Media Contacts:
Kirsten Nelson
Lynx Software Technologies, Inc.
+1 (408) 979-4404
knelson@lynx.com

Europe:
Peter van der Sluijs
Neesham Public Relations
+44 (0) 1296 628180
peterv@neesham.co.uk

Lynx and CoreAVI deliver secure virtualized GPU for F-35 Lightning II Panoramic Cockpit Display

San Jose, California, 9 March 2020 – Lynx Software Technologies, an innovator in modern platform software technologies, and Core Avionics & Industrial Inc. (CoreAVI), a leader in graphics and compute platforms for safety critical applications, today announced that they are providing key technologies to support the development of the next generation Panoramic Cockpit Display Electronic Unit (PCD-EU) for the F-35 Joint Strike Fighter. This development is a key element of the of the "Technology Refresh 3" (TR3) modernization program being led by Lockheed Martin (NYSE: LMT).

Lynx and CoreAVI are supplying Lockheed Martin with an integrated solution that includes the LYNX MOSA.ic™ framework and CoreAVI's safety critical ArgusCore™ SC OpenGL® SC graphic drivers, HyperCore™ GPU virtualization manager, and EGL_EXT_Compositor FACE-aligned multi-windowing API. The PCD-EU is the processing unit for the panoramic head-down display in the cockpit. It features a special temperature screened version of a discrete AMD GPU that is available from CoreAVI. The system deploys multiple independent applications in secure partitions running on multiple separate displays using ArgusCore SC graphics drivers. LYNX MOSA.ic securely partitions the AMD device and HyperCore manages the use of the GPU across partitions, so that one GPU, with the use of the EGL_EXT_Compositor, can support multiple displays with mixed Design Assurance Level (DAL) requirements. The whole system will be certified to Airworthiness.

Will Keegan, CTO of Lynx Software Technologies, said, "LYNX MOSA.ic gives developers the ability to integrate complex software components, with precise control over how these components are deployed on multicore hardware. Lynx has collaborated with CoreAVI to run the HyperCore GPU virtualization manager in a separate partition on LYNX MOSA.ic, rather than as a driver running in a hypervisor, so that safety-critical graphics applications can benefit from the same elegant approach. By providing a simpler foundation for hosting safety-critical graphics applications, Lynx and CoreAVI are together lowering the cost, effort and risk of multicore certification."

Commenting, Dan Joncas, Chief Sales and Marketing Officer at CoreAVI, added, "This project is the result of two companies, each with domain leadership working together and playing to their strengths. Lynx supplied the expertise and technology related to securely partitioning safety critical and non-safety critical applications hosted on the same processor. CoreAVI technology manages the graphics display and sharing of GPU resources across the multiple guest operating systems running in secure partitions in a mixed criticality environment. CoreAVI and Lynx have provided the program with value by delivering a complete safety certifiable stack based on open architecture and commercial-off-the-shelf (COTS) technology."

About LYNX MOSA.ic™

LYNX MOSA.ic™ is the framework for development and integration of complex multi-core safety or security systems. Built on the LynxSecure separation kernel hypervisor, LYNX MOSA.ic supports a variety of operating systems such as LynxOS-178, Linux, Windows, third-party RTOS and bare metal applications including Lynx Simple Applications. LYNX MOSA.ic runs on Intel, Arm and PowerPC architectures.

About Core Avionics & Industrial Inc.

Core Avionics & Industrial Inc. ("CoreAVI") is a pioneer in the military and aerospace sector with a proven track record in providing entire software and hardware IP platform solutions that enable safety critical applications. A global leader in architecting and supplying real-time and safety critical graphics, compute, and video drivers, "program ready" embedded graphics processors, and DO-254/ED-80 certifiable COTS hardware IP, CoreAVI's suite of products enables the design and implementation of complete safety critical embedded solutions for aerospace, automotive, and industrial applications that achieve the highest levels of safety certification with long-term support. CoreAVI's solutions are deployed in commercial and military avionics systems, and support rapidly emerging compute applications in the automotive, unmanned vehicle, and internet of things markets. CoreAVI's products may be purchased with certification data kits for the most stringent levels of safety certification, including RTCA DO-254/DO-178C, EUROCAE ED-80/ED-12C, and ISO 26262. www.coreavi.com

Follow CoreAVI on Social Media:

Twitter

LinkedIn

Blog

CoreAVI media contacts:

Mary Beth Barrans

Marybeth.Barrans@coreavi.com

About Lynx Software Technologies

Since 1988, companies have entrusted Lynx Software Technologies to deliver modern platform software technologies that accelerate the development, certification and deployment of robust, safety-critical, high-availability systems for the avionics and defense industries. The FAA has recognized our industry leadership by awarding Lynx the first and only FAA Reusable Software Component certificate. In an increasingly connected world, the applicability of Lynx technology is broadening to specific applications in automotive, industrial IoT and IT infrastructure. Together with our growing set of technology partners, Lynx is focused on enabling a world where all autonomous systems are safe, secured and trusted.

For more information, visit www.lynx.com.

c0309lx