

GPU Cloud Computing

Troubleshooting

Product Documentation



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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 375.51 Driver Version: 375.51
+-----+-----+-----+-----+-----+-----+-----+-----+
| GPU  Name      Persistence-M| Bus-Id  Disp.A | Volatile Uncorr. ECC |
| Fan  Temp  Perf  Pwr:Usage/Cap|         Memory-Usage | GPU-Util  Compute M. |
+-----+-----+-----+-----+-----+-----+-----+-----+
|  0   Tesla M40 24GB   Off      | 0000:00:06.0 Off    |          0          0 |
| N/A   53C    P0     68W / 250W |  0MiB / 22939MiB |    0%      Default  |
+-----+-----+-----+-----+-----+-----+-----+-----+
|  1   Tesla M40 24GB   Off      | 0000:00:07.0 Off    |          0          0 |
| N/A   47C    P0     65W / 250W |  0MiB / 22939MiB |   100%     Default  |
+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+
| Processes:                                     GPU Memory |
|  GPU       PID  Type  Process name                               Usage      |
+-----+-----+-----+-----+-----+-----+-----+-----+
| No running processes found                    |
+-----+-----+-----+-----+-----+-----+-----+-----+
```

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.
Persistence 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:

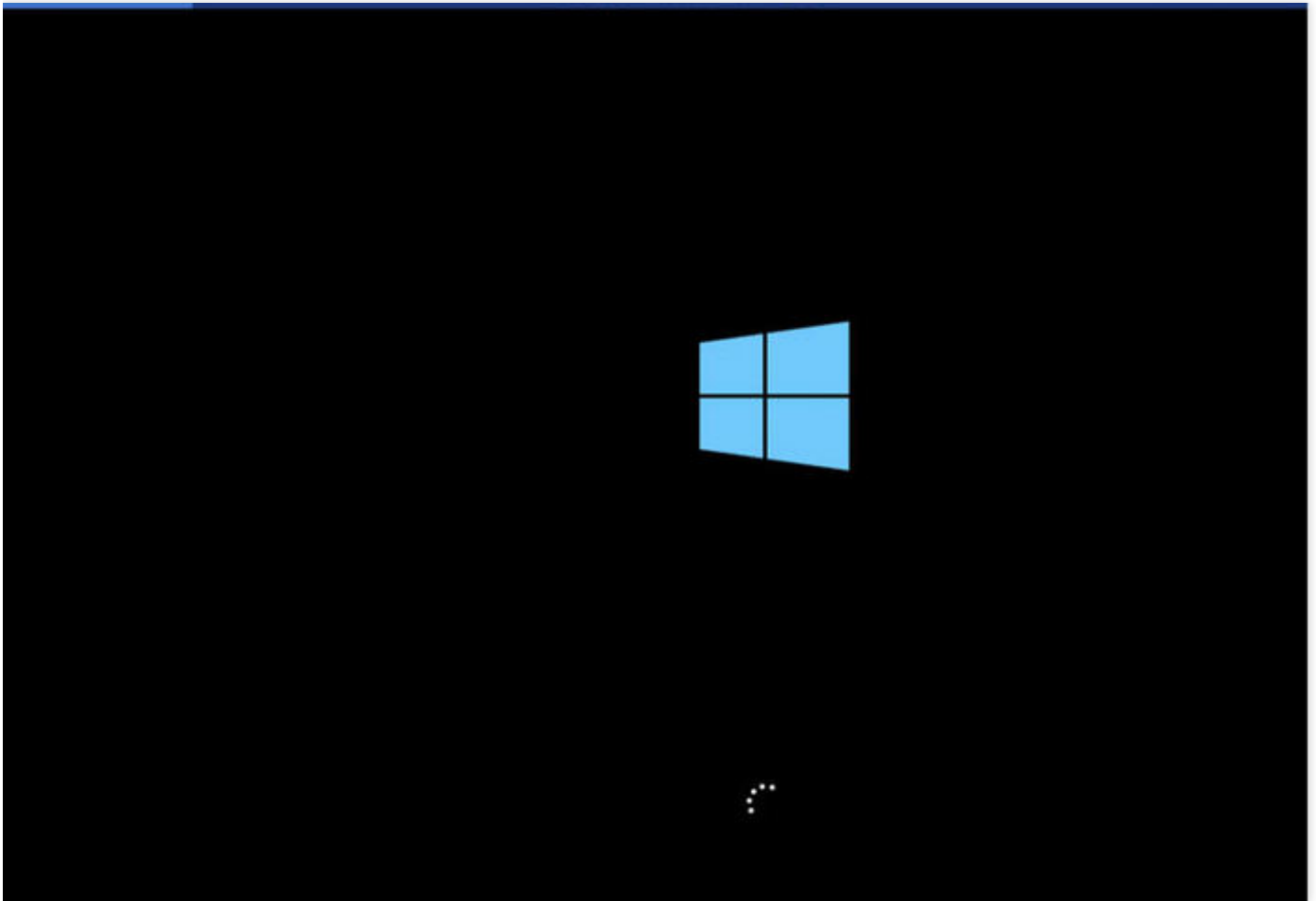
```
[root@UM_18_107_centos data]# nvidia-smi
Tue Aug 29 15:31:39 2017
+-----+-----+
| NVIDIA-SMI 384.66                Driver Version: 384.66          |
+-----+-----+
| GPU  Name           Persistence-M| Bus-Id        Disp.A | Volatile Uncorr. ECC |
| Fan  Temp   Perf    Pwr:Usage/Cap|      Memory-Usage | GPU-Util  Compute M. |
|====+=====+
|  0   Tesla P40      On          | 00000000:00:03.0 Off |             0         |
| N/A   22C    P8     10W / 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 Memory |
| GPU       PID  Type  Process name      Usage   |
|====+=====+
| No running processes found         |
+-----+-----+
```

VNC Login Failures

Last updated : 2022-04-19 17:54:48

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.