## Allow direct communications between pods, using webhooks

## The idea:

- A webhook on the providers, watching the ShadowEndpointSlices creation/update
- Replaces the indirect route addresses with the direct
- Same mechanism for EndpointSlice creation, the direct address will not be remapped (done using a label in the shadowEPS)

## ShadowEPS received by the provider

```
Kind:
              ShadowEndpointSlice
Metadata:
  Creation Timestamp: 2025-07-14T19:27:14Z
  Generation:
                       123
  Resource Version:
                       2773913
                       6188f8fa-4fcb-48f1-843c-af4eced499c9
 UID:
Spec:
  Template:
    Address Type:
                  IPv4
    Endpoints:
      Addresses
                         Pod on Cluster 3 (ext. CIDR)
      10.70.0.5
      Conditions:
                         (the other Provider)
        Ready:
                  true
      Node Name: cluster1
      Target Ref:
        Kind:
                    RemotePod
                    nginx-demo-66f556f644-vjm9j
        Name:
        Namespace: ligo-demo
                    9b690171-232d-4bde-9c9f-4c8a347c0db2
        UID:
      Addresses:
                         Pod on Cluster 1
        10.200.0.129
      Conditions:
                         (Consumer)
                  true
        Readv:
      Node Name: cluster1
      Target Ref:
        Kind:
                    RemotePod
```

The «long route» address needs to be replaced with the one leveraging the shortcut;

Then at the EndpointSlice creation, no remapping will be necessary for that address.

## Data needed to replace the external CIDR address

1) The external PodCIDR of the From the local API server consumer «networks.ipam.ligo.io» 2) The PodCIDR of the shortcut «ips.ipam.liqo.io» 3) The host part of the pod on the From the **consumer** API server other side of the shortcut (requires additional permissions)

Calls to the API server are computationally expensive, especially for a webhook