

Serverless Computing for Container-based Architectures



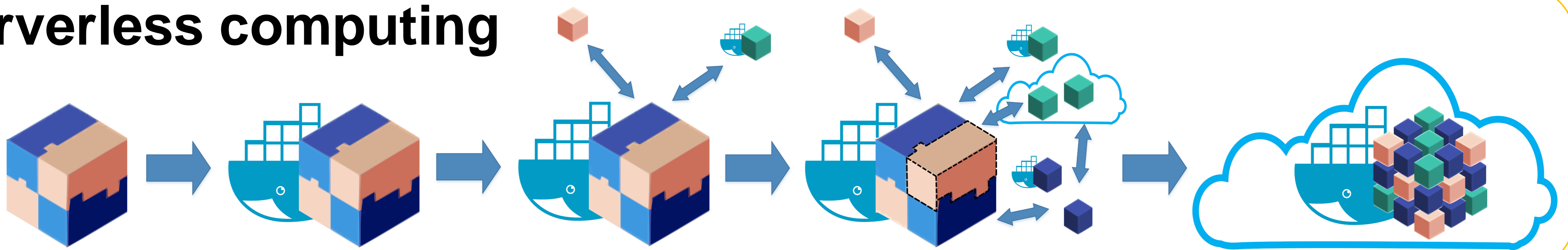
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Programa de Doctorado en Informática

Serverless computing



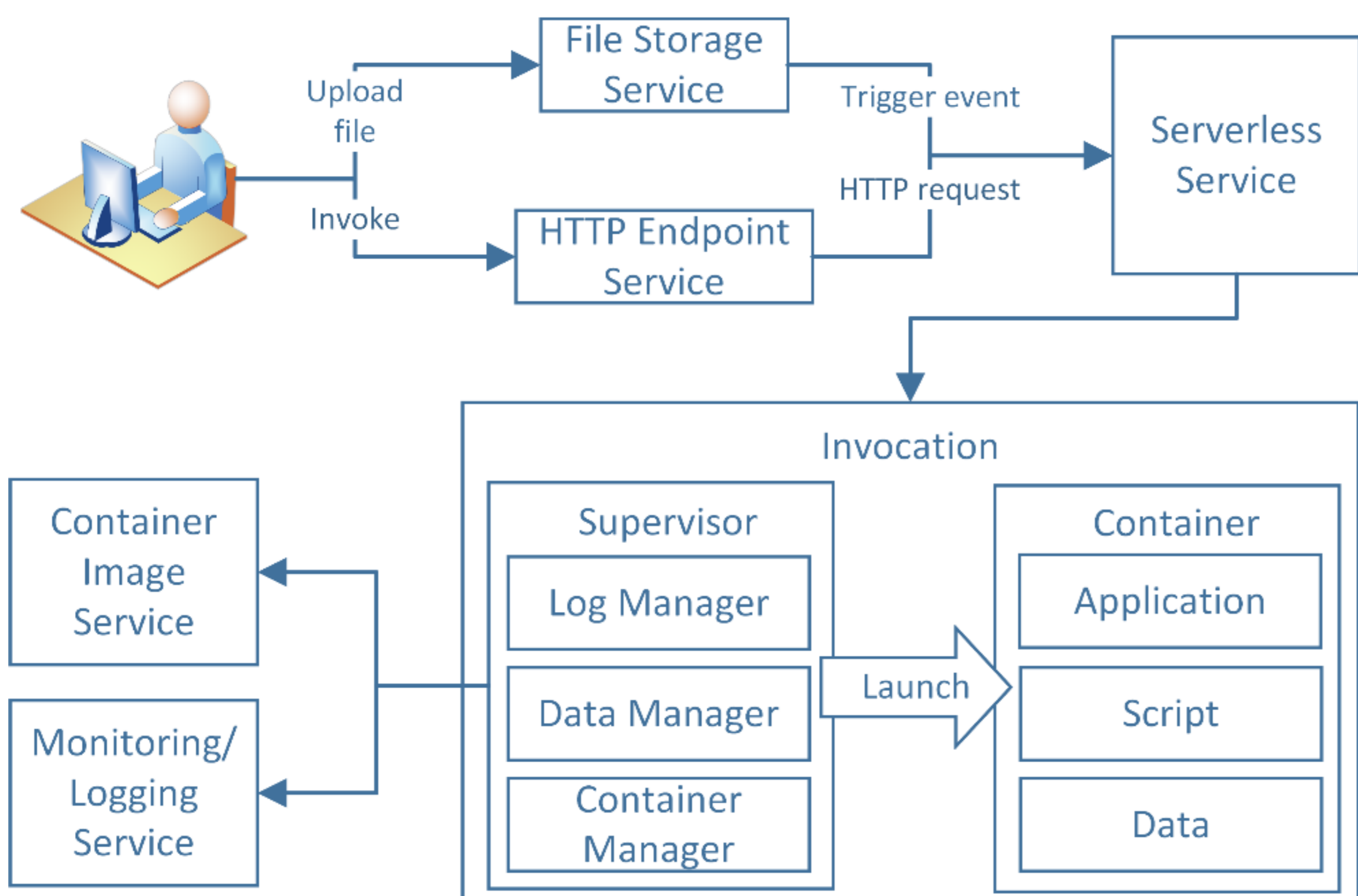
Objectives

Creation of generic serverless applications with high elasticity capabilities:

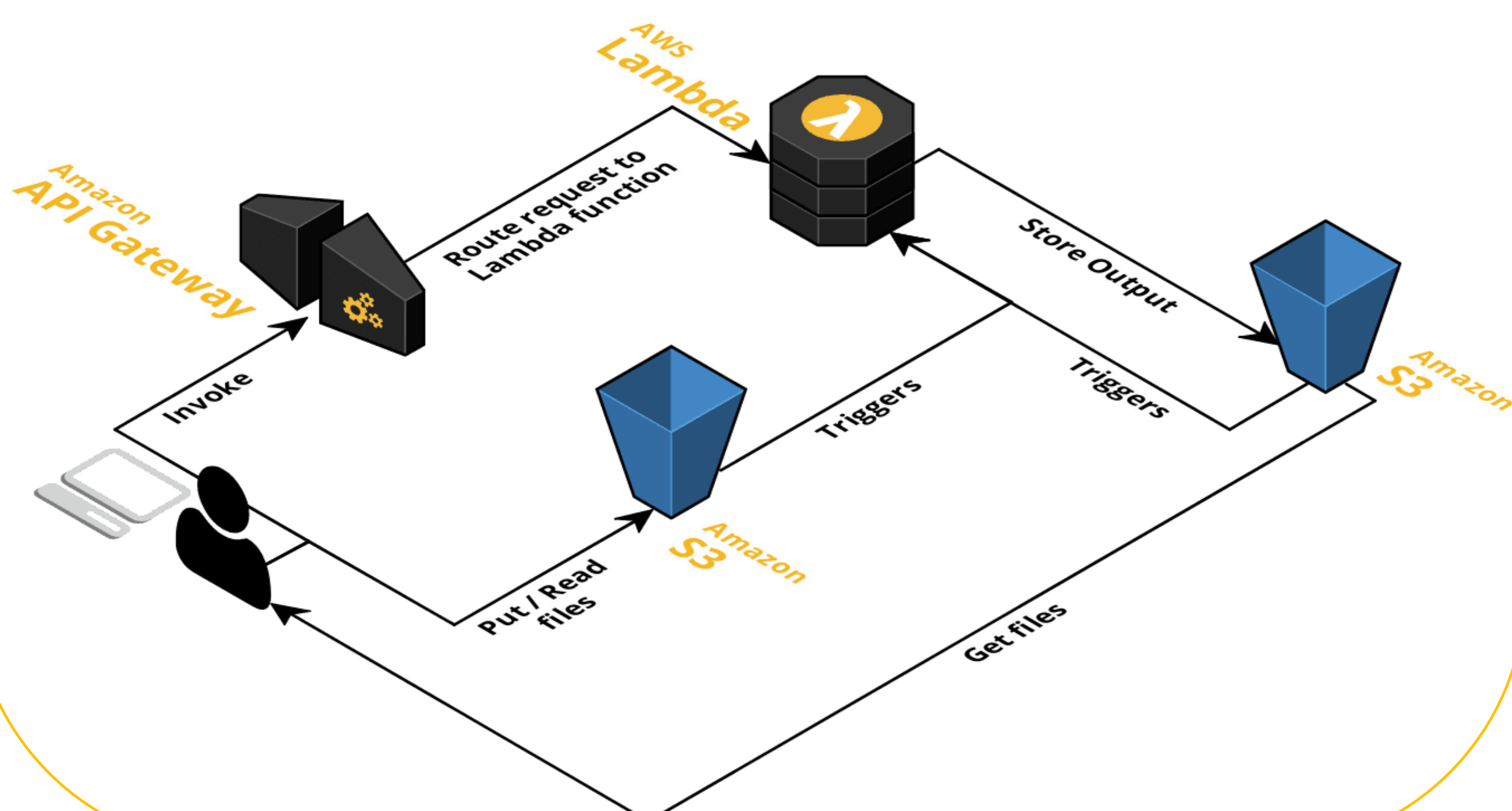
- Study the viability of container deployment in serverless infrastructures
- Create a programming model to allow high throughput computing tasks in serverless infrastructures
- Create a framework that simplifies the creation and deployment of serverless applications

Development

- Generic serverless application based on customized runtime environments

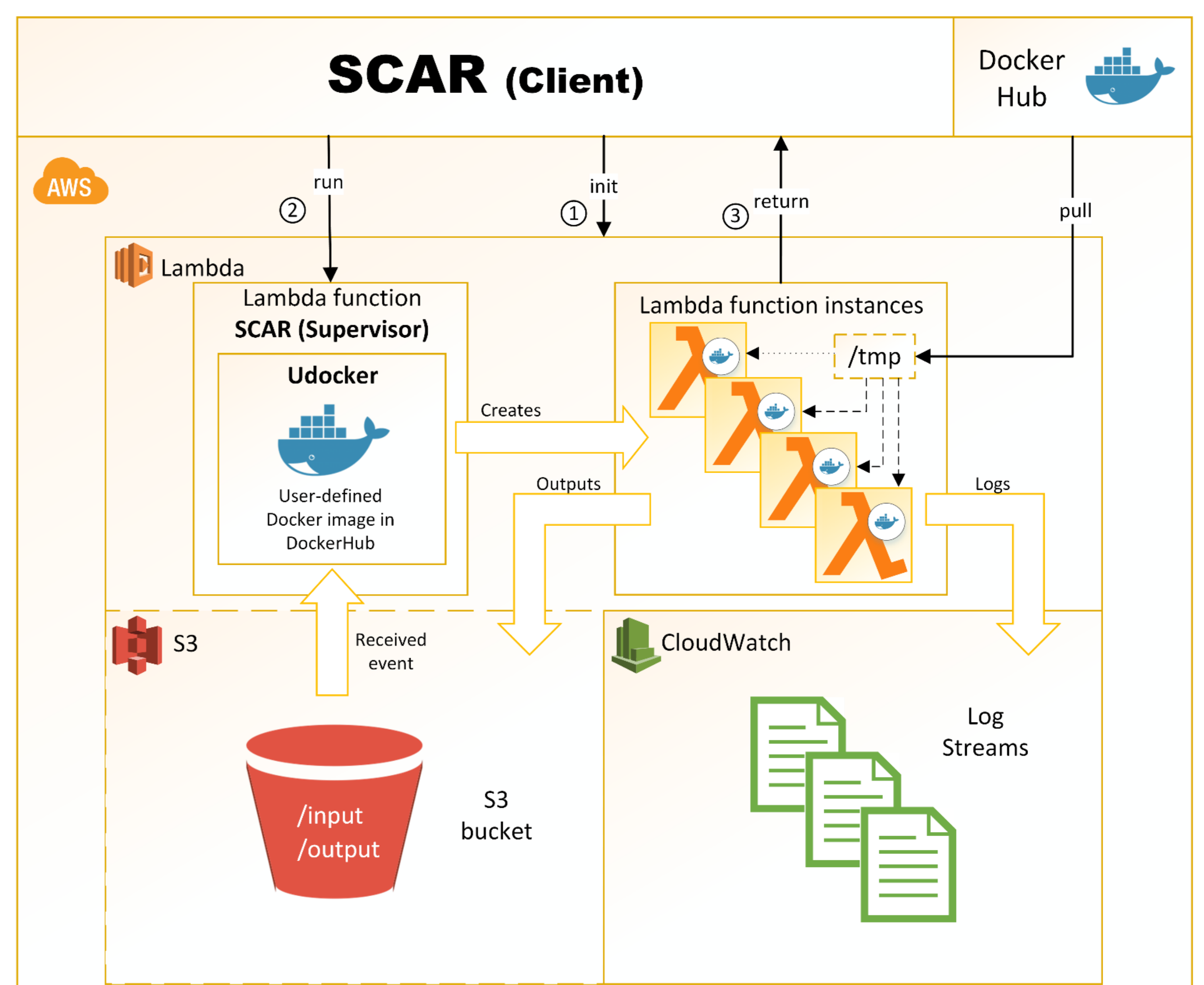


- Different approaches to process files on serverless platforms:



Results

- Framework: Serverless Computing for Container-based Architectures (SCAR)
- Several examples of application deployments in serverless environment (available in GitHub)
- Allows the usage of real-world serverless providers (AWS Lambda)
- Great community acceptance



- Future work focused on hybrid serverless infrastructures (public and on-premises Clouds)

Pérez, Alfonso, Germán Moltó, Miguel Caballer, and Amanda Calatrava. 2018. "Serverless Computing for Container-Based Architectures." *Future Generation Computer Systems* 83: 50–59. DOI: 10.1016/j.future.2018.01.022

