

The Linux Foundation announced the release of ACRN - an open source virtual machine project for IoT devices

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The Linux Foundation has just announced a new project called ACRN, which provides generic code to create hypervisors for IoT devices. Hypervisor is the computer code for creating and running virtual machines. The ACRN project aims to provide generic structure for hypervisor elements specializing in IoT.

The Linux Foundation said that ACRN will be customizable and consists of two main components: the hypervisor itself and the device's interactive hardware model.

ACRN for vehicle systems and smart devices

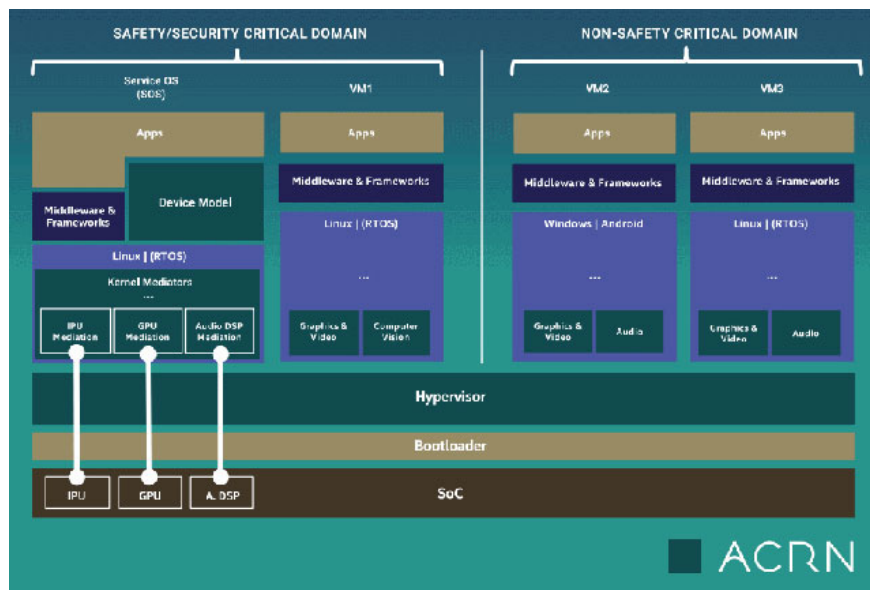
ACRN will provide flexibility and easy automation in IoT environment, especially for developing smart industrial devices.

The ACRN working group expects hardware vendors to approve the project, which will be used as a base to run firmware on IoT devices, allowing easy switching and updating between different guest OSs running virtual machines.

Developers hope ACRN will catch up with modern IoT solutions such as smart cars, and still be a comprehensive solution for all IoT devices.

ACRN will run Linux, Android and RTOS

Services (Host) OS of ACRN will be Linux, also support Guest OS like Android, other Linux kernels or RTOS.



Structure diagram of ACRN project

ACRN developers say that the hypervisor is smaller than the data center hypervisor 6 times, which is the ideal solution for resource-limited devices. They also have faster and safer boot times, important workloads are prioritized and separated from other processes.

The project hopes to reduce development costs by bringing an available, free, and best security solution right in the architecture, avoiding many security risks like on IoT devices. nowadays.

According to the Linux Foundation, Intel is the main contributor to this project from the infancy, exploiting the advantage of their experience with virtualization technology. Adlink, Aptiv, LG and Neusoft also participated in supporting the project in the first phase.

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