SAPS: Estimating the Evolution of Forest Masses and Crops using Cloud Resources

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In this video we will show you...

1. What is SAPS?
2. Technical Description: Architecture
3. Deployment with EC3 in OpenStack
4. SAPS in action
1. What is SAPS?
- **SAPS** *(SEB Automated Processing Service)* is a service to estimate Evapotranspiration (ET) and other environmental data that can be applied on water management and the analysis of the evolution of forest masses and crops.

- **SAPS** is one of the **Thematic Services** of the **EOSC Synergy** project.

- **Objective**: provide wider access to knowledge on the impact of human and environmental actions on vegetations, leading better forest management and analysis of risks.
2. SAPS Architecture
- **Kubernetes** as the LRMS.
- Dashboard needs to be accessible from outside.
- Temporary and permanent **storage** solutions are needed.
3. Deployment with EC3
- EC3 facilitates the deployment, configuration and management of the SAPS service.

- This tool is used to deploy and configure a Kubernetes cluster automatically with SAPS running on it.

- EC3 is also used to manage the elasticity of the K8s cluster automatically by terms of CLUES.
4. SAPS in action
(a) Submission of new processing requests.

(b) Access to output data.
Conclusions

- **SAPS** is a service to compute estimations that are of special interest for researchers in **Agriculture Engineering** and **Environment**.

- SAPS is being integrated with several services offered by EOSC.

- **EC3** facilitates the **deployment, configuration** and **management** of the SAPS service with **just one command**.

- The **elasticity** of the K8s cluster is **automatically** and **transparently** managed by **CLUES**.

- The **SAPS Dashboard**, together with EC3, **hides low-level details** of the infrastructure, **simplifying its usage** for non-advanced users.
Want to see more?

Watch the full demo in:
https://www.youtube.com/watch?v=gXfNlmsRSrc&index=10

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