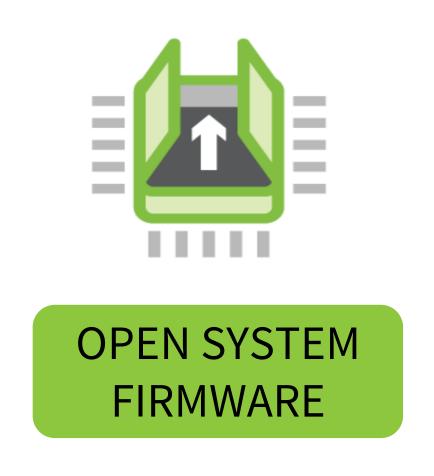


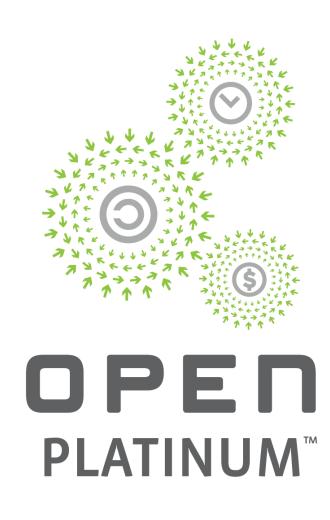
Intel® Firmware Support Package (FSP) + EDK II for Cloud



Murugasamy (Sammy) Nachimuthu Sr. Principal Engineer, Intel Corporation

Mallik Bulusu

Principal Firmware Engineering Manager, Microsoft Corporation





CSP Requirements on Cloud FW

- Standards based FW
- Open Source Options
- Reduced boot time capability
- Scalable and easy-to-adapt FW solutions
 - Ability to integrate silicon provider modules easily with the system firmware
- Ecosystem support



UEFI Based Open System Firmware



OPEN SYSTEM FIRMWARE

Interfaces:

Platform interface tables to support OS boot https://uefi.org

EDKII:

Existing upstream/open source core at

https://github.com/tianocore/edk2

Operation System

Platform Firmware Interface (ACPI, UEFI)

Open Source Platform Package(s)

Intel[®] Silicon Init

Hardware & Silicon

MinPlatform:

Platform (board) Specific Code at https://github.com/tianocore/edk2-platforms

Firmware Support Package:

Intel binaries for board invariant Si code at

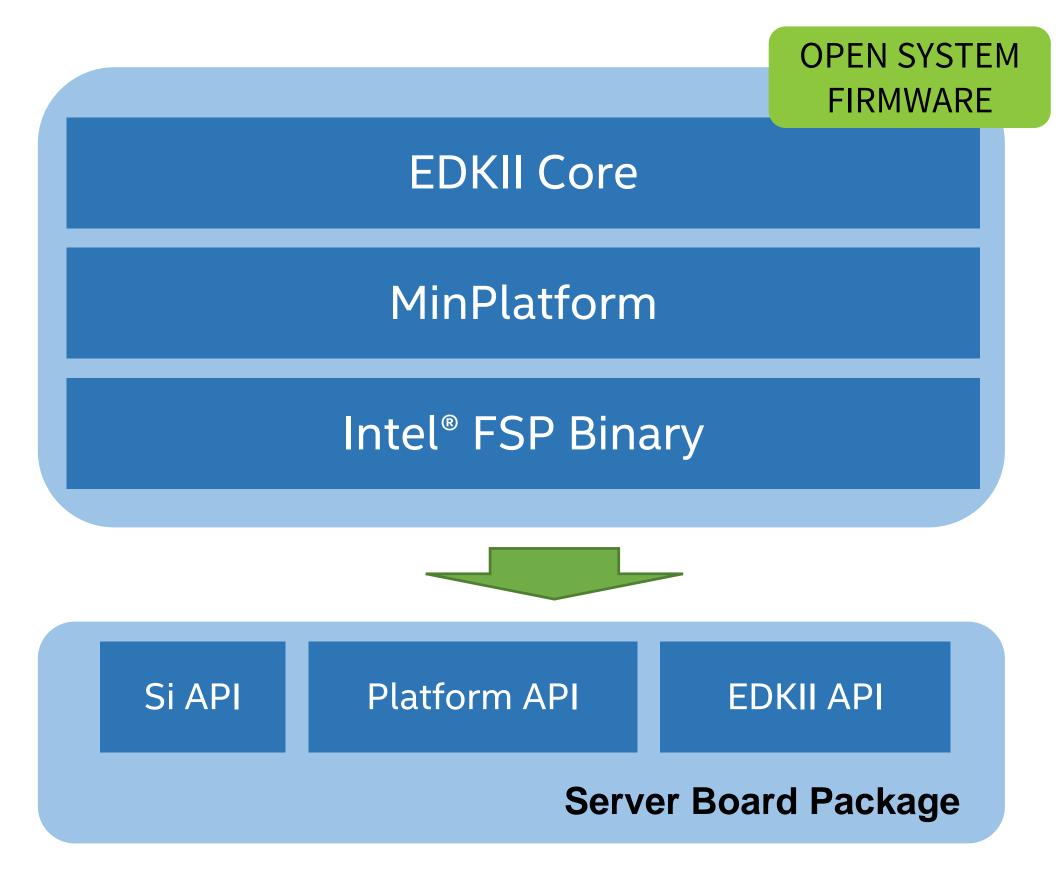
https://github.com/intelfsp or https://github.com/tianocore/edk2-nonosi



MinPlatform



- Minimum set of platform code needed to realize server with white box configuration
- Offer buildable and bootable "white box" configuration using Intel® FSP
- Reduce volume of "closed source" needed to support Server products

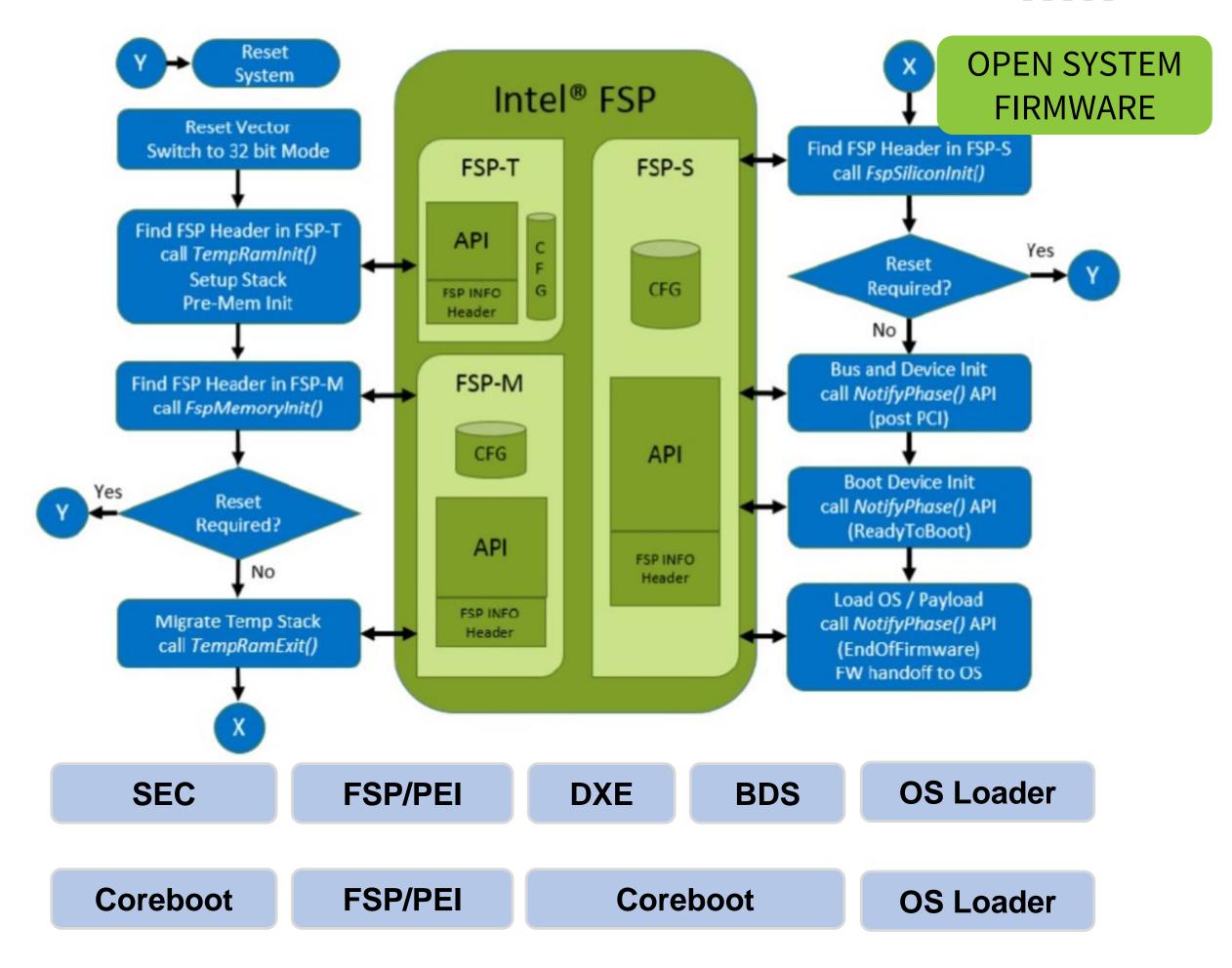




Intel® FSP (Firmware Support Package) [h]



- Intel® FSP provides processor and chipset initialization easily be incorporated into industry boot loader framework (e.g. core boot, Tiano Core etc.)
- To abstract the complexity of silicon initialization and publicly distribute binaries of silicon code





Intel® FSP Interfaces for EDK II

- OPEN SYSTEM FIRMWARE

- Platform interface
- Boot time hooks
- Runtime hooks
- Configuration options
- Payloads



Cloud System with Intel® FSP + EDK II

- Intel® FSP provides Intel silicon initialization modules
- EDK II provides the framework for creating platform firmware
- Platform specific modules are needed for supporting security, error handling, RAS and platform specific features



Summary and Call to Action

- Intel® Firmware Support Package (Intel® FSP) is a flexible and scalable firmware solution http://www.intel.com/fsp
- Intel® FSP enables using EDK II to create UEFI platform firmware https://github.com/intelfsp or https://github.com/tianocore/edk2-non-osi
- Get involved into Open System Firmware https://www.opencompute.org/projects/open-system-firmware



