



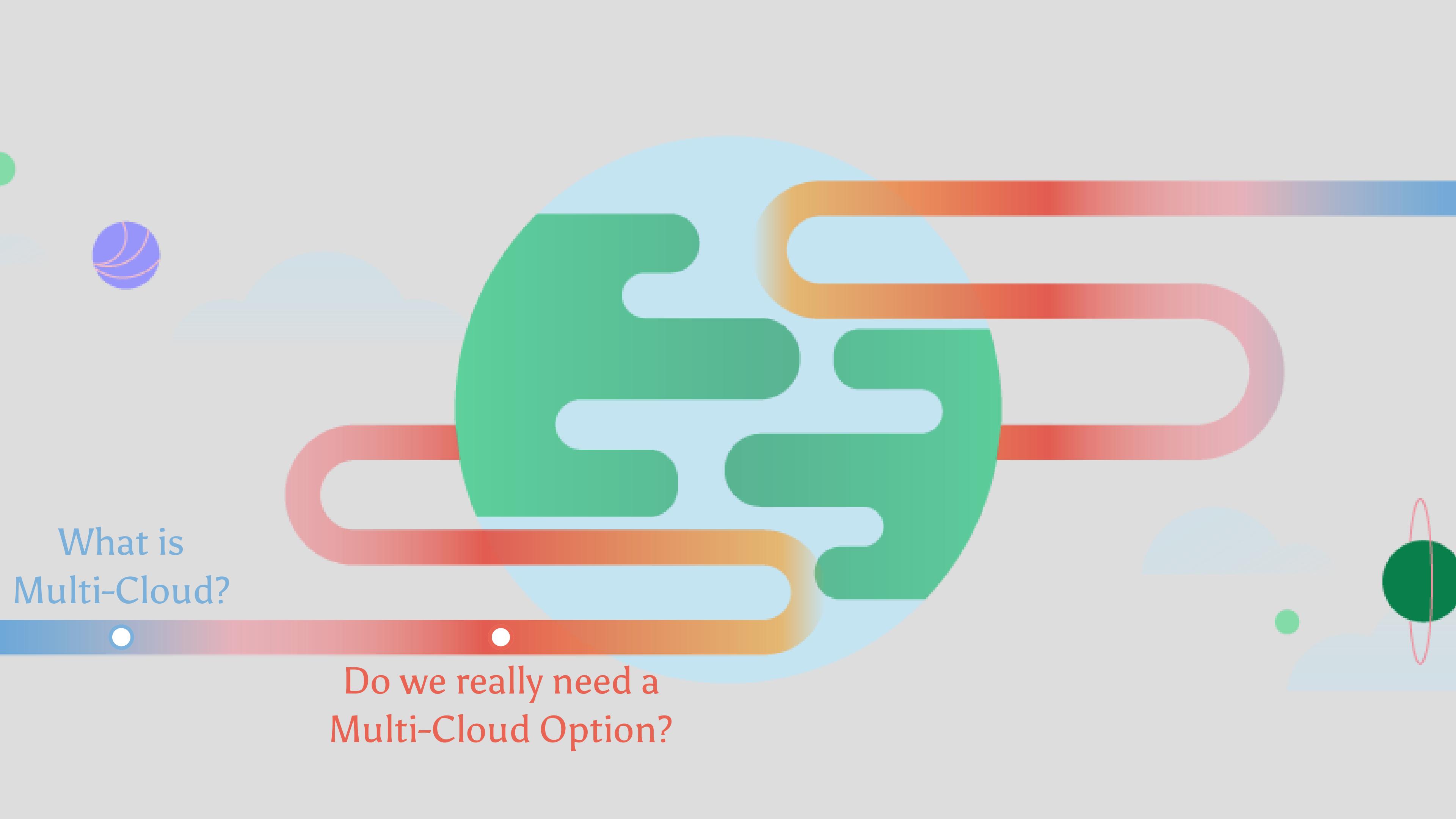
Multi-Cloud Magic:

Leveraging Multi-Cloud Clusters in the Real World



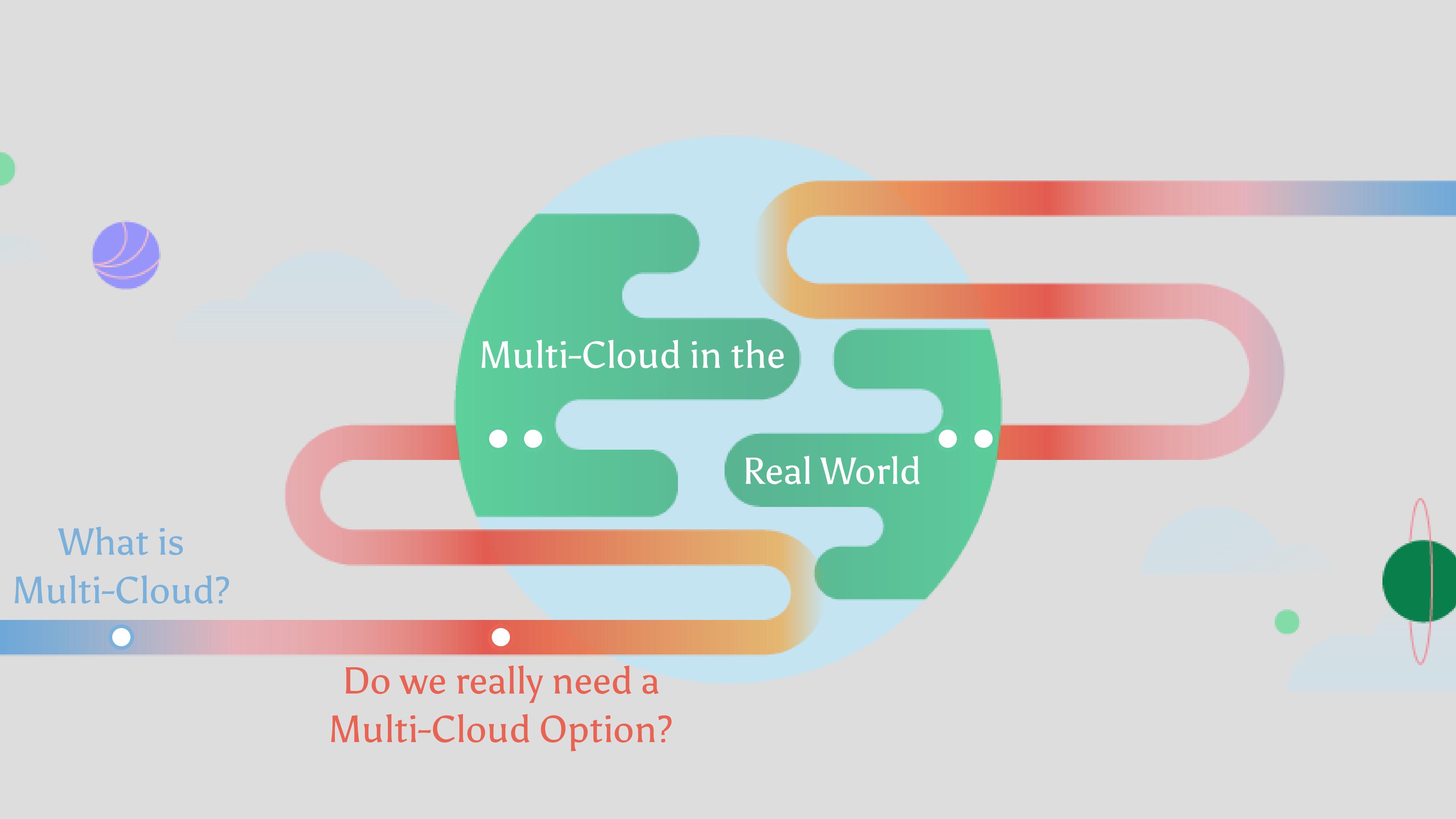
What is Multi-Cloud?





What is
Multi-Cloud?

Do we really need a
Multi-Cloud Option?

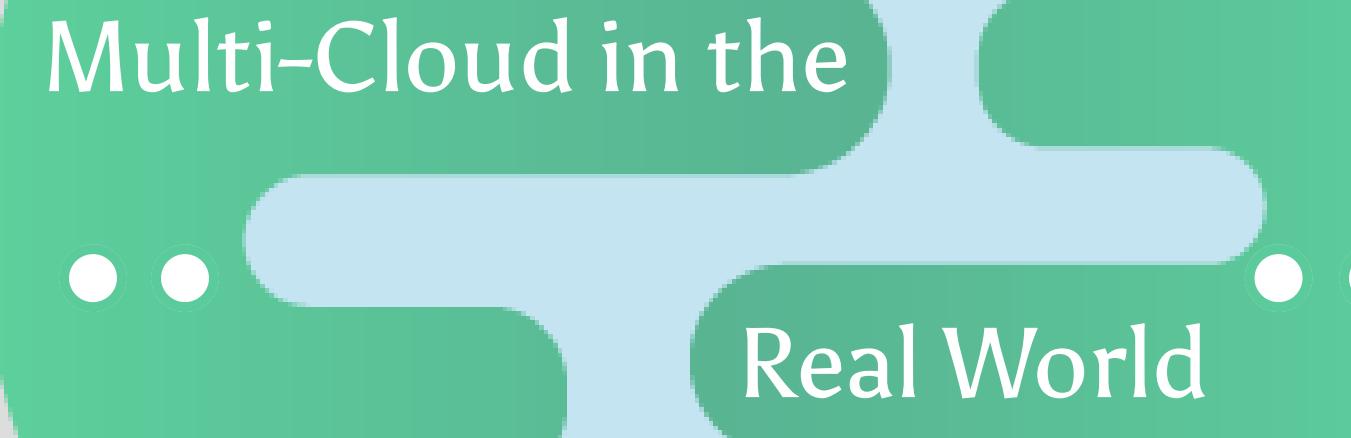


What is
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Do we really need a
Multi-Cloud Option?

Multi-Cloud in the
Real World

Let's set up a
Multi-Cloud Cluster!



Multi-Cloud in the
Real World

What is
Multi-Cloud?

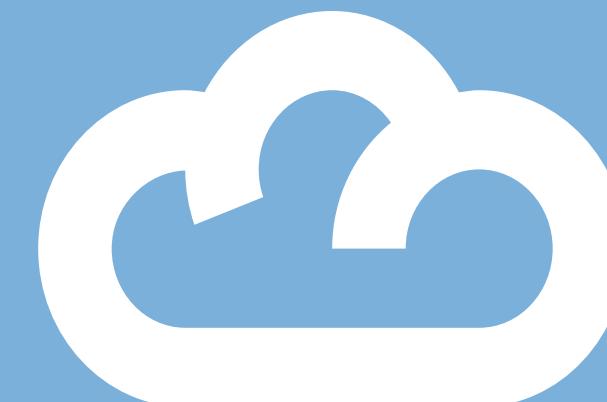
Do we really need a
Multi-Cloud Option?



What is Multi-Cloud?

Multi-Cloud

Any single architecture that
uses two or more cloud
providers



Multi-Cloud

Mixture of clouds, public and private



Do we need a
Multi-Cloud Option?

W I R E D

The Catch-22 That Broke the Internet

A Google Cloud outage that knocked huge portions of the internet offline also blocked access to the tools Google needed to fix it.

BRIAN BARRETT

SECURITY

06.07.2019 12:26 PM



When Things go Awry in the Cloud: A Closer Look at a Recent AWS Outage

29th OCTOBER 2019



CIO DIVE

Understanding Google Cloud's recent service hiccups

By Roberto Torres

Published March 27, 2020



Coronavirus: Microsoft Azure suffers datacentre capacity shortages in Europe

Microsoft is working to “expedite” additional datacentre capacity after reports of users struggling to access resources due to coronavirus demand surge. But how easy will that be amid a global pandemic?

By Caroline Donnelly, Senior Editor, UK Published: 07 Apr 2020 9:02



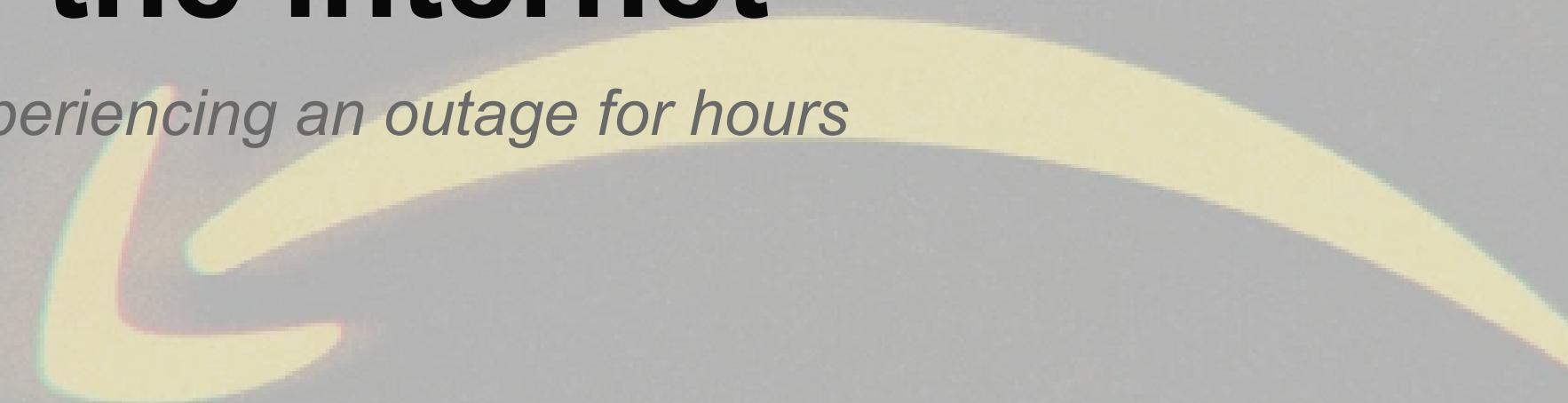
Azure Goes Down in APAC, as Infrastructure Bottlenecks Continue to Trouble Microsoft

15th JUNE 2020

THE VERGE

Prolonged AWS outage takes down a big chunk of the internet

AWS has been experiencing an outage for hours



By Jay Peters | @jaypeters | Updated Nov 25, 2020, 5:39pm EST



JUN 2019

OCT 2019

MAR 2020

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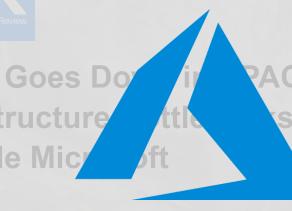
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No cloud is spared from outages



IDG in partnership with DELL Technologies

“

The main driver is what our clients are asking for.

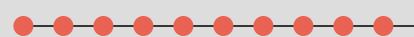
We have banks who have an Azure preference; we have banks who have an AWS preference, Google Cloud, and on and on. We don't really get to choose.



Gregory Scher - VP Business Platform Technology, Fiserv

“

We have to be native AWS because of...their advanced capabilities in analytics. And we have to be in Azure because, frankly, developers love that ecosystem, and productive developers are probably the best thing.



Mohan Putcha - Vice President, Architecture & Digital Strategy, Aon

Multi-Cloud in the Real World

Canada: Direction for Electronic Data Residency



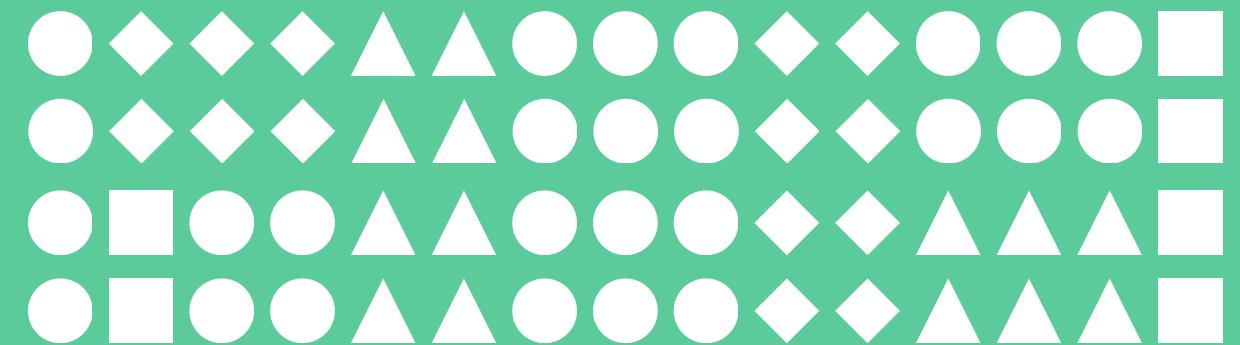
<https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/cloud-services/direction-electronic-data-residency.html>



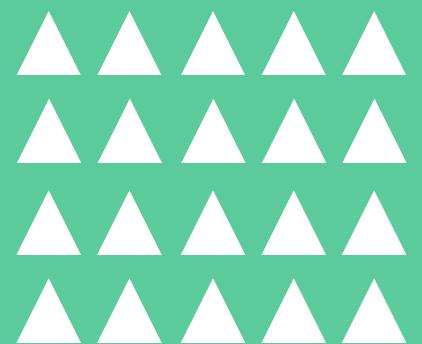
Canada: Direction for Electronic Data Residency

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British Columbia & Nova Scotia

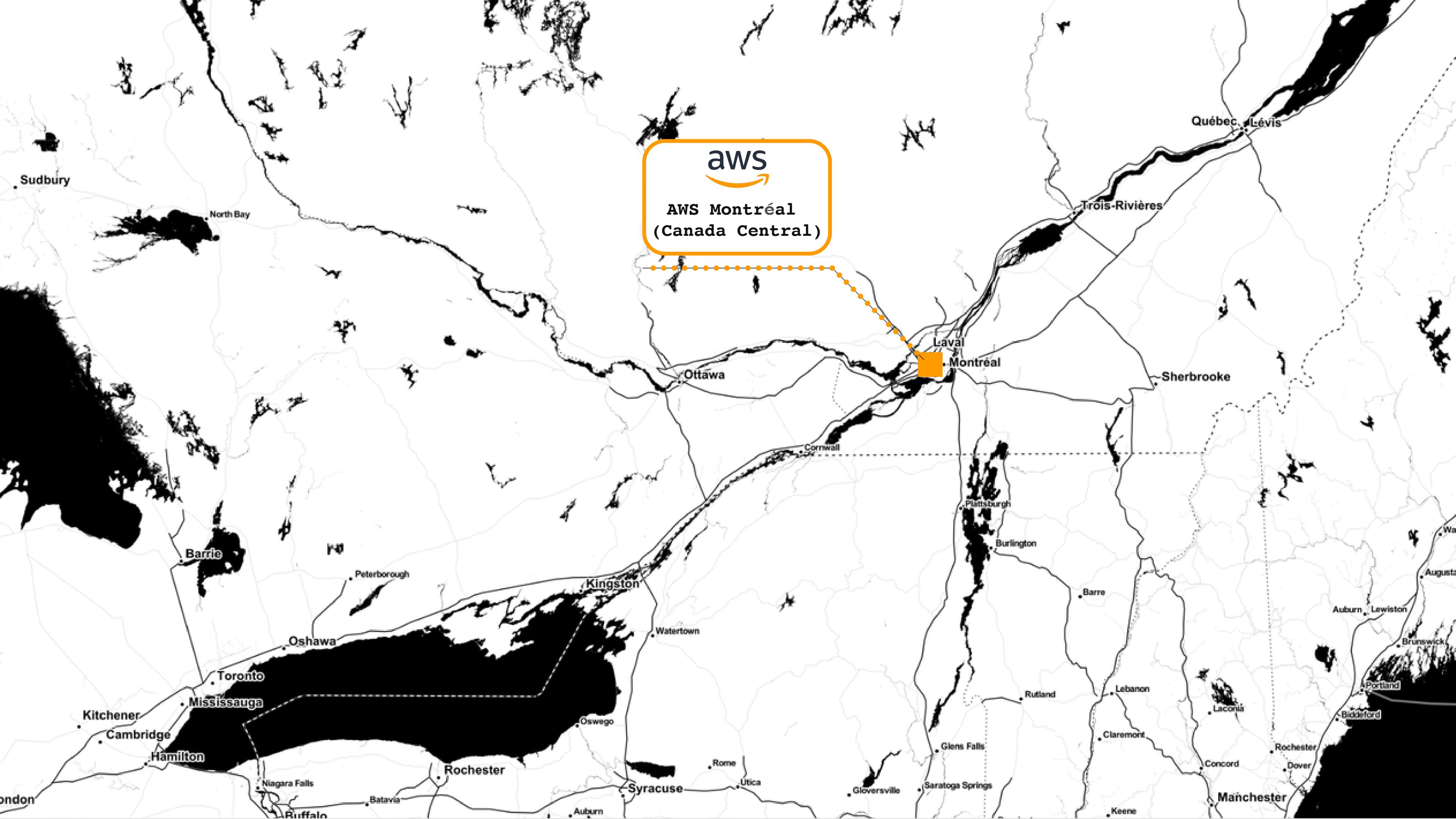


Ontario



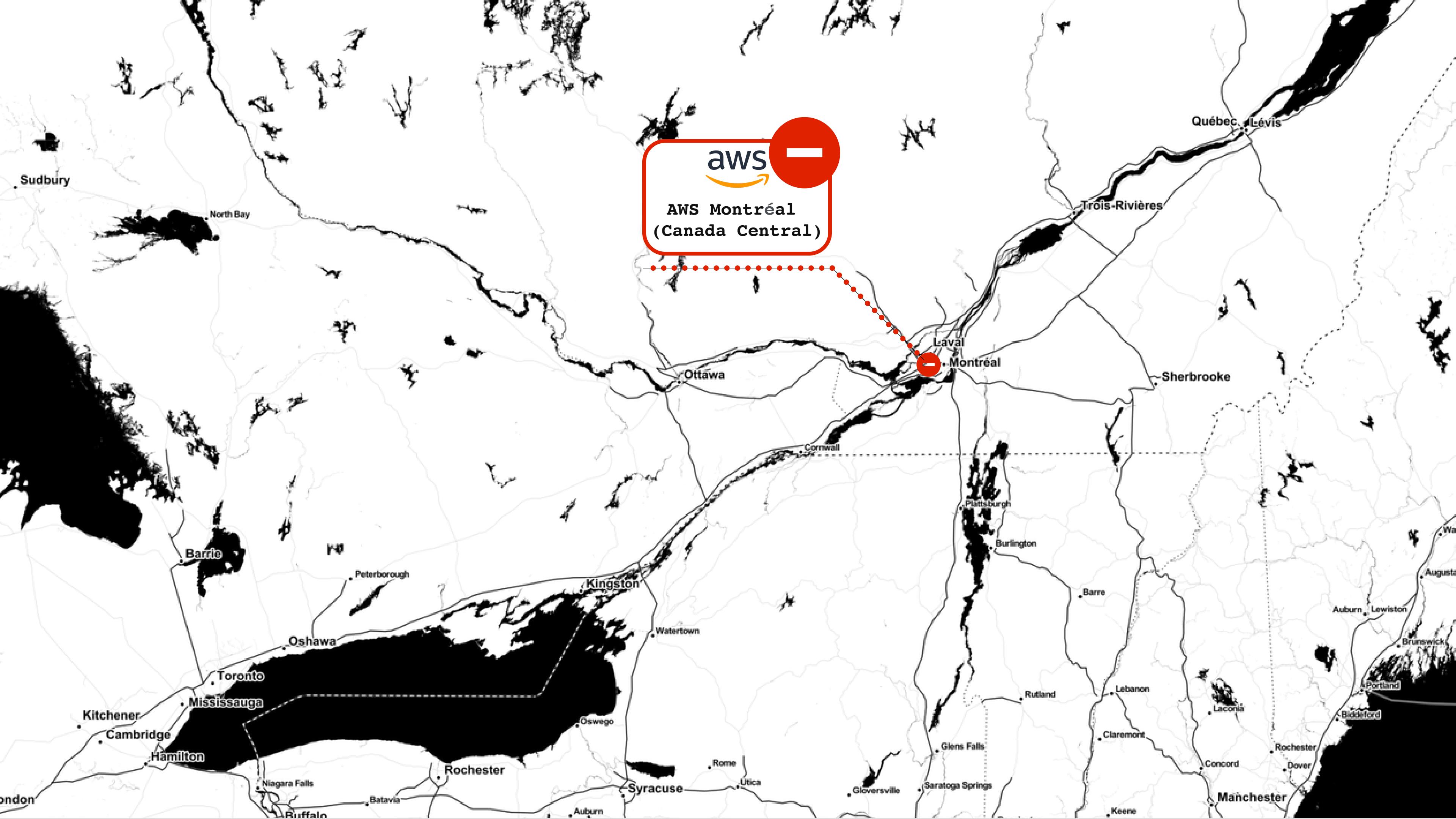


AWS Montréal
(Canada Central)



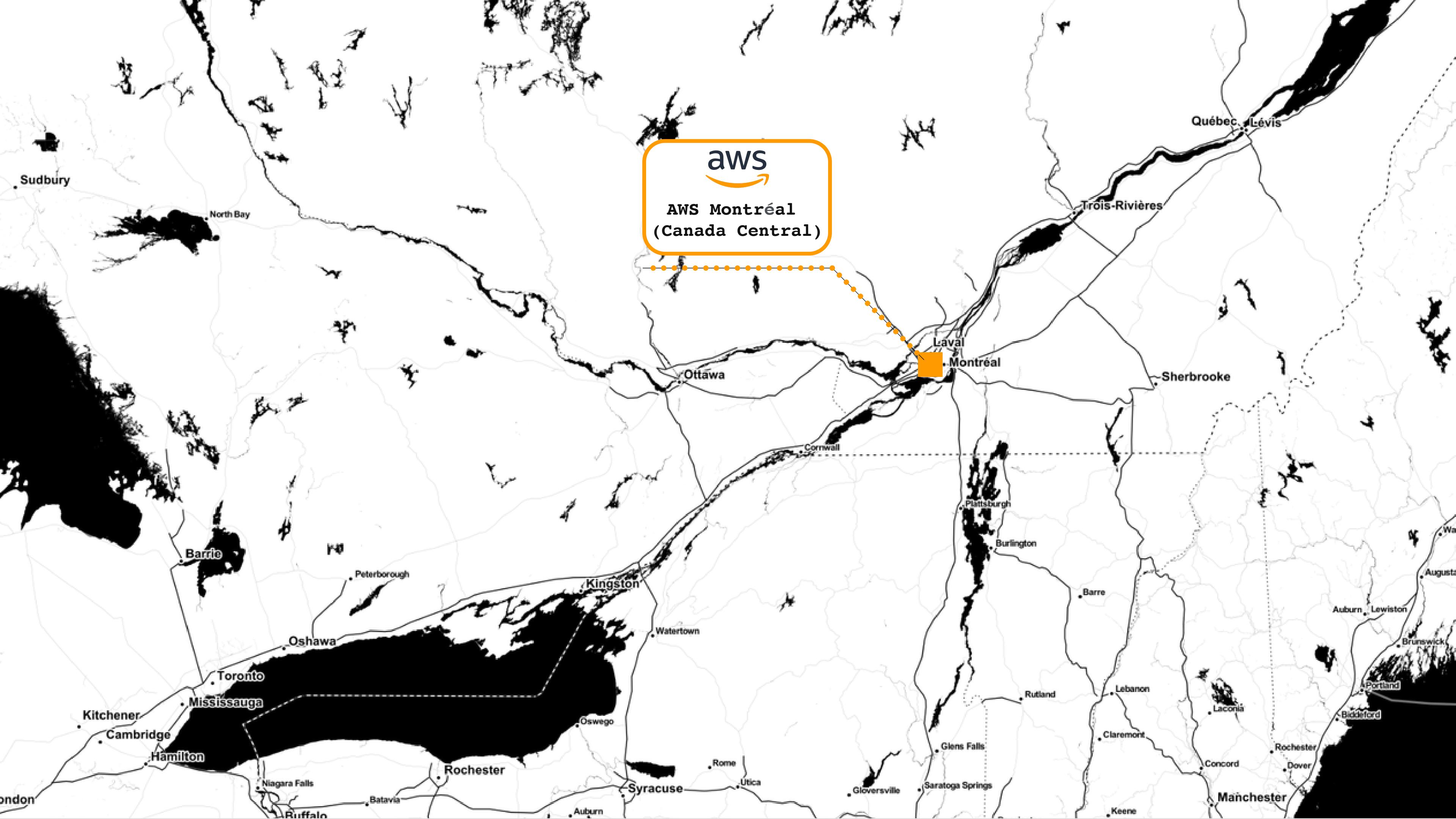


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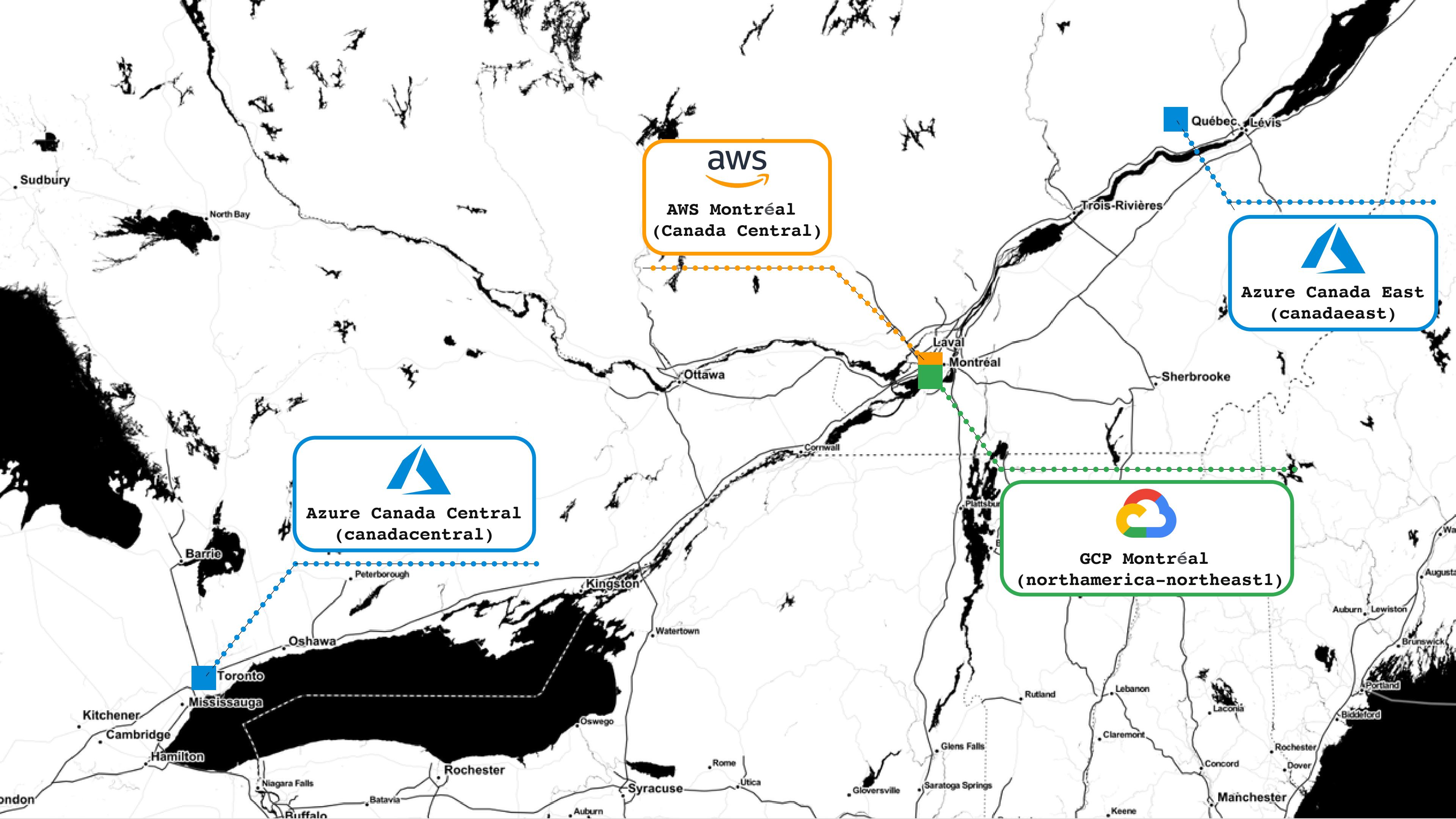


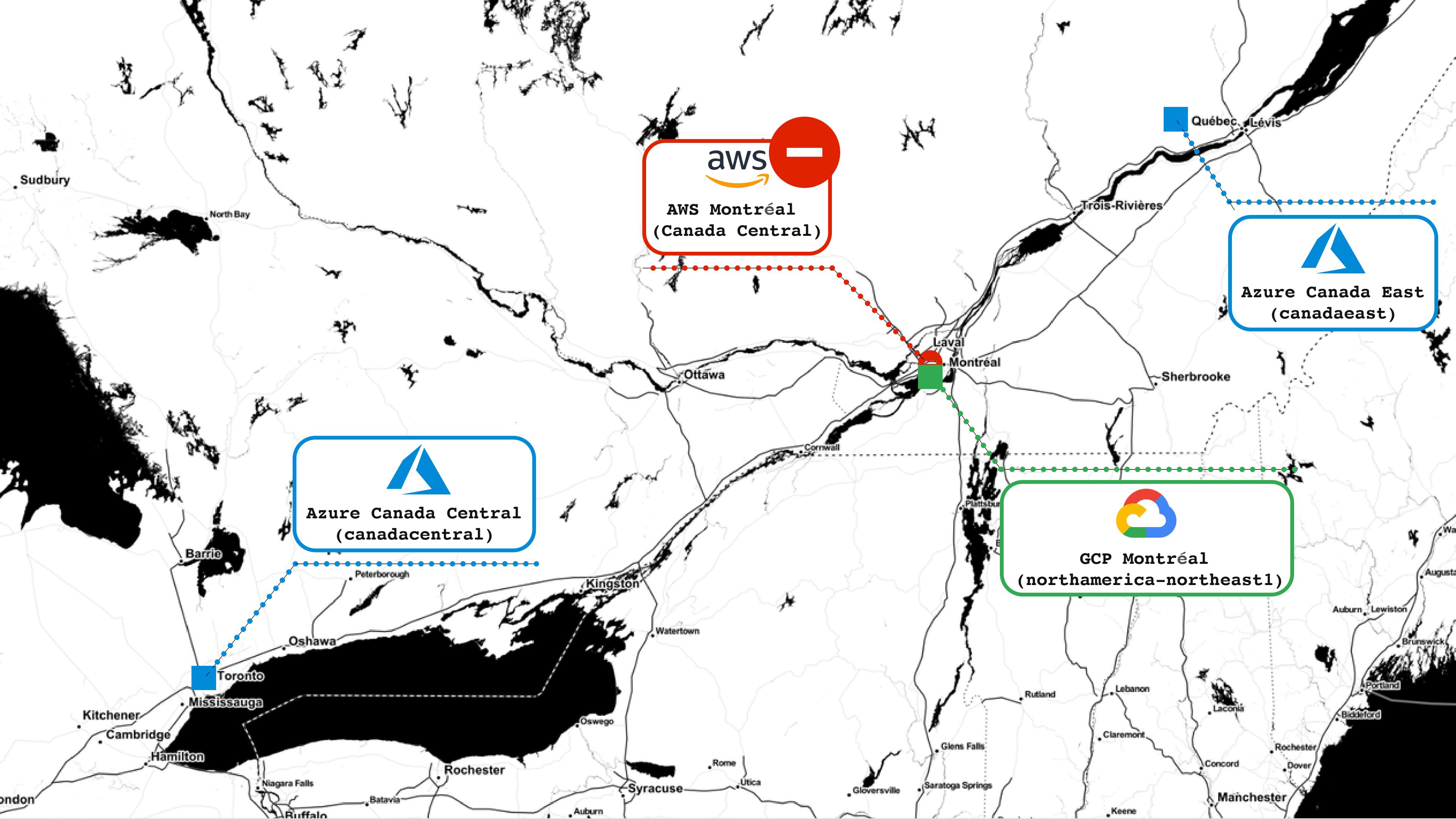


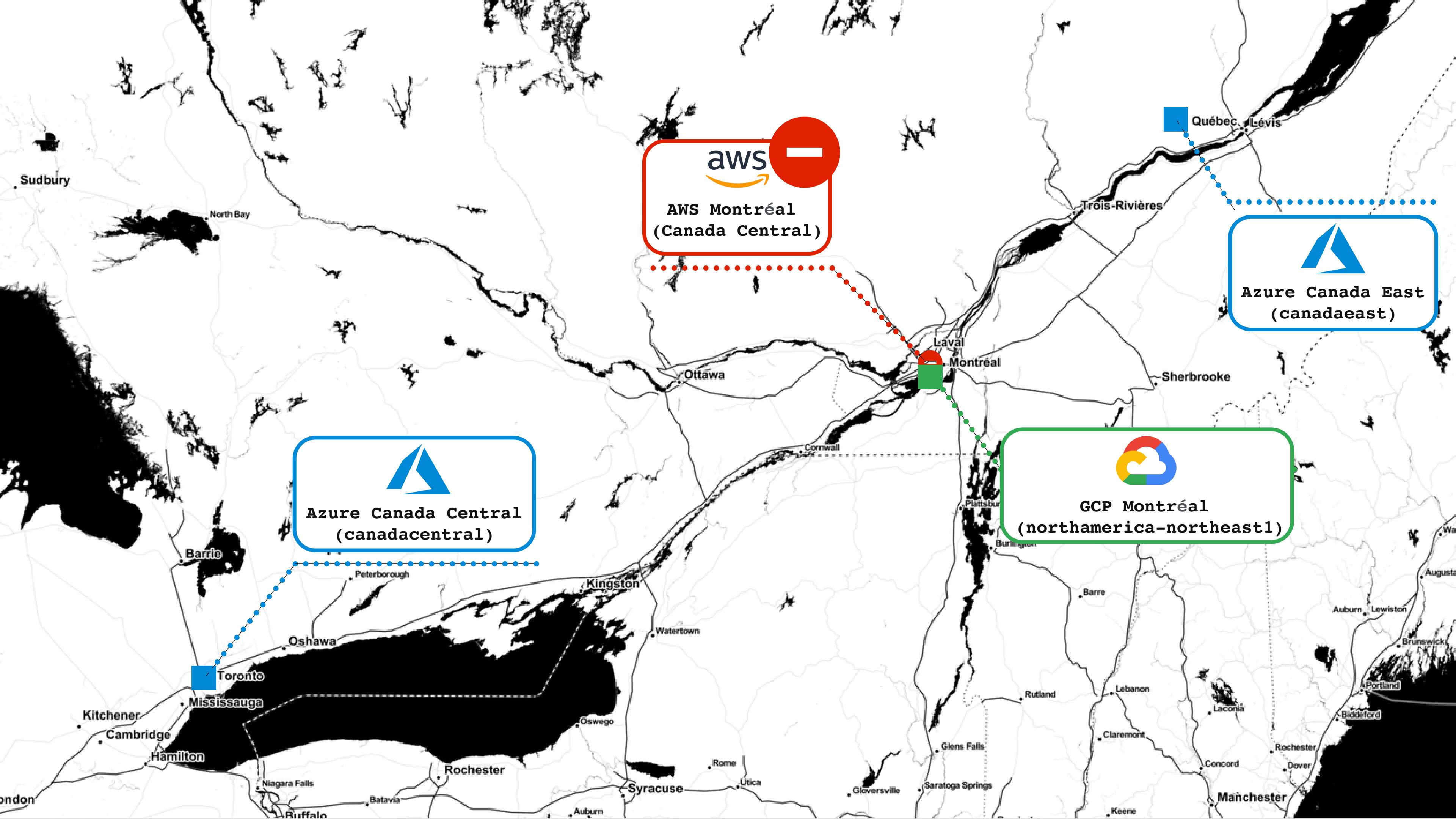
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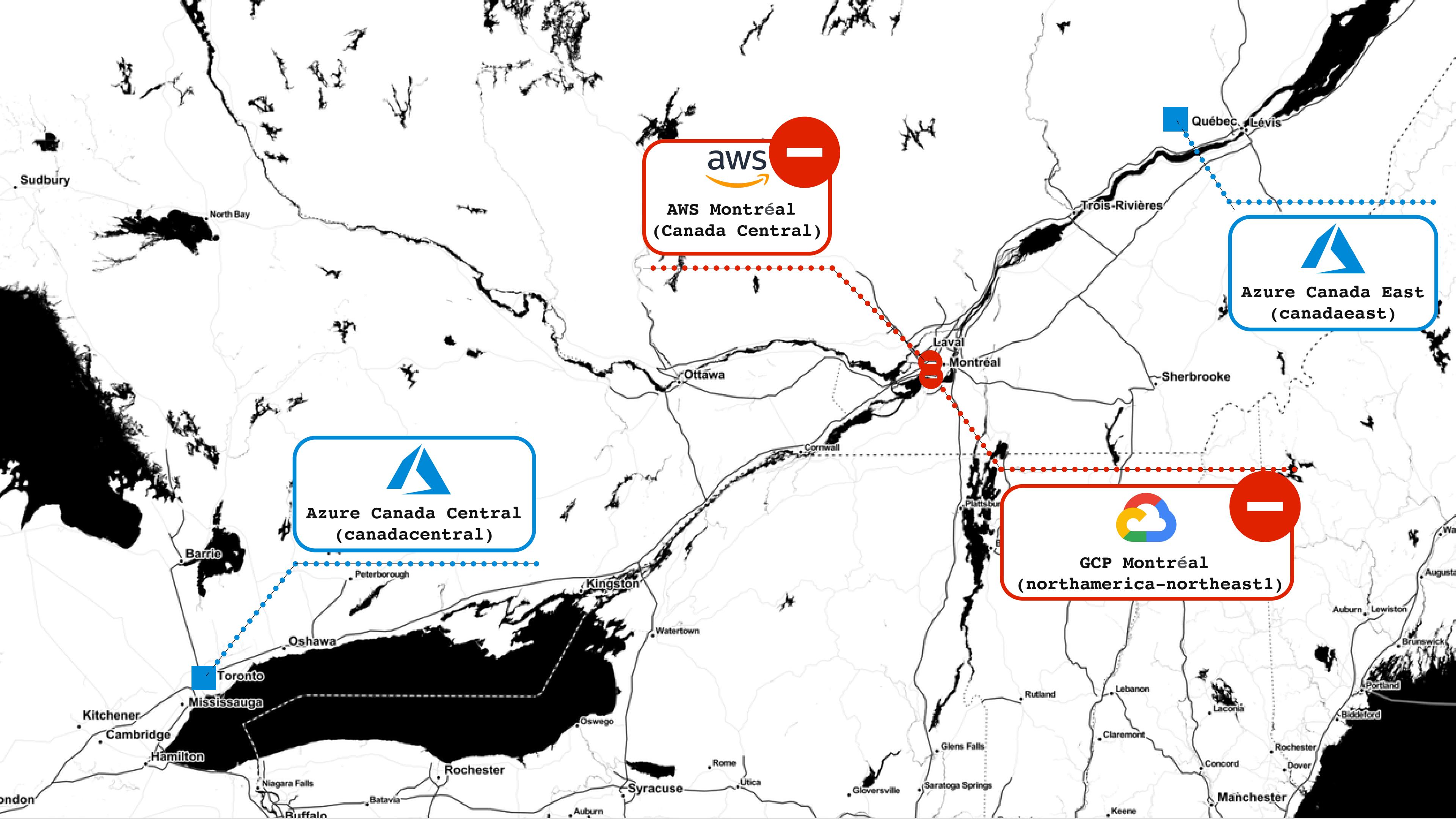


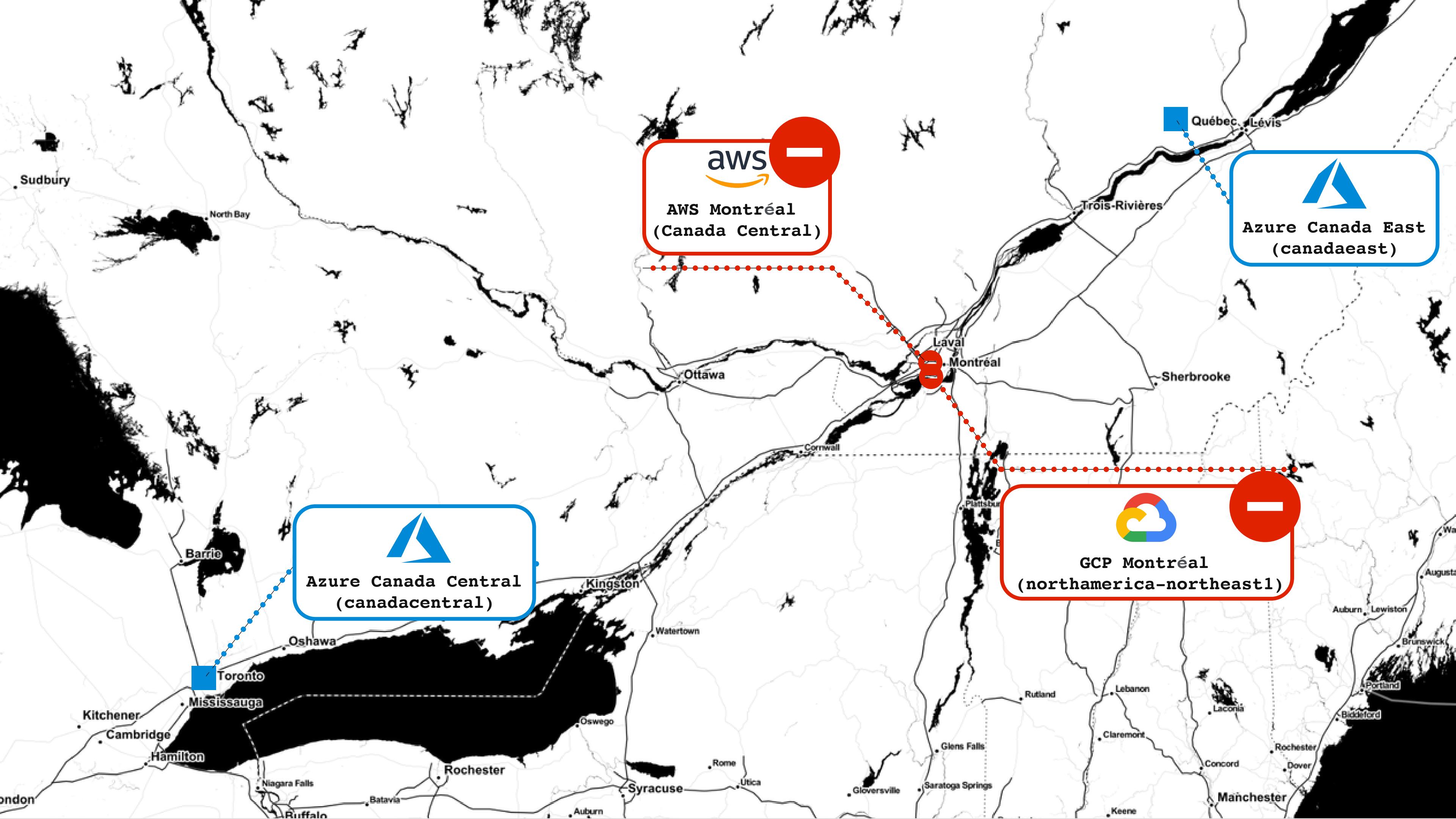
GCP Montréal
(northamerica-northeast1)







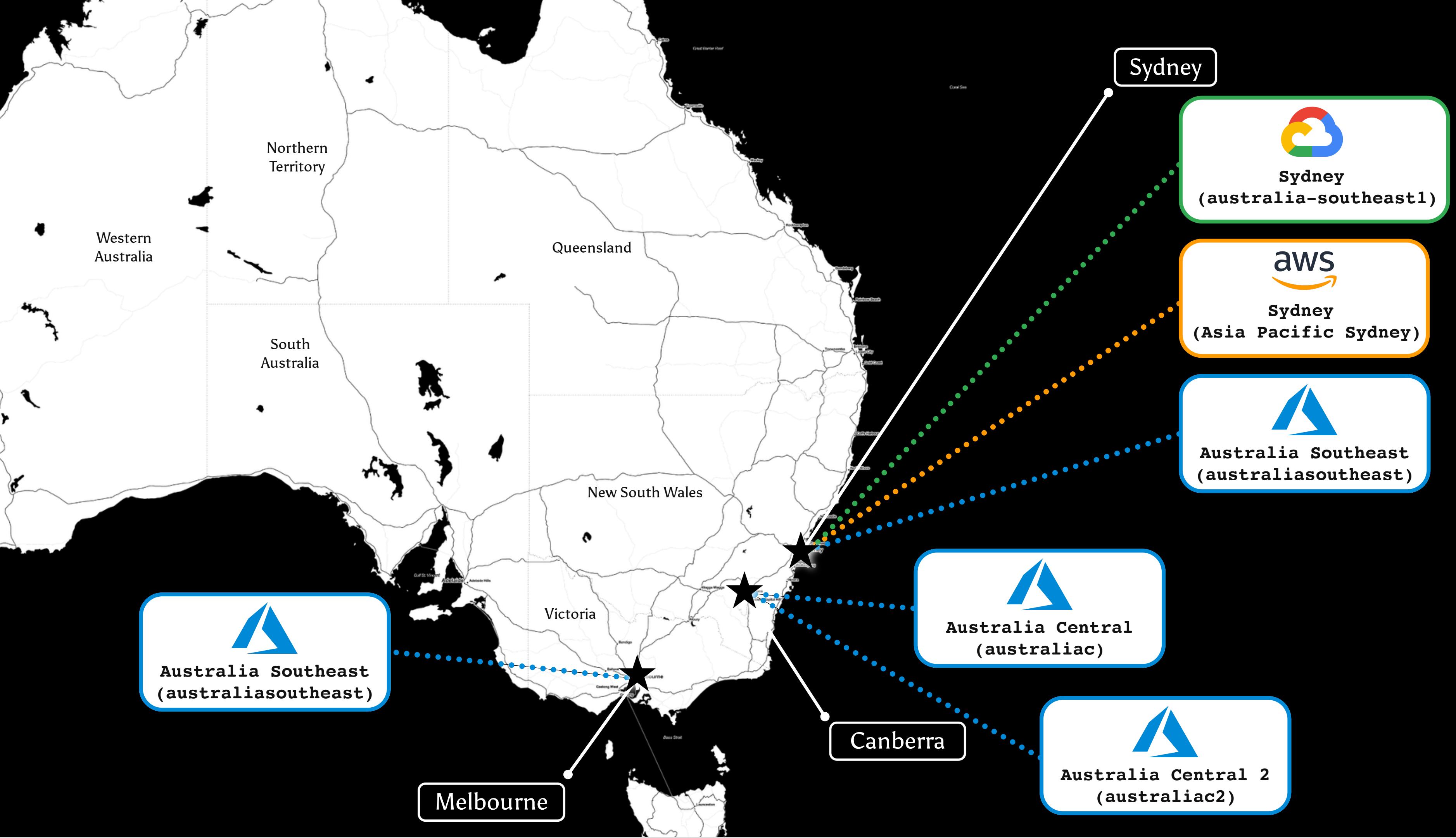






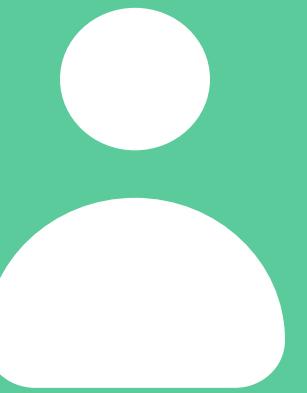
Australia: My Health Records Act 2012

<https://www.legislation.gov.au/Details/C2020C00372>



Best of All Clouds

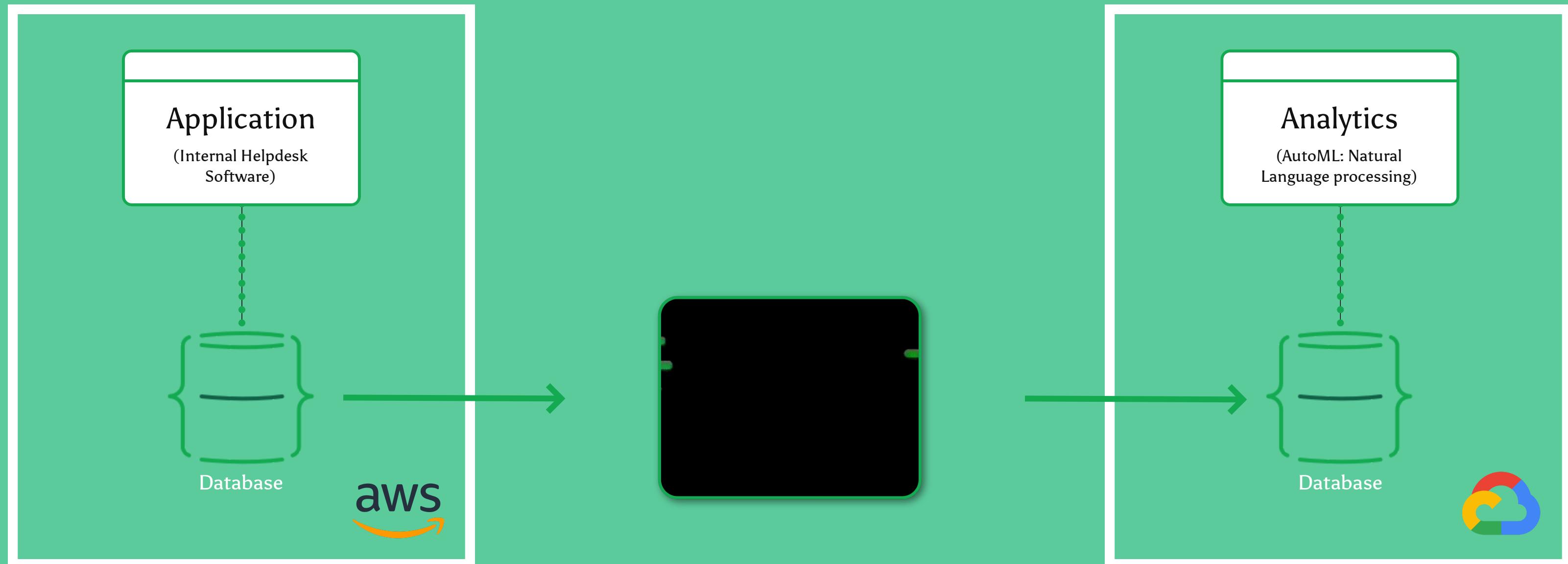
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Recommendation Feature



Best of All Clouds



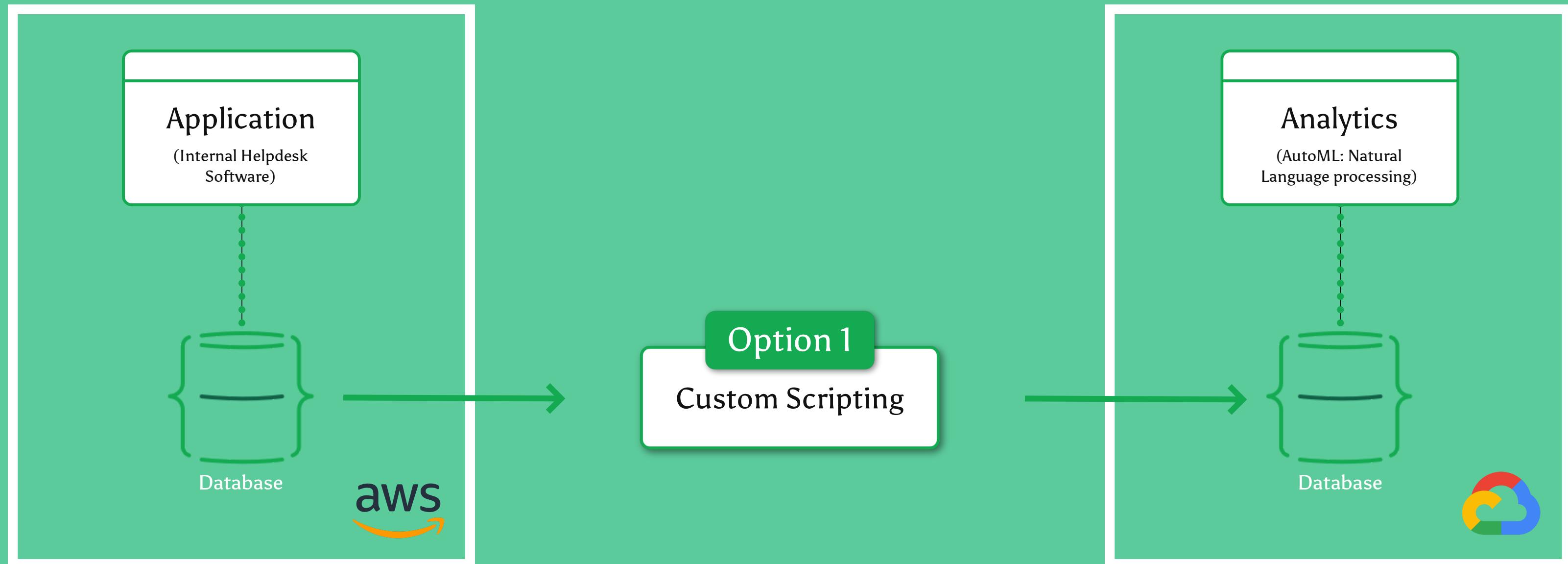
Recommendation Feature



Best of All Clouds



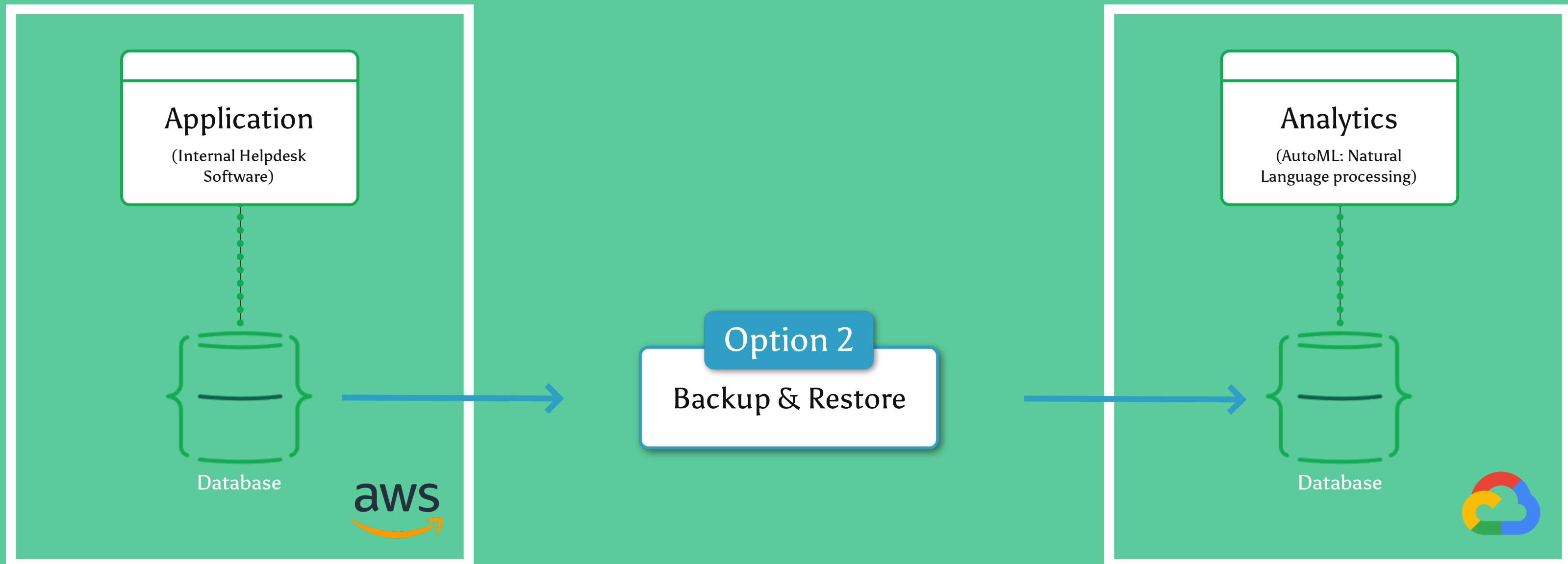
Recommendation Feature



Best of All Clouds



Recommendation Feature

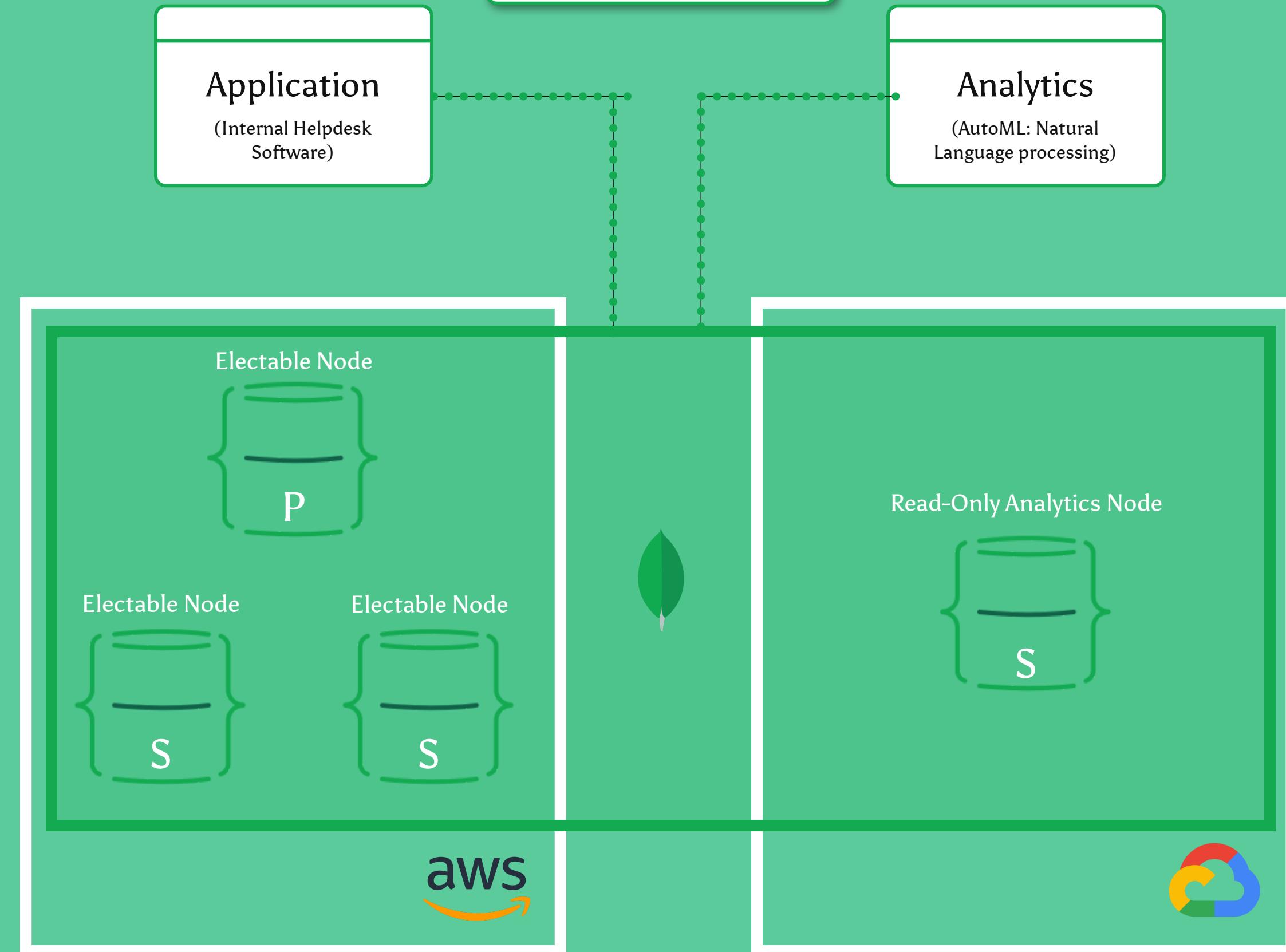


Best of All Clouds



Option 3

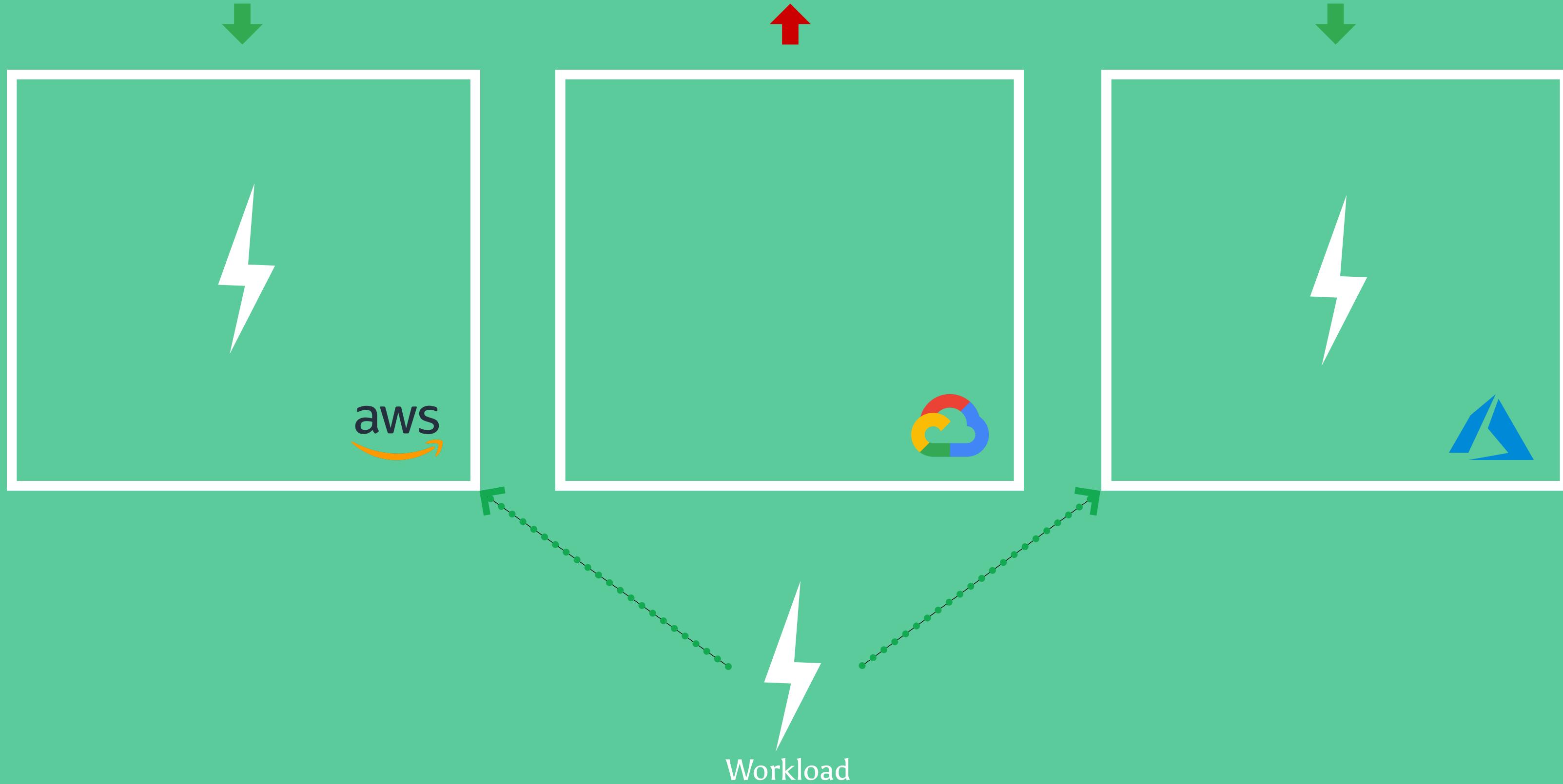
Multi-Cloud Cluster



Best of All Clouds



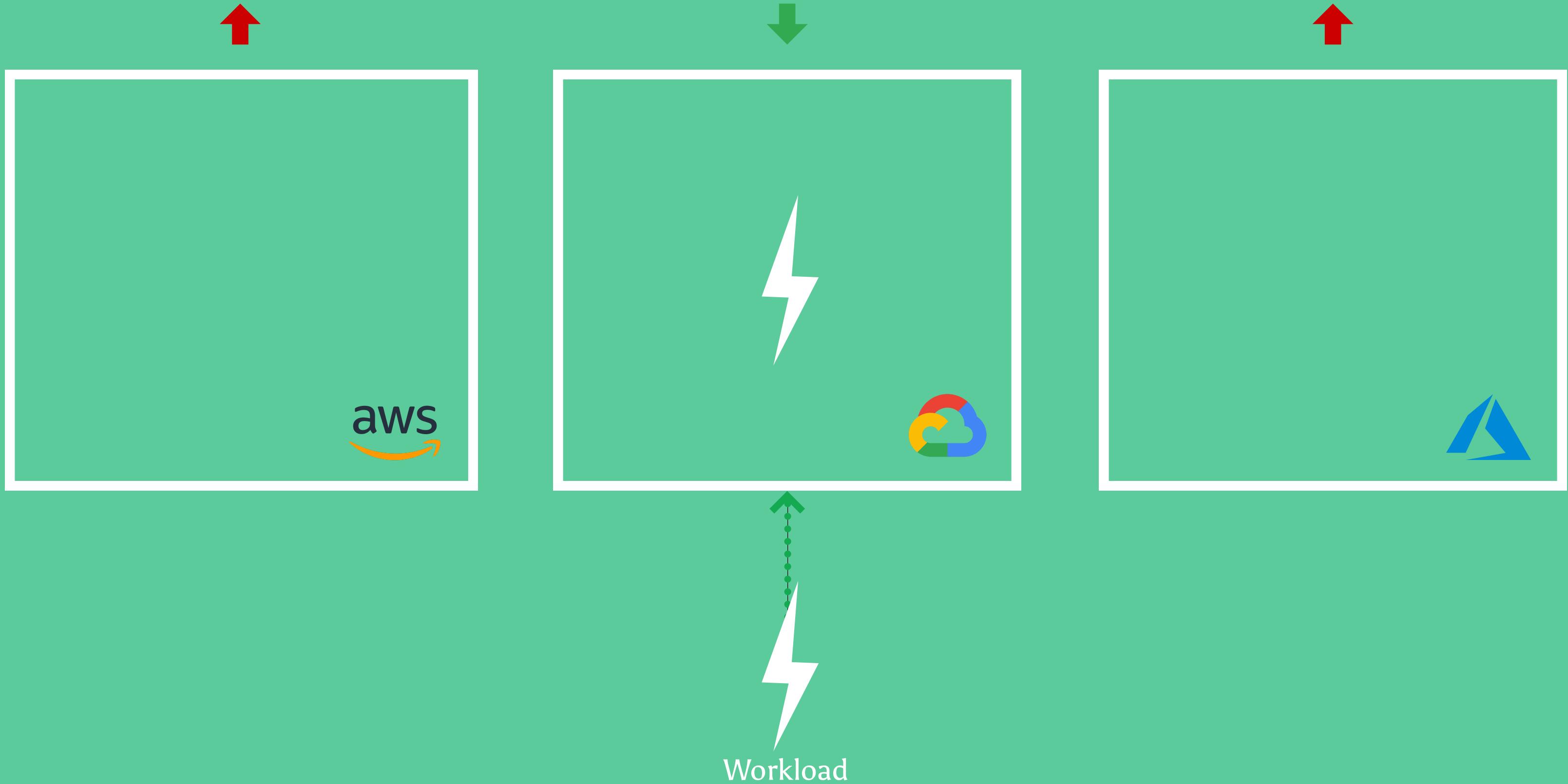
Cloud Arbitrage / Cost Optimization



Best of All Clouds



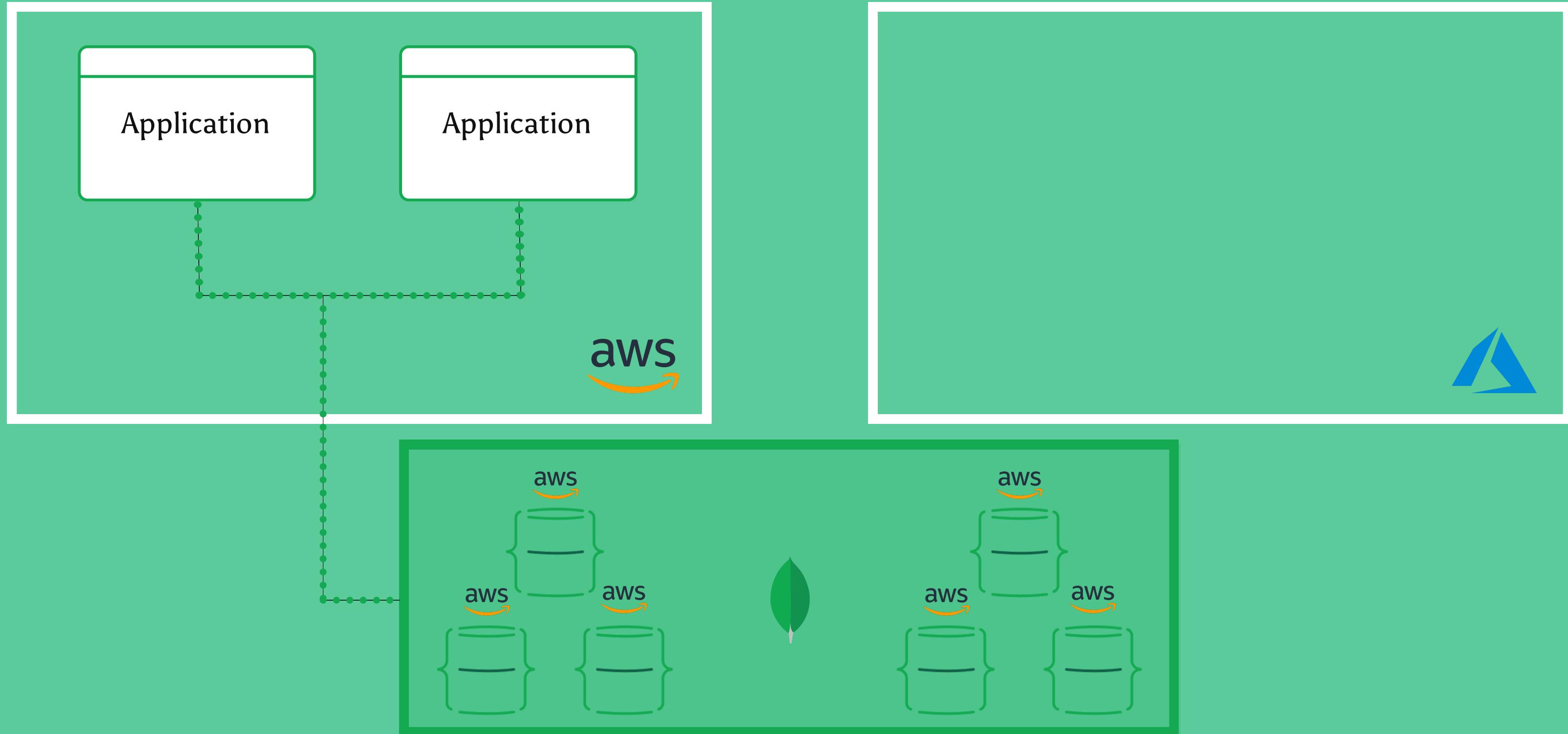
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Best of All Clouds



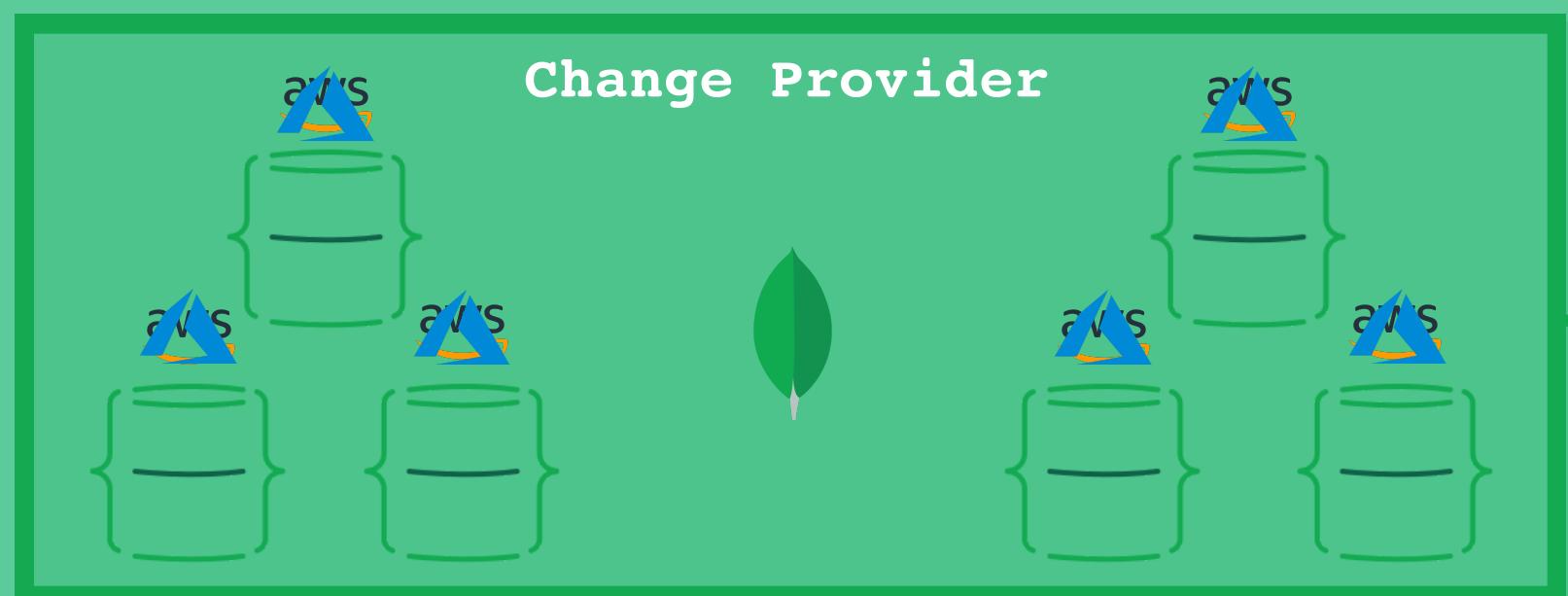
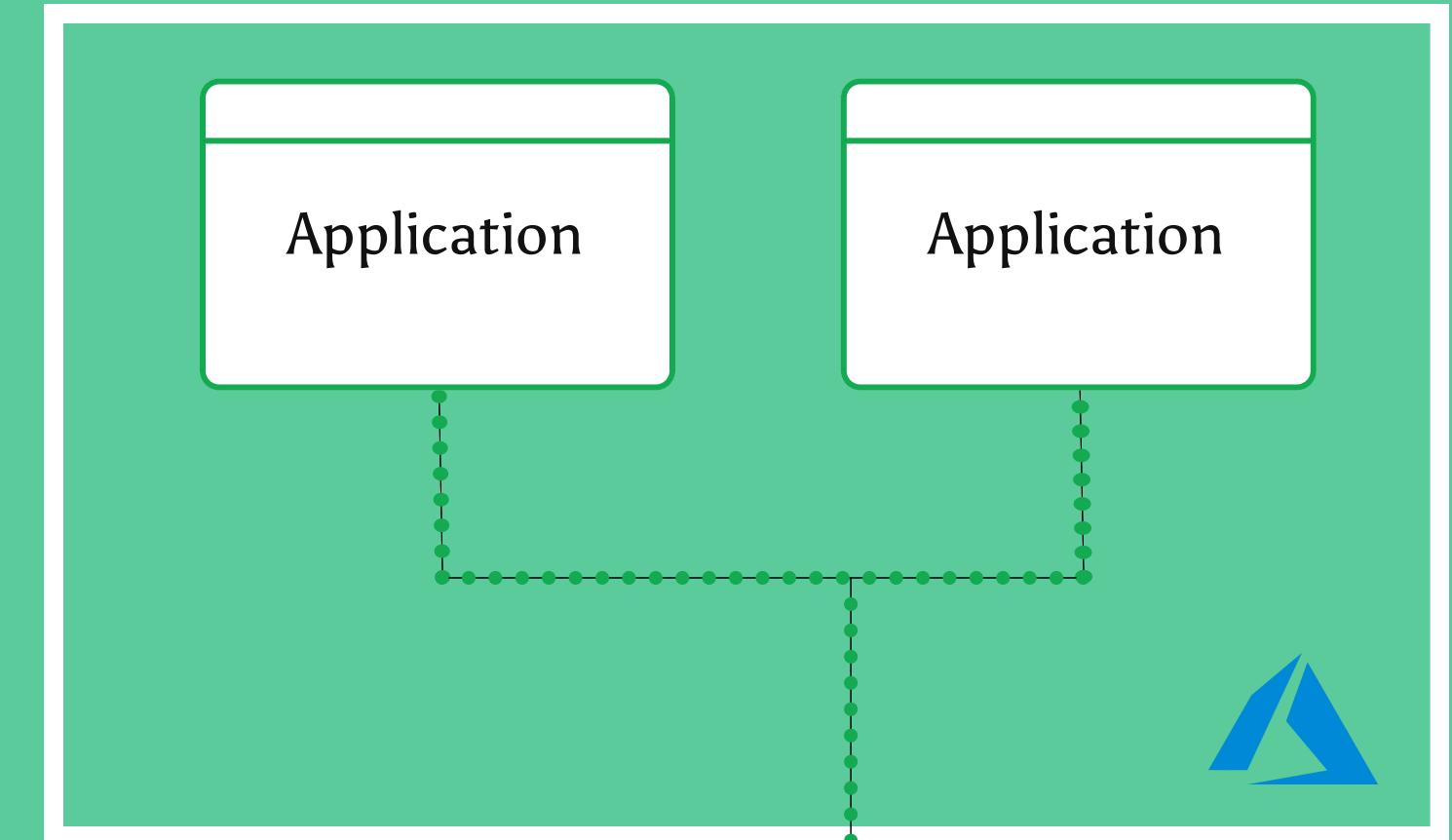
Cloud Arbitrage / Cost Optimization



Best of All Clouds



Cloud Arbitrage / Cost Optimization

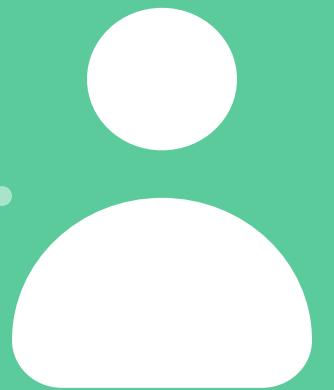


Best of All Clouds

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Recommendation Feature, Cloud Arbitrage / Cost
Optimization

Developers' Choice

•••••••••••
All industries



Developers' Choice

.....

All industries

We want to use the best tools for the job

We're responsible for even higher availability and lower-latency

We're striving to be cloud-agnostic



AWS Lambda
Amazon S3
Amazon CloudFront



Auto ML
Vision AI
AI Platform

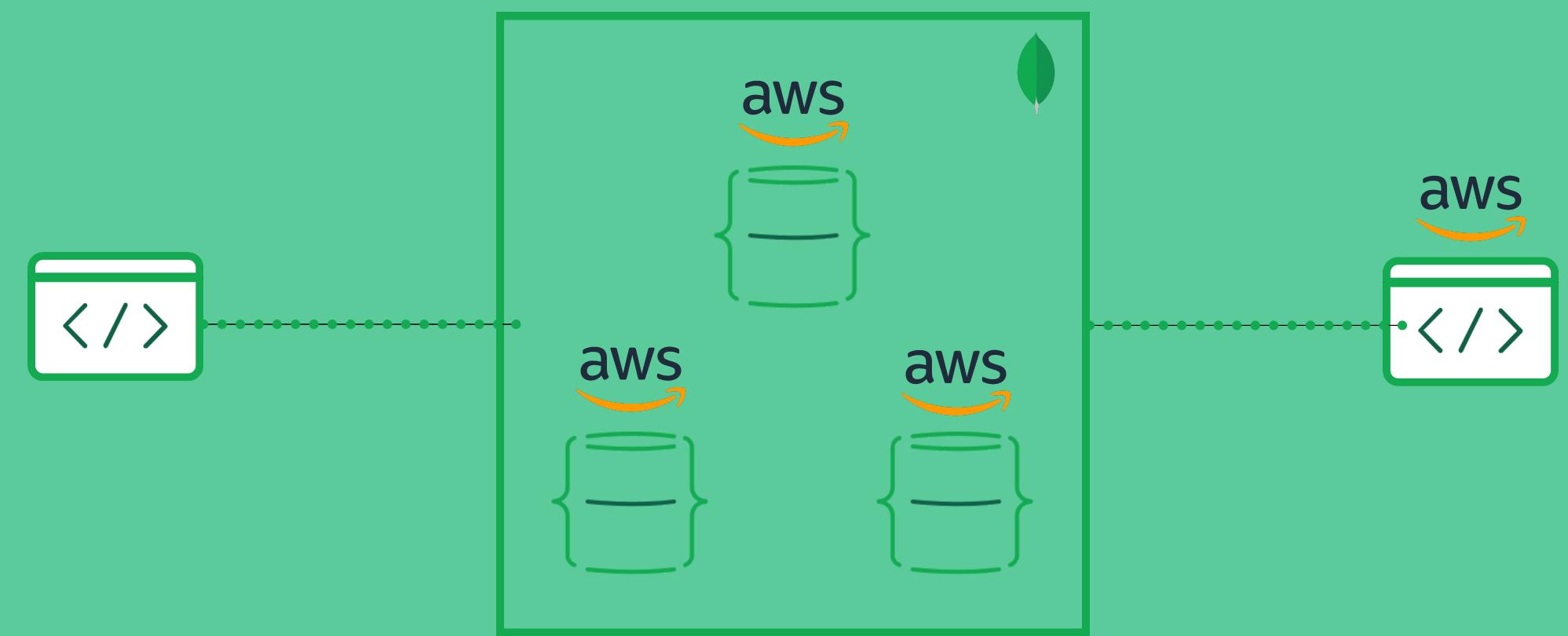


Azure DevOps
Azure VMs
Azure Active Directory

25+ Geographic Regions

24+ Geographic Regions

60+ Geographic Regions

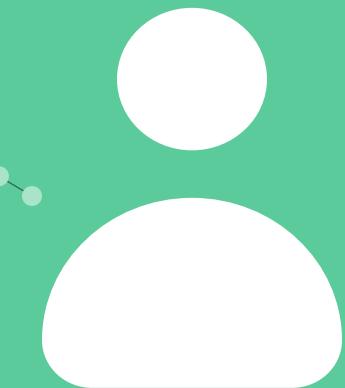


Best of All Clouds

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Recommendation Feature, Cloud Arbitrage / Cost Optimization

Developers' Choice

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All industries



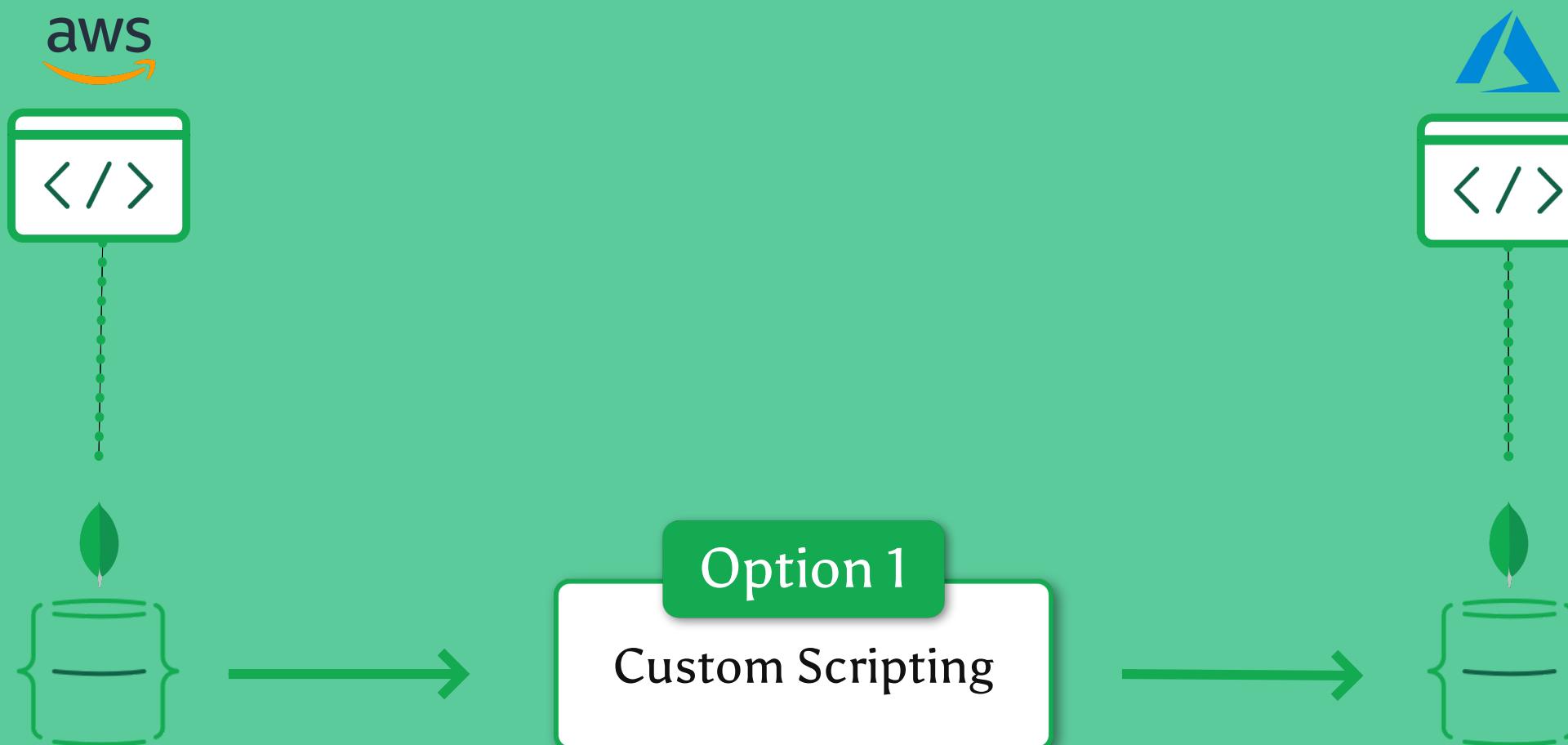
Future-proof

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Mergers & Acquisitions

Future-proof

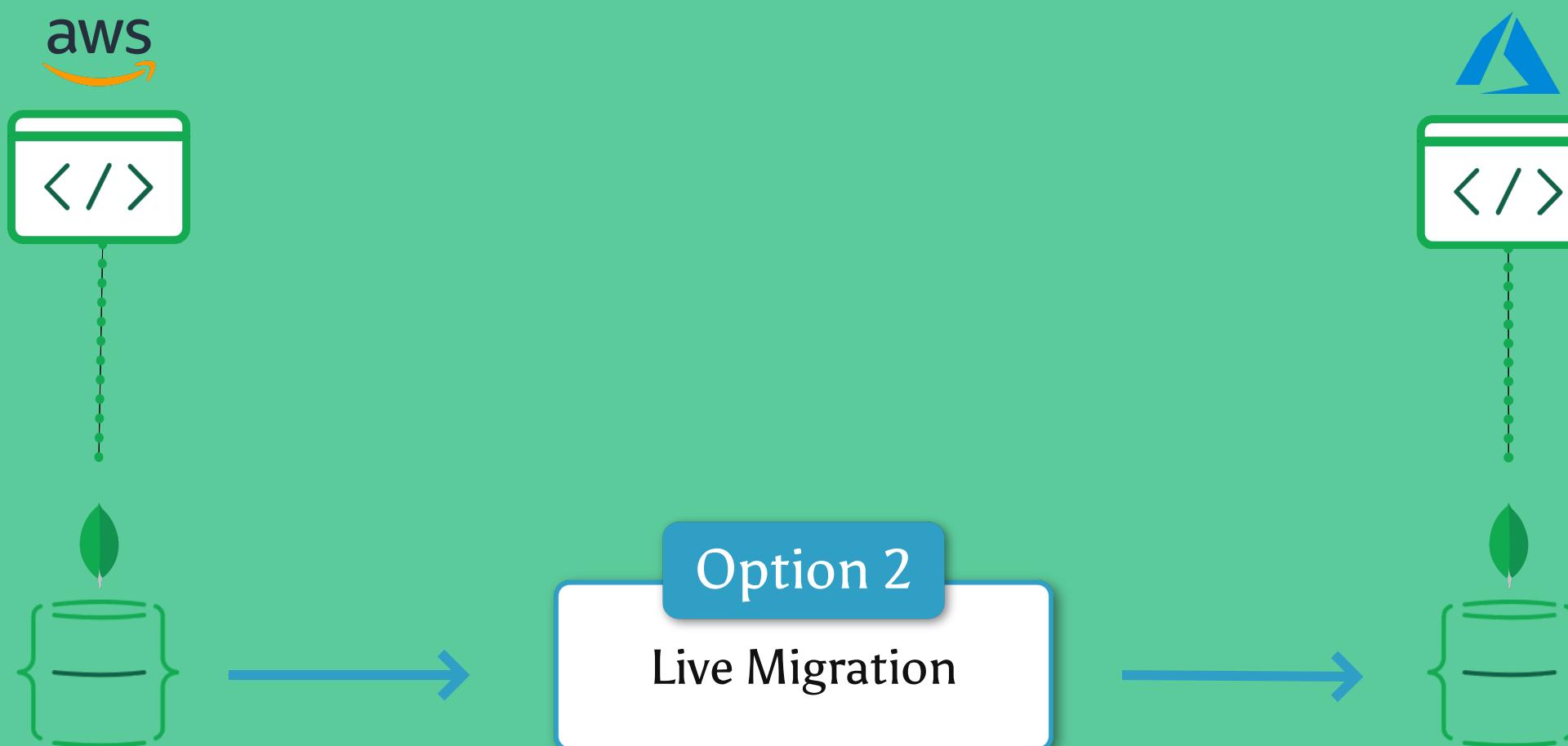


Mergers & Acquisitions



Future-proof

Mergers & Acquisitions

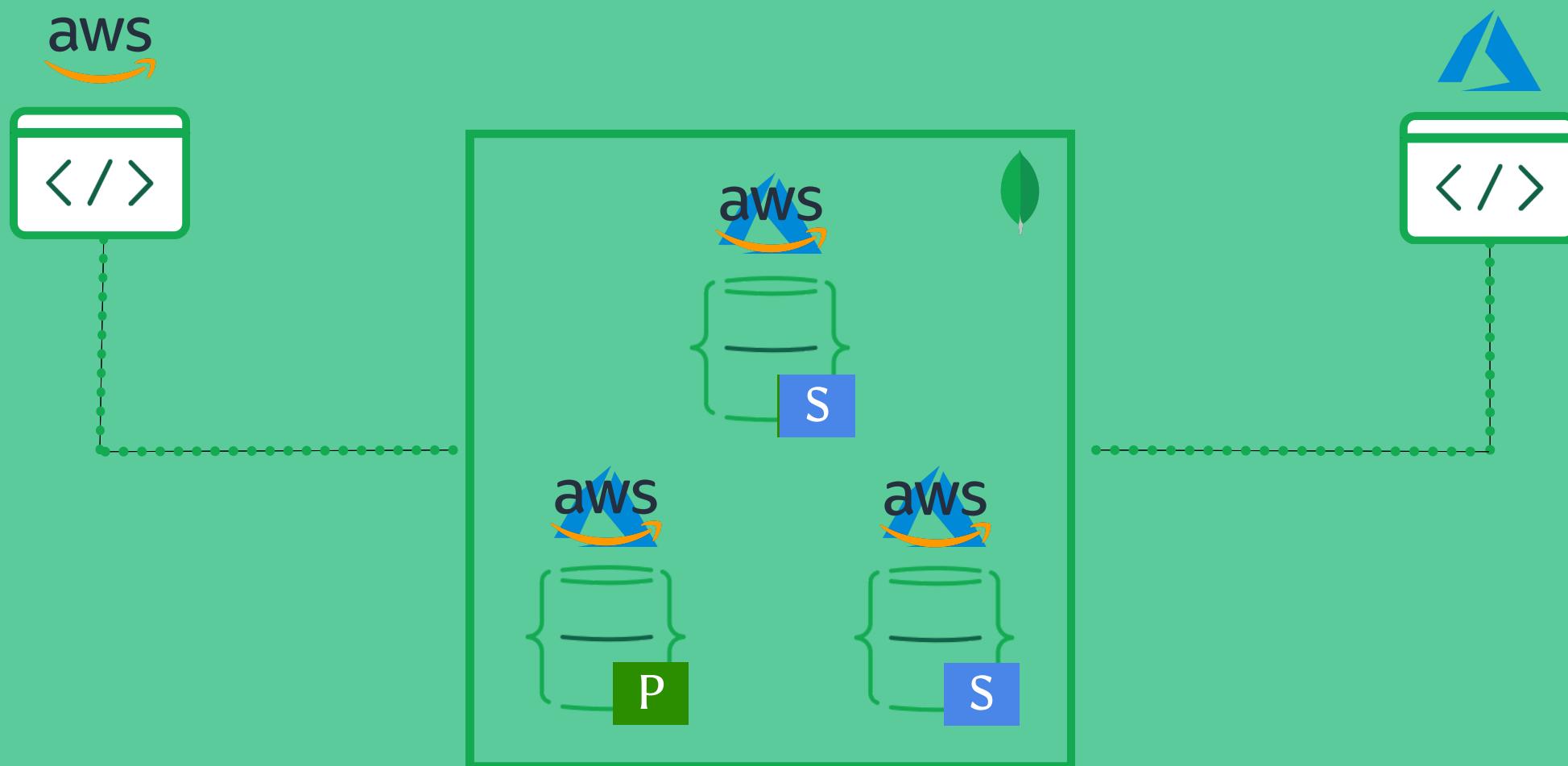


Future-proof

Mergers & Acquisitions

Option 3

Multi-Cloud Cluster



Best of All Clouds

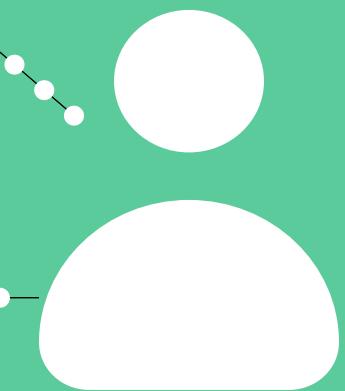
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Recommendation Feature, Cloud Arbitrage / Cost Optimization

Developers' Choice

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All industries

Future-proof

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Mergers & Acquisitions



Multi-Cloud in the Real World

Canada: Direction for Electronic Data Residency

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<https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/cloud-services/direction-electronic-data-residency.html>

Australia: My Health Records Act 2012

••••••••••••••
<https://www.legislation.gov.au/Details/C2020C00372>

“

If you want to start to have true portability of applications, obviously, the data has to go with the application.



Bradd Lewis - VP & Global Lead, Business & IT Transformation, Dell Technologies

Building a Multi-Cloud Cluster



Salamat!

@adriennetacke



Multi-Cloud Magic:

Leveraging Multi-Cloud Clusters in the Real World