

# Dynamic Deployment of Data Collection and Analysis Stacks at CSCS

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Complexity and scale of systems increase rapidly and the amount of related monitoring and accounting data grows accordingly.

Managing this vast amount of data is a challenge that CSCS solved by introducing a Kubernetes cluster dedicated to dynamically deploying data collection and analysis stacks comprising Elastic Stack, Kafka and Grafana both for internal usage and for external customers' use cases.

This service proved to be crucial at CSCS to provide correlation of events and meaningful insights from event-related data: bridging the gap between the computation workload and resources status enables failure diagnosis, telemetry and effective collection of accounting data.

Currently at CSCS the main production Elastic Stack is handling more than 200B online documents. The integrated environment from data collection to visualization let internal and external users produce their own powerful dashboards and monitoring displays that are fundamental for their data analysis needs.

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