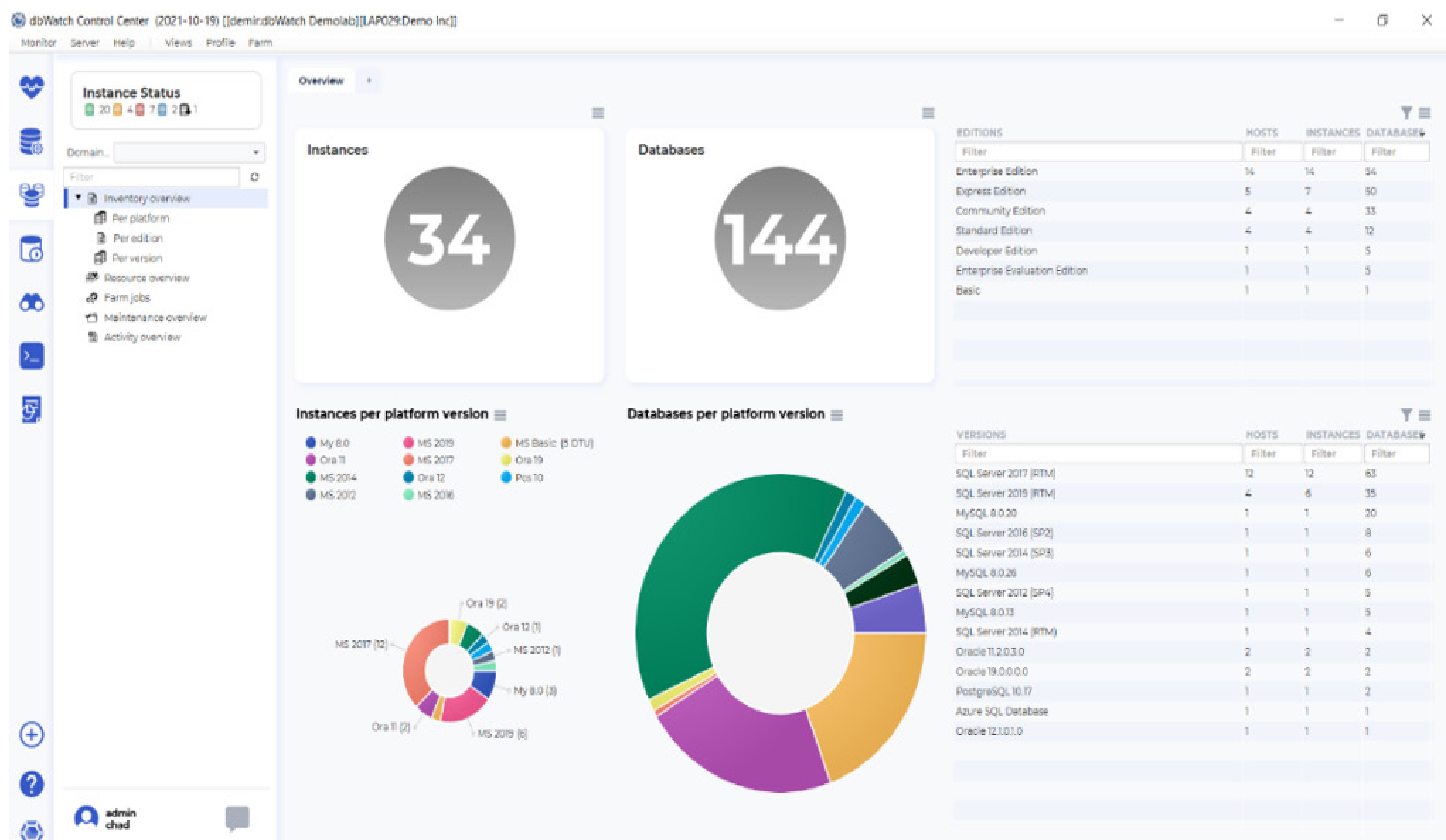


Access your database's information and modify its configuration in the same window. Perform database tuning, and backups in the Management module. Drill down flagged issues and fix them on the fly without the need of executing an SQL statement.

4. Customizable Farm Views



Monitor any number of instances in a single global view. Personalize your dashboard displays as you see fit. Have a complete overview of your entire database farm database system.



5. Database Security and Access Control



Control and limit access to your database. Limit the users viewing and utilizing *Control Center*. Set privileges and restrict access to users.

6. Report Generation



Generate daily or weekly reports for managers. Produce reports on the fly. Customize reports based on your organization's needs. Schedule automatic report production and distribution.

7. Chat System



Enable communication with other DBAs to notify them about existing issues and tag existing tasks you're working on across the database farm.

Functional Modules

	Monitoring	The Monitoring module provides a wide range of monitoring tasks and alerts. Tasks provide statistics and growth rates for your database, which allows for better planning and performance analysis of how your system is behaving.
	Management	The Management module provides an administration GUI for the day-to-day administration DBA work. Role-based access control defines what tasks the user may do on any instance.
	Farm	Farm module gives you an overview of all your monitored instances. Group monitoring can be done per platform, per version, job statuses and many more. Farm module also provides resource overview for your server's memory and disk memory.
	Worksheet	The SQL Worksheet is your handy SQL Editor. Write SQL queries in your database's native language and execute as ad-hoc queries or stored procedures. Save and load them for future use. Use multiple tabs to execute queries in multiple instances.
	Autodiscover	Autodiscover module automatically finds new database instances in a defined network range. You can freely set schedules and network range(s).
	FDL Console	With FDL Console, you can customize or create farm views and dashboards. FDL is a powerful query language to query multiple instances and platforms and build custom dashboards and views.
	Reporting	Report module is a powerful reporting tool that lets you automatically generate and distribute reports in html or pdf formats to designated recipients. Report module comes with standard DBA reports for each platform.

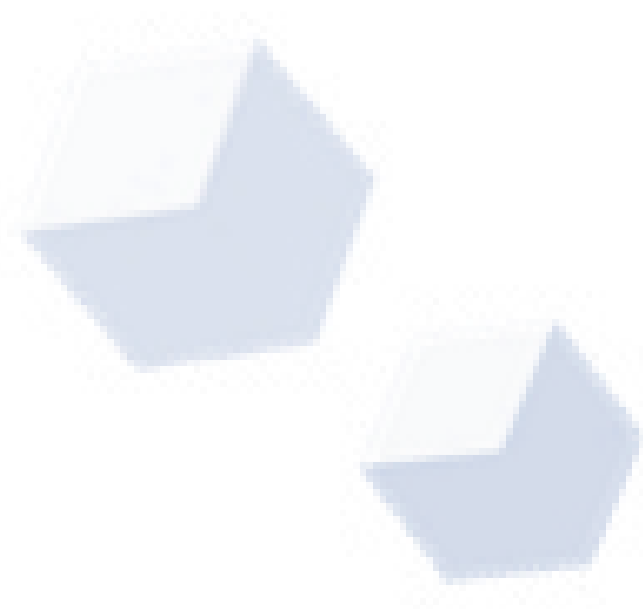
dbWatch Control Center jobs:

dbWatch Control Center has a large variety of jobs that helps you monitor and manage your servers. We have jobs to manage your needs on availability, capacity, clusters and replication, maintenance, and performance.

Each category has specialized jobs that collect statistics and status from your database instance. Some jobs collect information, some alter database states, optimize database performance, and configure databases directly. All jobs can be triggered manually or in a set frequency. You can customize these jobs parameters to suit your monitoring preference and provide proactive management for your database instance. Below is a list of currently available jobs for Oracle:

dbWatch Control Center Jobs	Description
Availability	
Alert Log Check (Java)	Check reads and looks for errors in the database alert log. Uses embedded java to read files.
Database link check	Checks database links.
Database Mount State	Checking if database is in correct mount status
Database uptime	Collects database uptime statistics for all instances mounted on the database.
DBMS uptime	Collects uptime statistics in database.
File status check	Reacts on any changes in status of data files and/or temporary files.
Index status check	Detecting indexes in status UNUSABLE
Instance Alert Log	Reads and check errors in the X\$DBGALERTTEXT perf. View in the XML decoded version of the XML version of Alert log file.
Invalid objects check	Detecting invalid objects in the database.
Job scheduling check	Detecting failed scheduled jobs.
Listener log check (Java)	This checks and reads errors in database listener log. Using embedded java to read.
Max datafiles check	Checks the "soft limit" and the "hard limit" of maximum number of physical OS files, that can be mapped to an Oracle instance.
Password expire	Checks for users whose password will soon expire.
RMAN backup status	Checks the status of RMAN backup from V\$RMAN_BACKUP_JOB_DETAILS performance view.
Test alert	Test alert that alerts every 'X' minute on instance level
Test alert db	Test alert that alerts every 'X' minute on db level
TNSping check	Checks TNSping connectivity on listed targets. Task requires java support. Supports Linux/Unix and windows, will react with an alarm if host is unreachable.
Capacity	
Auto extensible data files	Checks all tablespaces for total disk space usage (auto extensible data files).
Disk Space Check	Disk space check requiring java support database. Supports Linux, Solaris, AIX, HPUX and windows.
Flash Recovery Area Usage	Checks space usage in the flash recovery area.
Free extents	Checks for free extents in all tablespaces. A warning or an alarm is returned

	if segments storage value is higher than the largest free extent chunk.
Max processes	Checks the maximum number of processes.
Segment size collector (all segments — aggregate)	Collects size and number totals on all segment types per segment-owner and tablespace_name.
Segment size collector (large segments — detail)	Collects size and extent number info for larger segments in the database.
Tablespace free space check	Checks the level of free space for all tablespaces.
Temporary tablespace free space check	Checks level of free space for temporary tablespaces.
Auto extensible data files	Checks all tablespaces for total disk space usage (auto extensible data files).
Flash Recovery Area Usage	Checks space usage in the flash recovery area.
Cluster Replication	
Data Guard Role Switch	This job checks if Primary/Standby switch occurs.
MV Refresh Group(s)	Checks refresh date of scheduled jobs in refresh group(s).
Snapshot Log(s) rows count	Checks row count on all snapshot logs for given schema.
Snapshot Log(s) size	Checks size of all snapshot logs.
Performance	
Blocking detector	Checks if a session is waiting on a TX (transaction) lock.
Buffer cache statistics	Gets data cache statistics for buffer cache in SGA.
CPU load	Checks CPU load using Oracle performance view v\$osstat.
Database network statistics (SQL*NET)	Checks database network SQL*NET statistics.
Disk read statistics	Collects disk read statistics from v\$system_event performance view for db file sequential and dbfile scattered read event.
File IO statistics	Collects I/O statistics for data files.
Instance memory statistics	Collect statistics on instance memory.
Latch statistics	Collects latch status statistics.
Long running queries	Check any long running queries and then alerts.
Open cursors	Checks and collects the amount of open cursors per session.
Redo statistics	Gets redo log files statistics. Based on Oracle dictionary and performance views.
Session load	Records the number of active sessions over time.
SQL statement statistics	Collects SQL statement statistics from v\$sqlarea performance view (Oracle 11g only).
SQL waits	Collects SQL wait statistics.
Table statistics check	Reacts on old (or missing) statistics in DBA_TABLES dictionary table (column LAST_ANALYZED).
Top user memory usage	Check can be used to trace memory usage per server-process (session).
Undo statistics	Collects rollback segment statistics.
User memory statistics	Collects user memory statistics.
Wait statistics	Collects statistics about all waits encountered by threads that executed. This task is based on the v\$system_event dynamic performance view.
Maintenance	
Analyze Table	Analyze tables automatically
Framework	Engine framework is used when upgrading earlier versions of dbWatch. Ensures dbWatch Engine and dbWatch server run compatible codes.
Delete SYS.AUD\$ data	Delete old rows from the SYS.AUD\$ trail table
Rebuild Indexes	Rebuild Indexes Automatically



dbWatch Control Center for Oracle:

Available license types for dbWatch Control Center for Oracle:

- Regular license for a single node (production)
- Regular license for a single node in a cluster (with cluster jobs) (production)
- Test or Development license without any cluster or maintenance jobs

How do you license Oracle container and pluggable databases?

For full monitoring you will need a license for the container, and one extra license per pluggable database. You will need to avail the regular license with cluster jobs

An example: if you have 2 container databases and 5 pluggable databases, you will need a total of seven **dbWatch Control Center licenses for Oracle** to monitor those Oracle container/pluggable databases.

Note: This also applies if you are using Oracle RAC

Oracle Versions Supported

Here are the following Oracle versions currently supported by dbWatch Control Center:

- Oracle 8i,
- Oracle 9i
- Oracle 10g
- Oracle 11g
- Oracle 12c
- Oracle 18c
- Oracle 19c
- AWS RDS
- Azure

Software and Hardware Requirements

	Recommended Minimum Requirements	
Architecture Components	dbWatch Server	<ul style="list-style-type: none">• Supported Operating Systems: Windows and Linux Server (VMWare virtual server supported)• Needs at 8 GB of RAM• Needs 4 CPU cores• Needs 1 GB HD space available
	dbWatch Engine (Per instance)	<ul style="list-style-type: none">• 500 Mb free space in each database instance• Bulk install for large database environments SA, SYS, or other superuser password required for each engine installation
	dbWatch Client	<ul style="list-style-type: none">• Windows and Linux operating system for use with graphical interface• 2Gb Memory• 500 Mb hard drive space• Java support• Client-Server communication requires a single port only