Virtualized systems are revolutionizing the way systems are designed in an industry where developing avionics software to rigorous standards can be a challenge to innovation.

DornerWorks Virtuosity® OA (Open Architecture) enables integration of different software components and cost effective development of robust virtualized systems. Certified to the FACE Technical Standard for mission-critical systems in aerospace and defense, Virtuosity OA provides the open source virtualization technology now supporting systems used by the U.S. armed services in developing next generation open systems.

Virtuosity OA is a Xen-based distribution from DornerWorks that enables virtualized systems on embedded hardware platforms. Virtuosity is also open source, which means you own the software.

Bring cyber-resilient innovation to your project

DornerWorks has been guiding projects based on virtualization technology for years, and developed Virtuosity OA as the first open source FACE TS compliant OSS in the world.

Virtuosity OA currently enables distributed development systems being used in defense-class virtualized projects. DARPA, the U.S. Navy, U.S. Army, and other leaders in aerospace and defense are already integrating the Virtuosity Hypervisor into their technology, leveraging this cost-effective development environment to build their own virtualized solutions.

Virtualization with the future in mind

What does safe and secure virtualization look like? In your system, Virtuosity OA will provide:

- Strict ARINC 653 partitioning, with privileged partitions for initialization and configuration, health monitoring, and I/O control
- Facilitates integration of your applications
- Support for controlled I/O sharing with RS-232/422/485, MIL-STD-1553, Ethernet, ARINC 664p7, CAN, and more
- Alignment with open industry standards including ARINC 653, POSIX, and FACE TS
- Availability for x86 and ARM targets
When size, weight, and power (SWaP) are priorities for your system, Virtuosity OA provides a path to meeting these goals. By consolidating hardware resources on a common computing platform, Virtuosity OA can facilitate integration of both new and legacy software.

Certified to the FACE Technical Standard, Virtuosity OA will help you develop the FACE-conformant products that are innovating aerospace and defense.

Virtualized solutions

DornerWorks can apply Virtuosity OA to your system and accelerate your open architecture development, integration and testing.

Virtuosity OA is open source software that enables running multiple operating systems and mixed criticality applications simultaneously. The fastest and easiest way to benefit from virtualization for your project is with a DornerWorks Quick Start Package.

Proven expertise, on your side

As one of the only Xilinx Alliance Premier Partners in North America, and an NXP Proven Partner, DornerWorks has guided many product developments to success.

DornerWorks offers Virtuosity OA for both ARM (including the Xilinx Zynq UltraScale+ MPSoC and the NXP i.MX8) and x86 architectures.

Virtualized technology development to open architecture requirements can be complicated but it doesn’t have to be.

Get started with Virtuosity® OA today and replace your worries with confidence!

Get started today!

Our simple 3-step plan will determine a technology development course of action that best fits your needs.