

# OPEN POSSIBILITIES.

Aptio OpenEdition: Holistic UEFI  
Solutions for the Open-source  
Ecosystem



**OCP**  
GLOBAL  
SUMMIT

NOVEMBER 9-10, 2021

# Aptio OpenEdition

*Holistic UEFI Solutions for the Open-source Ecosystem*

Zach Bobroff, Sr Director Product Management, AMI

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**OPEN**  
PLATINUM™





## IS EMBRACING OPEN-SOURCE THROUGH OCP



OPEN SYSTEM  
FIRMWARE

AMI is committed to  
contributing to the open-  
source community with the  
goal to encourage

- Transparency
- Reliability
- Security

AMI wants to be a key player in  
driving the industry forward

- To encourage adoption of an industry standard solution
- By giving innovative features back to the community

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# Aptio OpenEdition(OE)



AMI is working with SI providers  
ODMs and OEMs to provide  
open Firmware solutions

Open-Source trees are based off  
the Linux Foundation OpenBMC  
and EDK II trees

AMI develops additional value-  
added features and security on  
top of these trees

AMI will maintain the base  
source and offer multiple levels  
of support options

Source trees are fully managed  
and maintained by AMI and  
contributed back to OCP &  
OpenBMC community

## OPEN POSSIBILITIES.



OPEN SYSTEM  
FIRMWARE

 OCP


Open Source

COMMUNITY  
EDITION




**Open Source**  
- EDKII

- Open License
- Community Support
- Delayed distribution from  
AMI internal Tree

 The World Starts on AMI

Live Tree

PRODUCTION  
EDITION



**Open Source**  
- EDKII

- ✓ Subscription License
- ✓ Essentials & Professional  
option
- ✓ LTS – Long Term Support
- ✓ Live Tree
- ✓ Per-unit maintenance fee



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As a leader the Source trees in Open Compute Project (OCP) are **fully managed and maintained** by AMI with its world class engineer-to-engineer support



OPEN SYSTEM  
FIRMWARE

ODMs and CSP are shipping OCP platforms that are sold on the OCP marketplace



OCP  
ACCEPTED™



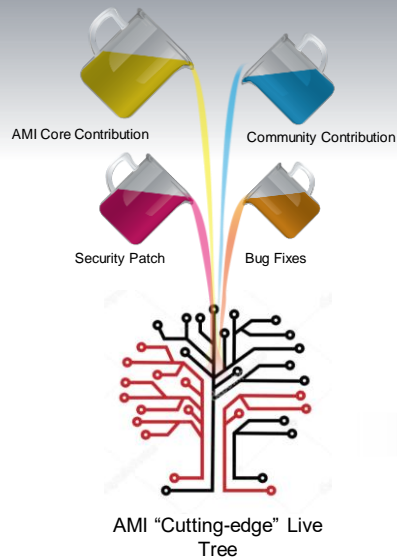
ODM Partners

OEM Partners

Silicon Partners

CSP Partners

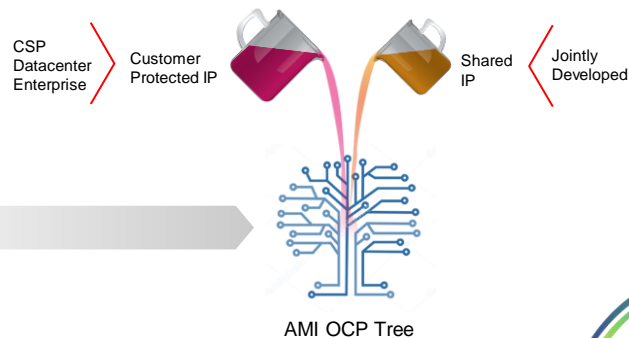
AMI's open-source trees are pulled from the EDKII trees and AMI develops additional value-add features on top of them



AMI plans to push these trees to the OCP community on a periodic basis after thorough validation and is working with ODMs to target OCP marketplace systems



Point-of-use customers can then utilize this hardened open-source tree for their OCP server platforms



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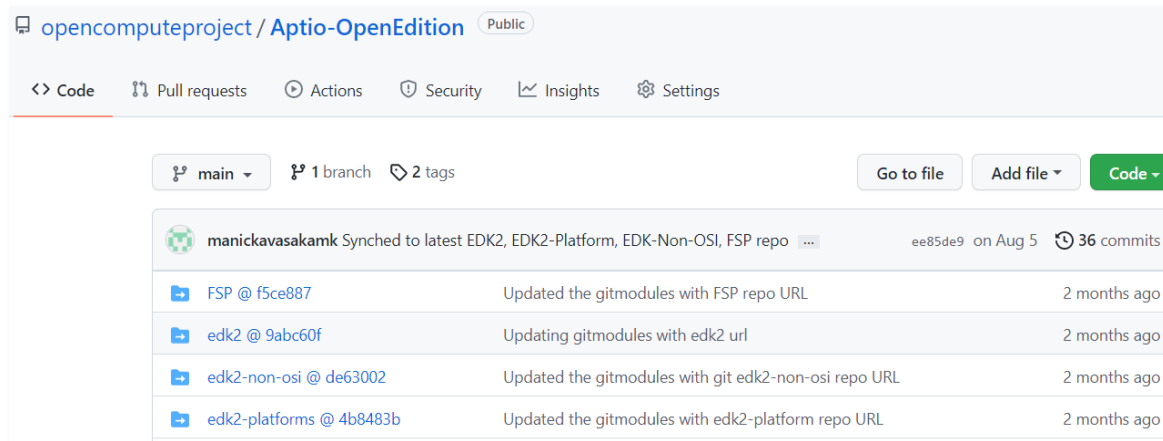


# Current Submission Status



OPEN SYSTEM  
FIRMWARE

<https://github.com/opencomputeproject/Aptio-OpenEdition>



Approved as Incubation Project by IC

*Sub-project to current Open System Firmware (OSF) project and falls under same governance*

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# Project Goals



OPEN SYSTEM  
FIRMWARE

Provide the OCP community an open-source standard boot firmware solution	Contribute innovative features the community demands	Support the community when issues are found	Schedule group meetings to discuss any current issues and future plans	Fully committed to upstreaming changed back to upstream projects

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# Current Submission Features



OPEN SYSTEM  
FIRMWARE

*Project is an EDKII project with standard peripheral support and ported to specific platforms*

Support for:



Wiwynn/MiTAC TiogaPass platforms



Ampere Platform



Wiwynn/Intel JunctionCity

- Full UEFI boot support with SecureBoot enablement
- LinuxBoot support
- On every release, full testing on all supported platforms by the Repo with integrated testing of an open-source BMC solution under the OCP GitHub umbrella as well

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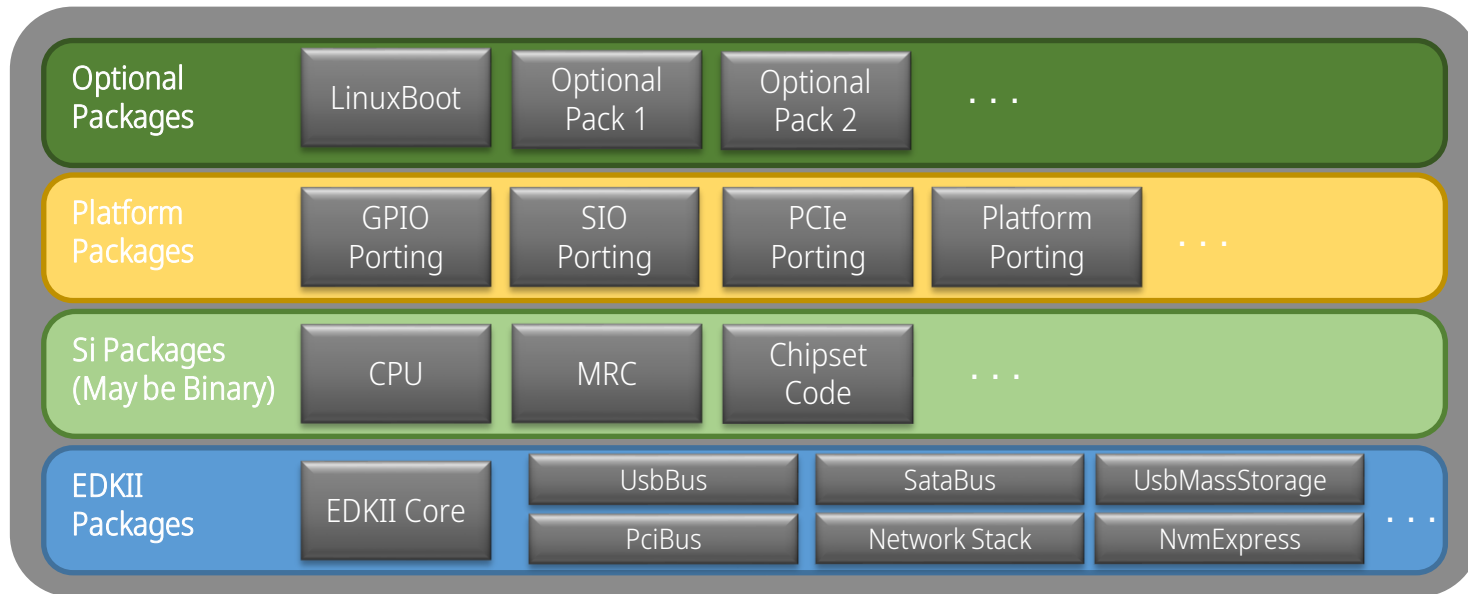




# Aptio OpenEdition Block Diagram



OPEN SYSTEM  
FIRMWARE



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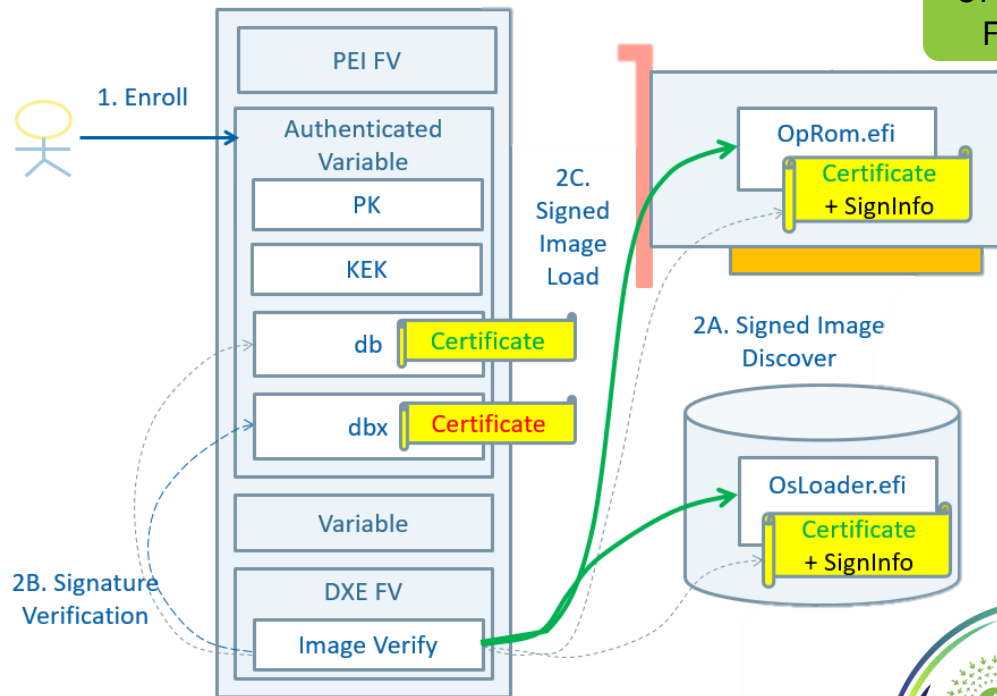


# UEFI SecureBoot: Keeping the industry Secure



## UEFI Secure Boot

UEFI Secure Boot ensures all external code executed during FW boot is properly signed and authenticated from a DB controlled by the platform owner!



OPEN SYSTEM  
FIRMWARE

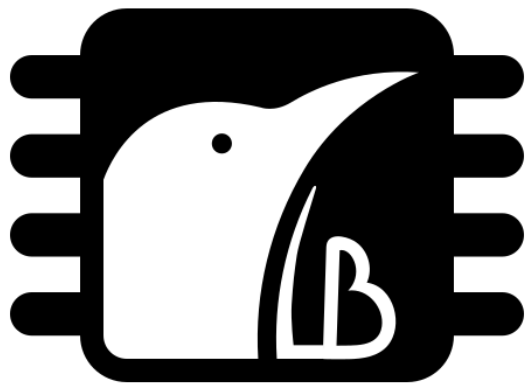
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# LinuxBoot: Providing the Industry Flexibility



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FIRMWARE



## LinuxBoot

LinuxBoot brings in a small Linux kernel to the FW for eventual booting of the platform

Using Linux allows organizations with highly customized deployments the flexibility to implement higher level code

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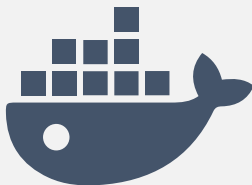
# Upcoming Additions



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Redfish Host Interface support (LAN  
over USB)



Dockerfile build support



2 more additional OCP platforms from  
different ODMs

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# Goals for Future Improvement



OPEN SYSTEM  
FIRMWARE



Provide full DevOps to  
the community tree



Create a hardware lab for  
live testing of images



Get more involvement  
from other community  
players



Support as many OCP  
platforms as possible

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# Call to Action



**OPEN SYSTEM  
FIRMWARE**

**1** Currently working on setup of logistics for group meetings, currently using OSF meeting for any items

**2** Contribution is already available, please review!

**3** If you would like your platform supported or have any questions, please come to the OSF meeting or use the GitHub project

**4** Watch a demonstration of Aptio Open Edition in AMI Booth B-16 during OCP Summit and visit AMI in the OCP Experience Center!

Current Submission: <https://github.com/opencomputeproject/Aptio-OpenEdition>

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Thank you!



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