General Notes that apply to all Platforms

Purpose of the Linux Hardware Matrix

The HP Workstations Linux Hardware Matrix provides per-platform advisory information about the functionality of HP workstation desktops, and the hardware components applicable to them, under several Linux distributions such as Red Hat Enterprise Linux (RHEL), SUSE Linux Enterprise Desktop (SLED), and Ubuntu LTS.

For similar information about Linux component support in older HP Workstations, please refer to the Archive Linux Hardware Matrix. You can find this by searching for the platform at www.hp.com/go/workstationsupport and choosing the User Guides content.

The Linux Hardware Matrix does not represent the issue support that you can expect from the Linux OS distributor. Please see the section below entitled "Important Information about OS Support."

About Linux OS Release Streams

As technology advances, newer releases of Linux distributions are more likely to have sufficient support for new hardware (processors and chipset architectures, storage controllers, etc.) than are older releases in the same streams.
The Linux Hardware Matrix shows information for releases that provide reasonably complete functionality for the platform and components, using drivers that are part of the distribution, unless noted to the contrary. The releases shown are typically the most current at the time that the platform was launched, but in some cases an already-existing release may provide good functionality.
It is advisable to apply the distributor's most recent maintenance updates in order to get defect and security fixes (and in some cases, additional hardware enablement).

Important Information about OS Support

Distributors of enterprise-class Linux releases have certification processes that verify that a particular platform is functional and supportable. Most distributors will not support issues that arise on non-certified platforms. Therefore, it is important that you consult the vendor's certification website to verify certification for the OS release you are planning to use. Here are the sites for distributions covered in this document:
SUSE: https://www.suse.com/yessearch/Search.jsp
Red Hat: https://access.redhat.com/ecosystem/search/#/ecosystem
Ubuntu: http://www.ubuntu.com/certification/desktop

How to Use this Document

Please remember that the general notes on this page apply to all platforms in this Linux Hardware Matrix. If you print out platform pages, be sure to print this one also.

The platform-specific pages in this matrix are formatted as follows:
* The platform is identified at the top of the page. For some platforms, the original releases on which the platform was certified by Linux distributors are noted. However, the Linux vendor certification site is always the authoritative source.
* Built-in (onboard) and optional components are listed in the left-hand column. This set of components initially represents what was listed as available at the time the platform was launched. The list may be updated periodically as new options are added. However, it is not an authoritative list of product options. Please see the platform specification (QuickSpecs), available at www.hp.com, for the most up-to-date list.
* One or more OS distribution columns are shown to the right of the components column. The headers of these columns identify the OSes for which functionality has been evaluated by HP. In some cases, these columns have been updated since the platform was launched. Component functionality is expected to be retained later in the same OS release stream, and some missing functionality might be added. For example, a component might be usable in RHEL 6.1 "or later," implying RHEL 6.2, 6.3, ... (See the note above entitled "About Linux OS Release Streams.")
* A solid circle in a cell represents usable functionality with the combination of OS release shown in the column header and the component, using drivers that are part of the distribution.
* A blank cell represents absence of functionality with default drivers. This does not mean that the component is necessarily useless--you may have to download and possibly build a driver from another source, such as the component manufacturer's website or an open source community site. Or, as mentioned, the support might have been added in a subsequent release in the same OS stream, or an available update.
* A number represents a reference to a footnote. Footnotes are located at the bottom of the page.

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Linux Hardware Matrix for HP Workstations

HP Z6 G4 Workstation

Certified on RHEL 7.4 and SLED 12/SP3 (NVIDIA). Other certifications pending.
As of this edition of this matrix, some Enterprise-class Linux releases enable the Intel architecture used in this system.
HP considers enablement for the CPU, chipset, and the on-board LAN to be minimum requirements.

This page is not complete without the General Notes (first page of the matrix).

Product Items/Features (Blank box indicates the listed component is NOT functional w/ as-is OS)	SLED12 SP3 or later (x86_64)	SLED 15 (x86_64)	RHEL 6.9 or later (x86_64)	RHEL 7.4 or later (x86_64)	Ubuntu 16.04 LTS, 16.04.3 or later (x86_64)	Ubuntu 18.04 LTS or later (x86_64)
HP Workstation Base System						
Base system includes: Chassis, System Board, Power Supply, etc.	•	•	12	•	•	•
HP Localization Kit	1	1	1	1	1	1
All Supported Processors						
All supported v5 (Skylake) and v6 (Cascade Lake) Intel Xeon Scalable Processors	•	•	•	•	•	•
Hyperthreading	•	•	•	•	•	•
Graphics Card (Video Card)						
No Graphics Card	•	•	•	•	•	•
AMD FirePro W2100 (2GB Frame buffer)	7	7	7	7	7	7
AMD Radeon Pro WX 3100 (4GB Frame buffer)	7	7	7	7	7	7
AMD Radeon Pro WX 4100 (4GB Frame buffer)	7	7	7	7	7	7
AMD Radeon Pro WX 7100 (8GB Frame buffer)	7	7	7	7	7	7
AMD Radeon Pro WX 9100 (16GB Frame buffer)	7	7	7	7	7	7
NVIDIA Quadro P400 (2GB Frame buffer)	8	8	8	8	8	8
NVIDIA Quadro P600 (2 GB Frame buffer)	8	8	8	8	8	8
NVIDIA Quadro P620 (2GB Frame buffer)	8	8	8	8	8	8
NVIDIA Quadro P1000 (4GB Frame buffer)	8	8	8	8	8	8
NVIDIA Quadro P2000 (5GB Frame buffer)	8	8	8	8	8	8
NVIDIA Quadro P4000 (8GB Frame buffer)	8	8	8	8	8	8
NVIDIA Quadro P5000 (16GB Frame buffer)	8	8	8	8	8	8
NVIDIA Quadro P6000 (24GB Frame buffer)	8	8	8	8	8	8
NVIDIA Quadro GP100 (16GB Frame buffer)	8	8	8	8	8	8
NVIDIA Quadro RTX 4000 (8GB Frame Buffer)	13	13	13	13	13	13
NVIDIA Quadro RTX 5000 (16GB Frame Buffer)	13	13	13	13	13	13
NVIDIA Quadro RTX 6000 (24GB Frame Buffer)	13	13	13	13	13	13
System RAM						
Minimum (GB)	8GB	8GB	8GB	8GB	8GB	8GB
Maximum (GB)	384GB	384GB	384GB	384GB	384GB	384GB
Hard Disks						
All Supported Solid State Drives	•	•	•	•	•	•
All Supported SATA Disk Drives <= 2 TB	•	•	•	•	•	•
All Supported SATA Disk Drives > 2 TB	2	2	2	2	2	2
All Supported M.2 NVMe PCIe Solid State Drives	10	10	10	10	10	10
All Supported SAS Disk Drives						
HP Z Turbo Drive PCIe-attached storage	10	10	10	10	10	10
Network Cards						
Aquantia Nbase-T PCIe NIC	11	11	11	11	11	11
Intel I210-T1 GbE PCIe NIC	•	•	•	•	•	•
Intel i350-T2 PCIe Dual Port 1Gb NIC	•	•	•	•	•	•
Intel i350-T4 PCIe Quad Port 1 Gb NIC	•	•	•	•	•	•
Intel X550 10GbE Dual Port Adapter	•	•	•	•	•	•
Intel X710-DA2 10GbE Dual Port Adapter (and HP SFP+ SR Transceiver)	•	•	•	•	•	•
Intel 10GBase-T Dual Port Adapter (RJ-45 Copper)	•	•	•	•	•	•
Intel 8265 802.11 a/b/g/n/ac & Bluetooth PCIe	•	•	•	•	•	•
Integrated Components						
LAN port 0 - Intel i219LM Gigabit Ethernet	•	•	•	•	•	•
LAN port 1 - Intel x722 Gigabit Ethernet	•	•	•	•	•	•
Intel AMT functionality on LAN port 0	9	9	9	9	9	9
Onboard Audio (Realtek ALC221 codec)	•	•	•	•	•	•
Onboard Intel integrated SATA RAID (0/1/5/10)	•	•	•	•	•	•
USB 3.1 G1 Type A ports	•	•	•	•	•	•
USB 3.1 G2 Type C ports (on Front I/O Premium module)	•	•	•	•	•	•
USB 2.0/3/1 G1 internal ports	•	•	•	•	•	•
TPM 2.0 Module	6	6	6	6	6	6
Add Ons						
MicroSemi SmartHBA2100-4i4e SAS controller	3	3	3	3	3	3
Removable CD/DVD Media						
HP DVD-ROM Drive	•	•	•	•	•	•
HP DVD RW Supermulti Drive	4	4	4	4	4	4
HP BD-RE (Blu-Ray writer)	4	4	4	4	4	4
Input/Output Devices (no spaceball support)						
HP USB mouse options	•	•	•	•	•	•
HP USB keyboard options	•	•	•	•	•	•
HP PS/2 keyboard/mouse	•	•	•	•	•	•
HP Media Card Reader	•	•	•	•	•	•
HP Printers	5	5	5	5	5	5
All Supported Monitors	•	•	•	•	•	•

footnote 1 - Typical Linux distributions support many possible localizations. If you're installing the OS yourself, you can make selections for language and keyboard layout during that process. For a pre-loaded Linux OS, similar choices can be made during the "firstboot" process. In some cases, extra font packages may be available. HP Workstations can be ordered with a variety of localization options that may vary by platform.

footnote 2 - Single drives or volumes larger than 2.2 TB can only be fully accessed using GPT formatting. The OS's listed can create GPT formatted storage drives/volumes, but this requires installation of the OS in UEFI mode. Once formatted and installed, the OS can access the entirety of storage drives/volumes.

footnote 3 - The MicroSemi 2100-4i4e is not currently being supported on enterprise Linux distributions by HP Inc.

footnote 4 - Linux growisofs supports DVD+RW and Blu-ray media on the listed OSes.

footnote 5 - For more info about Linux driver support for HP printers, please visit http://www.hplip.net.

footnote 6 - Support for the TPM or other security devices varies by OS distribution. Any use of the TPM module does require additional software.

footnote 7 - AMD Radeon Pro graphics cards are now supported in Linux by the recently released amdgpu open source driver. OS streams are supported at specific release version levels, starting with these: SLED 12/SP2, RHEL 6.9, RHEL 7.4, and Ubuntu 16.04.2. The amdgpu pro driver is available on the AMD website. "Enterprise" drivers are posted quarterly, e.g. "18.Q2". For RHEL 6.9 and certain AMD cards, it may be necessary to remove "rhgb" from the boot line in order for the X server to start with the amdgpu-pro driver.

footnote 8 - HP recommends using NVIDIA driver 384.111 or newer for NVIDIA graphics on this platform.

footnote 9 - Intel support for AMT varies by distribution and requires additional software packages be added to the base OS. Please check with the distribution vendor of your choice.

footnote 10 - There are currently issues installing enterprise Linux distributions on M.2 and Z Turbo Drive options when the system is running in legacy BIOS mode. HP recommends using the system in its default UEFI BIOS mode when using these storage devices.

footnote 11 - The driver for the Aquantia Nbase-T AQN-108 aftermarket NIC is not in-box for most of the listed Linux streams. Driver source can be found at the Aquantia site https://www.aquantia.com/driver-download

footnote 12 - UEFI mode only. RHEL 6.9 currently does not support running in legacy BIOS on this platform.

footnote 13 - HP Recommends using NVIDIA driver 410.101 or newer for NVIDIA RTX graphics on this platform.

footnote 14 - Correct operation with the "Cascade Lake" family of processors may require a newer release of OS stream than the "Skylake" family. The following OS releases are known to be capable: SLED 12 SP5, SLED 15, RHEL 7.6.