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Title: Trusted Platform Provisioning for the OpenCHAMI Cluster Management Stack

Abstract:

Security is an increasingly critical factor in the modern computing landscape. Institutions live and die by their cybersecurity practices (or lack thereof), and high-performance computing is no exception to this. Concerningly, even cutting-edge supercomputers by well-known vendors lack key protective measures, necessitating awkward “security through obscurity” practices to guard against exploits such as escalation of privilege. This project implements a token-based, hardware-backed authentication system for supercomputer nodes, ensuring that only users with appropriate permissions can access protected configuration resources.