

Linking GitOPS towards fast innovation over BigHPC

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The BigHPC project is bringing together innovative solutions to improve the monitoring of heterogeneous HPC infrastructures and applications, the deployment of applications and the management of HPC computational and storage resources. It aims as well to alleviate the current storage performance bottleneck of HPC services. In order to keep all development tasks tracking in a common path, some good practices are needed to get a shorter development life cycle and provide continuous delivery and deployment with software quality. GitOPS is a way to implement the continuous deployment and software quality best practices. Deploy faster and more often, easy and fast error recovery, easier credential management, well documented deliveries with complete history of every change made to the system and share knowledge between teams with great commit messages. These are some examples of the advantages in adopting a GitOPS framework solution. As a result, everybody would be capable of reproducing the thought process of changing infrastructure and also easily find examples on how to set up new systems. In this work we are creating the git workflow being adopted for application development and the tools that we are joining together to answer the three components of GitOPS: infrastructure as code, merging changes together and deployment automation. We will show the technical capabilities and advantages of using this approach, keeping developers focused on the continuous development of the software and infrastructure management with the IT operations team, adopting good practices and pursuing fast innovation delivery.

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