DSP Oracle Database Health Check Tiers

The No.1 Oracle Partner

ORACLE | Partner

Essentials

Basic checks to maintain a reliable system
(1 Day, 1 database - 0.5 Days for each additional database)

Software Configuration

- Edition and licensed options
- Database version
- Database/software patch levels
- Status on support matrix

Operating System

- System release version
- Uptime
- CPU characteristics
- Memory

Storage

- Storage type (filesystem, ASM)
- Available disk space
- ASM diskgroup configuration
- Datafile available space and autoextension

Database Configuration

- Audit file configuration
- Database Tablespace file configuration
- Redo Log file groups
- Control files
- Multiplexing
- SGA/PGA Memory Settings

Backup

- Backup method
- RMAN Backup configuration and schedule
- Archivelog enabled
- Backup status
- Backup management and retention

Reliability

- Alert Log review
- Server stability

HA/DR Status

- Cluster log review
- Cluster resource configuration
- Failover node availability
- Data Guard status check
- Log shipping status check for lag
- Data Guard broker settings

Maintenance Checks

- Basic check of invalid objects
- Check for regular alert log recycling
- Check for regular trace file recycling
- Fast Recovery Area usage

Metrics (Point in Time)

- Basic OS resources – CPU and RAM/swap
- High level analysis of a working day via a single statspack/AWR report
- Redo Log rotation

Integrity

- Basic check for corruption

Advanced

All Essentials checks plus greater insights into performance, database objects and advanced configuration
(2 Days, 1 database - 1 Day for each additional database)

Performance (requires *AWR/statspack)

- Wait events analysis
- I/O utilisation
- Disk latency checks
- Buffer cache utilisation
- Instance efficiency
- Deadlocks
- Temp usage by database
- Parallelism Settings
- Resource utilisation using e.g. sar tool
- Automatic Database Diagnostic Monitor findings in AWR report
- Memory advisors
- Hugepages settings if applicable

Reliability

- Check for trace files/memory dumps
- OEM incident review (if applicable)

Database Configuration

- Foreign keys and check constraints
- Database Scheduled Jobs
- Partitioned objects
- Review of initialisation parameters
- Review log/trace file locations
- Force logging
- Listener configuration / SQLNet Settings

Cluster/HA

- cluvfy tool
- OCR and voting files
- Diskgroup redundancy and cluster file placement

Indexes

- Index fragmentation
- Missing indexes
- Expensive indexes
- Duplicate indexes
- Foreign key indexes

Query

- Expensive queries
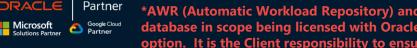
Maintenance Checks

- Investigate invalid objects
- Check for stale table statistics and analyze maintenance jobs
- File size growth rate
- Check for database objects in system tablespace
- Flashback logs
- Audit log size

Backups

- Performance

Security (Security Healthcheck also available)

- Check for WITH GRANT option
- Elevated permissions
- Profile settings
- Unlocked accounts

Comprehensive

All Essential and Advanced Checks plus deep-dive insights into resource utilisation, workload analysis and specialised areas (5 Days, 1 database – 5 Days for each additional database)

Resource Utilisation (requires *AWR)

- Monitoring over a period of time to give insights into:
  - Peak, Average & 95th Percentile analysis of:
    - CPU utilisation
    - CPU queue lengths
    - Available memory
    - Memory latches
    - Disk I/O latencies
    - Disk I/O throughput
    - User connections
    - Batch requests/sec
    - Compilations and recompilations/sec

Query

- Analysis of query plans

Workload Analysis (using *ASH)

- Monitoring over a period of time to give insights into:
  - Top queries by execution count, worker time, elapsed time & I/O
  - Top procedures by execution count, worker time, elapsed time & I/O
  - Worst performing execution plan analysis
  - Blocked process report
  - Deadlock capture & review

Advanced Configuration

- Direct NFS if applicable
- Compression of data and/or backups
- Encryption settings

Integrity

- Check for corruption with RMAN
- Fragmentation

From Ground to Cloud™