GPU Cloud Computing
Troubleshooting
Product Documentation
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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 output showing 100% usage](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

```
[root@UM_18_107_centos data]# nvidia-smi -pm 1
Persistence mode is already Enabled for GPU 00000000:00:03.0. Persistent mode is already Enabled for GPU 00000000:00:06.0. All done.
[root@UM_18_107_centos data]# 
```

2. Run the following command to check GPU usage:

   nvidia-smi

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

```
[root@UM_18_107_centos data]# nvidia-smi
Tue Aug 29 15:31:39 2017
+-----------------------------------------------------------------------------+  
| NVIDIA-SMI 304.66  Driver Version: 304.66  |                           |  
|-------------------------------+--------------------------+--------------------------+  
| GPUs | Name     | Persistence-M | Bus-Id(s) | Disp.A | Volatile | Uncorr. | ECC | Memory-Usage | GPU-Util | Compute M. |  
| Fan | Temp | Perf | Power| Usage/| | | | Memory | | |  
|-------------------------------+--------------------------+--------------------------+  
| 0 | Tesla P40 | On | 00000000:00:03.0 | Off | 0 | 0MiB / 22912MiB | 0% | Default |  
| 1 | Tesla P40 | On | 00000000:00:06.0 | Off | 0 | 0MiB / 22912MiB | 0% | Default |  
|-------------------------------+--------------------------+--------------------------+  
| Processes: | GPU Memory Usage |  
|-------------------------------+--------------------------+--------------------------+  
| No running processes found |  
```

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VNC Login Failures

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:

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.