



Paragon File System Link

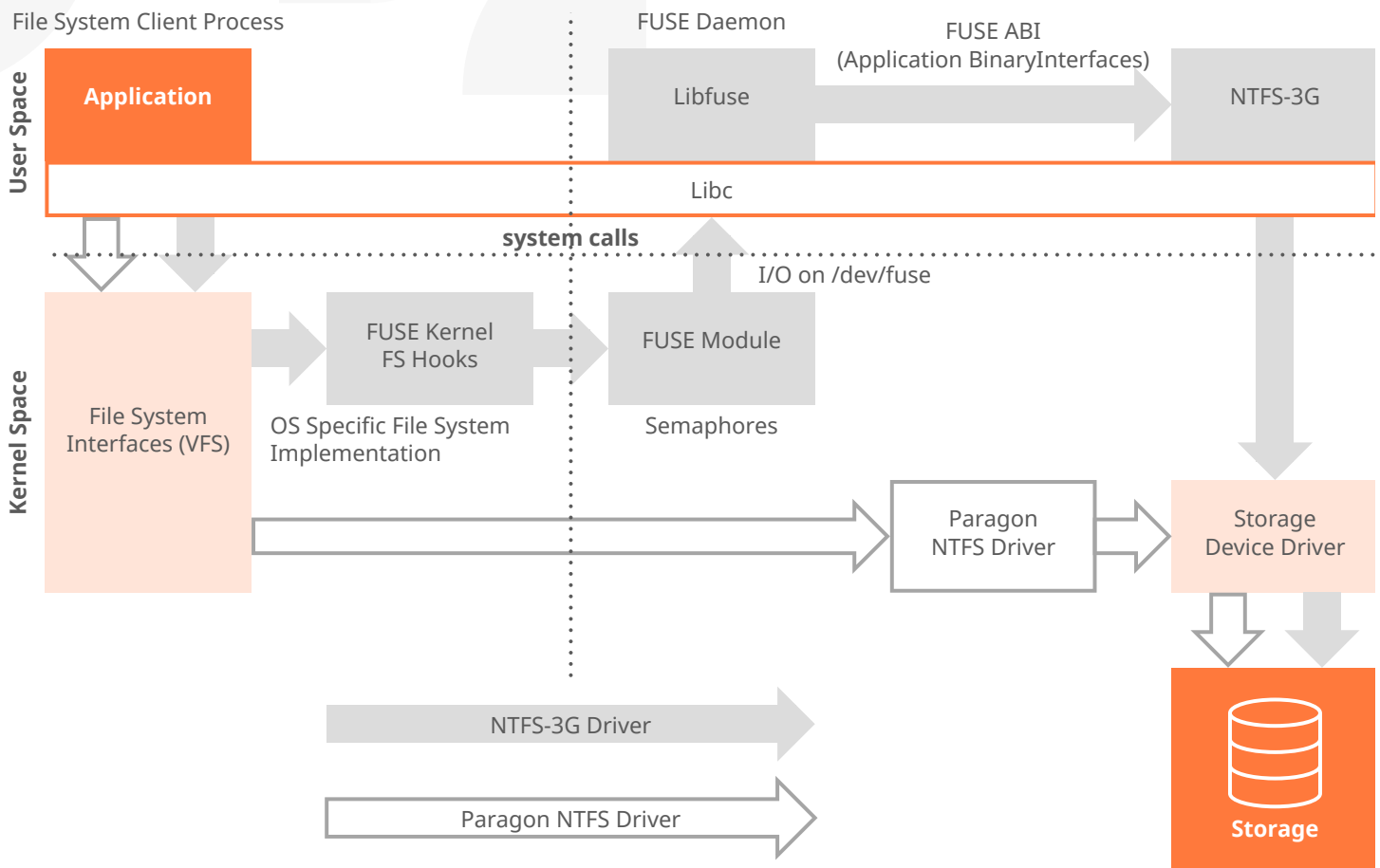
FILE SYSTEM DRIVERS: KERNEL-MODE VS FUSE



Many open-source applications use the **FUSE** (Filesystem in Userspace) interface, which lets non-privileged users create their own file systems without touching the Linux kernel. It is the FUSE module, that interfaces with the kernel. The application code runs in the user space and interfaces with FUSE through the *libfuse* library. This is particularly suitable for virtual file systems that don't store real data, but merely act as a representation of a file system or storage device. You can learn more about FUSE's technical details and open issues on the official project page at <https://github.com/libfuse/libfuse>.

Paragon Software Group, however, offers file system drivers that work in the kernel mode, as well. Among other things, this results in more stable operation, fewer security issues, and much greater file I/O performance.

The flowchart below shows how the kernel-mode file system driver works as compared to a FUSE-based application. Namely, how Microsoft NTFS for Mac by Paragon Software performs against NTFS-3G – an open source cross-platform implementation of Microsoft Windows NTFS with read-write support, used by some free and commercial applications.



You can check out the [File System Technology](#) to learn more about Paragon file system drivers, including product benchmarks, and contact **Paragon Technology Center** with any questions you may have.