VEIL: A Protected Services Framework for Confidential Virtual Machines

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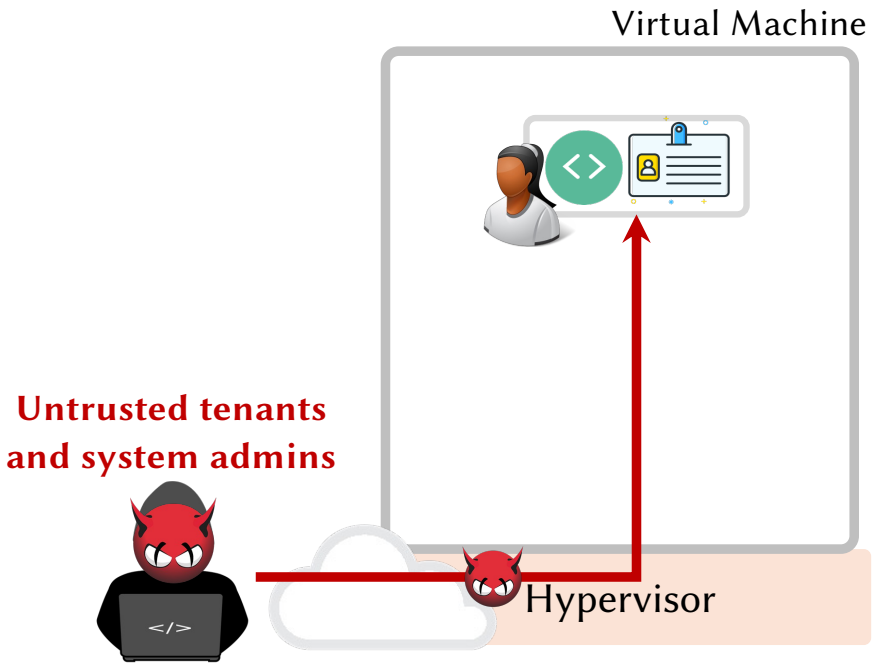
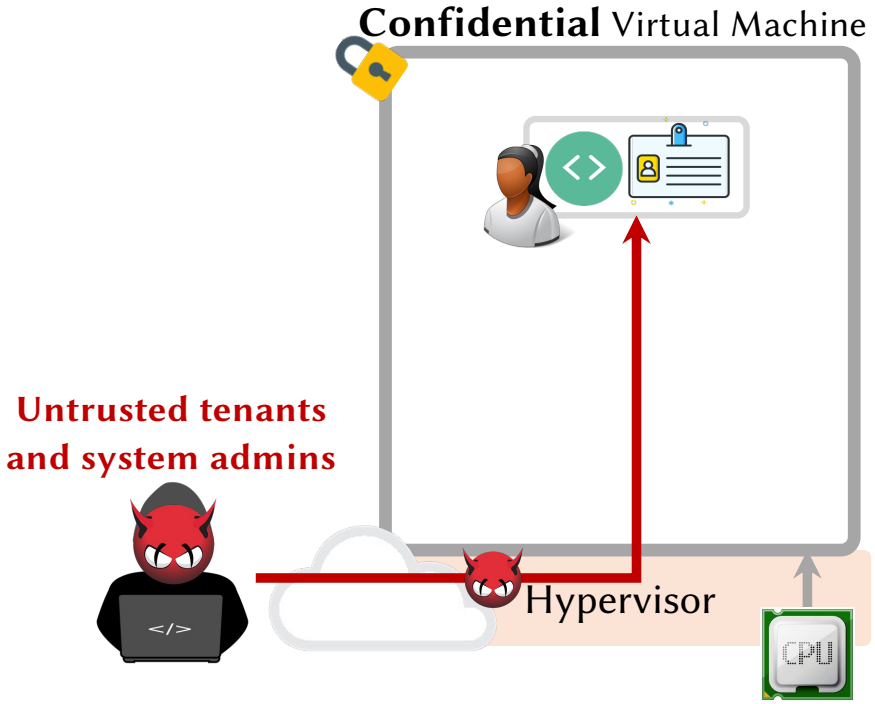
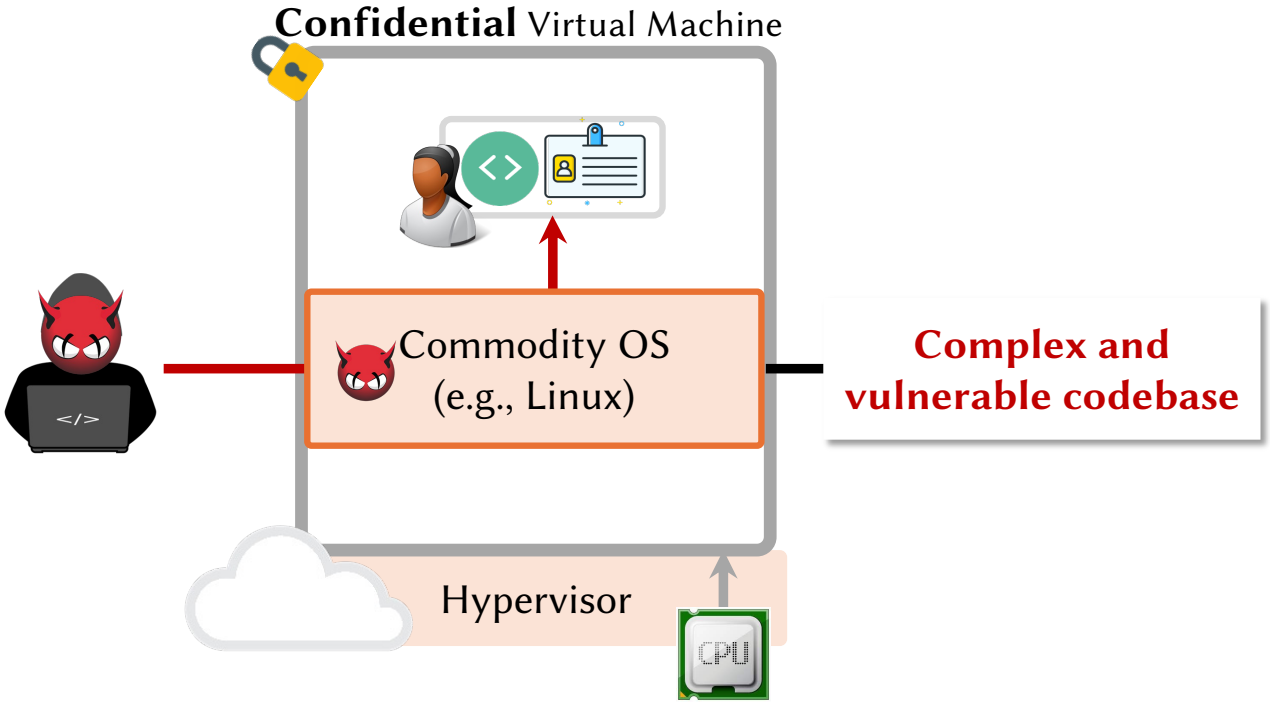
Cloud VMs suffer attacks from untrusted outsiders



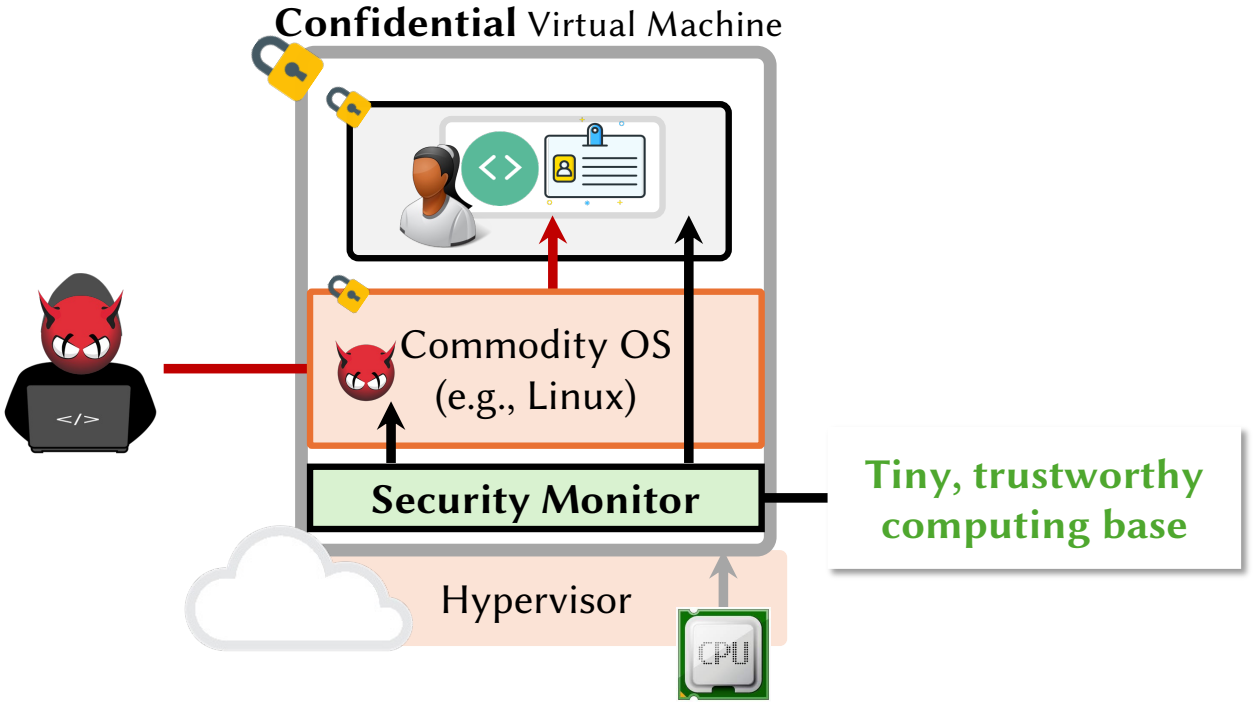
Confidential VMs protect against untrusted outsiders



Confidential VMs are vulnerable to attacks from inside



VEIL enables a monitor to strengthen CVMs from inside



Overview of my upcoming talk

✓ Compatibility
✓ Functionality

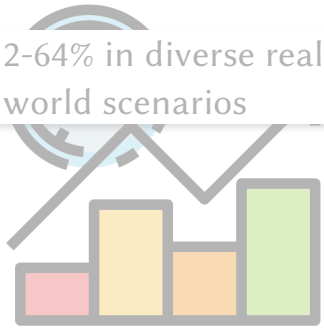
Existing kernel security monitors

Comparison with prior work and challenges

✓ **Preventing attacks** against CVM kernels
✓ **Protecting user data** in case of compromise
✓ **Analyzing forensically** CVM compromises

Classes of protected services offered by Veil

✓ 2-64% in diverse real-world scenarios



Performance impact of Veil's execution in CVMs

Stay tuned for the talk!