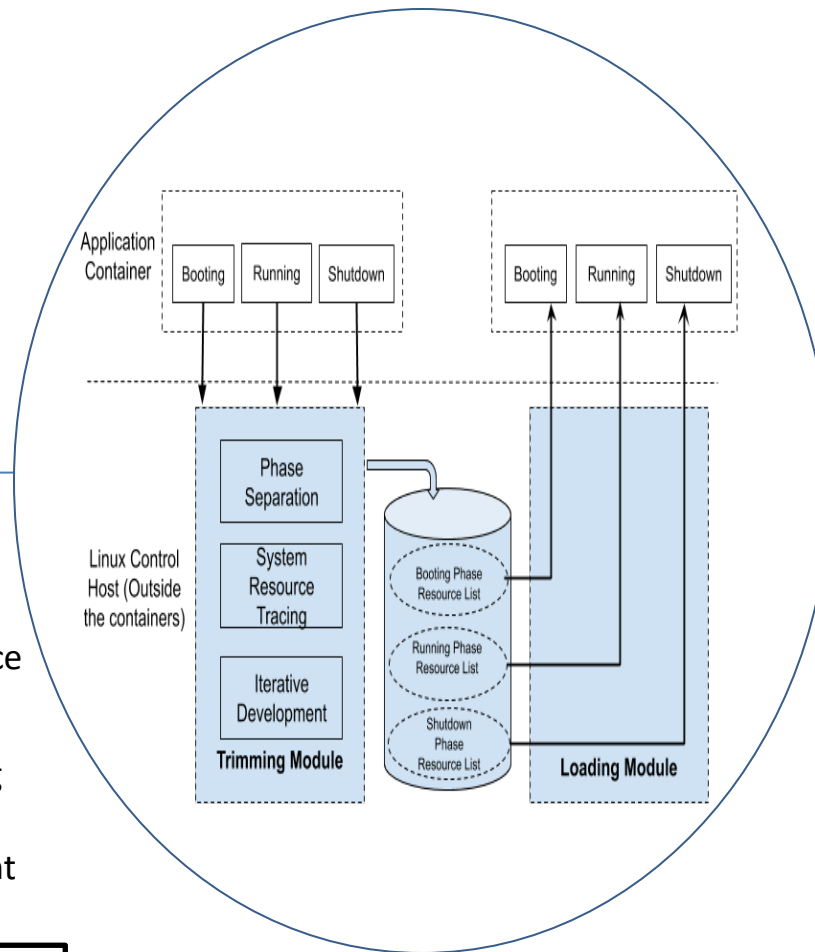# SaTC: TTP: Small: Enhancing Container Security via Fine-Grained System Resource Constraints

Challenge:

- Large attacking surface of Linux containers
- Lack of fine-grained access control on system resources
- Hard to configure and combine existing security primitives

Scientific Impact:

- Enforcing fine-grained access control on system resources
- Integrating into various types of Linux containers
- Improving trustworthiness and adaptation of container-based virtualization in cloud systems.

Solution:

- Temporal-based access control mechanism
- Automatic system resource profiling via both static and dynamic analysis
- Argument sanity checking
- Iterative development
- Enabling wide deployment

Broader Impact:

- Open source toolkit prototype
- Commercialization via a startup company
- Two conference papers
- One patent pending
- Graduate course module on container security