AEROSPACE & DEFENSE CAPABILITIES

By DornerWorks



DornerWorks achievements have been recognized on state and national levels. DornerWorks is a multiyear recipient of the ICIC Inner City 100 award, which recognizes the 100 fastest growing businesses in the nation. DornerWorks is an ISO 9001, AS9100, and ISO 13485 certified company, providing assurance that our standards of quality will align with the design and safety requirements of our customers.

Specialties

Platforms

- Embedded software development
- Electronics hardware development
- FPGA custom logic development

Supplemental services

- Requirements and architecture definition
- D0-178 and D0-254 verification and validation
- Regulatory and environmental compliance
- Test systems engineering

Benefit<u>s</u>

- Proven expertise
- Customer-focused approach
- Innovative and quality results
- Experienced and consistent staff

Defense and Aerospace Qualifications

- FACE Consortium Member
- ISO 9001 Quality Certification
- AS9100C Quality Certification
- D0178 & D0254 Flight Safety Processes
- SBIR Funded ARINC 653 Safe & Secure Embedded Hypervisor
- SBA Small Business Classification

Key info	Number
CAGE Code	438Q6
DUNS	079456476
NAICS Codes	541330, 541511, 541512, 541712



Start developing your project with us!



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Product Development Hardware Software FPGA IoT Security Virtualization Test Systems

Virtuosity OA

DornerWorks Virtuosity™ for Open Architecture (Virtuosity OA) is a hypervisor distribution that is certified conformant to the Future Airborne Capability Environment (FACE) Technical Standard.

DornerWorks has won multiple SBIR contracts including Navy SPAWAR demonstrating, "Isolation Techniques for Untrusted Software," a TRL 6 hypervisor on an Intel laptop and an embedded ARM processor platform with a safe and secure ARINC 653 scheduler running multiple Linux partitions. A DARPA SBIR demonstrated, "A Space-qualified Hypervisor Designed to Support the Virtualization of Satellite Payloads."



Xilinx selected DornerWorks as their premier partner to provide the open source Xen hypervisor solution and services for their Zynq UltraScale+ MPSoC (MultiProcessor System-On-Chip) products providing ARM multicores.

DornerWorks provides embedded systems engineering design

Virtuosity™ OA **Portable Components** Operating System Segment Segment **Transport** Services Xen Hypervisor Segment **Platform Specific** Partitions **Services Segment** POSIX ARINC 653 I/O Services Segment Application Health Monitoring Partition Control Module Configuration Drivers Monitoring

services to support system customization, integration, tools and certification.

Embedded Hypervisor Solutions

DornerWorks is developing innovative extensions to the open source Xen hypervisor that will meet FAA DO-178C requirements for safety and Common Criteria EAL equivalent requirements for security. Our extensions provide:

- Compliance with the ARINC 653 standard
- Time and space partitioning
- I/O partitioning
 - o deterministic bandwidth allocation to guest domains
 - innovative patented approach for deterministic, partitioned interrupt servicing under ARINC 653

This hypervisor solution reduces Size, Weight, and Power (SWaP) demands by simultaneously hosting diverse software applications on a single hardware platform. Legacy and new software applications can be consolidated and hosted onto a single platform, yet isolated for safety and security in separate domains. This enables lifecycle cost savings, mitigating obsolescence risks by facilitating rehosting of legacy software on a single platform.

Get started today!

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

