



FaaS-based Universal Multi-Cloud Connectors

by Oleksii Serhiienko



Cloud Management platform (CMP)

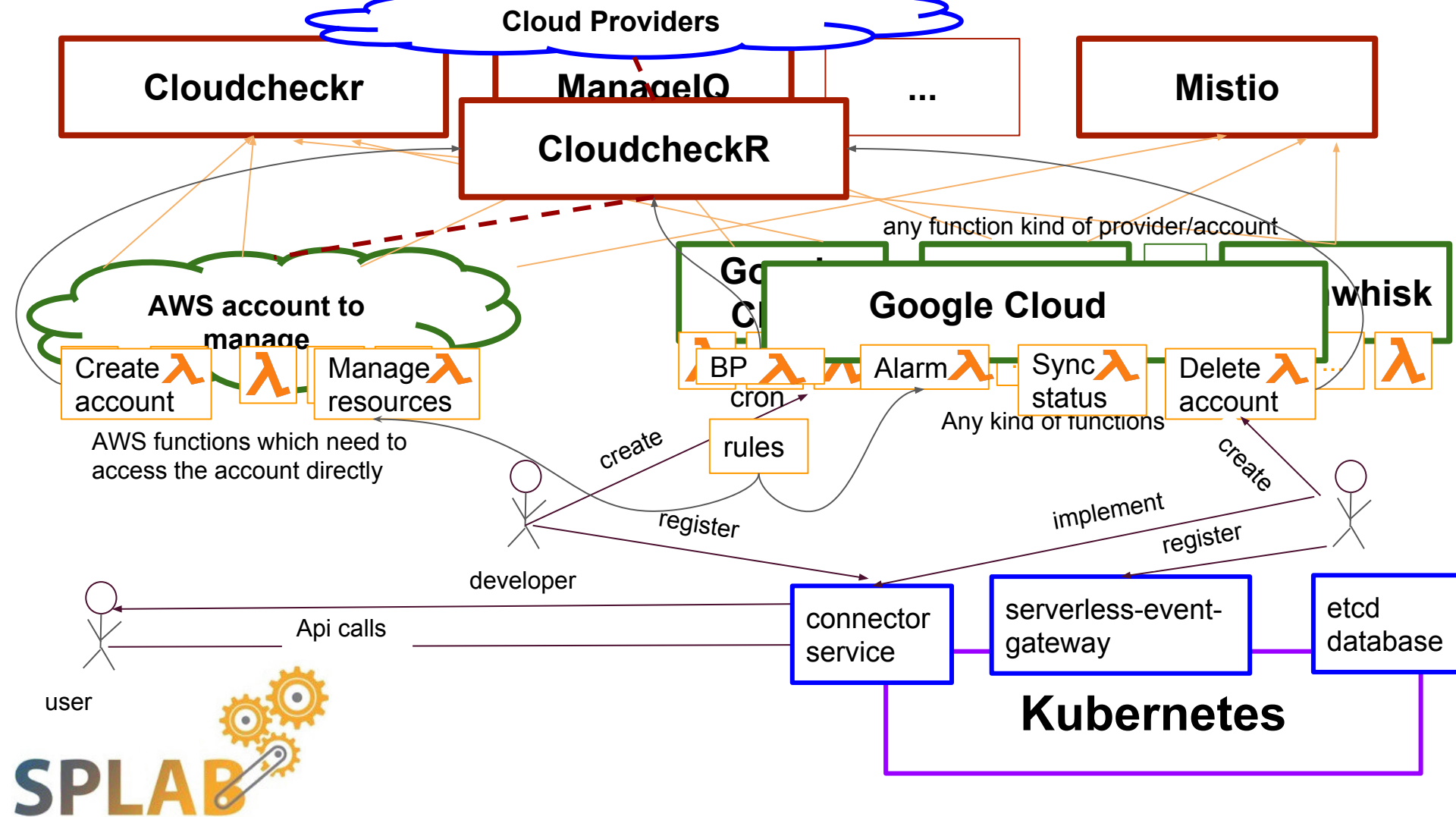
- **Why is it important ?**
 - Number of CMPs is growing constantly since multicloud is popular
 - Business models are unique for every use case
 - Cloud Management platform
- **What are the biggest players?**
 - Manageiq, api-libraries, CloudcheckR etc
- **Why there is no unified solutions?**
 - It is difficult from programming point of view to implement everything
 - Over Complication when only partly functionality is required



Scenario



- **Demo scenario:**
 - Analyze AWS account
 - Have automatic virtual resource management
 - Alarm notifications
- **Scenario problem:**
 - What are the limitations of Cloudcheckr?
 - Why do we need functions?
 - Simple extension and development
 - To secure aws
 - Why do we need event gateway?
 - Centralised endpoint
 - Support of different platforms



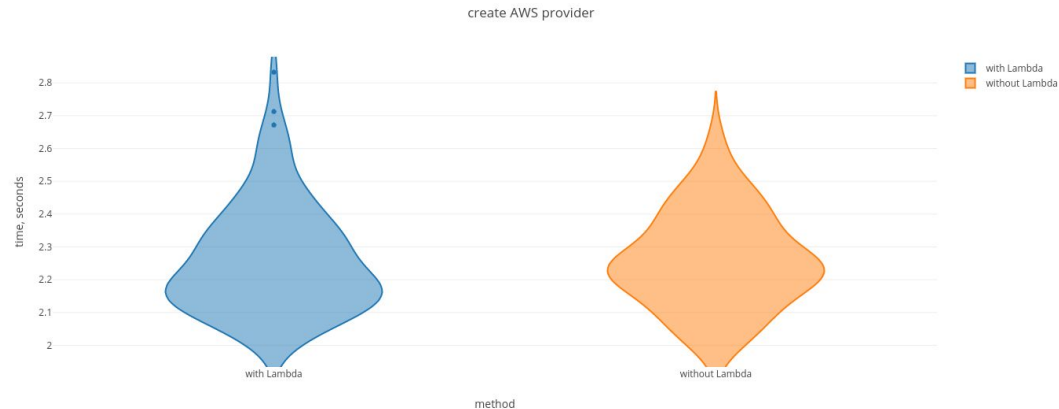
Architecture



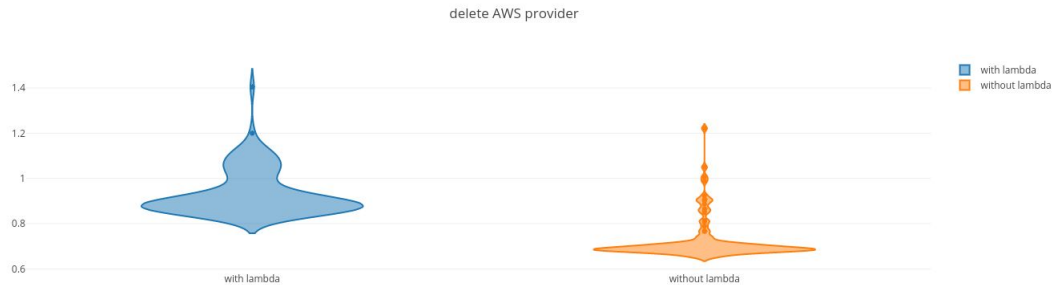
- **How do we solve the problem?**
 - Implement functions which are using sensitive data directly on the account
 - Use kubernetes as proof of concept together with event-gateway
 - Query best practices from CloudcheckR and extend the usage
- **How flexible is it?**
 - Adding new feature into centralised point just with a function implementation

DEMO(speed-up)

Results and conclusion



Create aws provider without lambda
in average faster for **2.5%**



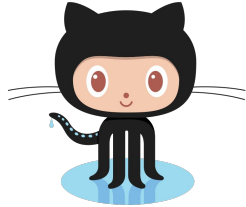
Delete aws provider without lambda
in average faster for **22%**

Conclusion



- **What are the problems:**
 - It takes time and full understanding of business model
 - Implementation might be not trivial
 - Typical lambda functions limitations
- **Advantages**
 - Easy to extend
 - Have only needed CMP functions
- **What is the main output:**
 - Security, Speed, Alarm
 - With functions we implement customized management platform
 - We use only that functions which are needed
 - Exchange flexibility to more implementation
 - Completely distributed functions

Demo links



<https://github.com/lexxito/essca2018-demo>



SWITCHdrive

[https://drive.switch.ch/index.php/s/S
GJOEKCXNydquxp?path=%2F0le
ksii%20Serhiienko](https://drive.switch.ch/index.php/s/SGJOEKCXNydquxp?path=%2F0leksii%20Serhiienko)

