

Linux Plumbers Conference 2024



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Confidential Computing MC

CFP closes on July 15th.

Confidential Computing microconferences in the past years brought together developers working secure execution features in hypervisors, firmware, Linux Kernel, over low-level user space up to container runtimes. A broad range of topics were discussed ranging from entablement for hardware features up to generic attestation workflows.

In the past year - guest memfd has been merged, TDX and SNP host support is getting closer to being merged. Next to go in will be support for ARM CCA and RISC V CoVE. In the meantime, there is progress being made on the Trusted I/O front.

But there is still some way to go and problems to be solved before a secure Confidential Computing stack with open source software and Linux as the hypervisor becomes a reality. The most pressing problems right now are:

- Support TEE privilege separation extensions (TDX partitioning and AMD SEV-SNP VM Privilege Levels) both on the guest and host side
- Secure IRQ delivery
- Secure VM Service Module (SVSM) support for multiple TEE architectures
- Trusted I/O software architecture
- Live migration of confidential virtual machines

Other potential problems to discuss are:

- Remote attestation architectures
- Deployment of Confidential VMs
- Linux as a CVM operating system across hypervisors
- Unification of various confidential computing API

The Confidential Computing Microconference wants to bring developers working on confidential computing together again to discuss these and other open problems.

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