

# Open Horizon project Agent Working Group Meeting

February 22, 2021



 THE **LINUX** FOUNDATION

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## Meeting Details

Feb 22, 2021 (@ 11:30am ET/8:30am PT)

Meeting Info: <https://zoom.us/j/94980775985?pwd=clk0bFhwVU5SNVFLa1JUWHZZNTRDQT09>

Meeting ID: 949 8077 5985

One tap mobile

+13462487799,,94980775985# US (Houston)

+16699006833,,94980775985# US (San Jose)

Dial by your location

+1 346 248 7799 US (Houston)

+1 669 900 6833 US (San Jose)

+1 253 215 8782 US (Tacoma)

+1 312 626 6799 US (Chicago)

+1 929 205 6099 US (New York)

+1 301 715 8592 US (Germantown)

888 788 0099 US Toll-free

877 853 5247 US Toll-free

Meeting ID: 949 8077 5985

Find your local number: <https://zoom.us/u/av0XQgb3W>

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## Topics

1. Welcome and Introductions for any new attendees
2. Agent network design change – Issue 2095
3. Zenhub issue status
  1. In-progress Issues
  2. Outstanding PRs
4. Next Meeting

# Network Design Change

Issue 2095

## Issue 2095

- The purpose of this issue is to provide support for a service dependency to call to its parent service using a “hostname” that is established by a service developer.
- A service is able to call an API in a dependency because the OH agent establishes a “hostname” for each dependency container
  - Docker calls this “hostname” an alias. It is network specific.
  - The “hostname” setup by the OH agent is the service name from a service’s deployment configuration.
- Before Issue 2095, parents could call dependencies, but the reverse was not possible because the OH agent did not establish a “hostname” for the parent within the same network as the dependency.
- Issue 2095 adds the parent “hostname” to the parent containers in the dependency’s network.
  - **But this introduces a new problem into the system!**
  - **Parents of a singleton can call each other using a resolvable name, breaking isolation.**

# Issue 2095

```
{
  "org": "myORg",
  "label": "helloWorld",
  "description": "A super-simple sample Horizon service",
  "url": "hello.world.service",
  "version": "1.0.0",
  "arch": "amd64",
  "sharable": "multiple",
  "requiredServices": [],
  "deployment": {
    "services": {
      "helloservice": {
        "image": "openhorizon/example:1.0.0"
      }
    }
  }
}
```

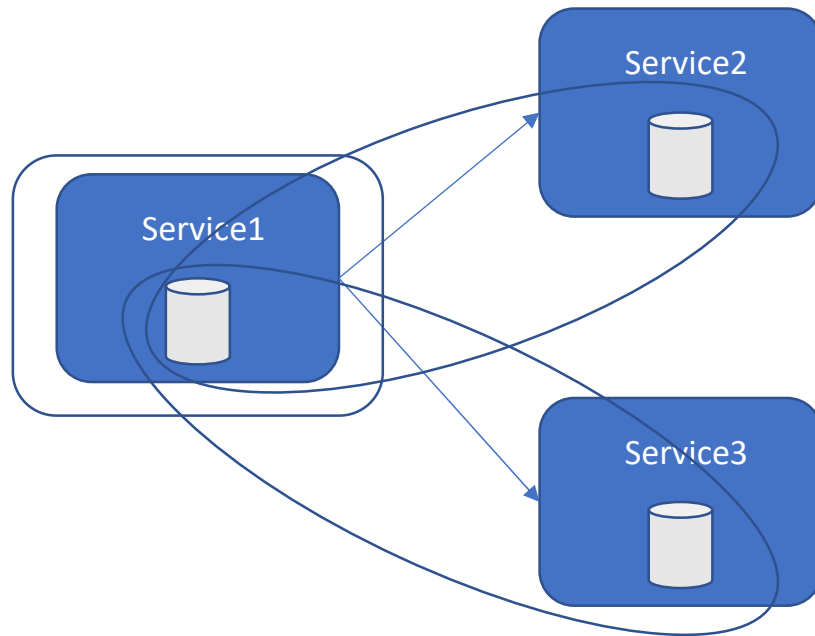
helloservice is the docker alias  
name for this service

## Before Issue 2095

Each dependency had it's own network.

Parent containers were connected to the dependency's network.

Service2 and Service3 are isolated from each other, unable to communicate.





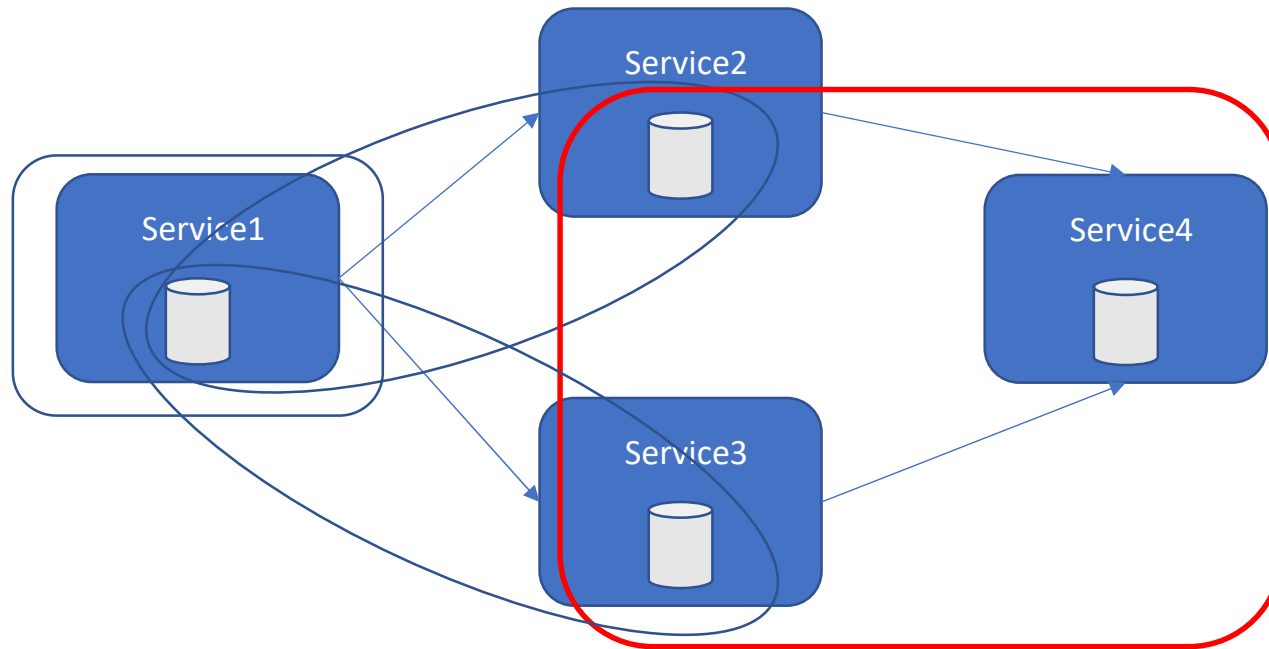
## Before Issue 2095 – The problem existed

Parent containers that depend on a singleton are not isolated from each other.

Service4 is a singleton.

Service2 and Service3 are able to communicate, but not easily (no alias was configured by OH).

There is no resolvable name for Service2 and Service3 in Service4's network.



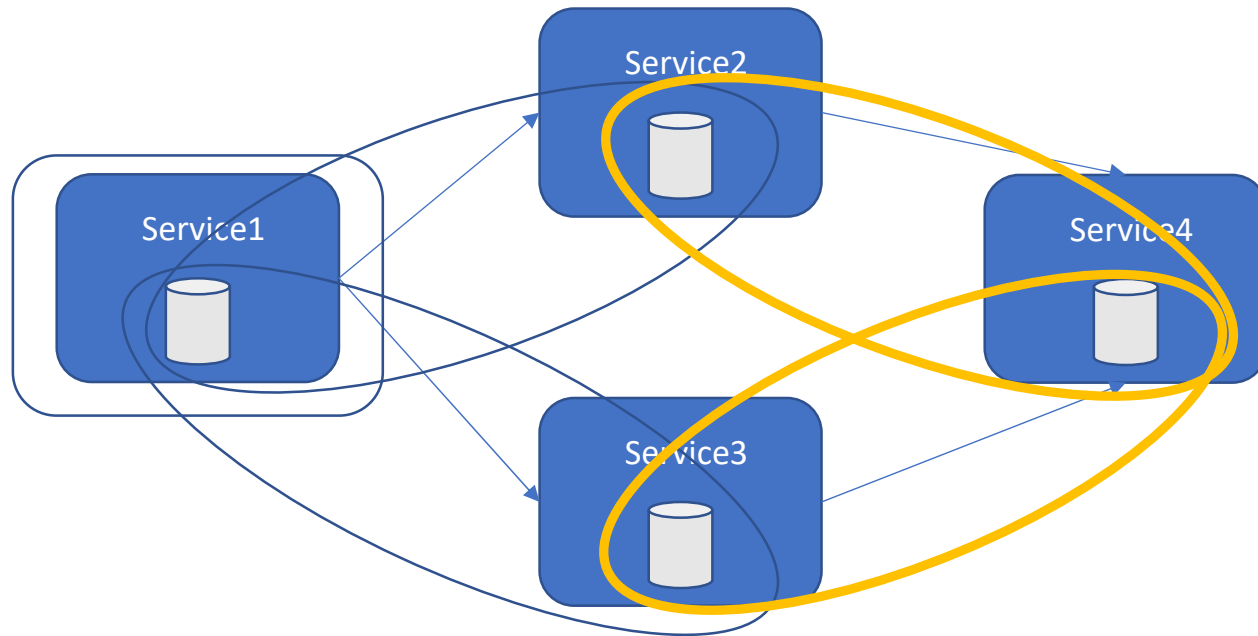
## After Issue 2095

Parent containers that depend on a singleton are isolated from each other.

Service4 is a singleton.

Service2 and Service3 are NOT able to communicate, providing isolation.

Service4 uses a resolvable name to call into Service2 or Service3.



# Next Meeting

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## Next Meeting

- › Next Meeting: Monday, March 8 @ 8:30am PT/11:30am ET

Thank You

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