Basic idea of Exokernel is that it provides low-level abstraction to developers, so developers can determine the utility of hardware. Exokernel only supports protection of resources and multiplexing, by doing so it is very simple compared with another kernel such as microkernel, monolithic kernel and so on. Then, how can developers move the hardware abstractions to applications implemented by them? This can be done by using library operating system which propagates application's call to exokernel. Basically, Exokernel allocates hardware resources such as memory and processor time to applications, and developers freely use those resources as they wanted through their abstraction.

Generally, if operating system restrict interface between applications and hardware highly, it could incur low performance relatively. Exokernel provide the freedom to implementation of interface, and this can increase the performance by customizing application to fully utilize the hardware resources. However, the Library operating system used to implement abstractions are basically untrusted. Therefore, it has a potential risk about unreliability.