

1. Document history

Version	Description	Date	Created by	Approved by
1.0.0	Initial version	2019-07-07	Rodrigo Pio	<PM>

2. References

[TogglerService-Exercise.pdf](#) (original document sent by client)
[Toggler - Technical Specification \(v1.0.0\).docx](#)

3. Context and objectives

XPTO company has a digital platform built under SOA that currently contains 62 services/applications inside it. When a team needs to implement a new feature in his service, they implement it under a toggle so that the feature can be turned on or off as a fail-safe. To make a change in the toggle value on a production environment, the team needs to change it in a static file and restart the service/application in each server so that the changes take effect.

XPTO company wants to change the system and is asking you to implement a new REST Web Api in the technology of your choice (preferably C# or Java) that could manage in real-time and dynamically the platform toggles.

4. Requirements

#	Requirement	Description
1	Create a toggle	This service must be able to register new toggles that can be used by one or more services or applications with a hierarchy.
2	Status query	When the services/applications request their toggles, they will only provide their identifiers and version.
3	Documentation	The company has multiple development teams around the world, and with the different time-zones they will not be able to be in contact with you, so the service must have a clear documentation for them to use.
4	Decoupling	There will be a team that will maintain this service, and they must be able to easily change the code and deploy this service with confidence that they will not break any contract with the other services in the platform.

5. Use cases

#	Use case	Description
1	Create toggle for all services and applications	A new toggle must be created for all services and applications. The toggle must be already "on".
2	Create toggle for one specific service or application	A new toggle must be created for service ABC, which will override a toggle with the same identifier (if present). The toggle must be already "off".
3	Create toggle for all services and applications except just one	A new toggle must be created for all services and applications, except service ABC. The toggle must be already "on".

4	Turn toggle on for all services and applications	A toggle must be turned “on” for all services and applications. The toggle is actually “off”.
5	Turn toggle off for a specific service or application	A toggle must be turned “on” for service ABC. The toggle is actually “on”.
6	Turn toggle off for a specific service or application	A toggle must be turned “on” for service ABC. The toggle is already “off”.
7	Query the status of a toggle	The status of a toggle must be queried. The toggle is currently “off”.
8	Query the status of a toggle for a specific service or application	The status of a toggle must be queried for a specific service or application for a specific version. The toggle is actually “off”.