

UNIVERSIDAD POLITÉCNICA DE MADRID

ESCUELA TÉCNICA SUPERIOR DE INGENIERÍA DE SISTEMAS INFORMÁTICOS

MÁSTER EN SOFTWARE CRAFTSMANSHIP

PROYECTO FIN DE MÁSTER

**Comparativa de frameworks Java para el desarrollo
de aplicaciones con arquitectura de microservicios
desplegados en Kubernetes**

Universidad
Politécnica
de Madrid

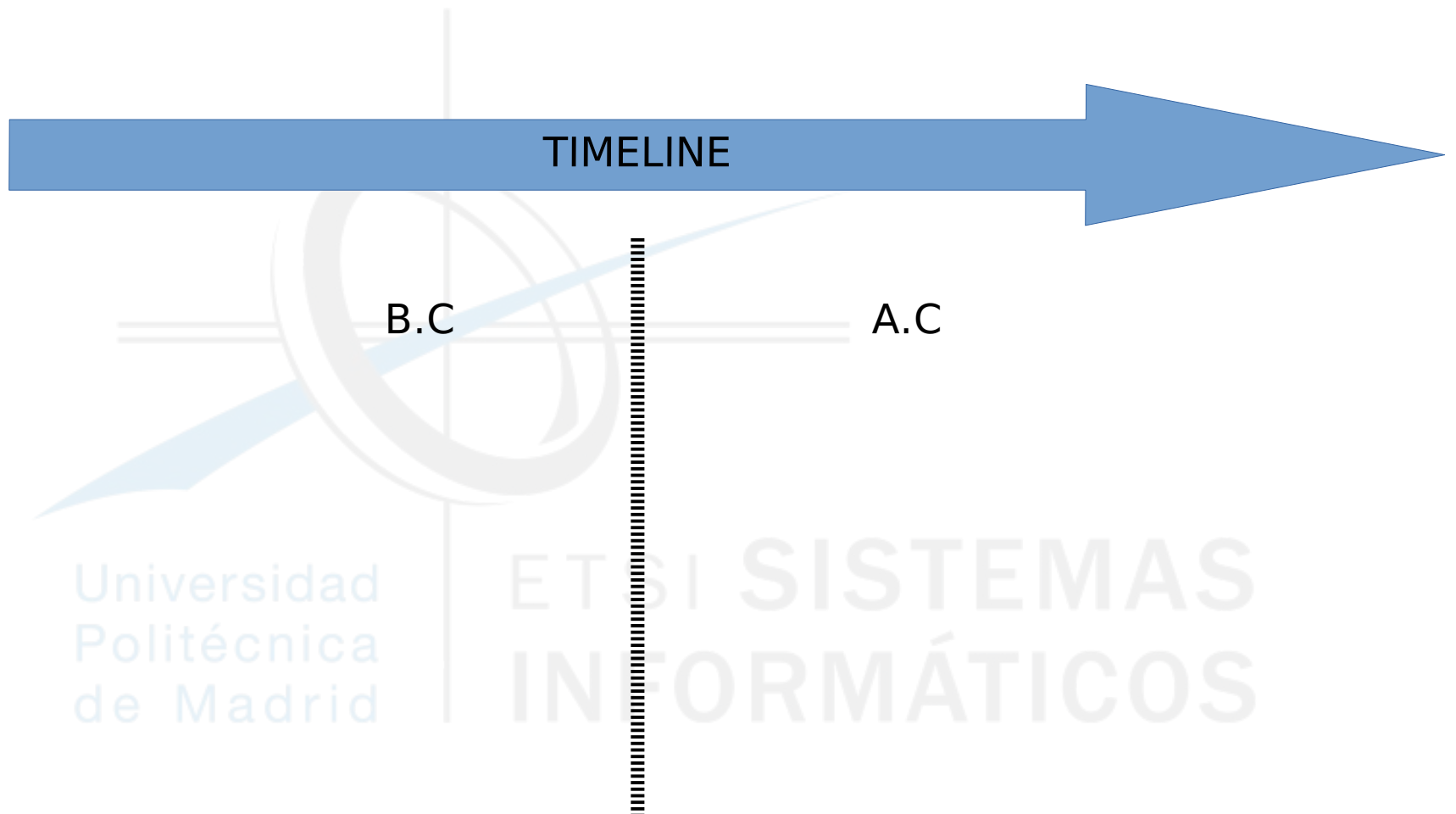
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Junio-2019

Introducción



Introducción



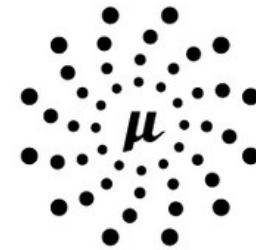
TIMELINE

B.C

A.C

Before Cloud

After Cloud



M I C R O N A U T



- Spring + default configuration
- Cloud Adaptation
- Run time proxy



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- Run time proxy

- New framework
- “Natively cloud native”
- “Ahead of time compiler”



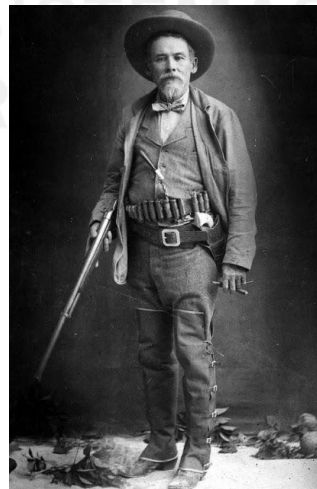
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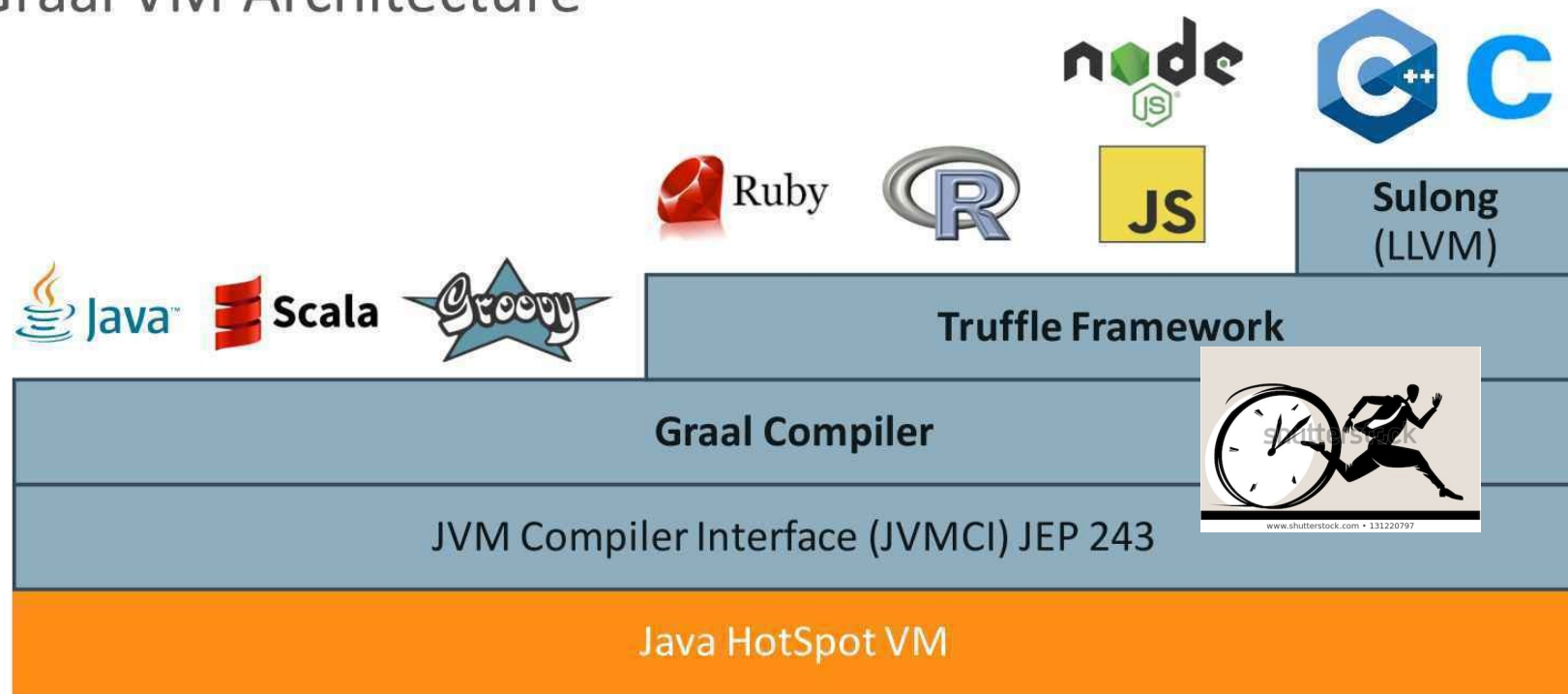
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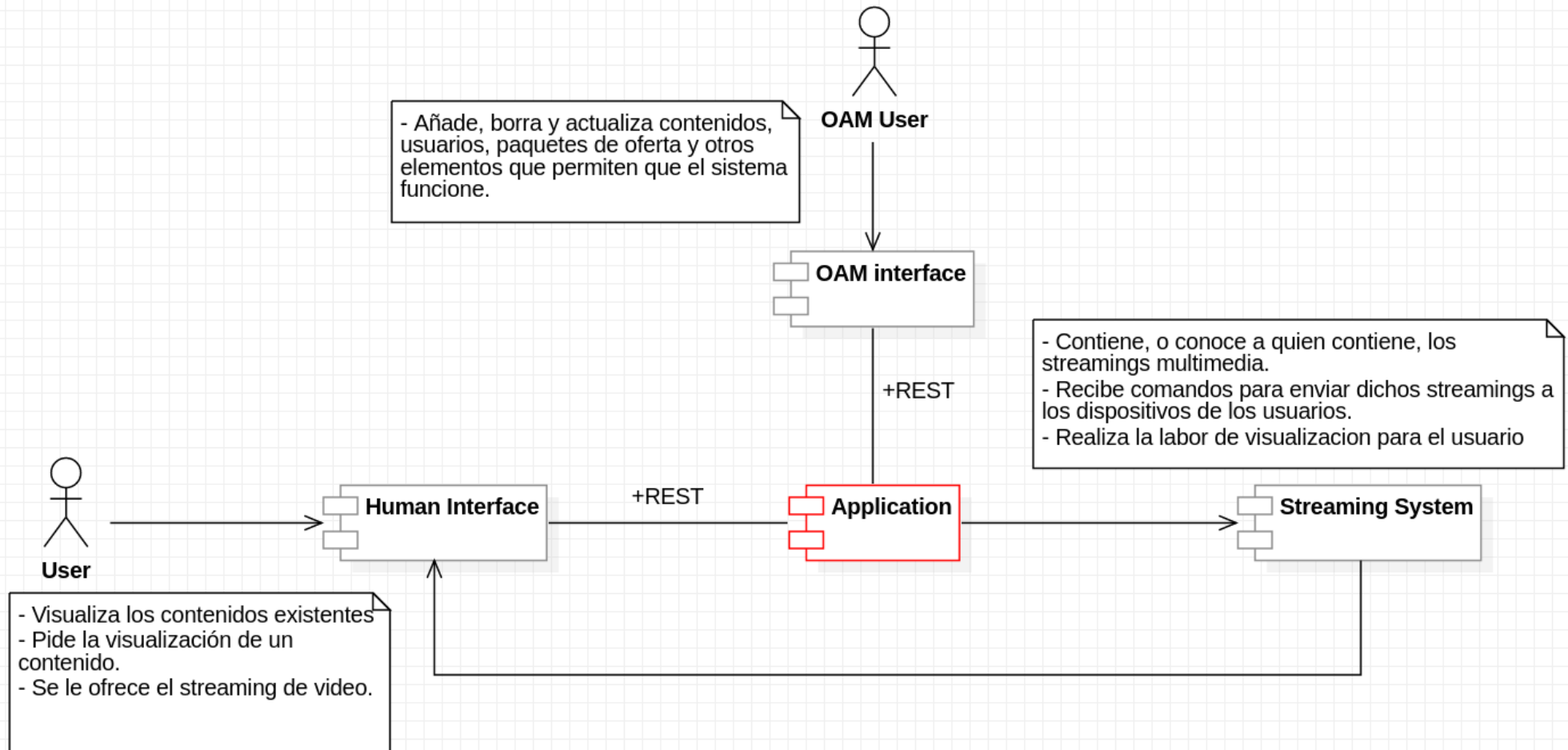
MICRONAUT™
GraalVM™

GraalVM™

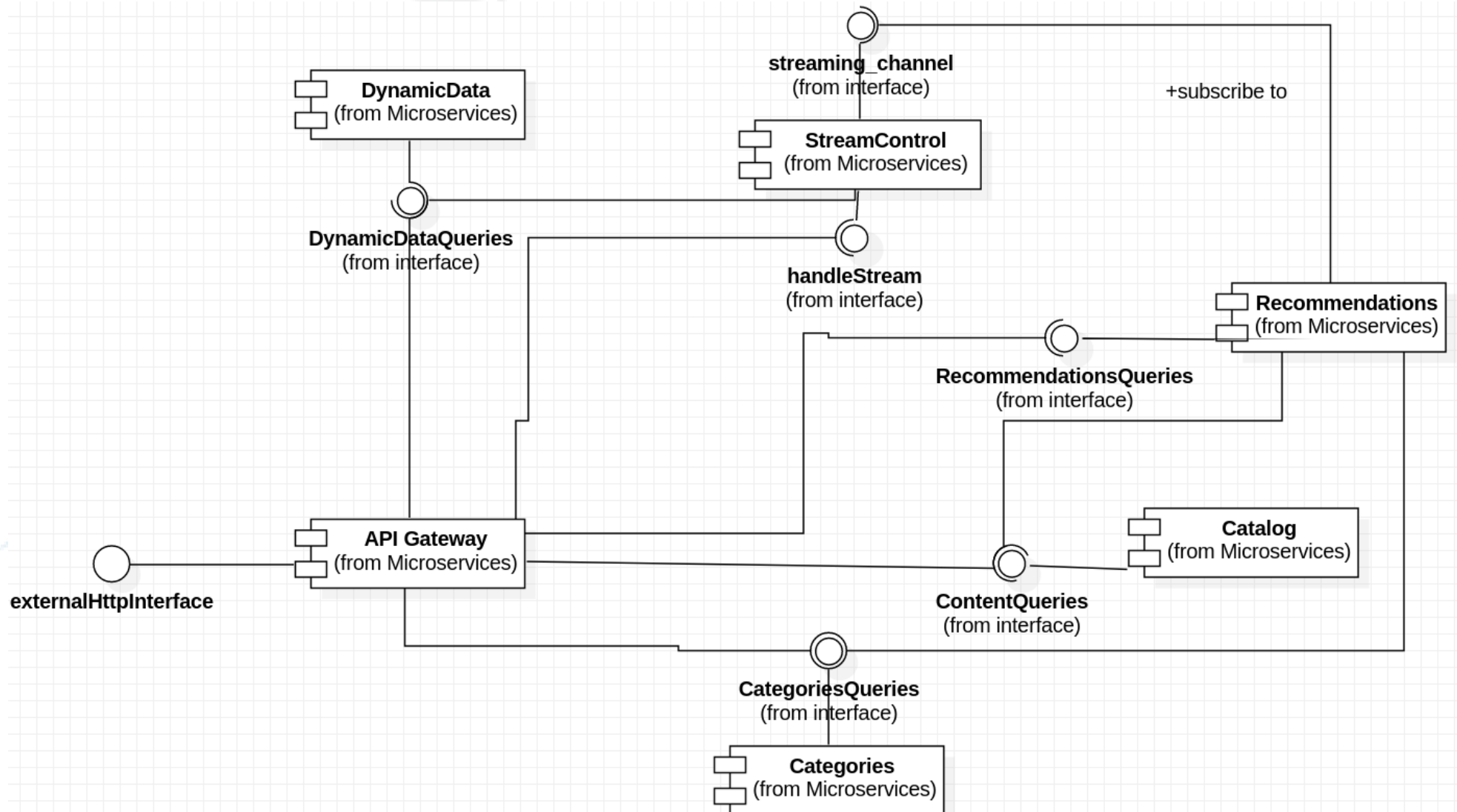
Graal VM Architecture



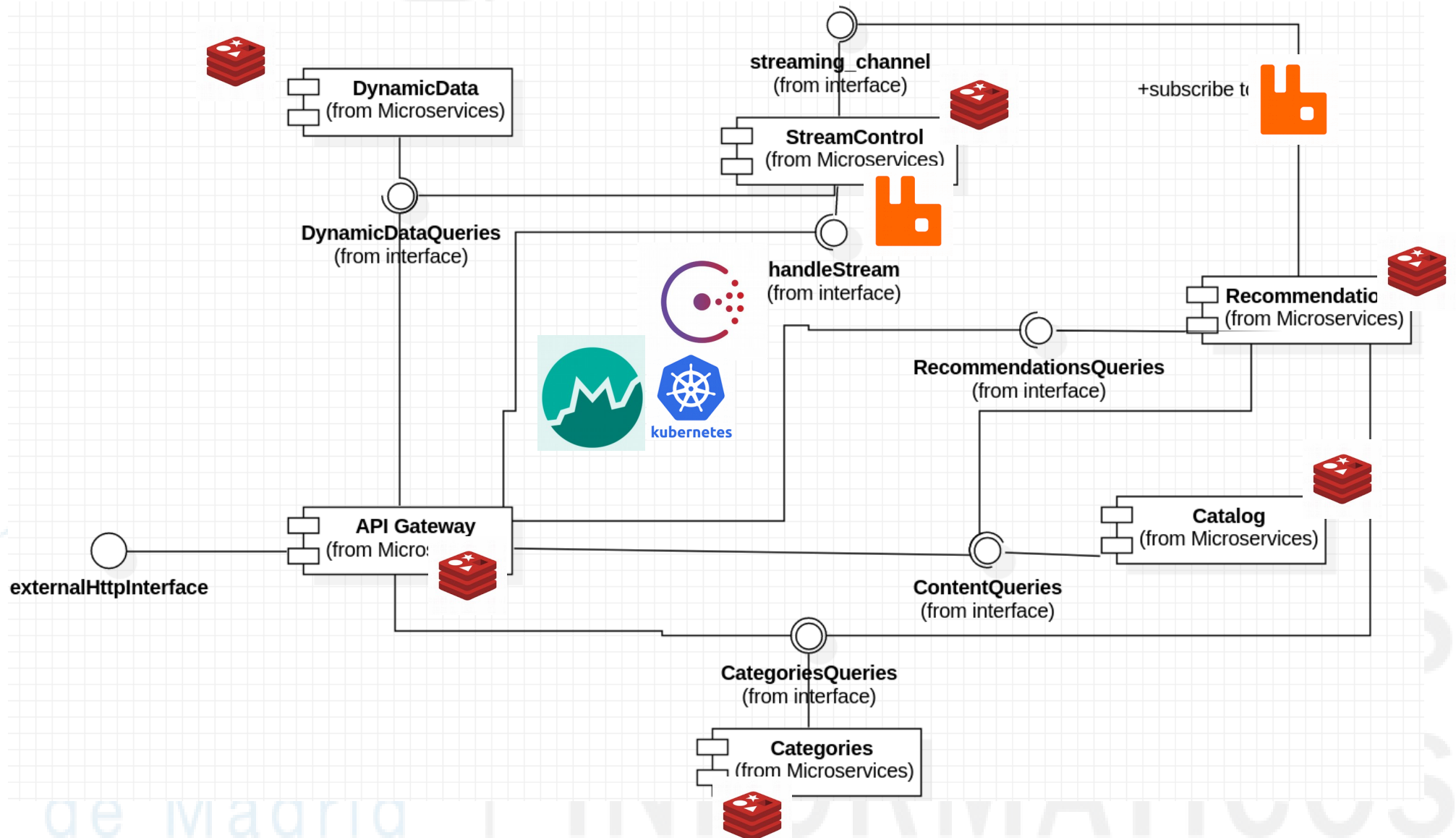
Aplicación



Aplicación



Aplicación



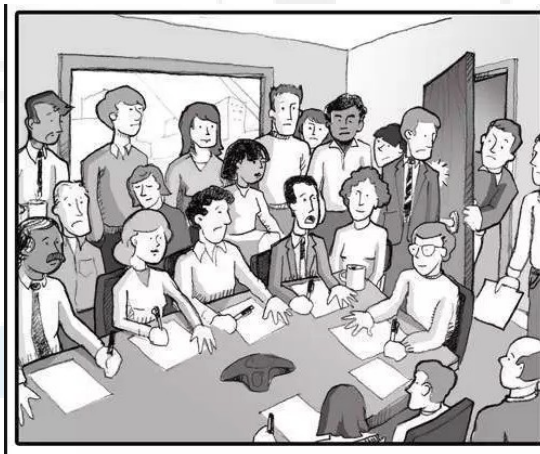
Comparativa



Documentación



Comparativa



Comunidad



3pp/cloud support



Comparativa



Facilidad desarrollo

```
@Configuration
public class RedisConfig {

    @Bean
    public RedisStandaloneConfiguration redisStandaloneConfiguration() {
        RedisStandaloneConfiguration redisStandaloneConfiguration = new RedisStandaloneConfiguration();

        redisStandaloneConfiguration.setHostName("recommendations-db");
        redisStandaloneConfiguration.setPort(6379);

        redisStandaloneConfiguration.setPassword(RedisPassword.of("recommendations-passwd"));
        return redisStandaloneConfiguration;
    }

    @Bean
    public LettuceConnectionFactory jedisConnectionFactory(RedisStandaloneConfiguration configuration) {
        return new LettuceConnectionFactory(configuration);
    }

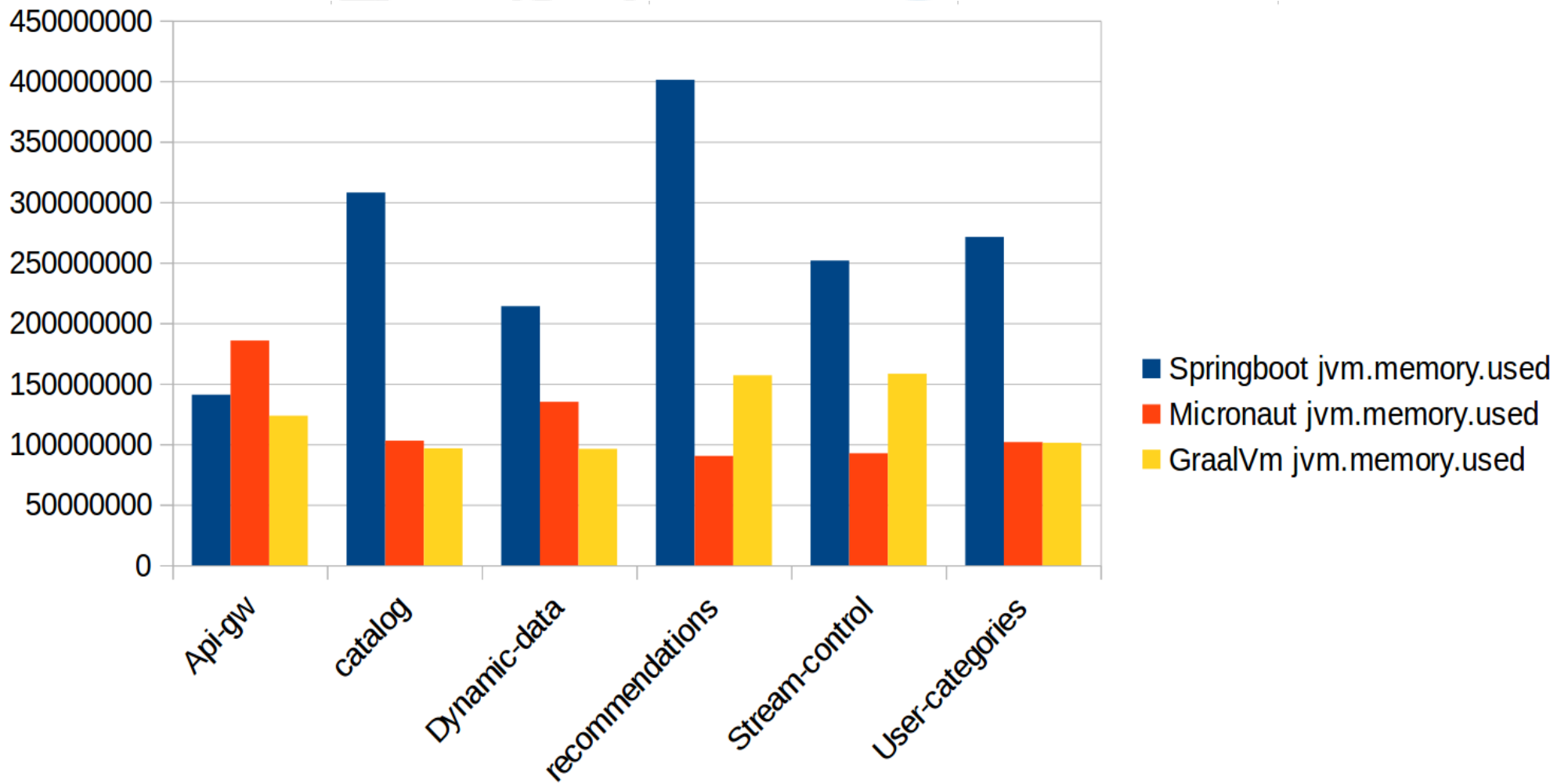
    @Bean
    @ConditionalOnMissingBean(name = "redisTemplate")
    @Primary
    public RedisTemplate<String, Object> redisTemplate(RedisConnectionFactory factory) {

        final RedisTemplate<String, Object> template = new RedisTemplate<>();
        template.setConnectionFactory(factory);
        template.setValueSerializer(new GenericJackson2JsonRedisSerializer());
        return template;
    }
}
```



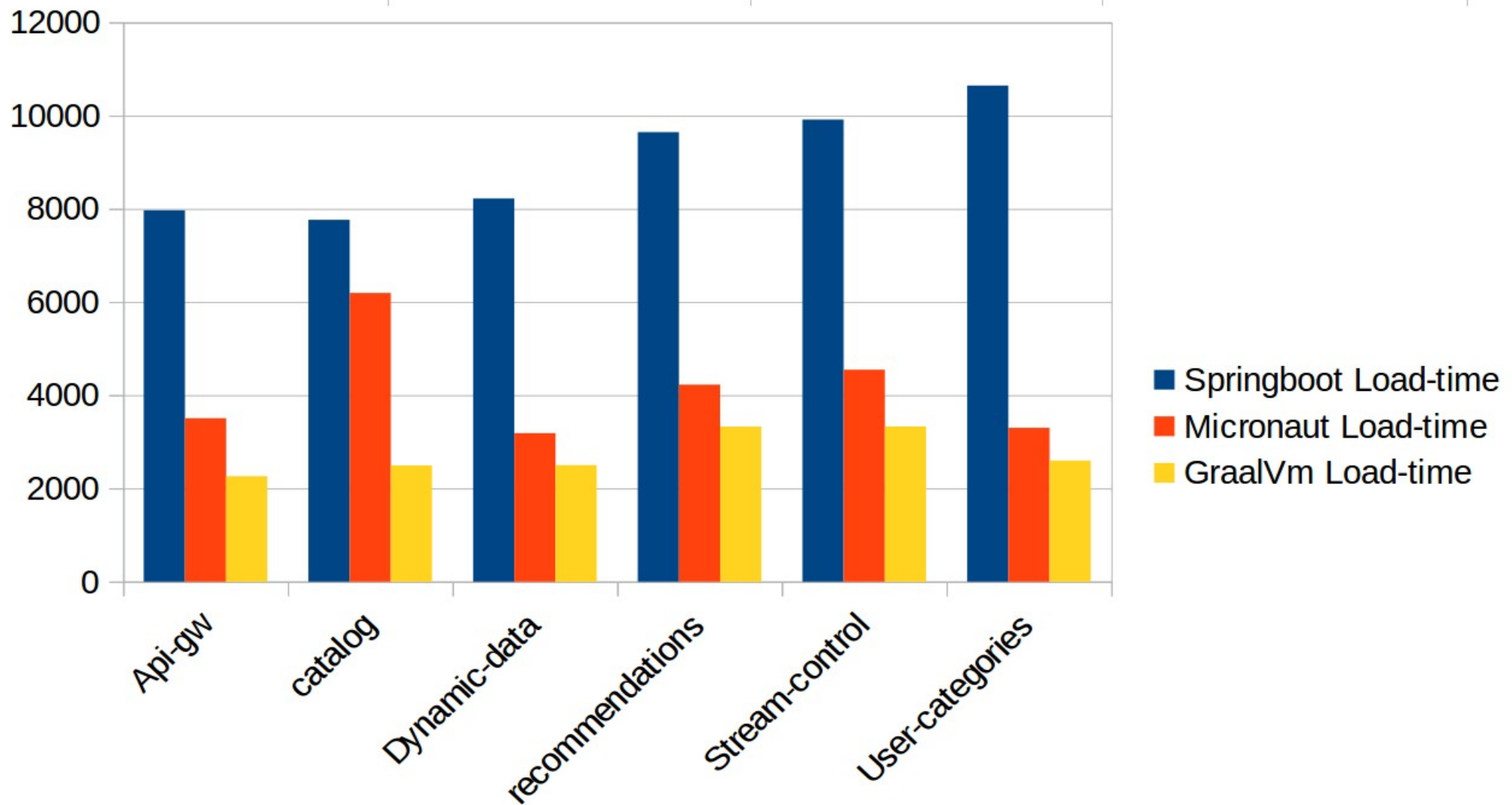
Performance

Memoria

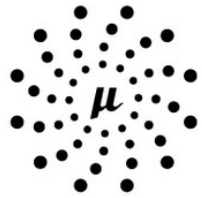


Performance

Load-Time



Conclusiones



MICRONAUT

¿Alternativa razonable?

MICRONAUT™
GraalVM™

Inestable



Incompleto

Mejora



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TURNO DE PREGUNAS

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