OFFICIAL ABSTRACT and CERTIFICATION

Minimal Footprint Hypervisor

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Virtualization is widely used across IT industry. The vast majority of modern hypervisors are massive and have plenty of features. Compared to them, the Jinet hypervisor was developed not as a standalone hypervisor but rather as a basis that could be used by system programmers to design VMMs for specific tasks, e.g. internet of things or debugging. The project is a type-1 hypervisor: it boots via GRUB bootloader, initialises hardware, particularly Intel VMX, and enters a virtualized environment with a demo code that uses vmcall instruction to communication with the monitor. The hypervisor was programmed in C and Assembly languages and uses a wide range of technologies from Intel x86-64, ACPI, ELF to specific hardware devices (e.g. Intel LPSS UART). The project is open-source and is distributed under MIT License.

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4. This project is a continuation of previous research. ☐ Yes ☒ No

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This stamp or embossed seal attests that this project is in compliance with all federal and state laws and regulations and that all appropriate reviews and approvals have been obtained including the final clearance by the Scientific Review Committee.

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The abstract **should include the following:**

a) *purpose of the experiment*
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It may also include any possible research applications. Only minimal reference to previous work may be included. An abstract **must not include the following**:

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- Focus only on the current year's research.
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- Use short sentences, but vary sentence structure.
- Use complete sentences. Don't abbreviate by omitting articles or other small words in order to save space.
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AVOID A REWRITE

- Focus on what you did, not on the work of your mentor or of the laboratory in which you did your work.
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