

Problem Definition:

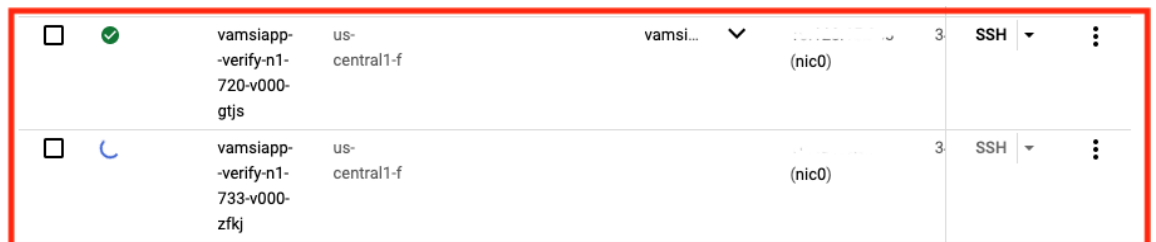
Since GCE allows for the use of custom types with memory more than 6.5 GB by selecting extended memory features based on following conditions.

- For N1 machine types, you can add up to a total of 624 GB of memory per VM.
- For N2 machine types, you can add up to a total of 640 GB of memory per VM.
- For N2D machine types, you can add up to a total of 768 GB of memory per VM.
- Extended memory is not available for E2 machine types.

Use Case:

1. Family **N1** with extended memory feature

- As per above condition **N1** will take upto 624 GB per VM, But I have tried with higher than 624 GB (i.e, 720 GB and 733 GB). VM instances are created in the GCE console successfully as shown in the below screenshot.



The screenshot shows a table of VM instances in the Google Cloud Platform console. Two instances are highlighted with a red border. Both instances are of type 'vamsiapp-verify-n1' and are located in the 'us-central1-f' region. The first instance has a memory size of 720 GB and is in a 'Running' state (indicated by a green checkmark). The second instance has a memory size of 733 GB and is in a 'Starting' state (indicated by a blue crescent moon). Both instances have 3 disks and an SSH key.

Instance Name	Region	Machine Type	Memory	Disks	SSH Key	Status
vamsiapp-verify-n1-720-v000-gtjs	us-central1-f	vamsiapp-verify-n1	720 GB	3	SSH	Running
vamsiapp-verify-n1-733-v000-zfkj	us-central1-f	vamsiapp-verify-n1	733 GB	3	SSH	Starting

Remote access

SSH ▾

Connect to serial console ▾

 Enable connecting to serial ports **Logs**[Cloud Logging](#)[Serial port 1 \(console\)](#)[⌵ More](#)**Instance template**[vamsiapp--verify-n1-733-v000-91739328](#)**Instance ID**

8468245840873296967

Machine type

custom (1 vCPU, 733 GB memory)

Reservation

Automatically choose (default)

In use by[vamsiapp--verify-n1-733-v000](#)**CPU platform**

Intel Skylake

Display device

Turn on a display device if you want to use screen capturing and recording tools.

 Turn on display device**Zone**

us-central1-f

- If we take more than 733 GB memory per VM, then it will not create VM instances in GCE console but it creates instance groups for the same in GCE console. In such a situation it will not throw any error in the spinnaker UI.

<input type="checkbox"/>		vamsiapp--verify-800-n1-v000	0 → 1	vamsiapp--verify-800-n1-v000-00848559	Managed	Sep 15, 2021, 3:44:16 pm UTC+05:30
<input type="checkbox"/>		vamsiapp--verify-n1-720-v000	1	vamsiapp--verify-n1-720-v000-74665215	Managed	Sep 16, 2021, 12:14:34 pm UTC+05:30
<input type="checkbox"/>		vamsiapp--verify-n1-733-v000	1	vamsiapp--verify-n1-733-v000-91739328	Managed	Sep 16, 2021, 4:59:09 pm UTC+05:30
<input type="checkbox"/>		vamsiapp--verify-n1-740-v000	0 → 1	vamsiapp--verify-n1-740-v000-90960826	Managed	Sep 16, 2021, 4:46:09 pm UTC+05:30

Note :- Before the implementation of the above feature we are able to create custom VM instances from spinnaker with N1 family successfully but with N2 and N2D families we are unable to create VM instances through spinnaker or directly by passing JSON to GCE. So for now we covered the case for N1 family only.

Pls refer to the below JSON to check creation of custom VM instances by using N2,N2D or E2 family by pushing it on clouddriver service.

```
[
{
  "createGoogleInstanceDescription": {
    "instanceName": "test-memory-11",
    "image": "apache2-all-20210720061707-xenial",
    "instanceType": "n2-custom-1-6656",
    "zone": "us-central1-f",
    "credentials": "test-account"
  }
}
]
```