

# Significant Changes from Previous Version

In response to reviewer feedback about incremental novelty and design motivation, we have made the following substantial improvements:

1. **Unified Theoretical Framework**

We have fully developed the *guest-delegation* principle as a cohesive theoretical framework underlying our approach, clarifying how this represents a paradigm shift rather than an incremental improvement over existing hypervisor-based and kernel-based solutions.

2. **Strengthened Motivation**

We have added detailed empirical analysis in Section 2.3 demonstrating the fundamental limitations of hypervisor-based approaches, including:

- Quantitative measurement of TLB flushes and overhead (Tbl. 1)
- Analysis of EPT-friendly PEBS scalability issues (Fig. 2)

3. **Expanded Evaluation**

We have addressed key evaluation gaps by:

- Adding direct comparisons with hypervisor-based approaches (TPP-H) across seven real-world workloads
- Including latency analysis for interactive applications (Fig. 12), showing 23% reduction in tail latency

4. **Clarified Novelty of PEBS Approach**

We have substantiated our claims about EPT-friendly PEBS with:

- Technical explanation of previous architectural limitations (Section 2.3.2)
- Analysis of isolation properties ensuring multi-tenant security
- Context-switch-based sampling implementation that reduces CPU overhead by 16×

5. **Added Threat Model Discussion**

Despite this is not the main focus of our paper, we have included a threat model in Section 7.2, addressing security considerations for untrusted guest code running in multi-tenant environments.