GPU Cloud Computing
Troubleshooting Issues
Product Documentation
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  GPU Usage Shows 100%
Problem Description

When using a GPU instance, if you use `nvidia-smi` to view the GPU status in the system, the GPU usage may be displayed as 100% while no processes are using GPU, as shown below:

![NVIDIA-SMI Output](image)

Possible Causes

This may be caused by the ECC Memory Scrubbing mechanism used when the instance loads the NVIDIA driver.

Solution

Run the `nvidia-smi -pm 1` command in the instance system to get the GPU Driver into the Persistence mode.
Instructions

1. Log in to the GPU instance and run the following command:

   ```
   nvidia-smi -pm 1
   ```

2. Run the following command to check GPU usage:

   ```
   nvidia-smi
   ```

   You will see the GPU usage is normal, as shown below:

   ```
   [root@VM_18_107_centos data]# nvidia-smi
   Persistence mode is already Enabled for GPU 00000000:00:03.0.
   Persistence mode is already Enabled for GPU 00000000:00:05.0.
   All done.
   [root@VM_18_107_centos data]#
   ```

   ```
   [root@VM_18_107_centos data]# nvidia-smi
   Tue Aug 29 15:31:39 2017
   +------------------------------------------------------------------+
   | NVIDIA-SMI 304.66  Driver Version: 301.66                       |
   +------------------------------------------------------------------+
   |  GPU Name | Persistence-M | Bus-Id   | Disp.A | Unlatile Uncorr. ECC | Memory-Usage | GPU-Util | Compute M. |
   |           | Mode         |          |       |                      |              |         |            |
   +-----------+--------------+----------+--------+-----------------------+---------------+----------+------------|
   | 0 Tesla P40| On           | 00000000:00:03.0 | Off    |                       |               | 0%       | Default    |
   | N/A        | 22C          | 10W / 250W | 0MiB / 22912MiB |             |               | 0%       | Default    |
   +-----------+--------------+----------+--------+-----------------------+---------------+----------+------------|
   | 1 Tesla P40| On           | 00000000:00:05.0 | Off    |                       |               | 0%       | Default    |
   | N/A        | 23C          | 9W / 250W | 0MiB / 22912MiB |             |               | 0%       | Default    |
   +-----------+--------------+----------+--------+-----------------------+---------------+----------+------------|
   +------------------------------------------------------------------|
   | Processes: |
   | GPU | PID | Type | Process name | GPU Memory | Usage | |
   |     |     |      |             |            |       | |
   | No running processes found                                      |
   +------------------------------------------------------------------
   ```