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Service Document for VENICE NVIDIA Display Driver Update

This document concerns the following products:

- VENICE 4U delivered before May 2014
- VENICE 2U delivered before May 2014

Description

Ex factory the VENICE system is equipped with an NVIDIA graphics card and the display driver version 290.10 is installed. This can lead to problems regarding the system's stability if no monitor is connected to the VENICE server.

If an asynchronous audio stream is detected, the system will trigger an internal audio restart which will cause about 1 second of silence during an active ingest or playout. In this special case the audio drops will not be displayed in the drop counter in the messages and information area of the VENICE user interface (see "VENICE Client Software" user guide). The audio drops will be indicated by the peakmeters that will fall to zero in this moment.

Driver Update

To enhance the system's stability regarding audio frames, you have to update the NVIDIA display driver to the version 331.38 and make several settings as described in the following.

NOTICE

Before you update the driver on the VENICE server, you have to find out which driver is already installed.

Perform the following to check which NVIDIA display driver version is installed on your VENICE system:

1. Open a Linux command-line interface and log in as root user.
2. Run the command
`nvidia-installer --version`



You will see the following or similar lines on the screen:

```
nvidia-installer: version 290.10 buildmeister@swio-display-x64-rhel04-15) Wed Jan 8 19:53:19 PST  
2014  
The NVIDIA Software Installer for Unix/Linux.
```

```
This program is used to install, upgrade and uninstall The NVIDIA Accelerated Graphics Driver Set for  
Linux-x86_64.
```

NOTICE

By default the NVIDIA driver version 290.10 is installed. Sometimes customized versions can be installed as well.

They all have to be changed to the display driver version 331.38.

Perform the following steps to update the NVIDIA driver on the VENICE server:

1. Download the appropriate driver from the NVIDIA homepage (file name *Linux_x64 (AMD64/EM64T DISPLAY DRIVER)*, date January 13th, 2014) or contact the DVS service department to receive the display driver version.

NOTICE

Please note that you have to select the appropriate Linux operating system and the driver version 331.38.

2. Copy the new driver *NVIDIA-Linux-x86_64-331.38.run* to the VENICE system into the folder */usr/local/src/nvidia*
3. Open a Linux command-line interface and log in as root user.
4. Run the command
`init 3`
to switch into the runlevel 3.

Now you have to update the driver by performing the following:

5. Uninstall the old driver by running the command
`nvidia-uninstall`
6. Install the new driver by running the command
`cd /usr/local/src/nvidia`
and the command
`chmod 755 NVIDIA-Linux-x86_64-331.38.run`
7. Finish the installation by running the command
`./NVIDIA-Linux-x86_64-331.38.run`

NOTICE

In some cases the installation aborts. If this happens, you have to delete the temporary x-server files in the folder */tmp* and restart the installation. To delete the respective files perform the following:

1. Navigate to the folder */tmp/*
The file names of the respective x-server files will be named 'x*'.
2. Delete them with the command
`rm -rf /tmp/.<x-server file name>`

If you have deleted the respective files, you have to perform the installation of the display driver again as described beginning with number 3 above.

CAUTION

Only delete files if you are sure that you have found the correct files and your system stability and operability will not be affected.

If the installation proceeds without being interrupted by x-server files, you will see a system message indicating a license query.

8. Regard the system message and select the respective button to continue.

You will see further system messages on the screen, asking you whether to install NVIDIA's 32-bit compatibility libraries.

Install NVIDIA's 32-bit compatibility libraries?

9. Select **YES** and press [Enter] to proceed.

The following system message will then be displayed:

Would you like to run the nvidia-xconfig utility to automatically update your X configuration file so that the NVIDIA X driver will be used when you restart X? Any pre-existing X configuration file will be backed up.

10. Select **No** and press [Enter] to proceed.
11. Update the configuration by running the command
`nvidia-xconfig --allow-empty-initial-configuration`
12. Reboot the system to finish the installation process.

If you have carried out all above-stated steps correctly, the NVIDIA display driver should be updated to version 331.38 and no further audio drops should occur. You can check if the installation of the new driver version has been successful as described in steps 1. and 2. on page 1.

If you should have any questions regarding the procedure, please contact your local Rohde & Schwarz sales and support representative or alternatively the R&S DVS service department.

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