Linux Vs Unix

Summary of Key Differences:

Feature	Unix	Linux
Origin	Developed in the 1970s (AT&T Bell Labs)	Developed in 1991 by Linus Torvalds
License	Proprietary (expensive)	Open-source (free)
Kernel	Varies by variant (monolithic or microkernel)	Monolithic kernel
Cost	Expensive (license fees, support contracts)	Free (but commercial support available)
Hardware Support	Limited (depends on the variant)	Extensive (supports a wide range of hardware)
User Base	Mainly enterprises, academic institutions	Developers, sysadmins, general users
Security	Strong, depends on the variant	Strong, with modern security features
System Administration	Often requires specialized knowledge	More standardized with active community support
Performance	Excellent for legacy systems	Excellent for modern systems, servers, and desktops
Popularity	Less common today (except in legacy systems)	Very popular (on servers, desktops, embedded systems)

Difference between Unix and Linux

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Linux is an operating system that was developed by Linus Torvalds in 1991. The name "Linux" originates from the Linux kernel. It is an

open-source software that is completely free to use. It is used for computer hardware and software, game development, mainframes, etc. It can run various client programs.

Unix is a portable, multi-tasking, bug-fixing, multi-user operating system developed by AT&T. It started as a one-man venture under the initiative of Ken Thompson of Bell Labs. It proceeded to turn out to become the most widely used operating system. It is used in web servers, workstations, and PCs. Many business applications are accessible on it.

Linux and Unix are both operating systems that are commonly used in enterprise and server environments. While there are some similarities between them, there are also some key differences.

What are the differences between Linux and Unix?

Differences	Linux	Unix
Origins	Linux was developed in the 1990s by Linus Torvalds as a free and open-source alternative to Unix.	Unix was developed in the 1970s at Bell Labs
Introduction	Linux is Open Source, and a large number of programmers work together online and contribute to its development.	Unix was developed by AT&T Labs, different commercial vendors, and non-profit organizations.
Licensing	Linux, on the other hand, is open-source software and can be used freely without any licensing fees.	Unix is a proprietary operating system, meaning that it requires a license to use.
Kernels	both have a similar design but are less complex than the Unixhold-upthat kernel.	both have a similar design but larger and more complex than the Linux kernel.

Availability	On the other hand, Linux is widely used on both enterprise and personal computers.	Unix is typically found on enterprise-level servers and workstations and is less commonly used on personal computers.
Community Support:	Linux has a large and active community of developers and users who contribute to its development and provide support.	While Unix also has a community, it is generally smaller and more focused on enterprise-level users.
Accessibility	It is an open-source operating system which is freely accessible to everyone.	It is an operating system which can only be utilized by its copywriters.
bug fixing time	Threat recognition and solution is very fast because Linux is mainly community driven. So, if any Linux client poses any sort of threat, a team of qualified developers starts working to resolve this threat.	Unix clients require longer hold up time, to get the best possible bug-fixing,and a patch.
File system supports	File system supports – Ext2, Ext3, Ext4, Jfs, ReiserFS, Xfs, Btrfs, FAT, FAT32, NTFS	File system supports – jfs, gpfs, hfs, hfs+, ufs, xfs, zfs

Graphical User Interface	Linux provides two GUIs, KDE and Gnome. But there are many other options. For example, LXDE, Xfce, Unity, Mate, and so on.	Initially, Unix was a command-based OS, however later a GUI was created called Common Desktop Environment. Most distributions now ship with Gnome.
Use Cases	It is used everywhere from servers, PCs, smartphones, tablets to mainframes.	It is used on servers, workstations, and PCs.
Shell Compatibility	The default interface is BASH (Bourne Again Shell). Anybody can use Linux whether a home client, developer or a student.	It initially used Bourne shell. But it is also compatible with other GUIs. Developed mainly for servers, workstations, and mainframes.
Source Code Availability	The source is accessible to the general public.	The source is not accessible to the general public.
Hardware Compatibility	Originally developed for Intel's x86 hardware processors. It is available for more than twenty different types of CPU which also includes an ARM.	It is available on PA-RISC and Itanium machines.

Virus Threats	It has about 60-100 viruses listed to date.	It has about 85-120 viruses listed to date (rough estimate).
Operating System Versions	Some Linux versions are Ubuntu, Debian GNU, Arch Linux, etc.	Some Unix versions are SunOS, Solaris, SCO UNIX, AIX, HP/UX, ULTRIX, etc.

In summary, while Unix and Linux share some similarities in terms of their design and functionality, they also have some key differences in terms of licensing, kernel design, command line interface, availability, and community support. Ultimately, the choice between Unix and Linux will depend on the specific needs of the user and the intended use case.

What are the Differences between Linux and Unix?
Interesting Facts:

- Linux is only the kernel and is not the full system that is used.
- More than 90% of current Linux source code is composed by other developers.
- Initially, Linux was compiled using GNU C compiler.
- There are more than 10 Linux-based Mobile operating Systems like Sailfish OS, Ubuntu Touch, Ubuntu Mobile, etc.
- Linux is used by every major space program.
- Nine out of the top ten public clouds run on Linux.