Versioning and Releasing an Application Composed of REST Microservices
Software can make the world a better place.

-Myrle Krantz
{REST}

Apache Fineract
{REST}
{REST}
{REST}
Know your customer

Audit

Portfolio

Reporting

Organization

Accounting

Identity
(definitions)
microservice

- Elastic
- Resilient
- Composable
- Minimal
- Complete
microservice

(definitions)

- Client-Server
- Stateless
- Cacheable
{REST}
compatible

A \subseteq B

(definitions)
compatible

incompatible

A \not\subseteq B
versioning 3.0.10
3.0.10

{MAJOR}.{MINOR}.{PATCH}

(http://semver.org/)

semantic versioning
A/B deployment

A

B

3.0.10

3.0.11

(definitions)

A/B deployment
(scenarios)
single microservice

A \subseteq B

3.0.10

3.1.0

A

B

(scenarios)

single microservice

simple upgrade
single microservice
simple upgrade
single microservice
API break

(scenarios)
single microservice
API break
single microservice persistency break
dependent microservices
simple upgrade

(senarios)
dependent microservices

simple upgrade

(scenarios)
dependent microservices

API break

(scenarios)
dependent microservices
API break

(scenarios)
dependent microservices persistency break

(scenarios)
(release composition)
contributors must adjust the
whole landscape
when they need to make breaking changes
releases are composed of the newest version of every service
newest version
each microservice has its own individual release cycle
individual release cycle
each release contains some but not all microservices
some but not all
release contains some microservices in older versions based on their compatibility restraints
some but not all
questions?
Sources:

- [https://en.wikipedia.org/wiki/Microservices](https://en.wikipedia.org/wiki/Microservices)
- [https://docs.cloudfoundry.org/devguide/deploy-apps/blue-green.html](https://docs.cloudfoundry.org/devguide/deploy-apps/blue-green.html)
- [http://semver.org/](http://semver.org/)
- [https://www.troyhunt.com/your-api-versioning-is-wrong-which-is/](https://www.troyhunt.com/your-api-versioning-is-wrong-which-is/)