



# NetBox Operator

Joel Studler, 07.11.2024,  
Sylva WG06 Workloads LCM with GitOps Monthly Call

swisscom





# Why Open Source?



## Foster Collaboration

Tap into global developer contributions



## Internal and External Growth

Improve processes and code modularity



## Technology Leadership

Lead innovation in the tech/telco community



# What is NetBox?



**netbox**  
[Open Source NetBox Docs](#)

**Data Center Infrastructure  
Management (DCIM)**

**IP Address Management  
(IPAM)**

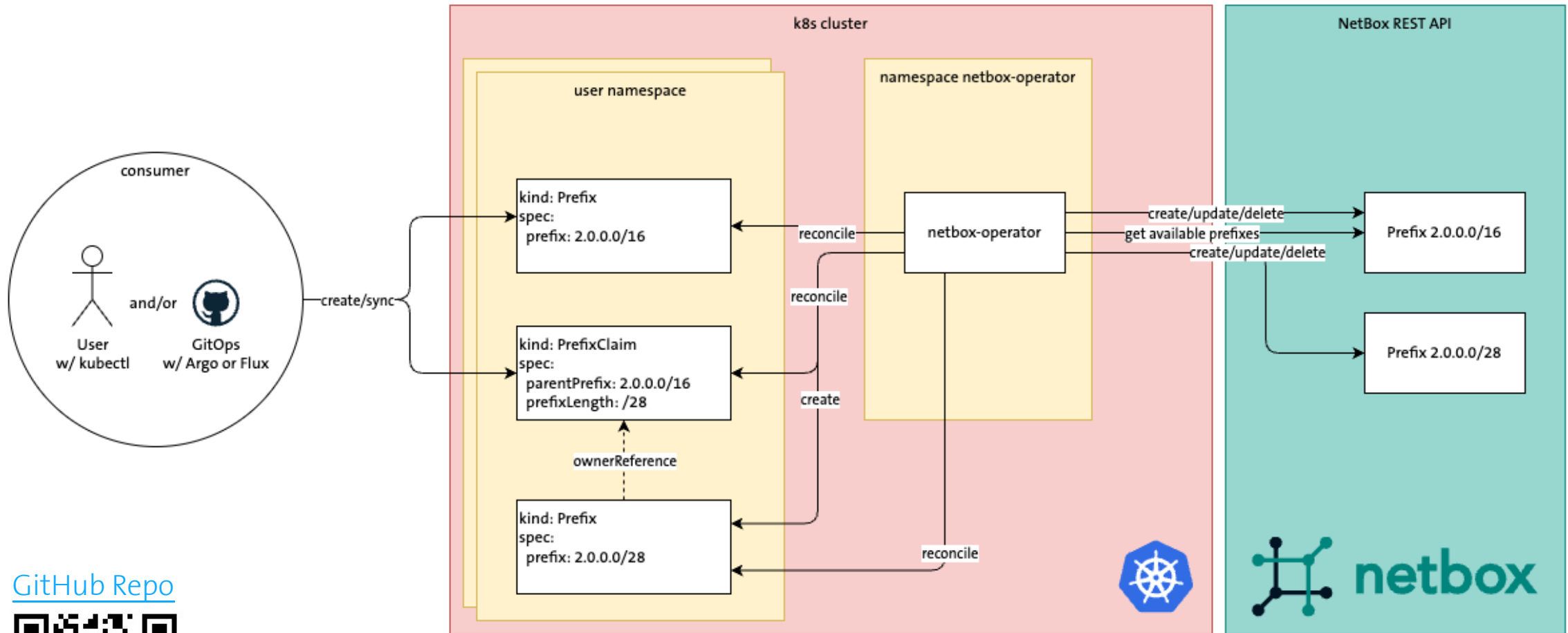
- Sites (physical location of a resource)

## Managed by NetBox Operator

- Prefixes
- IP Addresses
- Tenancy (ownership of a resource)
- Custom fields (additional information about a resource)



# NetBox Operator



[GitHub Repo](#)





# Thanks

## Swisscom

Lea Brühwiler, Ashan Senevirathne, Joel Studler, Alexander North, Henry Chun-Hung Tseng, Fabian Schulz, Hoang Mai, Pablo Garcia Miranda, Andreas Forsten, Chema De La Sen, Jitendra Sapariya, Miltiadis Alexis and many more!

## NetBox Labs

Mark Coleman, Richard Boucher, Kristopher Beevers, Jeff Gehlbach, Nat Morris



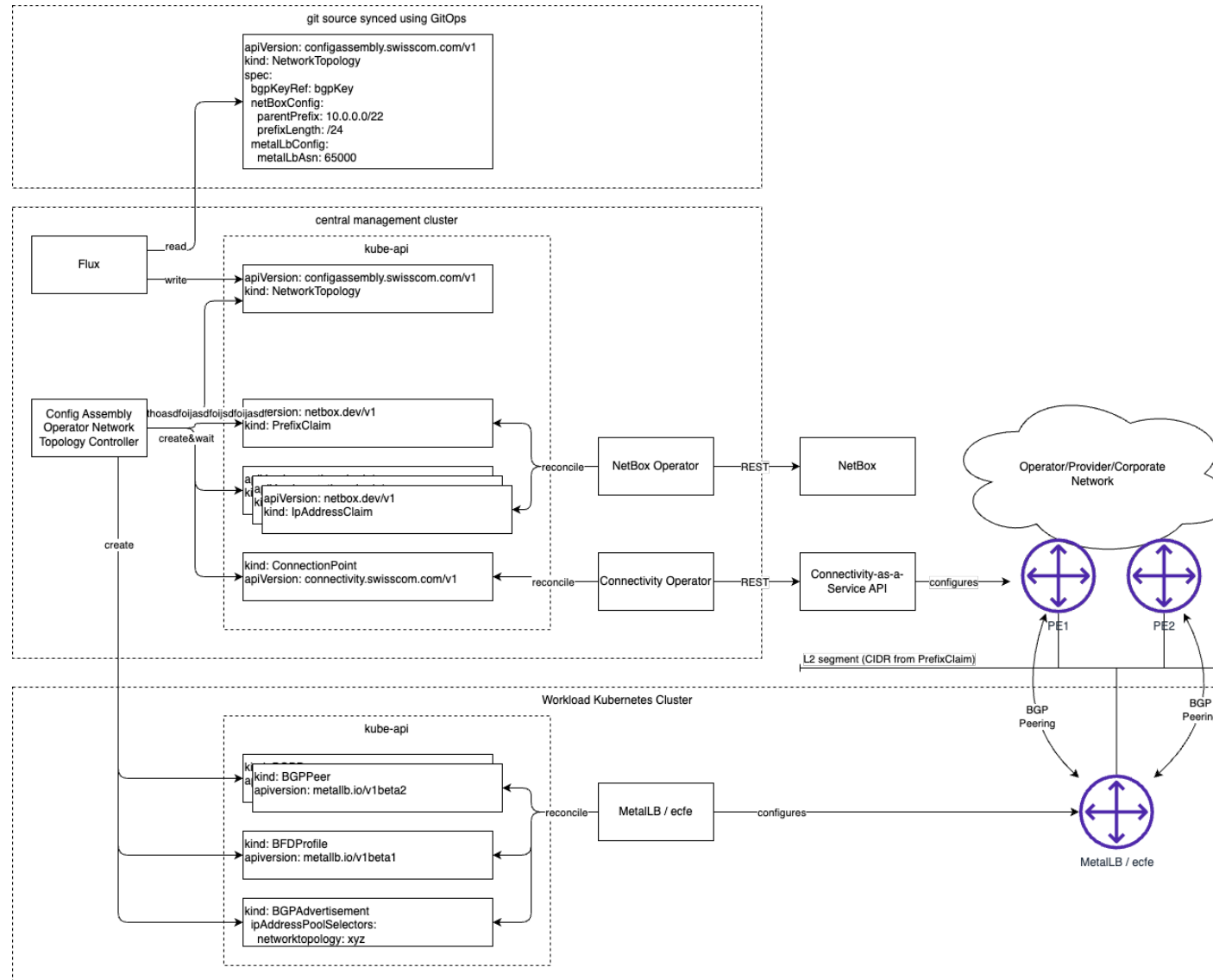
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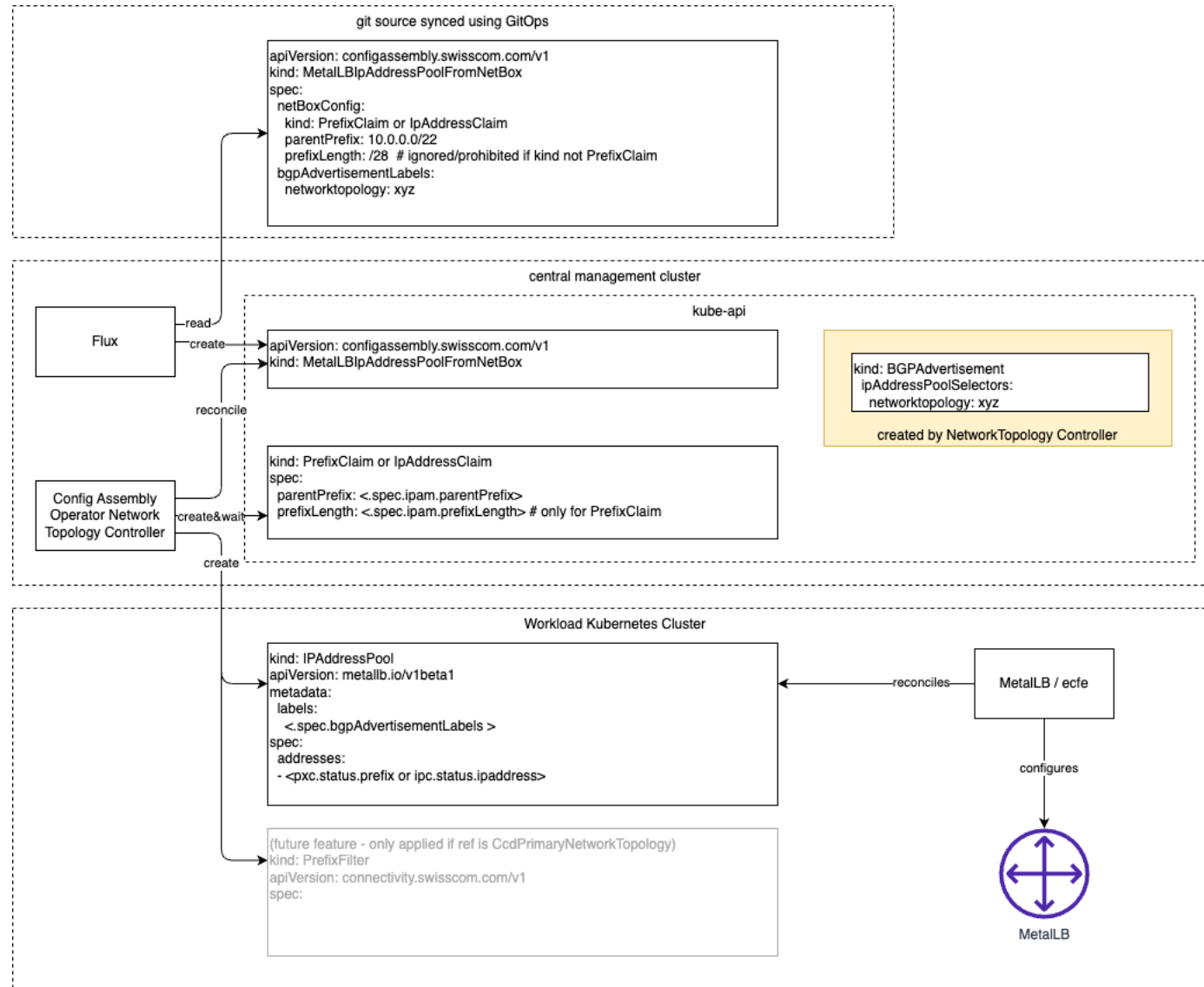


# Integration Example 1: Kubernetes Cluster MetalLB Topology

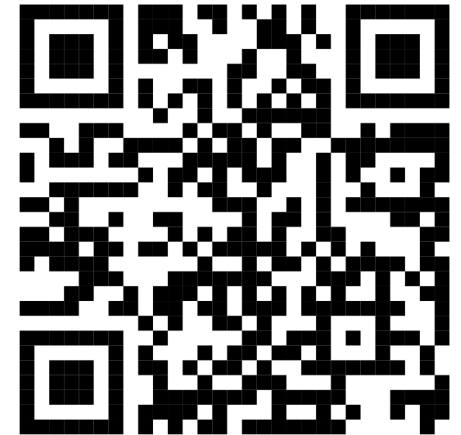




## Integration Example 2: MetalLB IPAddressPool



Demo of a similar but not identical Setup:  
<https://youtu.be/35-fEgHDjw?t=1034>





# Resources

## **NetBox Operator**

<https://github.com/netbox-community/netbox-operator>

## **A deep dive into NetBox Operator**

*by Lea Brühwiler, Ashan Senevirathne, Joel Studler, Alexander North, Henry Chun-Hung Tseng, Fabian Schulz*

<https://www.cncf.io/blog/2024/09/16/a-deep-dive-into-netbox-operator>

## **Evolving GitOps: Harnessing Kubernetes Resource Model for 5G Core**

*by Ashan Senevirathne and Joel Studler at Open Source Summit Europe 2024*

<https://osseu2024.sched.com/event/1ej4l>



# NetBox Operator Demo

