


```
[grid@rac1 ~]$ crsctl stat res -t
CRS-4535: Cannot communicate with Cluster Ready Services
CRS-4000: Command Status failed, or completed with errors.
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[grid@rac1 ~]$ crsctl stat res -t
CRS-4535: Cannot communicate with Cluster Ready Services
CRS-4000: Command Status failed, or completed with errors.
```

Name	Target	State	Server	State details

Local Resources				

ora.LISTENER.lsnr				
	ONLINE	OFFLINE	rac1	STABLE
	ONLINE	ONLINE	rac2	STABLE
ora.chad				
	ONLINE	OFFLINE	rac1	STABLE
	ONLINE	ONLINE	rac2	STABLE
ora.net1.network				
	ONLINE	ONLINE	rac1	STABLE
	ONLINE	ONLINE	rac2	STABLE
ora.ons				
	OFFLINE	OFFLINE	rac1	STABLE
	ONLINE	ONLINE	rac2	STABLE
ora.proxy_advm				
	OFFLINE	OFFLINE	rac1	STABLE
	OFFLINE	OFFLINE	rac2	STABLE

Cluster Resources				

ora.ASMNET1LSNR_ASM.lsnr(ora.asmgroup)				
1	ONLINE	OFFLINE		STABLE
2	ONLINE	ONLINE	rac2	STABLE
3	ONLINE	OFFLINE		STABLE
ora.DATA.dg(ora.asmgroup)				
1	OFFLINE	OFFLINE		STABLE
2	ONLINE	ONLINE	rac2	STABLE
3	OFFLINE	OFFLINE		STABLE
ora.LISTENER_SCAN1.lsnr				
1	ONLINE	ONLINE	rac2	STABLE
ora.OCR.dg(ora.asmgroup)				
1	OFFLINE	OFFLINE		STABLE
2	ONLINE	ONLINE	rac2	STABLE
3	OFFLINE	OFFLINE		STABLE
ora.asm(ora.asmgroup)				
1	ONLINE	OFFLINE		Instance Shutdown,STABLE
2	ONLINE	ONLINE	rac2	Started,STABLE
3	OFFLINE	OFFLINE		STABLE
ora.asmnet1.asmnetwork(ora.asmgroup)				
1	ONLINE	OFFLINE		STABLE


```

      2      ONLINE OFFLINE      rac2      ABLE
Instance Shutdown,ST
ARTING
ora.qosmserver
  1      ONLINE ONLINE      rac2      STABLE
ora.rac1.vip
  1      ONLINE INTERMEDIATE rac2      FAILED OVER,STABLE
ora.rac2.vip
  1      ONLINE ONLINE      rac2      STABLE
ora.scan1.vip
  1      ONLINE ONLINE      rac2      STABLE

```

```
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[grid@rac1 ~]$ crsctl stat res -t
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```

Name	Target	State	Server	State details

Local Resources				

ora.LISTENER.lsnr				
	ONLINE	OFFLINE	rac1	STABLE
	ONLINE	ONLINE	rac2	STABLE
ora.chad				
	ONLINE	OFFLINE	rac1	STABLE
	ONLINE	ONLINE	rac2	STABLE
ora.net1.network				
	ONLINE	ONLINE	rac1	STABLE
	ONLINE	ONLINE	rac2	STABLE
ora.ons				
	OFFLINE	OFFLINE	rac1	STABLE
	ONLINE	ONLINE	rac2	STABLE
ora.proxy_advm				
	OFFLINE	OFFLINE	rac1	STABLE
	OFFLINE	OFFLINE	rac2	STABLE

```
-----
Cluster Resources
-----
```

```

ora.ASMNET1LSNR_ASM.lsnr(ora.asmgroup)
  1      ONLINE OFFLINE      STABLE
  2      ONLINE ONLINE      rac2    STABLE
  3      ONLINE OFFLINE      STABLE
ora.DATA.dg(ora.asmgroup)
  1      OFFLINE OFFLINE      STABLE
  2      ONLINE ONLINE      rac2    STABLE
  3      OFFLINE OFFLINE      STABLE
ora.LISTENER_SCAN1.lsnr
  1      ONLINE ONLINE      rac2    STABLE
ora.OCR.dg(ora.asmgroup)
  1      OFFLINE OFFLINE      STABLE
  2      ONLINE ONLINE      rac2    STABLE
  3      OFFLINE OFFLINE      STABLE
ora.asm(ora.asmgroup)
  1      ONLINE OFFLINE      Instance Shutdown,ST
ABLE
  2      ONLINE ONLINE      rac2    Started,STABLE
  3      OFFLINE OFFLINE      STABLE
ora.asmnet1.asmnetwork(ora.asmgroup)
  1      ONLINE OFFLINE      STABLE
  2      ONLINE ONLINE      rac2    STABLE
  3      OFFLINE OFFLINE      STABLE
ora.cvu
  1      ONLINE ONLINE      rac2    STABLE
ora.orcl.db
  1      ONLINE OFFLINE      Instance Shutdown,ST
ABLE
  2      ONLINE OFFLINE      rac2    Instance Shutdown,ST
ARTING
ora.qosmserver
  1      ONLINE ONLINE      rac2    STABLE
ora.rac1.vip

```

```

    1      ONLINE  INTERMEDIATE  rac2      FAILED OVER,STABLE
ora.rac2.vip
    1      ONLINE  ONLINE        rac2      STABLE
ora.scan1.vip
    1      ONLINE  ONLINE        rac2      STABLE
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Name          Target  State          Server      State details
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Local Resources
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ora.LISTENER.lsnr
    ONLINE  ONLINE        rac1      STABLE
    ONLINE  ONLINE        rac2      STABLE
ora.chad
    ONLINE  ONLINE        rac1      STABLE
    ONLINE  ONLINE        rac2      STABLE
ora.net1.network
    ONLINE  ONLINE        rac1      STABLE
    ONLINE  ONLINE        rac2      STABLE
ora.ons
    ONLINE  ONLINE        rac1      STABLE
    ONLINE  ONLINE        rac2      STABLE
ora.proxy_advm
    OFFLINE OFFLINE        rac1      STABLE
    OFFLINE OFFLINE        rac2      STABLE
-----
Cluster Resources
-----
ora.ASMNET1LSNR_ASM.lsnr(ora.asmgroup)
    1      ONLINE  ONLINE        rac1      STABLE
    2      ONLINE  ONLINE        rac2      STABLE
    3      ONLINE  OFFLINE
ora.DATA.dg(ora.asmgroup)
    1      OFFLINE OFFLINE
    2      ONLINE  ONLINE        rac2      STABLE
    3      OFFLINE OFFLINE
ora.LISTENER_SCAN1.lsnr
    1      ONLINE  ONLINE        rac2      STABLE
ora.OCR.dg(ora.asmgroup)
    1      OFFLINE OFFLINE
    2      ONLINE  ONLINE        rac2      STABLE
    3      OFFLINE OFFLINE
ora.asm(ora.asmgroup)
    1      ONLINE  OFFLINE        rac1      Instance Shutdown,ST
    2      ONLINE  ONLINE        rac2      ARTING
    3      OFFLINE OFFLINE        Started,STABLE
ora.asmnet1.asmnetwork(ora.asmgroup)
    1      ONLINE  ONLINE        rac1      STABLE
    2      ONLINE  ONLINE        rac2      STABLE
    3      OFFLINE OFFLINE
ora.cvu
    1      ONLINE  ONLINE        rac2      STABLE
ora.orcl.db
    1      ONLINE  OFFLINE
    2      ONLINE  OFFLINE
Instance Shutdown,ST
ABLE
Stuck Archiver,Mount
ed (Closed),Open Ini
tiated,HOME=/u01/app
/oracle/product/19.0
.0/db_1,STABLE
ora.qosmserver
    1      ONLINE  ONLINE        rac2      STABLE
ora.rac1.vip
    1      ONLINE  ONLINE        rac1      STABLE
ora.rac2.vip
    1      ONLINE  ONLINE        rac2      STABLE

```

```

ora.scan1.vip
  1      ONLINE  ONLINE      rac2          STABLE
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Local Resources
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  ONLINE  ONLINE      rac1          STABLE
  ONLINE  ONLINE      rac2          STABLE
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  ONLINE  ONLINE      rac2          STABLE
ora.ons
  ONLINE  ONLINE      rac1          STABLE
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  OFFLINE OFFLINE      rac1          STABLE
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Cluster Resources
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ora.ASMNET1LSNR_ASM.lsnr(ora.asmgroup)
  1      ONLINE  ONLINE      rac1          STABLE
  2      ONLINE  ONLINE      rac2          STABLE
  3      ONLINE  OFFLINE      rac2          STABLE
ora.DATA.dg(ora.asmgroup)
  1      OFFLINE OFFLINE      rac1          STABLE
  2      ONLINE  ONLINE      rac2          STABLE
  3      OFFLINE OFFLINE      rac1          STABLE
ora.LISTENER_SCAN1.lsnr
  1      ONLINE  ONLINE      rac2          STABLE
ora.OCR.dg(ora.asmgroup)
  1      OFFLINE OFFLINE      rac1          STABLE
  2      ONLINE  ONLINE      rac2          STABLE
  3      OFFLINE OFFLINE      rac1          STABLE
ora.asm(ora.asmgroup)
  1      ONLINE  OFFLINE      rac1          Instance Shutdown,ST
ARTING
  2      ONLINE  ONLINE      rac2          Started,STABLE
  3      OFFLINE OFFLINE      rac1          STABLE
ora.asmnet1.asmnetwork(ora.asmgroup)
  1      ONLINE  ONLINE      rac1          STABLE
  2      ONLINE  ONLINE      rac2          STABLE
  3      OFFLINE OFFLINE      rac1          STABLE
ora.cvu
  1      ONLINE  ONLINE      rac2          STABLE
ora.orcl.db
  1      ONLINE  OFFLINE      rac1          Instance Shutdown,ST
ABLE
  2      ONLINE  OFFLINE      rac1          Stuck Archiver,Mount
ed (Closed),Open Ini
tiated,HOME=/u01/app
/oracle/product/19.0
.0/db_1,STABLE
ora.qosmserver
  1      ONLINE  ONLINE      rac2          STABLE
ora.rac1.vip
  1      ONLINE  ONLINE      rac1          STABLE
ora.rac2.vip
  1      ONLINE  ONLINE      rac2          STABLE
ora.scan1.vip
  1      ONLINE  ONLINE      rac2          STABLE
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[grid@rac1 ~]$ crsctl stat res -t
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Name	Target	State	Server	State details

Local Resources				

ora.LISTENER.lsnr				
	ONLINE	ONLINE	rac1	STABLE
	ONLINE	ONLINE	rac2	STABLE
ora.chad				
	ONLINE	ONLINE	rac1	STABLE
	ONLINE	ONLINE	rac2	STABLE
ora.net1.network				
	ONLINE	ONLINE	rac1	STABLE
	ONLINE	ONLINE	rac2	STABLE
ora.ons				
	ONLINE	ONLINE	rac1	STABLE
	ONLINE	ONLINE	rac2	STABLE
ora.proxy_advm				
	OFFLINE	OFFLINE	rac1	STABLE
	OFFLINE	OFFLINE	rac2	STABLE

Cluster Resources				

ora.ASMNET1LSNR_ASM.lsnr(ora.asmgroup)				
1	ONLINE	ONLINE	rac1	STABLE
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3	ONLINE	OFFLINE		STABLE
ora.DATA.dg(ora.asmgroup)				
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2	ONLINE	ONLINE	rac2	STABLE
3	OFFLINE	OFFLINE		STABLE
ora.LISTENER_SCAN1.lsnr				
1	ONLINE	ONLINE	rac2	STABLE
ora.OCR.dg(ora.asmgroup)				
1	OFFLINE	OFFLINE		STABLE
2	ONLINE	ONLINE	rac2	STABLE
3	OFFLINE	OFFLINE		STABLE
ora.asm(ora.asmgroup)				
1	ONLINE	OFFLINE	rac1	Instance Shutdown,ST ARTING
2	ONLINE	ONLINE	rac2	Started,STABLE
3	OFFLINE	OFFLINE		STABLE
ora.asmnet1.asmnetwork(ora.asmgroup)				
1	ONLINE	ONLINE	rac1	STABLE
2	ONLINE	ONLINE	rac2	STABLE
3	OFFLINE	OFFLINE		STABLE
ora.cvu				
1	ONLINE	ONLINE	rac2	STABLE
ora.orcl.db				
1	ONLINE	OFFLINE		Instance Shutdown,ST ABLE
2	ONLINE	OFFLINE		Stuck Archiver,Mount ed (Closed),Open Ini tiated,HOME=/u01/app /oracle/product/19.0 .0/db_1,STABLE
ora.qosmserver				
1	ONLINE	ONLINE	rac2	STABLE
ora.rac1.vip				
1	ONLINE	ONLINE	rac1	STABLE
ora.rac2.vip				
1	ONLINE	ONLINE	rac2	STABLE
ora.scan1.vip				
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Name	Target	State	Server	State details
------	--------	-------	--------	---------------

Local Resources

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ora.LISTENER.lsnr
      ONLINE  ONLINE      rac1      STABLE
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      ONLINE  ONLINE      rac1      STABLE
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      ONLINE  ONLINE      rac2      STABLE
ora.ons
      ONLINE  ONLINE      rac1      STABLE
      ONLINE  ONLINE      rac2      STABLE
ora.proxy_advm
      OFFLINE OFFLINE     rac1      STABLE
      OFFLINE OFFLINE     rac2      STABLE

```

Cluster Resources

```

ora.ASMNET1LSNR_ASM.lsnr(ora.asmgroup)
  1      ONLINE  ONLINE     rac1      STABLE
  2      ONLINE  ONLINE     rac2      STABLE
  3      ONLINE  OFFLINE
ora.DATA.dg(ora.asmgroup)
  1      ONLINE  ONLINE     rac1      STABLE
  2      ONLINE  ONLINE     rac2      STABLE
  3      OFFLINE OFFLINE
ora.LISTENER_SCAN1.lsnr
  1      ONLINE  ONLINE     rac2      STABLE
ora.OCR.dg(ora.asmgroup)
  1      ONLINE  ONLINE     rac1      STABLE
  2      ONLINE  ONLINE     rac2      STABLE
  3      OFFLINE OFFLINE
ora.asm(ora.asmgroup)
  1      ONLINE  ONLINE     rac1      Started,STABLE
  2      ONLINE  ONLINE     rac2      Started,STABLE
  3      OFFLINE OFFLINE
ora.asmnet1.asmnetwork(ora.asmgroup)
  1      ONLINE  ONLINE     rac1      STABLE
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  3      OFFLINE OFFLINE
ora.cvu
  1      ONLINE  ONLINE     rac2      STABLE
ora.orcl.db
  1      ONLINE  ONLINE     rac1      Open,HOME=/u01/app/oracle/product/19.0.0/db_1,STABLE
  2      ONLINE  OFFLINE     rac2      Stuck Archiver,Mounted (Closed),Open Initiated,HOME=/u01/app/oracle/product/19.0.0/db_1,STARTING
ora.qosmserver
  1      ONLINE  ONLINE     rac2      STABLE
ora.rac1.vip
  1      ONLINE  ONLINE     rac1      STABLE
ora.rac2.vip
  1      ONLINE  ONLINE     rac2      STABLE
ora.scan1.vip
  1      ONLINE  ONLINE     rac2      STABLE

```

```

[grid@rac1 ~]$ set linesize 333
[grid@rac1 ~]$ col name for a35
('Instance')
      AND CV.inst_id = USERENV ('Instance')
      AND i.indx = CV.indx
      AND i.ksppinm LIKE '/_gc%' ESCAPE '/'

```



```
ORDER BY REPLACE (i.ksppinm, '_', '');
```

```
col [ ]
```

Options:

```
-b, --no-backspaces  do not output backspaces
-f, --fine           permit forward half line feeds
-p, --pass           pass unknown control sequences
-h, --tabs           convert spaces to tabs
-x, --spaces         convert tabs to spaces
-l, --lines NUM      buffer at least NUM lines
-V, --version        output version information and exit
-H, --help           display this help and exit
```

col reads from standard input and writes to standard output

```
[grid@rac1 ~]$ col description for a66
```

```
col [ ]
```

Options:

```
-b, --no-backspaces  do not output backspaces
-f, --fine           permit forward half line feeds
-p, --pass           pass unknown control sequences
-h, --tabs           convert spaces to tabs
-x, --spaces         convert tabs to spaces
-l, --lines NUM      buffer at least NUM lines
-V, --version        output version information and exit
-H, --help           display this help and exit
```

col reads from standard input and writes to standard output

```
[grid@rac1 ~]$ col value for a30
```

```
col [ ]
```

Options:

```
-b, --no-backspaces  do not output backspaces
-f, --fine           permit forward half line feeds
-p, --pass           pass unknown control sequences
-h, --tabs           convert spaces to tabs
-x, --spaces         convert tabs to spaces
-l, --lines NUM      buffer at least NUM lines
-V, --version        output version information and exit
-H, --help           display this help and exit
```

col reads from standard input and writes to standard output

```
[grid@rac1 ~]$ SELECT i.ksppinm name,
bash: SELECT: ...
[grid@rac1 ~]$ i.ksppdesc description,
bash: i.ksppdesc: ...
[grid@rac1 ~]$ CV.ksppstvl VALUE
bash: CV.ksppstvl: ...
[grid@rac1 ~]$ FROM sys.x$ksppi i, sys.x$ksppcv CV
bash: FROM: ...
[grid@rac1 ~]$ WHERE i.inst_id = USERENV ('Instance')
-bash: `('
[grid@rac1 ~]$ AND CV.inst_id = USERENV ('Instance')
-bash: `('
[grid@rac1 ~]$ AND i.indx = CV.indx
bash: AND: ...
[grid@rac1 ~]$ AND i.ksppinm LIKE '/_gc%' ESCAPE '/'
bash: AND: ...
[grid@rac1 ~]$ exit
```

```
[root@rac1 ~]# su - oracle
```

```
      8   17 21:38:32 CST 2022pts/0
[oracle@rac1 ~]$ sqlplus / as sysdba
```

```
SQL*Plus: Release 19.0.0.0.0 - Production on Wed Aug 17 23:03:59 2022
Version 19.3.0.0.0
```

```
Copyright (c) 1982, 2019, Oracle. All rights reserved.
```

```
Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
```

```
SQL> set linesize 333
      col name for a35
      col description for a66
      col value for a30
SELECT   i.kspinm name,
         i.kspdesc description,
         CV.kspstvl VALUE
FROM     sys.x$ksppi i, sys.x$ksppcv CV
WHERE    i.inst_id = USERENV SQL> SQL> SQL> SQL> 2   3   4   5 ('Instance')
AND CV.inst_id = USERENV ('Instance')
AND i.indx = CV.indx
AND i.kspinm LIKE '/_gc%' ESCAPE '/'
ORDER BY REPLACE (i.kspinm, '_', ''); 6   7   8   9
```

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gc_affinity_locking	if TRUE, enable object affinity	TRUE
_gc_affinity_locks	if TRUE, get affinity locks	TRUE
_gc_affinity_ratio	dynamic object affinity ratio	50
_gc_anti_lock_ratio	dynamic object anti-lock ratio	66
_gc_async_receive	if TRUE, receive blocks asynchronously	FALS
_gc_async_send	if TRUE, send blocks asynchronously	TRU
_gc_bg_merge	if TRUE, merge pi buffers in the background	TRU
_gc_blocking_pins	if TRUE, record a histogram of blocking pins	FALS
_gc_buckets_per_latch	number of hash buckets per latch	163
_gc_bypass_readers	if TRUE, modifications bypass readers	FALS
_gc_check_bscn	if TRUE, check for stale blocks	TRU

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gc_coalesce_recovery_reads	if TRUE, coalesce recovery reads	TRU
_gc_cr_server_read_wait	if TRUE, cr server waits for a read to complete	TRU
_gc_defer_ping_index_only	if TRUE, restrict deferred ping to index blocks only	TRU
_gc_defer_time	how long to defer pings for hot buffers in microseconds	0
_gc_delay_ping	if TRUE, delay pings to hot blocks	TRU
_gc_disable_s_lock_brr_ping_check	if TRUE, disable S lock BRR ping check for lost write protect	TRU
_gc_down_convert_after_keep	if TRUE, down-convert lock after recovery	TRU
_gc_drm_windows	number of DRM windows	8
_gc_dump_remote_lock	if TRUE, dump remote lock	TRU
_gc_element_percent	global cache element percent	105
_gc_enable_cr_bypass	if TRUE, enable CR bypass mechanism	TRU

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gc_fast_index_split_wait	fast index split wait usn array size	102
_gc_fg_merge	if TRUE, merge pi buffers in the foreground	TRU
_gc_fg_spin_time	foreground msgq spin time	0
_gc_first_dirty_merge	if TRUE, merge with a pi after first dirty	TRU
_gc_flush_during_affinity	if TRUE, flush during affinity	TRU
_gc_fusion_compression	compress fusion blocks if there is free space	102
_gc_global_checkpoint_scn	if TRUE, enable global checkpoint scn	TRU
_gc_global_lru	turn global lru off, make it automatic, or turn it on	AUT
_gc_global_lru_touch_count	global lru touch count	5
_gc_global_lru_touch_time	global lru touch time in seconds	60
_gc_integrity_checks	set the integrity check level	1

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gc_interconnect_checksum	if TRUE, checksum interconnect blocks	FALSE
_gc_keep_recovery_buffers	if TRUE, make recovery buffers current	TRUE
_gc_keep_undo_recovery_buffers	if TRUE, make recovery undo buffers current	TRUE
_gc_latches	number of latches per LMS process	32
_gc_lease_time	lease time for rdma reads	1000
_gc_log_flush	if TRUE, flush redo log before a current block transfer	TRUE
_gc_max_downcvt	maximum downconverts to process at one time	2048
_gc_max_reg_sz	maximum length for memory registration	6871
_gc_msgq_buffers	set number of MSGQ buffers	0
_gc_no_fairness_for_clones	if TRUE, no fairness if we serve a clone	TRUE
_gc_numa_lock_elements	if TRUE, numa aware lock element distribution	FALSE
NAME	DESCRIPTION	VALUE
-----	-----	-----
_gc_object_queue_max_length	maximum length for an object queue	0
_gc_override_force_cr	if TRUE, try to override force-cr requests	TRUE
_gc_partial_cleanout	if TRUE, partial cleanout is enabled	TRUE
_gc_persistent_read_mostly	if TRUE, enable persistent read-mostly locking	TRUE
_gc_policy_minimum	dynamic object policy minimum activity per minute	1500
_gc_policy_rm_dirty_percent	percent of cache which can be dirty for readmostly	1
_gc_policy_time	how often to make object policy decisions in minutes	0
_gcr_cpu_consumer_dump_level	level of process dump performed for CPU consumers	0
_gcr_cpu_min_free	minimum amount of free CPU to flag an anomaly	10
_gcr_cpu_min_hard_limit	hard limit for min free CPU to flag high CPU	2560
_gcr_css_group_large	size of large CSS group above which query/update disabled	
NAME	DESCRIPTION	VALUE
-----	-----	-----
_gcr_css_group_query_boost	allowed number of serial multiple queries	
_gcr_css_group_try_lock_delay	minimum delay between group locking attempts, secs	
_gcr_css_group_update2_interval	interval between CSS group updates when busy, secs	
_gcr_css_group_update_interval	interval between CSS group updates, secs	
_gcr_css_use_2group_lock	if FALSE, GCR will not try to lock 2 CSS groups at the same time	TRUE
_gcr_dump_cpu_consumers	if TRUE, enable dumps of CPU consumers	FALSE
_gc_read_mostly_flush_check	if TRUE, optimize flushes for read mostly objects	FALSE
_gc_read_mostly_locking	if TRUE, enable read-mostly locking	FALSE
_gcr_enable_high_cpu_kill	if TRUE, GCR may kill foregrounds under high load	FALSE
_gcr_enable_high_cpu_rm	if TRUE, GCR may enable a RM plan under high load	TRUE
_gcr_enable_high_cpu_rt	if TRUE, GCR may boost bg priority under high load	TRUE
NAME	DESCRIPTION	VALUE
-----	-----	-----
_gcr_enable_high_memory_kill	if TRUE, GCR may kill foregrounds under high memory load	FALSE
_gcr_enable_kill_inst_diags	if TRUE, GCR will collect OS diags prior to kill instance	FALSE
_gcr_enable_new_drm_check	if FALSE, revert to old drm load metric	FALSE
_gcr_enable_statistical_cpu_check	if FALSE, revert to old cpu load metric	TRUE
_gcr_high_cpu_threshold	minimum amount of CPU process must consume to be kill target	10
_gcr_high_memory_threshold	minimum amount of Memory process must consume to be kill target	10
_gcr_max_rt_procs	maximum number of RT DLM processes allowed by GCR	
_gcr_mem_min_free	minimum amount of free memory to flag an anomaly	10
_gcr_min_free_memory_hard_limit	hard limit for minimum free memory, for high memory systems	1073
_gcr_tick	duration of time tick used by state machine, centiseconds	
_gcr_use_css	if FALSE, GCR wont register with CSS nor use any CSS feature	TRUE
NAME	DESCRIPTION	VALUE
-----	-----	-----
_gc_sanity_check_cr_buffers	if TRUE, sanity check CR buffers	FALSE
_gc_save_cleanout	if TRUE, save cleanout to apply later	TRUE
_gcs_cluster_flash_cache_mode	cluster flash cache mode	0
_gcs_cluster_flash_cache_persistency	Enable cluster flash cache persistency (FALSE = disable (default), TRUE = enable)	FALSE
_gcs_cr_master_ping_remote	if TRUE, cr request from master will ping the remote holder	TRUE
_gcs_crslave_check_time	time interval to check for load on cr slaves in seconds	10
_gcs_crslave_longq_cnt	long queue time threshold for cr slave	2000
_gcs_crslave_longq_us	long queue time for cr slave in microseconds	1000
_gcs_disable_imc_preallocation	disable preallocation for imc memory requirement in RAC	FALSE

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gcs_disable_remote_handles	disable remote client/shadow handles	FALS
_gcs_disable_skip_close_remastering	if TRUE, disable skip close optimization in remastering	FALS
_gcs_dynamic_sga	if TRUE, enable dynamic cache fusion resources in runtime	FALS
_gcs_dynamic_slaves	if TRUE, it enables dynamic adjustment of the number of gcs slaves	TRU
_gcs_enable_private_iterator	Enable private iterator for GCS locks	TRU
_gc_serve_from_flash_cache	if TRUE, try to serve a flash cache buffer	FALS
_gcs_fast_reconfig	if TRUE, enable fast reconfiguration for gcs locks	TRU
_gcs_flash_cache_mode	flash cache mode	0
_gcs_freelists_alloc_percent	initial allocation of gcs freelists percentage of max usage	0
_gcs_integrity_checks	cache fusion integrity check level	1
_gc_skip_undo_disk_read	if TRUE, skip the disk read for undo blocks	TRU

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gcs_latches	number of gcs resource hash latches to be allocated per LMS processes	128
_gcs_lsr_frequency	frequency of invoking lock state resolution in seconds	60
_gcs_min_cr_slaves	if non zero, it enables the minimum number of gcs slaves	0
_gcs_min_slaves	if non zero, it enables the minimum number of gcs slaves	0
_gcs_partial_open_mode	partial open cache fusion service in reconfiguration	0
_gc_spin_time	rdma spin time	16
_gcs_pkey_history	number of pkey remastering history	163
_gcs_process_in_recovery	if TRUE, process gcs requests during instance recovery	TRU
_gcs_recoverable_asserts	if non-zero, enable recoverable assert resolution	1

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gcs_reserved_resources	allocate the number of reserved resources in reconfiguration	400
_gcs_reserved_shadows	allocate the number of reserved shadows in reconfiguration	400
_gcs_res_hash_buckets	number of gcs resource hash buckets to be allocated	221
_gcs_resources	number of gcs resources to be allocated	221
_gcs_res_per_bucket	number of gcs resource per hash bucket	4
_gcs_shadow_locks	number of gcs shadow locks to be allocated	221
_gc_statistics	global cache statistics level	TRU
_gcs_testing	GCS testing parameter	0
_gcs_trace_bucket	TRUE: use GCS trace bucket and trace LOW by default, FALSE: use default fault bucket but trace only if enabled	FALS

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gcs_trace_bucket_size	size of the GCS trace bucket in bytes (format: "LMS:<k>-RMV:<l>-CRV:<m>-DBW:<n>")	LMS:485
_gcs_track_reliable_block_sends	if TRUE, track block lost on reliable interconnect	FALS
_gc_temp_affinity	if TRUE, enable global temporary affinity	FALS
_gc_trace_blocking_pins	if TRUE, trace blocking pins	FALS
_gc_trace_freelist_empty	if TRUE, dump a trace when we run out of lock elements	FALS
_gc_transfer_ratio	dynamic object read-mostly transfer ratio	75
_gc_try_to_skip_imc_flush	if TRUE, try to skip an imc populate flush	TRU
_gc_undo_affinity	if TRUE, enable undo affinity	TRU
_gc_undo_block_disk_reads	if TRUE, enable undo block disk reads	TRU

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gc_undo_rdma_read	if TRUE, rdma read of undo blocks is enabled	TRU
_gc_vector_read	if TRUE, vector read current buffers	TRU
_gc_xmem_rdma	if TRUE, xmem blocks rdma read is enabled	FALS

127 rows selected.

```
SQL>
SQL> set linesize 333
col name for a35
col description for a66
```

col value for a30

```
SELECT i.ksppinm name,
       i.ksppdesc description,
       CV.ksppstvl VALUE
FROM   sys.x$ksppi i, sys.x$ksppcv CV
WHERE  i.inst_id = USERENV ('Instance')
AND    CV.inst_idSQL> SQL> SQL> SQL> 2 3 4 5 6 = USERENV ('Instance')
AND    i.indx = CV.indx
AND    i.ksppinm LIKE '/_gc%' ESCAPE '/'
ORDER BY REPLACE (i.ksppinm, '_', ''); 7 8 9
```

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gc_affinity_locking	if TRUE, enable object affinity	TRUE
_gc_affinity_locks	if TRUE, get affinity locks	TRUE
_gc_affinity_ratio	dynamic object affinity ratio	50
_gc_anti_lock_ratio	dynamic object anti-lock ratio	66
_gc_async_receive	if TRUE, receive blocks asynchronously	FALS
_gc_async_send	if TRUE, send blocks asynchronously	TRU
_gc_bg_merge	if TRUE, merge pi buffers in the background	TRU
_gc_blocking_pins	if TRUE, record a histogram of blocking pins	FALS
_gc_buckets_per_latch	number of hash buckets per latch	163
_gc_bypass_readers	if TRUE, modifications bypass readers	FALS
_gc_check_bscn	if TRUE, check for stale blocks	TRU

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gc_coalesce_recovery_reads	if TRUE, coalesce recovery reads	TRU
_gc_cr_server_read_wait	if TRUE, cr server waits for a read to complete	TRU
_gc_defer_ping_index_only	if TRUE, restrict deferred ping to index blocks only	TRU
_gc_defer_time	how long to defer pings for hot buffers in microseconds	0
_gc_delay_ping	if TRUE, delay pings to hot blocks	TRU
_gc_disable_s_lock_brr_ping_check	if TRUE, disable S lock BRR ping check for lost write protect	TRU
_gc_down_convert_after_keep	if TRUE, down-convert lock after recovery	TRU
_gc_drm_windows	number of DRM windows	8
_gc_dump_remote_lock	if TRUE, dump remote lock	TRU
_gc_element_percent	global cache element percent	105
_gc_enable_cr_bypass	if TRUE, enable CR bypass mechanism	TRU

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gc_fast_index_split_wait	fast index split wait usn array size	102
_gc_fg_merge	if TRUE, merge pi buffers in the foreground	TRU
_gc_fg_spin_time	foreground msgq spin time	0
_gc_first_dirty_merge	if TRUE, merge with a pi after first dirty	TRU
_gc_flush_during_affinity	if TRUE, flush during affinity	TRU
_gc_fusion_compression	compress fusion blocks if there is free space	102
_gc_global_checkpoint_scn	if TRUE, enable global checkpoint scn	TRU
_gc_global_lru	turn global lru off, make it automatic, or turn it on	AUT
_gc_global_lru_touch_count	global lru touch count	5
_gc_global_lru_touch_time	global lru touch time in seconds	60
_gc_integrity_checks	set the integrity check level	1

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gc_interconnect_checksum	if TRUE, checksum interconnect blocks	FALS
_gc_keep_recovery_buffers	if TRUE, make recovery buffers current	TRU
_gc_keep_undo_recovery_buffers	if TRUE, make recovery undo buffers current	TRU
_gc_latches	number of latches per LMS process	32
_gc_lease_time	lease time for rdma reads	100
_gc_log_flush	if TRUE, flush redo log before a current block transfer	TRU
_gc_max_downcvt	maximum downconverts to process at one time	204
_gc_max_reg_sz	maximum length for memory registration	687
_gc_msgq_buffers	set number of MSGQ buffers	0
_gc_no_fairness_for_clones	if TRUE, no fairness if we serve a clone	TRU
_gc_numa_lock_elements	if TRUE, numa aware lock element distribution	FALS

NAME	DESCRIPTION	VALUE
-----	-----	-----

_gc_object_queue_max_length	maximum length for an object queue	0
_gc_override_force_cr	if TRUE, try to override force-cr requests	TRUE
_gc_partial_cleanout	if TRUE, partial cleanout is enabled	TRUE
_gc_persistent_read_mostly	if TRUE, enable persistent read-mostly locking	TRUE
_gc_policy_minimum	dynamic object policy minimum activity per minute	1500
_gc_policy_rm_dirty_percent	percent of cache which can be dirty for readmostly	1
_gc_policy_time	how often to make object policy decisions in minutes	0
_gcr_cpu_consumer_dump_level	level of process dump performed for CPU consumers	0
_gcr_cpu_min_free	minimum amount of free CPU to flag an anomaly	10
_gcr_cpu_min_hard_limit	hard limit for min free CPU to flag high CPU	256
_gcr_css_group_large	size of large CSS group above which query/update disabled	

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gcr_css_group_query_boost	allowed number of serial multiple queries	
_gcr_css_group_try_lock_delay	minimum delay between group locking attempts, secs	
_gcr_css_group_update2_interval	interval between CSS group updates when busy, secs	
_gcr_css_group_update_interval	interval between CSS group updates, secs	
_gcr_css_use_2group_lock	if FALSE, GCR will not try to lock 2 CSS groups at the same time	TRUE
_gcr_dump_cpu_consumers	if TRUE, enable dumps of CPU consumers	FALSE
_gc_read_mostly_flush_check	if TRUE, optimize flushes for read mostly objects	FALSE
_gc_read_mostly_locking	if TRUE, enable read-mostly locking	FALSE
_gcr_enable_high_cpu_kill	if TRUE, GCR may kill foregrounds under high load	FALSE
_gcr_enable_high_cpu_rm	if TRUE, GCR may enable a RM plan under high load	TRUE
_gcr_enable_high_cpu_rt	if TRUE, GCR may boost bg priority under high load	TRUE

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gcr_enable_high_memory_kill	if TRUE, GCR may kill foregrounds under high memory load	FALSE
_gcr_enable_kill_inst_diags	if TRUE, GCR will collect OS diags prior to kill instance	FALSE
_gcr_enable_new_drm_check	if FALSE, revert to old drm load metric	FALSE
_gcr_enable_statistical_cpu_check	if FALSE, revert to old cpu load metric	TRUE
_gcr_high_cpu_threshold	minimum amount of CPU process must consume to be kill target	10
_gcr_high_memory_threshold	minimum amount of Memory process must consume to be kill target	10
_gcr_max_rt_procs	maximum number of RT DLM processes allowed by GCR	
_gcr_mem_min_free	minimum amount of free memory to flag an anomaly	10
_gcr_min_free_memory_hard_limit	hard limit for minimum free memory, for high memory systems	1073
_gcr_tick	duration of time tick used by state machine, centisecs	
_gcr_use_css	if FALSE, GCR wont register with CSS nor use any CSS feature	TRUE

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gc_sanity_check_cr_buffers	if TRUE, sanity check CR buffers	FALSE
_gc_save_cleanout	if TRUE, save cleanout to apply later	TRUE
_gcs_cluster_flash_cache_mode	cluster flash cache mode	0
_gcs_cluster_flash_cache_persistent	Enable cluster flash cache persistency (FALSE = disable (default), TRUE = enable)	FALSE

_gcs_cr_master_ping_remote	if TRUE, cr request from master will ping the remote holder	TRUE
_gcs_crslave_check_time	time interval to check for load on cr slaves in seconds	10
_gcs_crslave_longq_cnt	long queue time threshold for cr slave	2000
_gcs_crslave_longq_us	long queue time for cr slave in microseconds	1000
_gcs_disable_imc_preallocation	disable preallocation for imc memory requirement in RAC	FALSE

NAME	DESCRIPTION	VALUE
-----	-----	-----
_gcs_disable_remote_handles	disable remote client/shadow handles	FALSE
_gcs_disable_skip_close_remastering	if TRUE, disable skip close optimization in remastering	FALSE
_gcs_dynamic_sga	if TRUE, enable dynamic cache fusion resources in runtime	FALSE
_gcs_dynamic_slaves	if TRUE, it enables dynamic adjustment of the number of gcs slaves	TRUE
_gcs_enable_private_iterator	Enable private iterator for GCS locks	TRUE
_gc_serve_from_flash_cache	if TRUE, try to serve a flash cache buffer	FALSE
_gcs_fast_reconfig	if TRUE, enable fast reconfiguration for gcs locks	TRUE
_gcs_flash_cache_mode	flash cache mode	0
_gcs_freelists_alloc_percent	initial allocation of gcs freelists percentage of max usage	0
_gcs_integrity_checks	cache fusion integrity check level	1
_gc_skip_undo_disk_read	if TRUE, skip the disk read for undo blocks	TRUE

NAME	DESCRIPTION	VALUE
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-----
_gcs_latches                number of gcs resource hash latches to be allocated per LMS proces 128
                             s
_gcs_lsr_frequency          frequency of invoking lock state resolution in seconds                60
_gcs_min_cr_slaves          if non zero, it enables the minimum number of gcs slaves            0
_gcs_min_slaves             if non zero, it enables the minimum number of gcs slaves            0
_gcs_partial_open_mode     partial open cache fusion service in reconfiguration                 0
_gc_spin_time              rdma spin time                                                         16
_gcs_pkey_history           number of pkey remastering history                                    16384
_gcs_process_in_recovery    if TRUE, process gcs requests during instance recovery              TRUE
_gcs_recoverable_asserts   if non-zero, enable recoverable assert resolution                    1

```

```

NAME                        DESCRIPTION                                                            VALUE
-----
_gcs_reserved_resources     allocate the number of reserved resources in reconfiguration         400
_gcs_reserved_shadows       allocate the number of reserved shadows in reconfiguration           400
_gcs_res_hash_buckets       number of gcs resource hash buckets to be allocated                  221
_gcs_resources              number of gcs resources to be allocated                               4
_gcs_res_per_bucket         number of gcs resource per hash bucket                                221
_gc_statistics              global cache statistics level                                         TRUE
_gcs_testing                GCS testing parameter                                                0
_gcs_trace_bucket           TRUE: use GCS trace bucket and trace LOW by default, FALSE: use de  FALSE
                             fault bucket but trace only if enabled

```

```

NAME                        DESCRIPTION                                                            VALUE
-----
_gcs_trace_bucket_size     size of the GCS trace bucket in bytes (format: "LMS:<k>-RMV:<l>-CR  LMS
                             V:<m>-DBW:<n>")                                                         485
_gcs_track_reliable_block_sends if TRUE, track block lost on reliable interconnect                   FALSE
_gc_temp_affinity          if TRUE, enable global temporary affinity                             FALSE
_gc_trace_blocking_pins    if TRUE, trace blocking pins                                         FALSE
_gc_trace_freelist_empty   if TRUE, dump a trace when we run out of lock elements               FALSE
_gc_transfer_ratio         dynamic object read-mostly transfer ratio                             75
_gc_try_to_skip_imc_flush  if TRUE, try to skip an imc populate flush                           TRUE
_gc_undo_affinity          if TRUE, enable undo affinity                                         TRUE
_gc_undo_block_disk_reads  if TRUE, enable undo block disk reads                                 TRUE

```

```

NAME                        DESCRIPTION                                                            VALUE
-----
_gc_undo_rdma_read         if TRUE, rdma read of undo blocks is enabled                         TRUE
_gc_vector_read            if TRUE, vector read current buffers                                  TRUE
_gc_xmem_rdma              if TRUE, xmem blocks rdma read is enabled                            FALSE

```

127 rows selected.

SQL>