

Solution Engineer Assisted Workshop Day

Reference 4.1 – Scaling/Bursting ExaCC

V1.1

ORACLE LAB BOOK | JANURARY 2019





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Overview

If a service instance requires more compute node processing power, you can scale up the number of enabled CPU cores in the Oracle Exadata Database Machine. You can either temporarily modify the compute node processing power (bursting) or add compute node processing power on a more permanent basis. The minimum and maximum number of enabled CPU cores depend on your system configuration.

Modify the Number of Enabled CPU Cores

To modify the number of enabled CPU cores within an existing Exadata Cloud Service instance:

1. Open the My Services dashboard. For detailed instructions, see first exercise.
2. Choose Modify on your service instance

CSI Number90926174009260624

Buyert4admin@mail.cloud.osc.oracle.com

Data Regionus1 DC1

Service Instances

Create Service Instance

Show: Active

exacc2b

Open Service Console

Manage Clusters

Modify

Delete

Service Type	ExadataCM	Administrator	t4admin@mail.cloud.osc.oracle.com
Instance Id	500030695	Requested By	t4admin@mail.cloud.osc.oracle.com
Status	Active	REST Endpoint	https://psm.ocm.s35004555.testoraclecloudatcust.com
Plan	Exadata Cloud Service - Custom		
Additional number of OCPUs (Cores)	96		
Exadata System Name	exacc2-clu1		
Using X7 Options	N		
Create sparse disk group?	Y		
Database backups on Exadata Storage	N		
Using X7 BYOL Options	N		
Rack size	Full Rack		
Database backups on ZDLRA	N		

Note:

Modifying the number of enabled CPU cores is an online operation, which does not require a reboot of the affected compute nodes. However, if you have explicitly set the CPU_COUNT initialization parameter, that setting is not affected by modifying the number of enabled CPU cores. Consequently, if you have enabled the Oracle Database instance caging feature, the database instance will not use additional CPU cores until you alter the CPU_COUNT setting. If CPU_COUNT is set to 0 (its default setting), then Oracle Database continuously monitors the number of CPUs reported by the operating system and uses the current count.

Make sure you choose Burst and not Subscription. Slide the CPU bar to change CPU allocation, note the changes in “Configuration after Update”. **Hit Cancel when done, do not hit Modify unless given permission by your instructor or Lead as this may affect other activities.** If you are cleared to Modify, triple check you have **chosen Burst**.

NOTE: Please remember the select **Bursting**, as opposed to **Subscription** or it will take us one week to reset.

ORACLE Cloud My Services

DashboardUsers?tenant4t4admin@mail.cloud.oci.oracle.com

Modify Oracle Database Exadata Cloud Service Instance

Instance Details

To modify the Exadata Instance characteristics, please specify the attributes and their values. In some cases, the values will be additive, e.g. when you add OCPUs (cores) to your existing Exadata Service.

Instance Details

*Nameexacc2b

Subscription

Burst

Increase the number of cores in your Exadata service to higher than the subscription allocation. You can burst to maximum 42 per Compute Node.

Changes reflected in this slider are applied symmetrically over all compute nodes.

Consider the processing requirements of existing databases before lowering the number of OCPUs (Cores).

OCPUs (Cores) per Compute Node

11

38

42

Reset

Current Configuration:

Rack size: Full Rack

Compute Nodes: 8

Total OCPUs (Cores) per Compute Node: 23

Subscription OCPUs (Cores) per Compute Node: 23

Burst OCPUs (Cores) per Compute Node: 0

Total OCPUs (Cores): 184

Configuration after Update:

Total OCPUs (Cores) per Compute Node: 38

Subscription OCPUs (Cores) per Compute Node: 23

Burst OCPUs (Cores) per Compute Node: 15

Total OCPUs (Cores): 304

Additional number of OCPUs (Cores): 120

Cancel

Modify

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3. Return to the Services page as above and this time click on the action menu (hamburger icon) and choose Manage Cluster

Plan	Oracle Database Exadata Cloud Service	Cloud Account Name	tenant4
Service Start Date	27-Nov-2018	Cloud Account Id	cacct-cecabbd7842f46e7abbd5752aadba3b8
Subscription ID	1826090731	Identity Service Id	idcs-25acb3465b2a4024b850a1c594fcd9
Service Instance ID	500029644	Status	Active
Customer Account	ExaCC Test Account 90926174009260622 ...		
CSI Number	90926174009260624		
Buyer	t4admin@mail.cloud.oci.oracle.com		
Data Region	us1 DC1		

Service Instances

Create Service Instance Show: Active

 **exacc2b**

[Open Service Console](#) 

Service Type	ExadataCM	Administrator	t4admin@mail.cloud.oci.oracle.com
Instance Id	500030695	Requested By	t4admin@mail.cloud.oci.oracle.com
Status	Active	REST Endpoint	https://psm.ocm.s35004555.testoraclecloudatcust.com
Plan	Exadata Cloud Service - Custom		
Additional number of OCPUs (Cores)	96		
Exadata System Name	exacc2-clu1		
Using X7 Options	N		
Create sparse disk group?	Y		
Database backups on Exadata Storage	N		
Using X7 BYOL Options	N		
Rack size	Full Rack		
Database backups on ZDLRA	N		

Manage Clusters

Modify

Delete

ORACLE Cloud My Services

Dashboard Users ? tenant4

Service: Oracle Database Exadata Cloud Service

Open Service Console

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VM Clusters

Instance Name: exacc2b Instance Id: 500030695

Create VM Cluster

Cluster Name	CPU Cores	Memory (GB)	Exadata Storage (TB)	Local Storage (GB)	Client Network	Backup Network	Exadata Database Backups	Sparse Disk Group	Status	Action
exacc2-clu2	64	512	48	200			N	N	Provisioned	
exacc2-clu1	64	512	96	200			N	Y	Provisioned	

Resource Overview

	CPU Cores	Memory (GB)	Exadata Storage (TB)	Local Storage (GB)
Allocated	128	1024	144	190
Unallocated	56	4736	192	1399
Total	184	5760	336	1589

Here you will see the details of the existing cluster(s). Note the Unallocated row. This is the amount of resources you have available to burst.

- Choose the **Action** menu next to the cluster you wish to burst and select Modify

On the Modify VM Cluster pop-up, increase the number of CPU Cores. Hit cancel to end the lab unless you have been authorized to actually do the increase by your instructor, in which case you would and select Modify

Please Do NOT MODIFY unless explicitly told you can do so to avoid conflicts with other operations.