Contribution ID: **51**   Type: **Talk (15min + 5min)**

Developing the ClusterCockpit Monitoring Framework - An Odyssey from PHP to Go

Thursday, March 7, 2024 10:00 AM (20 minutes)

ClusterCockpit, a specialized performance and energy monitoring framework designed for High-Performance Computing (HPC) cluster systems, has evolved significantly since its inception in 2018. The framework comprises a web frontend, an API backend, a node agent, and a metric in-memory cache. Being an open-source project, its source code is available on GitHub at https://github.com/ClusterCockpit.

This presentation delves into the challenges encountered and the journey taken by ClusterCockpit over the past five years. Initially built as a PHP Symfony web application relying on server-side rendering and JQuery libraries, the framework has transformed into its current state with a Go API backend and a web frontend based on Svelte.

The talk emphasizes the tradeoffs encountered when choosing frameworks at different levels and finding the right balance between ease of use and flexibility. The project's progression is explored, starting from its early stages with PHP Symfony to the current architecture. Notable stages and experiences are highlighted, providing insights into the decision-making process.

Particular attention is given to the choices made in terms of architecture and design, shedding light on the considerations that led to the adoption of Go for the backend and Svelte for the frontend. The presentation aims to offer a comprehensive understanding of ClusterCockpit's development, focusing on the evolution of technologies, frameworks, and the project's current state.

Slot length

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