

# EdgeNet: A Lightweight, Scalable Edge Cloud

Berat Senel, Timur Friedman  
Matt Hemmings, Rick McGeer

GEFI workshop, Coimbra, 6 November 2019



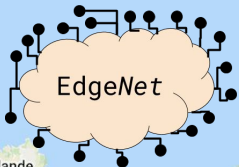
# A GEFI EU - North America Success Story



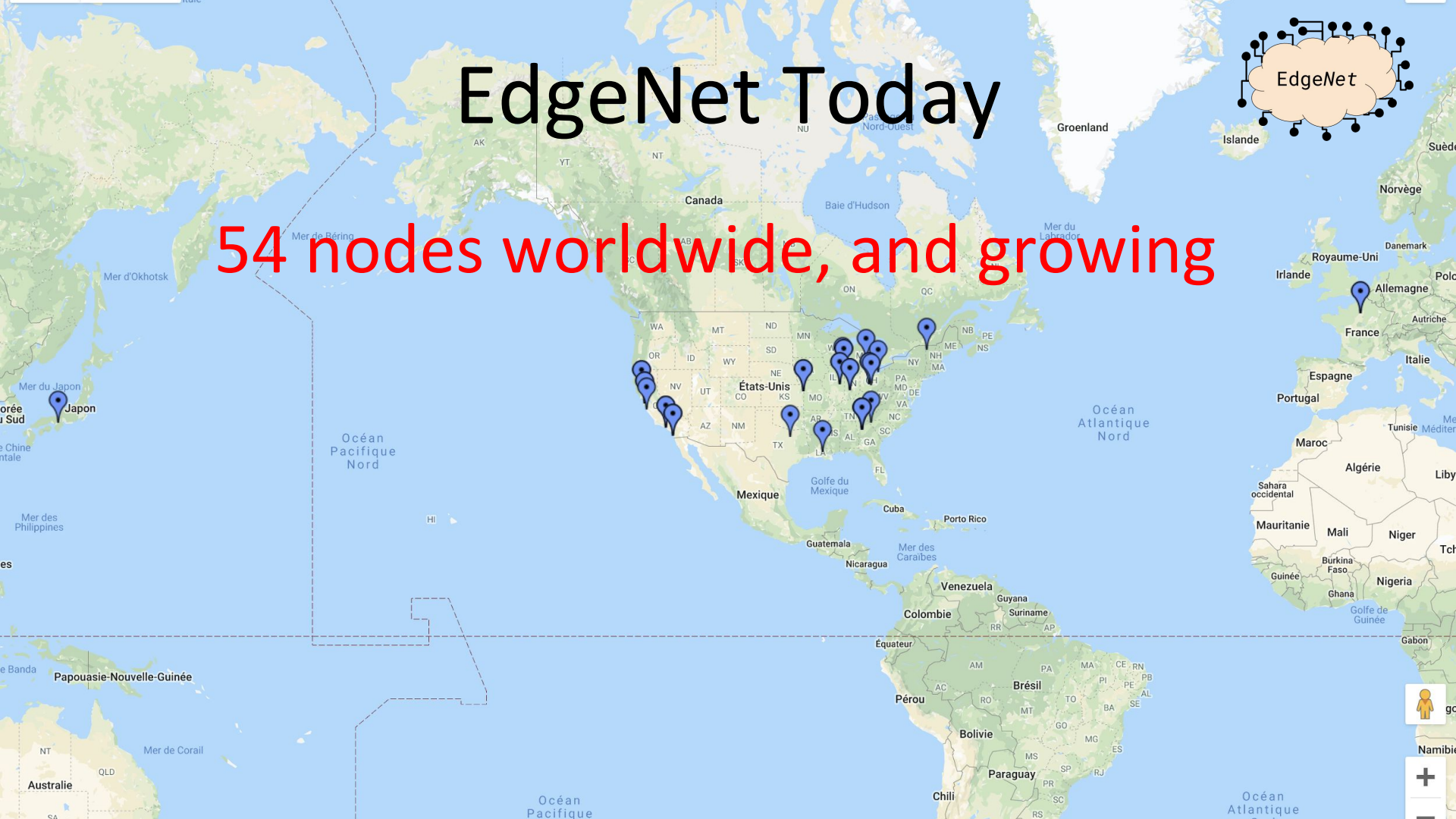
Rio de Janeiro 2017 - Tokyo 2018 - Coimbra 2019



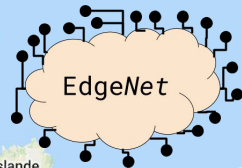
# EdgeNet Today



54 nodes worldwide, and growing



# EdgeNet Today



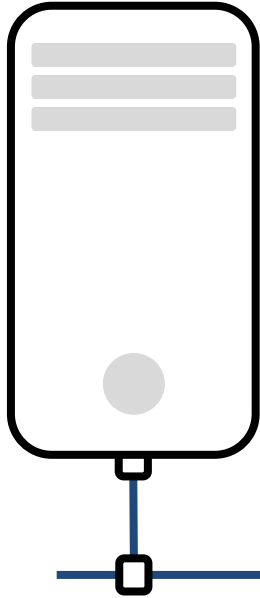
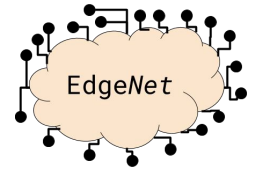
54 nodes worldwide, and growing

Add your node today!

It takes not even ten minutes:

[http://edge-net.org/contributing\\_nodes.html](http://edge-net.org/contributing_nodes.html)

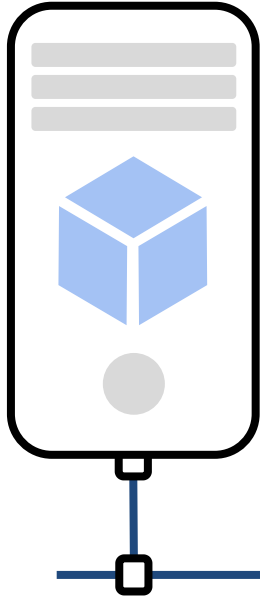
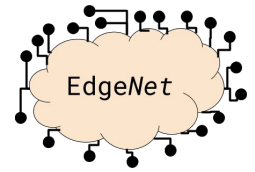
# Add an EdgeNet Today



- You have an Internet-connected server

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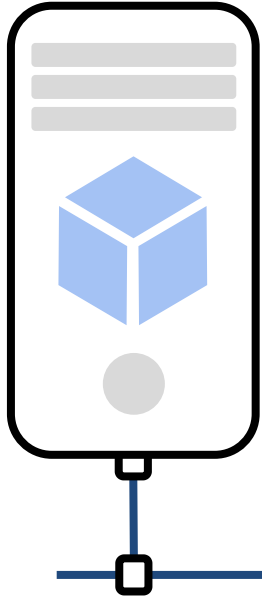
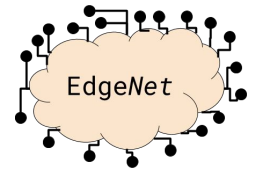


- You have an Internet-connected server
- Install a Ubuntu or CentOS VM



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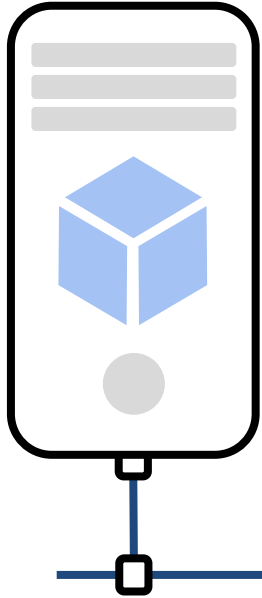
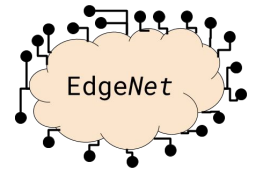


- You have an Internet-connected server
- Install a Ubuntu or CentOS VM
- Download and run our script



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# Add an EdgeNet Today

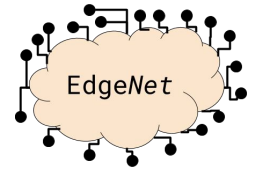


- You have an Internet-connected server
- Install a Ubuntu or CentOS VM
- Download and run our script
- Your EdgeNet node is online!

[http://edge-net.org/contributing\\_nodes.html](http://edge-net.org/contributing_nodes.html)



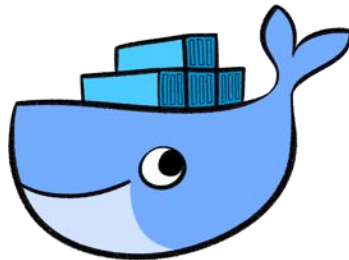
# Use EdgeNet Today



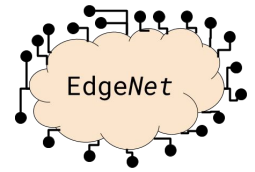
① Sign up, get your `kubeconfig` file

<https://sundewcluster.appspot.com/>

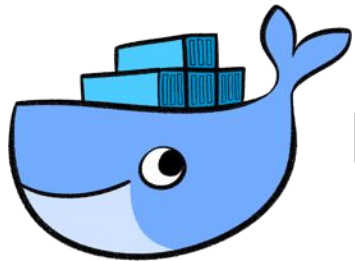
② Use `kubectl` at the command line



# Familiar tools



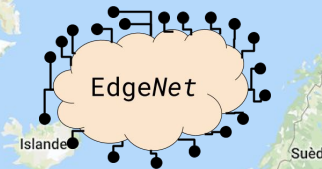
Docker: build locally and ship



Kubernetes: `kubectl` with EdgeNet extensions

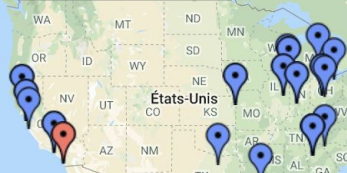
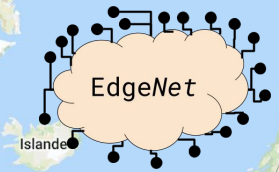
# EdgeNet Extension

Selective deployment



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Selective deployment

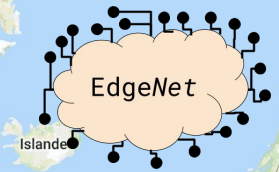


Generate a YAML file at:

[https://dev.engagelively.com/  
lively.freezer/frozenParts/rick/  
edgeNetGenerator/index.html](https://dev.engagelively.com/lively.freezer/frozenParts/rick/edgeNetGenerator/index.html)



# EdgeNet Extension



## Selective deployment

apiVersion: edgenet.io/v1alpha

kind: **SelectiveDeployment**

metadata:

name: <name of selectivedeployment>

spec:

controller:

- type: Deployment

name: <name of controller>

type: City

selector:

- value: **Paris**

operator: In

count: 0

- value: **Nara**

operator: In

count: 0

- value: **La\_Jolla**

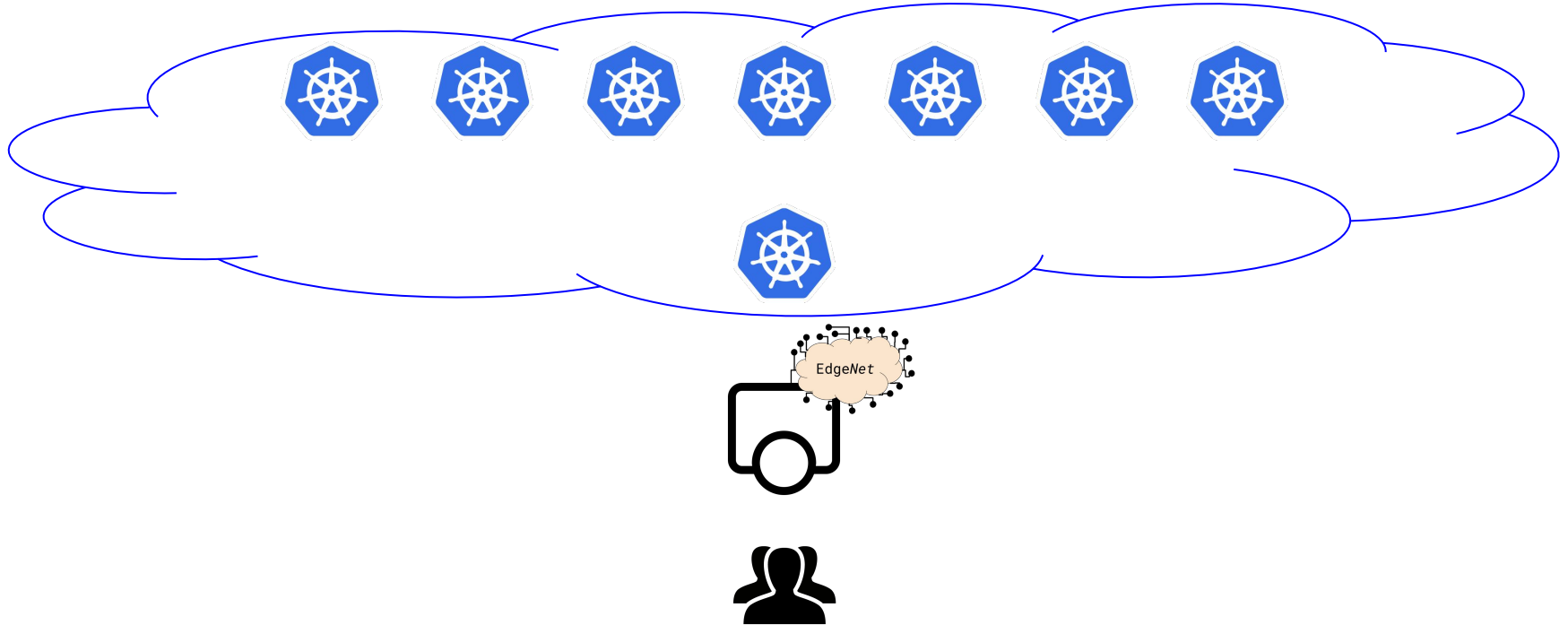
operator: In

count: 0

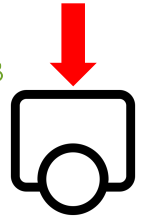
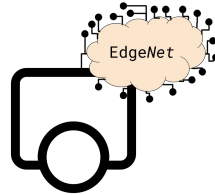
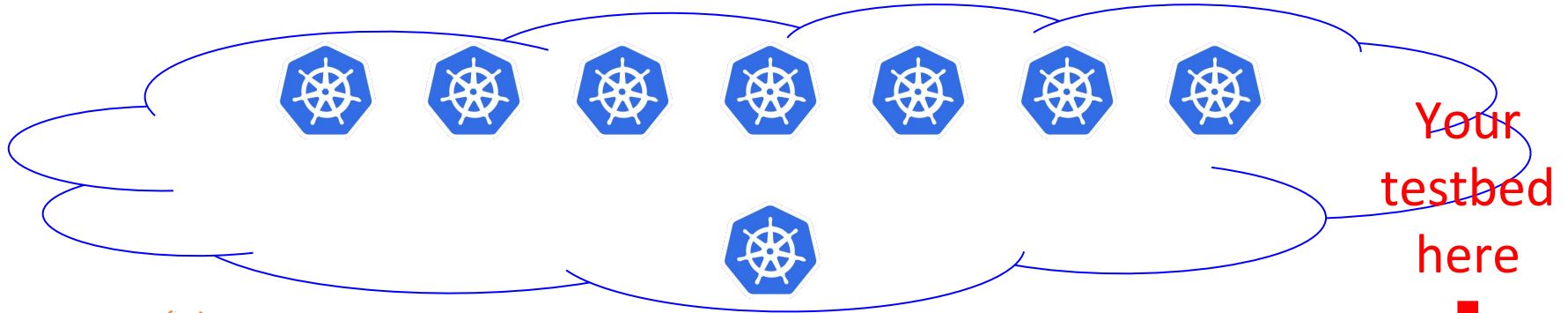
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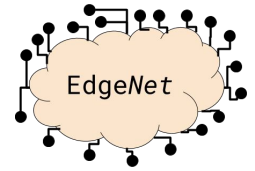
# Coming Soon to EdgeNet!



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# Thanks to Collaborators



Eric Allman, Hadi Bannazadeh, Ilya Baldin, Andy Bavier, Andi Bergen, Mark Berman, Ketan Bhardwaj, Sushil Bhojwani, Marshall Brinn, Justin Cappos, Yvonne Coady, Chip Elliott, Olivier Fourmaux, Sudhakar Ganti, Ada Gavrilovska, Jim Griffioen, John Kubiawicz, Al Leon-Garcia, Thomas Lin, Ken Lutz, Sean McGeer, Nitesh Mor, Hausi Muller, Aki Nakao, Pat O'Connell, Riz Panjwani, Tom Mitchell, Larry Peterson, Albert Rafetseder, Glenn Ricart, Rob Ricci, Ciro Scognamiglio, Robert Taylor, Ulrike Stege, Vic Thomas





[https://edge-net.org/gefi\\_2019.html](https://edge-net.org/gefi_2019.html)

