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Secrets Management for CMSWEB

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Secrets Management is a process where we manage secrets, like certificates, database credentials, tokens, and API keys in a secure and centralized way. In the present CMSWEB (the portfolio of CMS internal IT services) infrastructure, only the operators maintain all services and cluster secrets in a secure place. However, if all relevant persons with secrets are away, then we are left with no choice but to contact them to get secrets in case of emergency needs.

In order to overcome this issue, we performed an R&D study for the management of secrets and explored various strategies such as Hashicorp Vault, Github credential manager, and SOPS/age. In this talk, we'll discuss the process by which CMS investigated these strategies and perform a feasibility analysis of them. We will also underline why CMS chose SOPS as a solution, reviewing how the features of SOPS with age satisfy our needs. We will also discuss how other experiments could adopt our solution.

Significance

In this talk, we'll discuss the process by which CMS investigated the strategies and perform a feasibility analysis for selecting a best solution for secrets management. We will also discuss how other experiments could adopt our solution.

References

Experiment context, if any

CMS Experiment at CERN

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