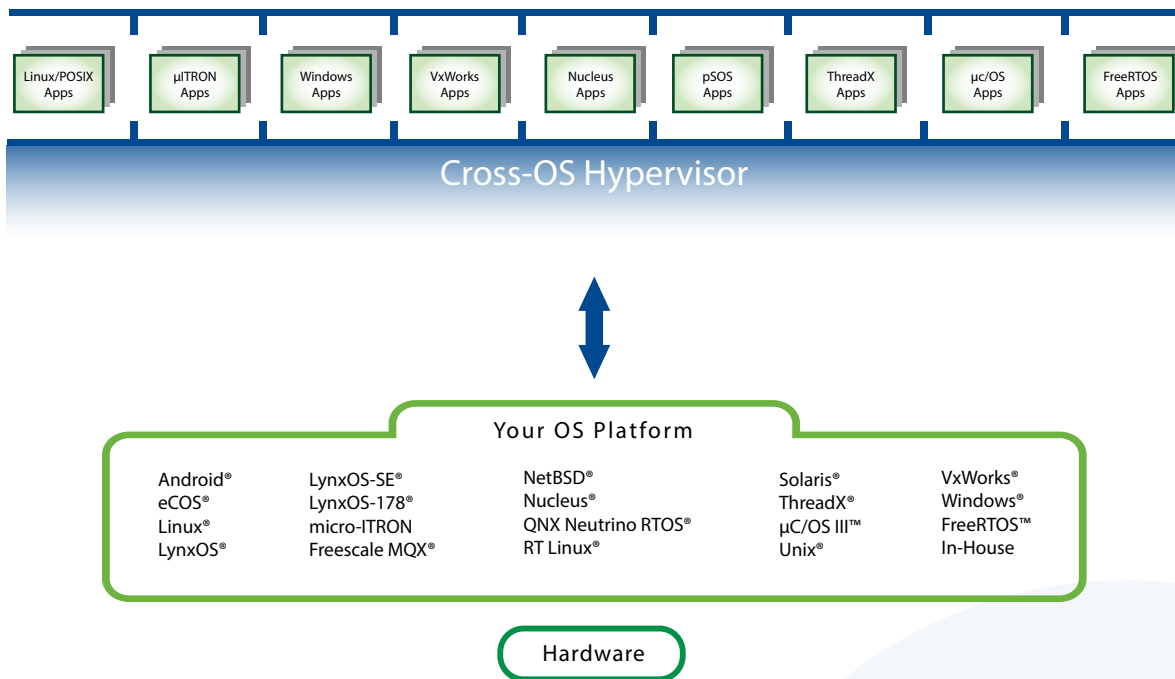


A typical hypervisor allows for running applications on multiple operating systems on a single hardware platform. Cross-OS Hypervisor is a next-generation hypervisor that eliminates the need for multiple operating systems by providing the OS functionalities required by the applications. This design ensures that applications are not locked into a particular OS platform and also simplifies development, reduces bill-of-material costs, and utilizes the system resources more effectively.

Cross-OS Hypervisor is redefining virtualization from wrapper-based implementations to source-level virtualization, thereby bypassing multiple layers of OS and hypervisor schedulers to gain performance increases. Cross-OS Hypervisor provides virtualization interfaces for Linux/POSIX, micro-ITRON, Windows®, VxWorks®, Nucleus®, ThreadX®, pSOS®, µC/OS™ and FreeRTOS™ applications as show below.



ADVANTAGES OF CONSOLIDATING TO A SINGLE OS

- Reduction of licensing costs for OS, tools and middleware
- Systems have reduced hardware requirements (i.e. memory, disk space, etc.) and need fewer OS resources
- Better performance by using native OS tools and running natively on the OS without using a hardware emulator or hypervisor
- Streamlined development by using one set of tools, device drivers and BSPs for one OS
- CPU resources can be pre-defined and dedicated to a single application utilizing the SMP features offered by the target OS

Cross-OS Hypervisor's code generator builds a custom virtualization interface package that is optimized for specific applications and target environments. These interfaces are compiled with the applications and linked natively for better optimization on your specific target OS platform. The applications can also run on a virtualized test platform to simulate interacting with each other on one or more CPU cores through simulated devices.

Cross-OS Hypervisor provides pools of reusable static resources (for example, threads, timers, queues, and more) that improve performance by eliminating the dynamic creation and deletion of resources. Additionally, applications can communicate with each other through direct data transfer via shared memory rather than using physical or simulated devices. This mechanism allows applications to communicate directly and bypass the hardware devices or network interface layers, as well be tested and integrated under a host environment. Applications can take full advantage of powerful resources like CPU, memory, drivers, middleware and tools on the host platform and start testing and integration before the actual target components are available.

CROSS-OS HYPERVISOR HIGHLIGHTS

- Eliminates the overhead associated with OS switching, as required by other hypervisor solutions
- Cross-OS Hypervisor source code packages can be generated and optimized to a specific application, target OS and native tools
- Host applications can be either independent applications running as separate processes or grouped as a standalone application running as a fully independent dedicated process on single core under SMP
- Allows applications to be broken down into separate processes with dedicated heap memory and kernel resources
- Can load other processes dynamically from any application or statically load from command prompt
- Allows you to add real-time features on any non real-time OS like Windows and Linux

RELATED LINKS

- For the latest release notes about the API coverage provided by the virtualization interfaces visit this link:
http://www.mapusoft.com/wp-content/uploads/documents/Release_Notes.pdf
- A free evaluation can be downloaded here:
<http://mapusoft.com/downloads/>
- For user manual & technical documentation visit this link:
<http://www.mapusoft.com/techdata/>
- For any technical or sales questions please submit a ticket at the MapuSoft support site at this link:
<http://mapusoft.com/support/>