



## PRESS RELEASE

### ***X-ES Demonstrates Industry's Fastest-Booting Intel® Core™ i7-Based SBCs***

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Extreme Engineering Solutions, Inc. (X-ES) announces the embedded computer industry's first products to support Fast Boot with Intel's Firmware Support Package (FSP). With the integration of Intel's FSP into its Intel® Core™ i7-based bootloader solutions, X-ES enables the fastest possible boot times for Intel Core i7-based Single Board Computers (SBCs). The newly released FSP from Intel also opens the door for additional Intel-capable bootloader options beyond the legacy BIOS vendors. This facilitates an expanded ecosystem of both proprietary and open source bootloaders that can be more easily streamlined and tailored for industry-specific needs. The availability of open source options, such as coreboot, has the added benefit of simplifying access to bootloader source code and increasing code traceability for not only the OEM, but also for the end user.

Intel recently developed the FSP as a means to encapsulate the necessary initialization for an Intel processor and chipset into a single release package that any bootloader solution can build upon. Previously, this type of low-level chipset configuration was only released by Intel to a small number of BIOS vendors, who each build their own proprietary bootloader solutions and usually tailor them for the needs of the PC market. This would typically lead to a significant resource investment from the embedded OEMs to modify a complex BIOS solution for the needs of their customers. However, Intel's approach with the FSP enables the creation and development of streamlined bootloader solutions that will not only provide faster, more reliable, and more deterministic boot times, but also reduce development time and costs.

The initial products from X-ES that will be supporting an FSP-based bootloader solution will be 3<sup>rd</sup> generation Intel Core i7-based (formerly "Ivy Bridge") products, including the 3U VPX [XPedite7470](#) and rugged COM Express [XPedite7450](#). FSP support for 4<sup>th</sup> generation Intel Core i7-based (formerly "Haswell") products, such as the 3U VPX [XPedite7570](#), [XPedite7501](#) XMC, 6U cPCI [XCalibur4500](#), and 6U VME [XCalibur4530](#) will follow.

X-ES will be demonstrating the use of Intel's FSP on X-ES Intel Core i7-based product with multiple operating systems, including Linux, Wind River VxWorks, and Microsoft Windows® 7 at the 2013 Intel Developer's Forum (IDF13) in San Francisco, September 10<sup>th</sup> through the 12<sup>th</sup>. Stop by and visit with X-ES at IDF in booth 707 of the Intelligent Systems Community, or contact X-ES to find out more about FSP-based bootloader solutions for your single board computer requirements.

About X-ES — Extreme Engineering Solutions, Inc. (X-ES), a 100% U.S.A.-based company, designs and builds single board computers, I/O boards, power supplies, backplanes, chassis, and system-level solutions for embedded computing customers. X-ES offers cutting-edge performance and flexibility in design, plus an unparalleled level of customer support and service. For further information on X-ES products or services, please visit our website: [www.xes-inc.com](http://www.xes-inc.com) or call (608) 833-1155.

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