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1.0 ABOUT THIS RELEASE

The NVIDIA® Tegra® Linux Driver Package supports development of platforms running:

- NVIDIA® Tegra® X1 series computer-on-a-chip
- Linux kernel 3.10.40

Note: This release of Tegra Linux Driver Package R23.1.1 is a release for the NVIDIA® Jetson™ TX1 Developer Kit (P2371-2180).

1.1 LOGIN CREDENTIALS

The default login credentials are:

- Username: ubuntu
- Password: ubuntu

1.2 SOURCES FOR INCLUDED LINUX DISTRIBUTION PACKAGES

Contact your NVIDIA support representative for source code provided subject to the terms of open source licenses that require source code availability, such as the GNU General Public License.

1.3 FEATURES IN THIS RELEASE

Please contact your NVIDIA support representative for features available in this early access release.
The following issues were discovered during development and QA but not resolved prior to this release of the NVIDIA® Tegra® Linux Driver Package.

<table>
<thead>
<tr>
<th>Issue</th>
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<tbody>
<tr>
<td>1. Time to resume from Deep Sleep (LP0) is too long. [200088740]</td>
</tr>
<tr>
<td>2. Entering Deep Sleep (LP0) is unsuccessful when the device is connected to Wi-Fi. [200114050]</td>
</tr>
<tr>
<td>3. Submit ioctl (NVHOST_IOTCL_CHANNEL_SUBMIT_GPFIFO) takes too long. [200141116]</td>
</tr>
<tr>
<td>4. Starting CUDA with VisionWorks takes too long. [1674408]</td>
</tr>
<tr>
<td>5. U-Boot currently only supports the USB controller used by the flashing (micro-USB) port. This port may operate in either host or device mode. U-Boot does not currently support the on-board USB Ethernet or external USB A connector. [1682057]</td>
</tr>
<tr>
<td>6. Device is intermittently unsuccessful when entering and resuming from Deep Sleep (LP0) [200141591]</td>
</tr>
<tr>
<td>7. When setting your Jetson TX1 developer board to boot over NFS, booting is sometimes unsuccessful due to Ethernet being unavailable to initiate the NFS connection. The NFS connection may be unavailable because the USB/XHCI fails to start. [200146188]</td>
</tr>
<tr>
<td>8. DPM timeout occurs when resuming from Deep Sleep (LP0) due to the delay in the built-in Realtek Ethernet resumption. [200142585]</td>
</tr>
</tbody>
</table>
## Issue

9. **g_mass_storage** is unsuccessful after the first successful try. [200105851]
   
   When you unload and load the **g_mass_storage** gadget driver, you must also disconnect and reconnect the device cable.
   
   To workaround:
   
   On the target system, enter the following commands:
   
   ```bash
   sudo modprobe g_mass_storage file=/dev/mmcb1k1 removable=1
   iSerialNumber=1
   echo connect > /sys/devices/platform/tegra-udc.0/udc/tegra-udc.0/soft_connect
   
   Where /dev/mmcb1k1 is the device file for SDcard.
   
   Disconnect and reconnect the cable used to flash the target system.
   ```

10. Disabled (DSI-0) Primary HDMI display causes the following errors to display in logs. [200122163]

    ```bash
    vgaarb: this pci device is not a vga device
    ```

11. Syncpoint errors, MMU faults, and other issues occur during multimedia playback stress testing. [200122698]

12. System intermittently becomes non-responsive during reboot stress testing with **reboot** or **init 6**. [200134773]

13. **MMC1** register dump occurs after system boot. [200138403]

    This is caused by KSO sleep mode or auto sleep functionality on the Broadcom Wi-Fi device. These sleep features intended to enable power savings, sometimes cause the Broadcom chip to take longer to wake. The host controller interprets this behavior as a Command CRC error or Command index error.

    This error is not known to indicate an impact to functionality. The message displays a few times per hour.

    In the host register dump, the pattern of the corresponding CMD52 case is one of the following:

    - Argument: 0x92003e01 (Write)
    - Cmd: 0x0000341a (CMD52 indicated by 0x34)
    - Argument: 0x12003e00 (Read)
    - Cmd: 0x0000341a (CMD52 indicated by 0x34)

    You can use the following command to disable BCMDHD auto sleep functionality:

    ```bash
    wpa_cli IFNAME=wlan0 DRIVER AUTOSLEEP
    ```
<table>
<thead>
<tr>
<th>Issue</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.</td>
<td>When the system is booted from NFS with the Broadcom PCIE card connected, issuing the <code>reboot</code> and <code>shutdown</code> commands cause a watchdog timeout and the system becomes non-responsive. This is only observed with certain Broadcom firmware revisions. [200142289]</td>
</tr>
<tr>
<td>15.</td>
<td>The 4K@60 yuv420-only display mode is not supported in this release. [200148877]</td>
</tr>
<tr>
<td>16.</td>
<td>Firmware for add-on devices is not included in the rootfs. You must install the firmware with the following command: <code>apt-get install linux-firmware</code> [200130335]</td>
</tr>
<tr>
<td>17.</td>
<td>The nvgstplayer-1.0 application invokes OOM killer because of memory leak when playing multiple images in a loop. [200151236]</td>
</tr>
</tbody>
</table>
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