

Oracle: What is OCR (Oracle Cluster Registry)? — Simple Explanation

<https://digitalksystems.com>

https://www.youtube.com/channel/UCCGTnI9vvF_ETMhGUXGdFWw

Think of **OCR** as the "**brain**" or **memory** of your Oracle Cluster.

It stores **everything the cluster needs to remember**:

- What resources exist (databases, ASM, listeners, VIPs, etc.)
- Where they run
- Their configuration
- Who owns them
- How they should behave on failover or restart

Real-World Analogy

Let's say you're managing a large hotel with many rooms (nodes), services (databases), and staff (resources).

You keep a **master notebook** at the front desk that lists:

- Which room numbers exist
- Who is staying where
- Which rooms are VIP
- What services are active in which room
- Who is on shift (VIP, SCAN, Listeners, etc.)

That master notebook = **OCR**

If it's lost or corrupted → you don't know who is doing what anymore.

What Does OCR Store Exactly?

Type of Data	Example
Node configuration	Node names and roles
Cluster resources	DBs, listeners, SCANS, services
ASM configuration	ASM disk groups and properties
Resource dependencies	DB instance depends on ASM
Resource states	Enabled/disabled, target state
Voting disk locations	Where they are stored

Where is OCR Stored?

- **In shared storage** (accessible by all cluster nodes)
- Usually stored in **ASM** (e.g., `+DATA` disk group)
- Oracle RAC keeps **multiple OCR copies** (for redundancy)
- You can check with:

`Ocrcheck`

OCR Backup

Oracle **automatically backs up** OCR every 4 hours, and keeps:

- 3 recent backups every 4 hours
- 3 daily backups
- 3 weekly backups

You can also take a **manual backup**:

`ocrconfig -manualbackup`

What Uses OCR?

Everything managed by **Clusterware** uses OCR:

Component	Uses OCR?
CRS	Yes
ASM	Yes
Database	Yes
SCAN	Yes
VIPs	Yes
Listeners	Yes

What If OCR Fails?

Without OCR:

- Cluster doesn't know **what resources exist**
- CRS cannot start properly
- Databases won't be discovered or managed
- You lose resource configuration and failover automation

That's why Oracle stores **multiple OCR copies** and does automatic backups.

Commands Related to OCR

Task	Command
Check OCR health	<code>ocrcheck</code>
Show backup locations	<code>ocrconfig -showbackup</code>
Take manual backup	<code>ocrconfig -manualbackup</code>
Export OCR to text file	<code>ocrconfig -export /tmp/ocr_exp.bkp</code>
Import OCR from backup	<code>ocrconfig -import /tmp/ocr_exp.bkp</code>

Example OCR Content (Behind the Scenes)

```
Resource: ora.racdb.db
  Type: ora.database.type
  Target: ONLINE
  State: ONLINE on node1
```

```
Resource: ora.LISTENER.lsnr
  Type: ora.listener.type
  State: ONLINE on node1
```

```
Resource: ora.scan1.vip
  Type: ora.vip.type
  State: ONLINE on node2
```

This is what OCR "remembers" about your cluster setup.