1 环境

create tablespace tbs\_block\_corrupt datafile '/u02/app/oracle/tbs\_block\_corrupt01.dbf' size 10m;

conn hr/hr

create table emp tablespace tbs\_block\_corrupt as select \* from employees;

create index emp\_id\_idx on emp(employee\_id) tablespace tbs\_block\_corrupt;

backup datafile '/u02/app/oracle/tbs\_block\_corrupt01.dbf' format '/u02/app/oracle/datafile6%U';

2 确定使用的数据块

select segment\_name,file\_id,block\_id,blocks from dba\_extents where  owner='HR' and segment\_name ='EMP';

SEGMENT\_NAME          FILE\_ID   BLOCK\_ID     BLOCKS

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EMP                6     128          8

select rowid,dbms\_rowid.rowid\_relative\_fno(rowid) rel\_fno,dbms\_rowid.rowid\_block\_number(rowid) block,employee\_id,salary from emp where employee\_id=200;

ROWID              REL\_FNO       BLOCK EMPLOYEE\_ID     SALARY

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AAATo2AAGAAAACDAAC        6         131     200       4400

select rowid,dbms\_rowid.rowid\_relative\_fno(rowid) rel\_fno,dbms\_rowid.rowid\_block\_number(rowid) block,employee\_id,salary from emp where dbms\_rowid.rowid\_block\_number(rowid)=133;

ROWID              REL\_FNO       BLOCK EMPLOYEE\_ID     SALARY

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AAATo2AAGAAAACEAAA        6         132     189       3600

AAATo2AAGAAAACEAAB        6         132     190       2900

AAATo2AAGAAAACEAAC        6         132     191       2500

AAATo2AAGAAAACEAAD        6         132     192       4000

AAATo2AAGAAAACEAAE        6         132     193       3900

AAATo2AAGAAAACEAAF        6         132     194       3200

AAATo2AAGAAAACEAAG        6         132     195       2800

AAATo2AAGAAAACEAAH        6         132     196       3100

AAATo2AAGAAAACEAAI        6         132     197       3000

9 rows selected.

select rowid,dbms\_rowid.rowid\_relative\_fno(rowid) rel\_fno,dbms\_rowid.rowid\_block\_number(rowid) block,employee\_id,salary from emp where employee\_id=190;

3 破坏数据块

dd if=/dev/zero of=/u02/app/oracle/tbs\_block\_corrupt01.dbf bs=8192 count=1 conv=notrunc seek=131

or

<<lab\_07\_02.sh>>

[root@student home]# chown oracle:oinstall lab\_07\_02.sh     --模拟块损坏脚本

[oracle@student home]$ chmod 777 lab\_07\_02.sh

$ ./lab\_07\_02.sh /u02/app/oracle/tbs101.dbf 128 8192

4 验证块损坏

alter system flush buffer\_cache;     --清空buffer

conn hr/hr

select rowid,dbms\_rowid.rowid\_relative\_fno(rowid) rel\_fno,dbms\_rowid.rowid\_block\_number(rowid) block,employee\_id,salary from emp where employee\_id=200

\*

ERROR at line 1:

ORA-01578: ORACLE data block corrupted (file # 6, block # 131)

ORA-01110: data file 6: '/u02/app/oracle/tbs\_block\_corrupt01.dbf'

注意：如果模拟损坏的是段头块呢？？

段头块损坏影响整个段数据，都不可用，且段头会导致extent元数据信息丢失

查看区情况

SQL> select owner,segment\_name,tablespace\_name,extent\_id,file\_id,block\_id,bytes,blocks from dba\_extents where segment\_name='TEST\_SC' and owner='HR';

no rows selected

此时已经没有区分配情况了，如果corrupted的是一个数据block，区分配情况还可查

SQL> select rowid,dbms\_rowid.rowid\_relative\_fno(rowid) rel\_fno,dbms\_rowid.rowid\_block\_number(rowid) block,employee\_id,salary from emp where employee\_id=190;

ROWID              REL\_FNO       BLOCK EMPLOYEE\_ID     SALARY

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AAATo2AAGAAAACEAAB        6         132     190       2900

5 修复损坏的数据块

dbv file=/u02/app/oracle/tbs\_block\_corrupt01.dbf blocksize=8192

tail -50 /u01/app/oracle/diag/rdbms/orcl/orcl/trace/alert\_orcl.log

RMAN> recover datafile 6 block 131 to 132;