NANYANG TECHNOLOGICAL UNIVERSITY
SINGAPORE

School of Computer Science and Engineering
College of Engineering

Epsilon

Microservices-based scheduler for Kubernetes

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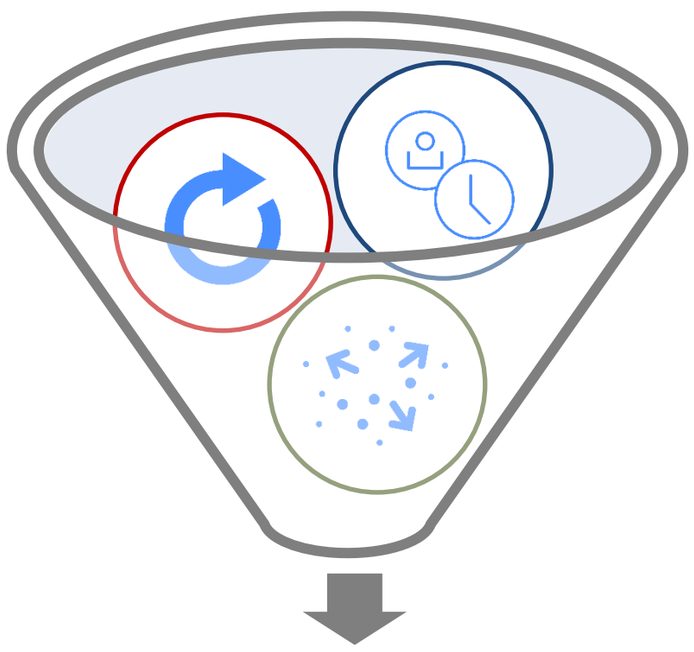
Project Objectives:

Creating a reliable, scalable and easily modifiable scheduler for Kubernetes



Epsilon

Introduction:

Epsilon is a distributed system of microservices that act as a cluster scheduler for Kubernetes. **Epsilon** intend to address the issues of current monolithic schedulers.

Issues addressed include **increasing code complexity**, **resiliency** and **scalability**.

Acknowledgement:

1. Singapore Advanced Research and Education Network (SingAREN)
2. Asia Connect Project (Asi@Connect)

Features:

Epsilon is **resilient** to multiple faults and can operate even when multiple microservices are down

Easily **scalable** to support different Kubernetes cluster sizes

Design for **parallel development,** allowing multiple development teams to work on different functionalities concurrently

Epsilon **reduces code complexity** by spreading the complexity into smaller parts allowing developers to implement modifications quickly