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Troubleshooting

GPU Usage Shows 100%

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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 and Processes](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:

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

2. Run the following command to check GPU usage:

   ```bash
   nvidia-smi
   ```

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

   ![nvidia-smi output]

   [root@VM_18_167_centos data]# nvidia-smi
   Tue Aug 29 15:31:39 2017
   +-----------------------------------------------------------------------------+
   | NVIDIA-SMI 304.66  Driver Version: 304.66                                    |
   | GPU  Name Persistence-M  Bus-Id      Disp.A | Volatile Uncorr. ECC |     |
   | Fan  Temp  Perf  Pwr:Us/Cap | Mem-Usage | GPU-Util  Compute M. |     |
   +-----------------------------------------------------------------------------+
   | 0  Tesla P40  On   00000000:00:03.0 Off   0%                               |
   |  N/A  22C   P8  18W / 250W | 0MiB / 22912MiB | 0%  Default              |
   +-----------------------------------------------------------------------------+
   | 1  Tesla P40  On   00000000:00:06.0 Off   0%                               |
   |  N/A  23C   P8  9W / 250W | 0MiB / 22912MiB | 0%  Default              |
   +-----------------------------------------------------------------------------+
   | Processes:                                                                 |
   | GPU  PID  Type Process name                                                   |
   |=============================================================================|
   | No running processes found
   +-----------------------------------------------------------------------------+
Problem Description

When you attempt to log in to a Windows instance via VNC or log in to a Linux instance via VNC, you may not be prompted to log in, but instead encounter a black screen or the blue Windows logo, as shown below:

![Black Screen with Windows Logo](image)

Possible Reasons

1. Your GPU instance is installed with a graphics driver.

   When you log in to a GPU instance via VNC, the VGA device emulated by QEMU is accessed by default to obtain the framebuffer of the operating system for login. After you install a graphics driver on the GPU instance, the
framebuffer will no longer be handled by the VGA device. As a result, you cannot log in to the operating system via VNC.

2. The operating system failed to start due to other causes. For example, third-party software that conflicts with the operating system is installed on the GPU instance.

Solution

1. If the GPU instance is installed with a graphics driver, install a VNC server on the instance so that you can log in to the GPU instance via a local VNC client.
   
   You need to obtain the VNC server and the client installation packages by yourself.

2. Check the installed third-party software and analyze why the software leads to login failures.

   We recommend that you uninstall the conflicting third-party software or reinstall the operating system.