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Confidential Computing MC

The Confidential Computing microconferences of the past years have been a significant catalyst for better supporting trusted execution workloads in the Linux virtualization and general software stack. Since the last occurrence of the microconference AMD SEV-SNP and Intel TDX support for KVM were merged into the mainline Linux kernel as well as support for the Linux kernel running in ARM CCA environments.

But the open source software stack for confidential computing is still far from being complete. There remain many problems to be solved and functionality to enable. Some of the most important ongoing developments are:

-Support for large-page backing of confidential virtual machines (CVM).
- Privilege separation features in KVM via VM planes.
- Live migration of CVMs.
- Secure VM Service Module architecture and Linux support.
- Trusted I/O software architecture.
- Further topics to discuss are:
- Possible solutions for the full CVM (remote) attestation problem.
- Linux as a CVM operating system across hypervisors.
- Performance of CVMs.

The Confidential Computing microconference of 2025 wants to bring open source developers working on these topics together into productive discussions and to collaborate on solutions for the open problems.

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