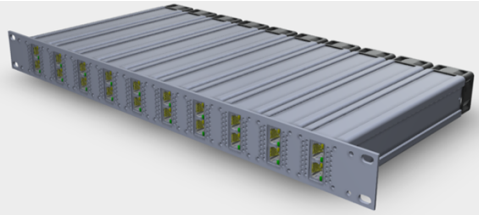


WHO

SYSCOM: NAVSEA
Sponsoring Program: NAVSEA PEO IWS X
Transition Target: PEO IWS X
TPOC: (540) 653-2374

Other Transition Opportunities: Any platform with embedded servers that require a small footprint and power requirements.

Notes:



PJR image 2023.

WHAT

Operational Need and Improvement: General computing components exist in separate, standardized groups of Instruction Set Architecture (ISA). While ARM, x86, and power PC share the same interface standards (e.g., PCIe, Ethernet), the Commercial off-the-Shelf (COTS) marketplace has not provided a standard computing platform where differing ISA processors can exist as co-processors. Office of Naval Research addressed this gap but their solution requires multiple discrete servers of differing ISA processors. New technology standards, developed initially for enhancements to storage performance, capacity, and thermal profile, are applicable to implementing Multi-ISA processing within the space, weight, power, and cooling required for a single discrete server.

Specifications Required: Develop a Peripheral Component Interconnect express (PCIe) compliant module that contains an Advanced Reduced Instruction Set Computer (RISC) Machine (ARM) processor for Multiple Instruction Set Architecture (Multi-ISA) processing development.

Technology Developed: PJR recently delivered a prototype Multi-ISA product called Popcorn along with an ARM Blade to the Navy that allows a software program to start on a low power consumption ARM, then migrate ('pop') to more powerful x86 system on-demand.

Warfighter Value: Multiple-ISA processing within the space, weight, power, and cooling required for a single discrete server. The current prototype shows significantly better energy efficiency and the ability to perform tasks faster than comparable COTS devices.

WHEN

Contract Number: N68335-21-C-0264 **Ending on:** Apr 27, 2023

| Milestone | Risk Level | Measure of Success | Ending TRL | Date |
|------------------------------------|------------|------------------------------------|------------|------|
| Technical Seminal Transition Event | Low | Demo/Deliver Hardware and Software | 6 | TBD |

HOW

Projected Business Model: Sell directly to USG or to a Prime integrator.

Company Objectives: PJR Corp is focused on providing tailored, innovative solutions to address real-world cybersecurity and legacy software issues for the U.S. Armed Forces, and corporations both large and small.

Potential Commercial Applications: PJR is focused on DoD customers for this project.