

Istio-redirector: the way to go to manage thousands of HTTP redirections

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#IstioCon

Why do we need redirections?

1

BEFORE : /bus/routes/**bruxelles/lille**



Arrêts de bus à Bruxelles et Lille



New

/bus/routes/**bruxelles-1/lille-3**



Arrêts de bus à Bruxelles et Lille

2

AFTER

/bus/routes/**bruxelles-1/lille-3**



Arrêts de bus à Bruxelles et Lille

Old - 404 Page
/bus/routes/**bruxelles/lille**



Istio-redirector
301-redirection from
/bus/routes/**bruxelles/lille**
to /bus/routes/**bruxelles-1/lille-3**

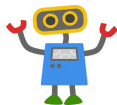
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And the result is

Happy users:

I will be automatically redirected to the new page instead of seeing an error page



Happy Googlebot:

I don't have to crawl 2 URLs
I don't see an error page

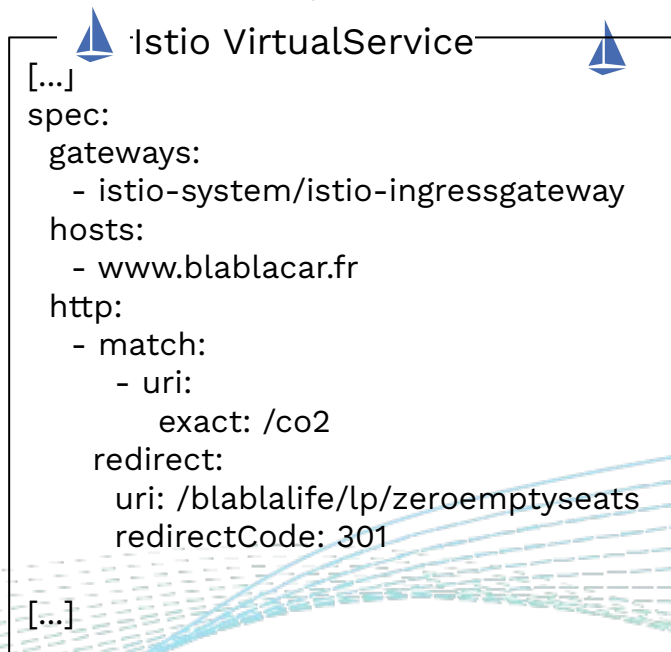
Happy SEO specialist:

My new URL inherits SEO popularity from the old ones and I don't have to start from scratch
New URLs are shown in the Search Engine Results



How do we use Istio?

Our infrastructure is deployed on GKE, with GCLB and Istio IngressGateway



Ease the work of our SEO Specialist

By creating a tool to ease the transition from a **.csv file** to an **Istio VirtualService** file.

- Golang service
 - Convert .csv to VirtualService
 - Open Pull Request on Github
 - Fetch info from Kubernetes cluster
 - Expose an API to be used with REST or a CLI
- React.js SPA
 - Allow non developers to use the API
 - Analyze existing redirections without technical skills

The screenshot shows a web application titled "Istio Redirector" with a dark navigation bar containing "Dashboard", "Virtual Services", and "Documentation". The main content area has a title "Istio Redirector" and several input fields: "Redirection type" (dropdown with "3xx"), "Environment" (dropdown with "prod-1"), "Namespace" (dropdown with "spa"), and "Redirection group name" (text input with "faq-redirections"). Below these are two text inputs for "Fallback" and "Hosts", both with placeholder text "Leave empty if not needed" and "Leave empty if in the .csv" respectively. A light blue box contains instructions: "Expected .csv file format: from,to,status" and "Example: /my-page,/my-new-page,301". Below this, a message states: "This will generate a single VirtualService, in the cluster prod-1, in the namespace spa. It will have the name faq-redirections." At the bottom, there is a dashed box with the text "Upload your .csv file with the redirections".

How does it work ?

Creating the .csv

Importing the file

Generating the
Istio configuration

Deploy to
production

1

2

3

4



SEO specialist creates the file manually

Matching old URLs with the new ones based on different tools (crawler, etc..)

	A	B	C
1	Current URL	New URL	Status code
2	https://www.blablacar.fr/bus/destinations/agen	https://www.blablacar.fr/bus/destinations/agen-2	301
3	https://www.blablacar.fr/bus/destinations/aix-en-provence	https://www.blablacar.fr/bus/destinations/aix-en-provence-2	301
4	https://www.blablacar.fr/bus/destinations/amsterdam	https://www.blablacar.fr/bus/destinations/amsterdam-4	301
5	https://www.blablacar.fr/bus/destinations/angers	https://www.blablacar.fr/bus/destinations/angers-2	301
6	https://www.blablacar.fr/bus/destinations/angouleme	https://www.blablacar.fr/bus/destinations/angouleme-3	301
7	https://www.blablacar.fr/bus/destinations/annecy	https://www.blablacar.fr/bus/destinations/annecy-2	301
8	https://www.blablacar.fr/bus/destinations/antibes	https://www.blablacar.fr/bus/destinations/antibes-3	301
9	https://www.blablacar.fr/bus/destinations/anvers	https://www.blablacar.fr/bus/destinations/anvers-1	301
10	https://www.blablacar.fr/bus/destinations/avignon	https://www.blablacar.fr/bus/destinations/avignon-2	301
11	https://www.blablacar.fr/bus/destinations/barcelone	https://www.blablacar.fr/bus/destinations/barcelone-1	301
12	https://www.blablacar.fr/bus/destinations/bayonne	https://www.blablacar.fr/bus/destinations/bayonne-2	301
13	https://www.blablacar.fr/bus/destinations/benavente	https://www.blablacar.fr/bus/destinations/benavente-4	301

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How does it work ?

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Istio Redirector - 1358 founds

☐ Push to GitHub

Redirection type:

Environment:

Namespace:

Redirection group name:

Fallback ~ /bus(\$/.*):

Destination host:

STATUS CODE	SOURCE URL	TARGET URL
301	https://www.blablacar.fr/bus/destinations/a-caniza	https://www.blablacar.fr/bus/destinations/a-caniza-2
301	https://www.blablacar.fr/bus/destinations/a-gudina	https://www.blablacar.fr/bus/destinations/a-gudina-2
301	https://www.blablacar.fr/bus/destinations/a-rua	https://www.blablacar.fr/bus/destinations/a-rua-6
301	https://www.blablacar.fr/bus/destinations/a-rua	https://www.blablacar.fr/bus/destinations/a-rua-11



How does it work ?



Istio-redirector takes the .csv files and generates the Istio VirtualService files.

Then, it automatically creates the Pull Request on GitHub on our GitOps repo



How does it work ?



The files are reviewed, merged and deployed!



**>26k redirections are now running in
production without any impact on
performances!**





Check it out on Github

<https://github.com/blablacar/istio-redirector>

And leave a star 😊

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How can we use istio-redirector ?

The GitHub repository host also a HelmChart that you can use to deploy istio-redirector on your own cluster.

Feel free to reach to me for any questions if you want to implement it in your company!



Thank you!

@etifontaine

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