

ACCELERATE DEVELOPMENT



WITH EMBEDDED
VIRTUALIZATION

Many companies struggle with consolidating applications on a single platform, without sacrificing performance or security.

But we don't think that should stand in your way.

DornerWorks **Virtuosity** is a hypervisor distribution for those who want to run multiple operating systems on the Xilinx Zynq UltraScale+ with the help of Xilinx development tools and workflow, along with customization and support services for a **robust virtualization solution**.

FRUSTRATION-FREE

EMBEDDED VIRTUALIZATION
SUPERCHARGED WITH

VIRTUOSITY®



The complexity of embedded virtualization shouldn't hold your team back from innovation.

We can help you build confidence into your product development with embedded software and electronics engineering services.



ISOLATION & SECURITY

- Software isolation
- Hardware partitioning
- Functional safety greatly enhanced by the Zynq MPSoC.



REDUCED COST & SCHEDULE

Hypervisors reduce size, weight, and power (SWaP) demands while allowing disparate software systems to run concurrently.



REDUCED PRODUCT RISK

- Based on open source Xen Project
- Migrate to new hardware with ease
- No recurring license fee

DornerWorks.com

| +1.616.245.8369



We have come to a point where our software is something that's destined



NOT JUST FOR A LAB, BUT FOR AN AIRPLANE

Each of you has contributed greatly to this effort, and each of you should be proud of your contributions. Thank you for all of your hard work.



~Senior Engineer



DEFENSE GRADE

Virtuosity's ARINC 653 scheduler supports both safety and security real-time platform goals, and has been awarded several SBIR contracts with the Department of Defense.

LATEST FEATURES

- ARM Trusted Firmware support
- Linux guest OS support
- 32-bit and 64-bit guest modes
- Physical CPU scheduling
- Direct assignment of guest OS to peripherals using the MPSoC SMMU
- Limited IO sharing between guests



VIRTUAL DEV ENVIRONMENT

- The Virtuosity hypervisor distribution, certified to the FACE Technical Standard, enabled distributed development of R-EGI (Resilient Embedded GNS/INS) on the milCloud.
- In one week, DornerWorks ported the R-EGI software to Virtuosity running on a Xilinx UltraScale+ MPSoC ZCU102 board.
- Virtuosity was then contributed to the milCloud, which enabled remote access for the R-EGI development team.



EMBEDDED HYPERVISOR

DornerWorks is developing extensions to the open source Xen Project hypervisor that will meet requirements for safety and security:

- Compliance with the ARINC 653 standard
- Time and space partitioning
- I/O partitioning
- Deterministic bandwidth allocation for guest domains
- Deterministic, partitioned interrupt servicing under ARINC 653



GET STARTED TODAY



Contact us for a free consultation and together we will determine a solution that fits your needs.

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SCHEDULE A CONSULTATION

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