



# Building a service from scratch

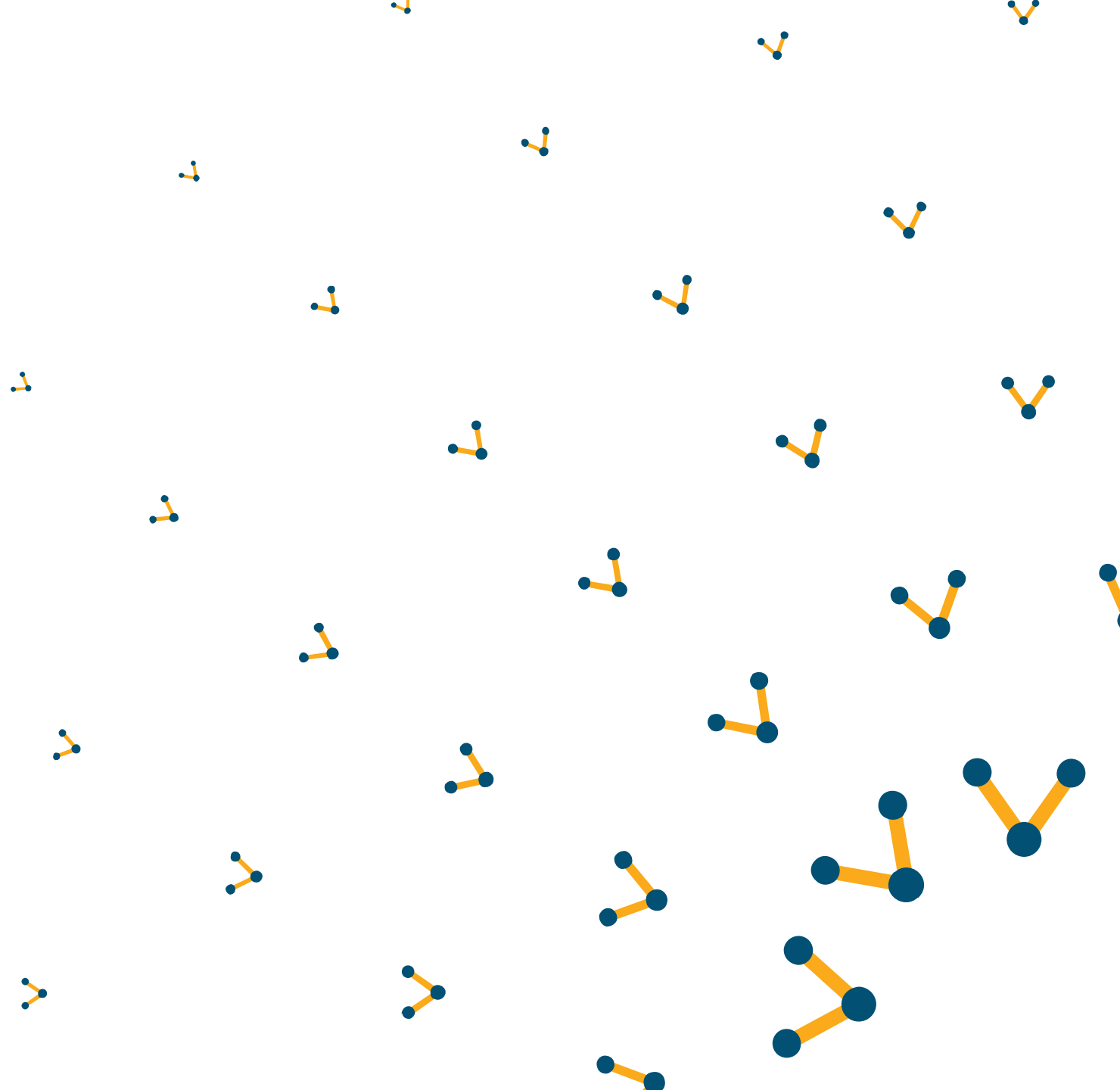
From template to Reactive Fastmap to Nano Service

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# Agenda

- What is NFVO
- What we want to do - The service goal
- Manual approach (interactive)
- Template service creation and manual/automatic monitoring (interactive)
- Reactive FastMap service creation, fully automated (interactive)
- Nano service creation, fully automated (interactive)
- Q&A

First – What  
is Cisco  
NFVO?



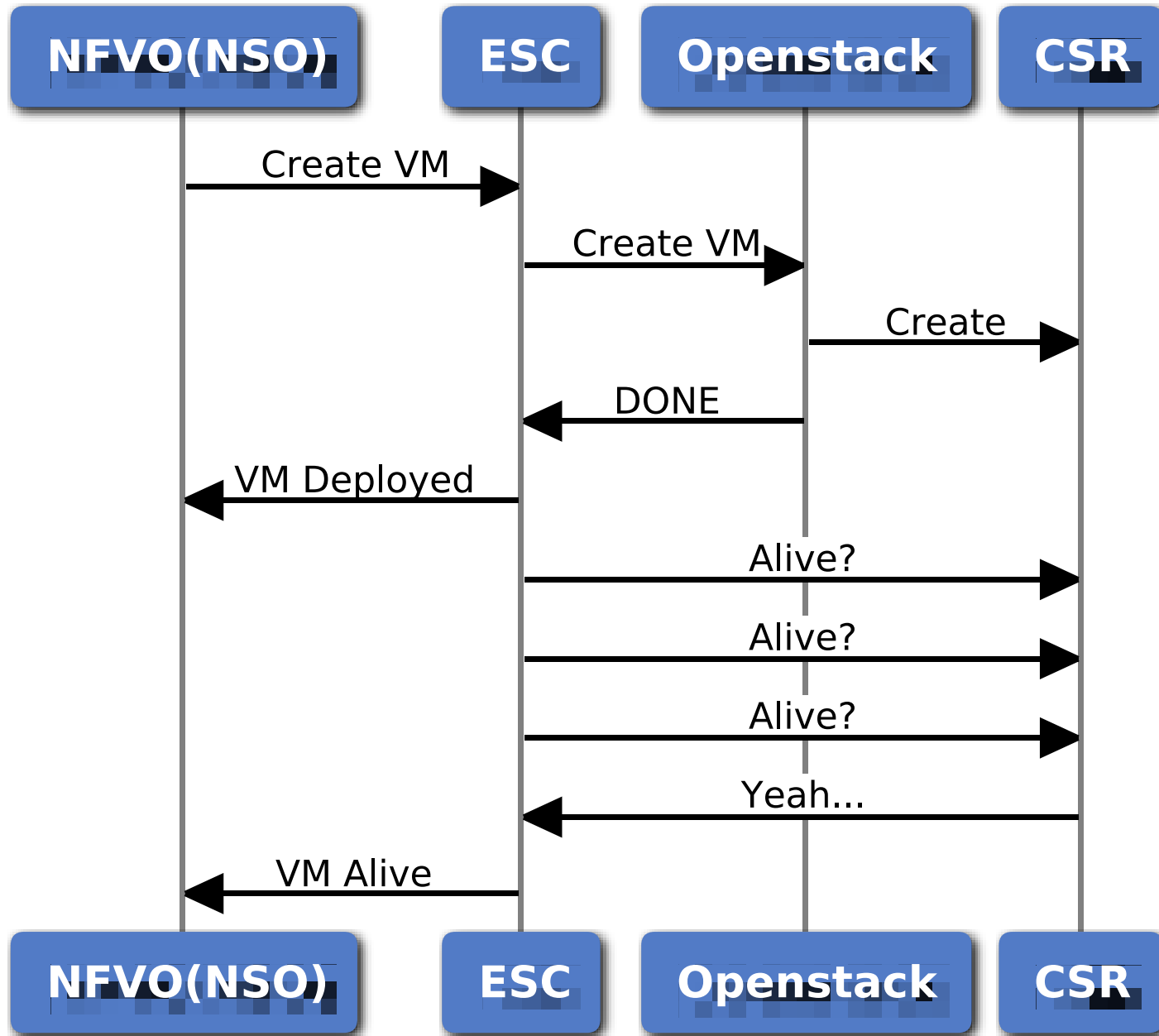
# Cisco NFVO

- Cisco version of the ETSI MANO Stack NFVO component
- Basically a function pack to
  - Allocate resources on a 'VIM' (Openstack, VMWare, AWS etc) for the Virtual Machine
  - Instantiate ETSI compliant Virtual Machines on a VIM via a VNFM (Cisco ESC)

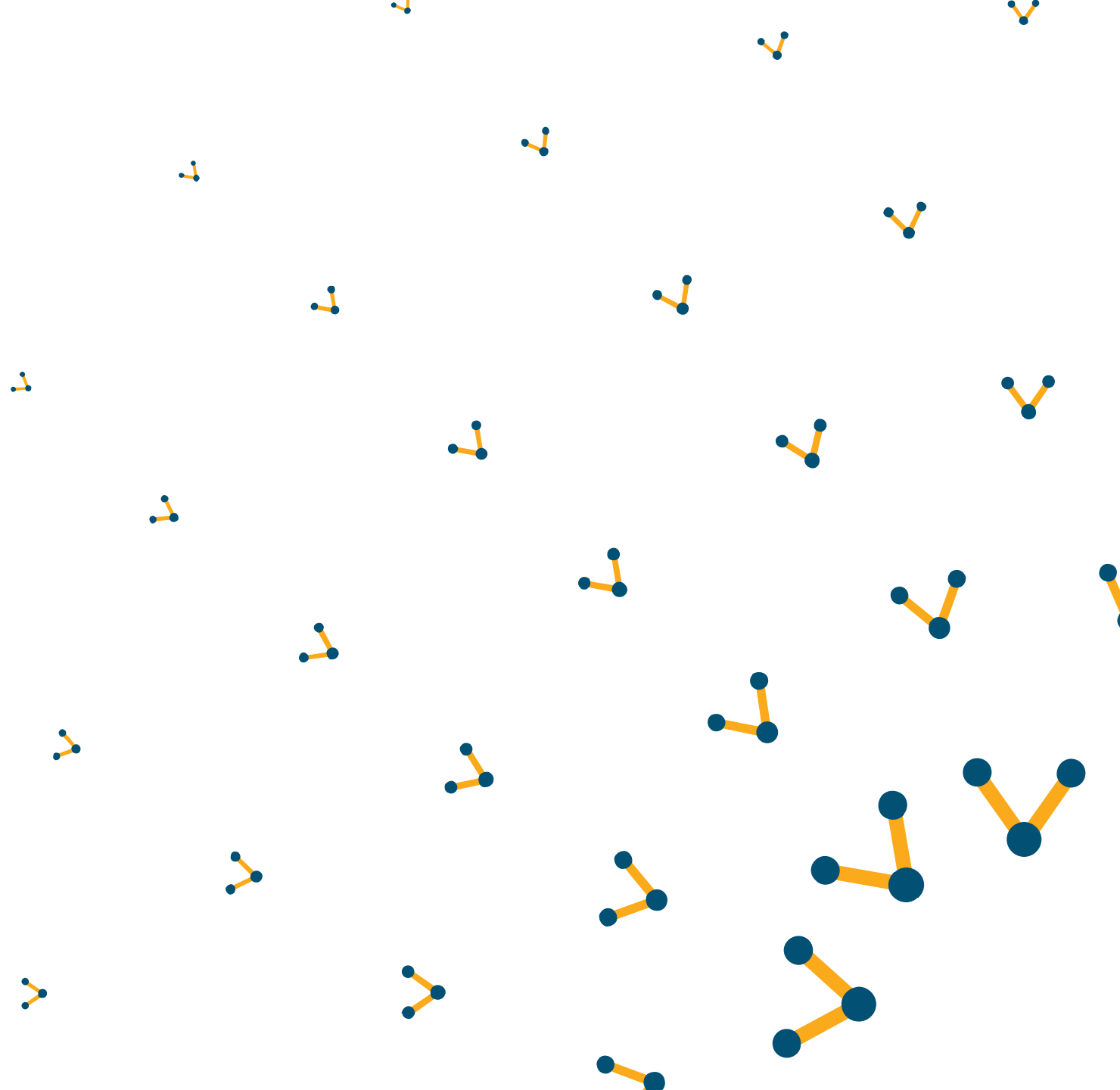
# Cisco NFVO

- VNFD – A static blueprint on the Virtual machine and its requirements
- VNF-INFO – The NSO service that instantiates the VNFD
- Resource Orchestrator – The NSO service that finds a suitable VIM to host the Virtual Machine

# NFVO Service Flow



What we  
want to do

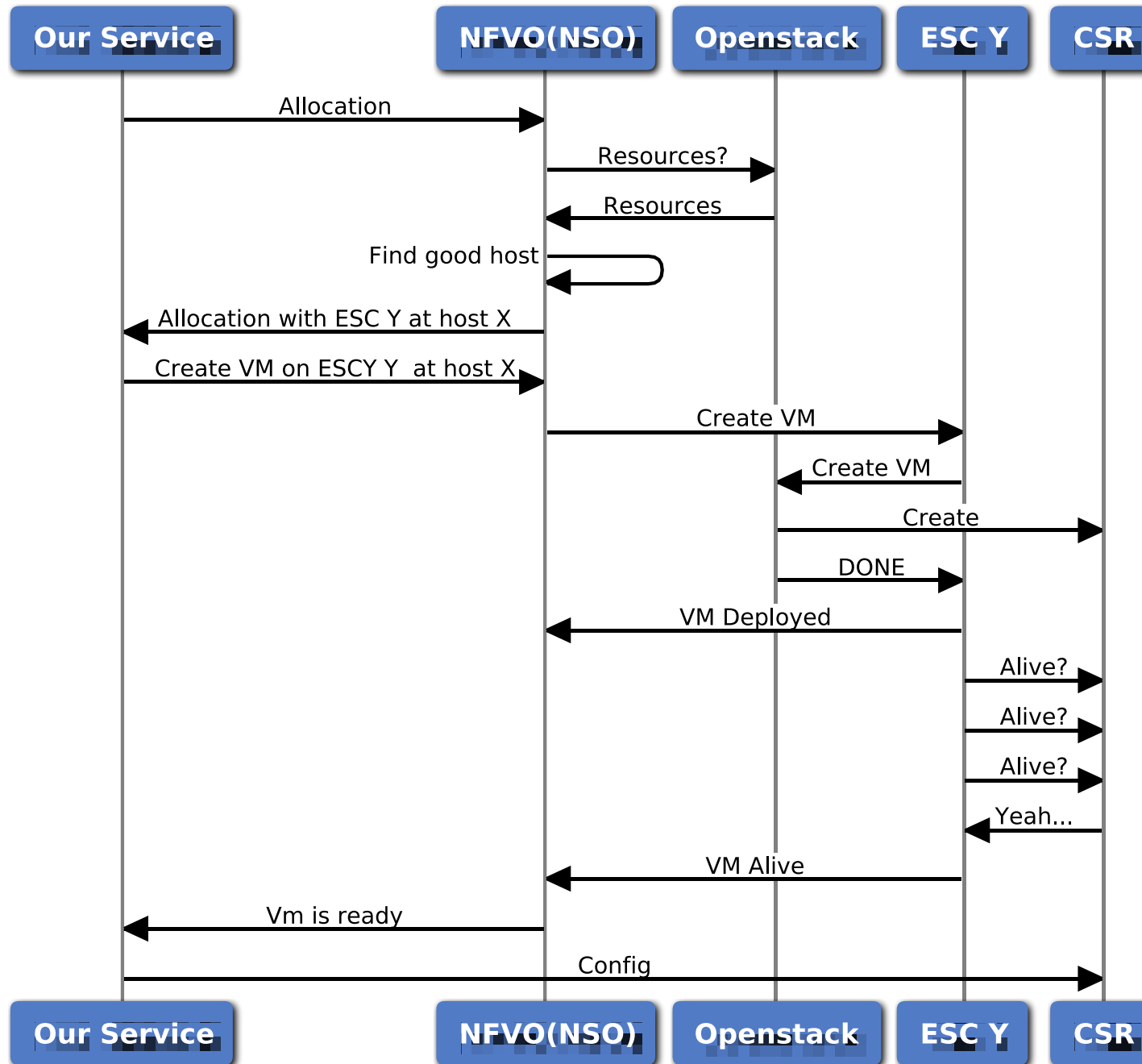


# We want to...

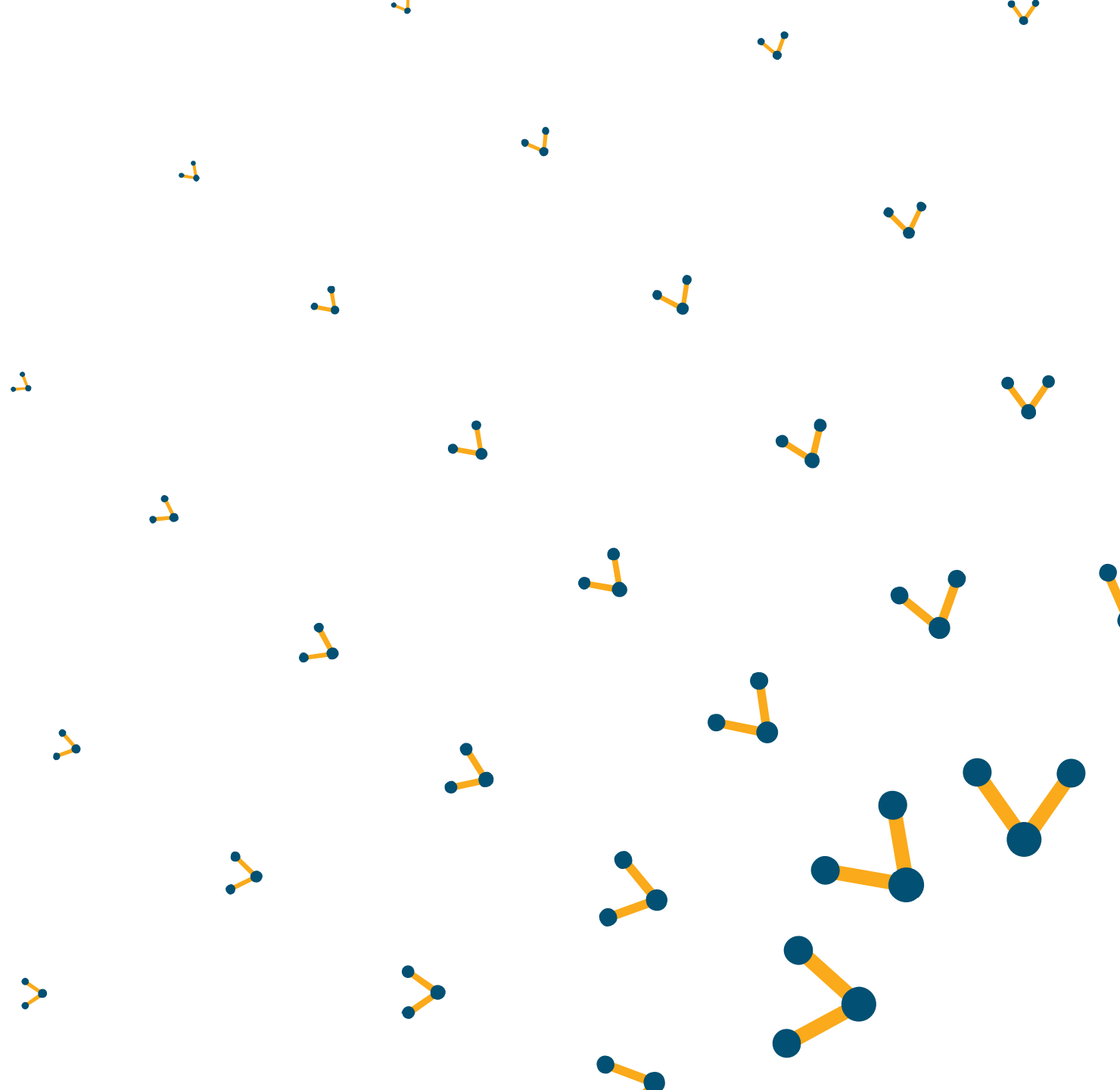
- Allocate resources on Openstack for our VM using the NFVO Function Pack
- Spin up a CSR1kv VM using the NFVO Function Pack
- Add the device to device tree with the IOS NED
- Store device information in operational data in the service
- Configure the CSR device with Day-N config



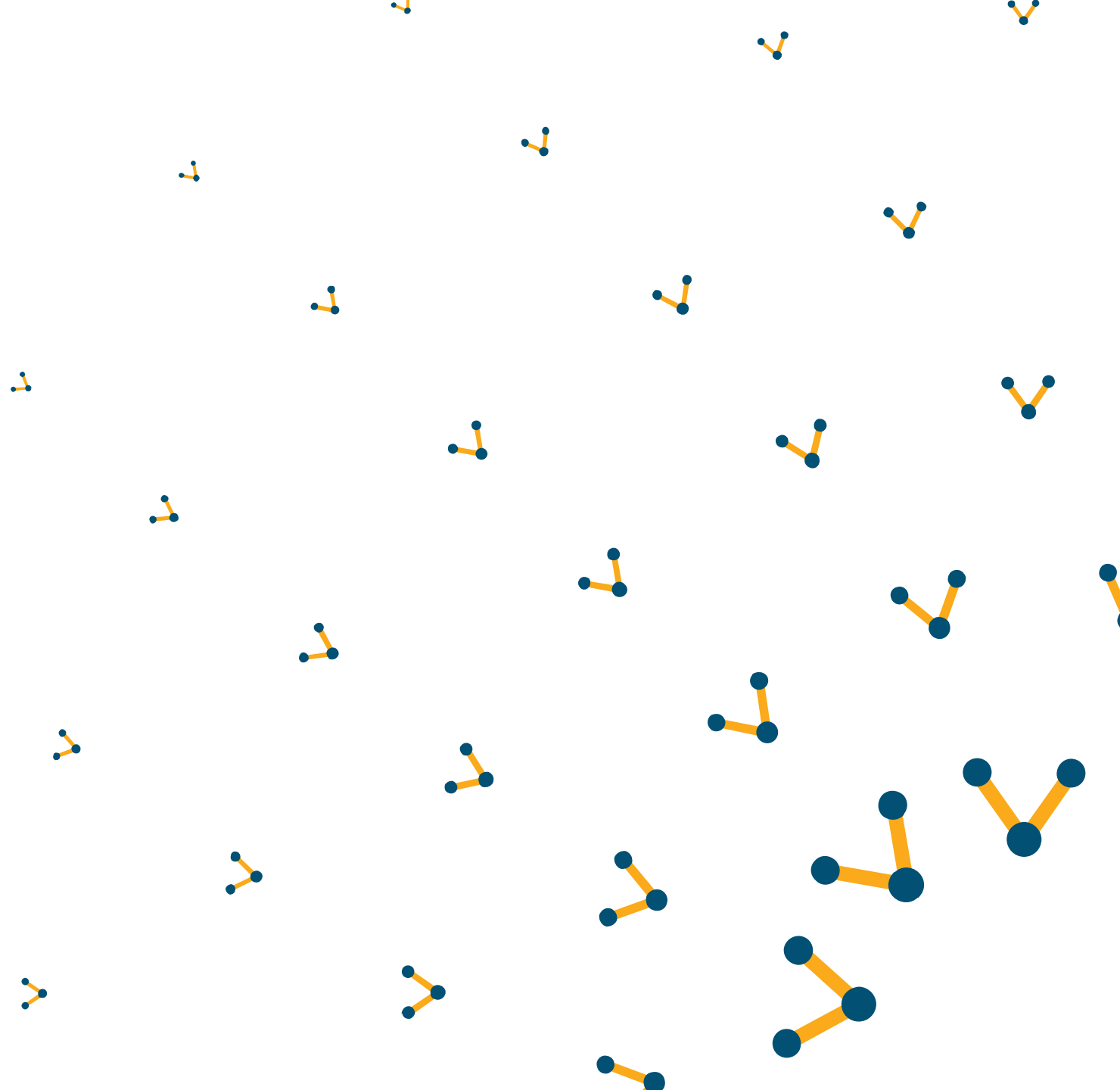
# Our service Flow



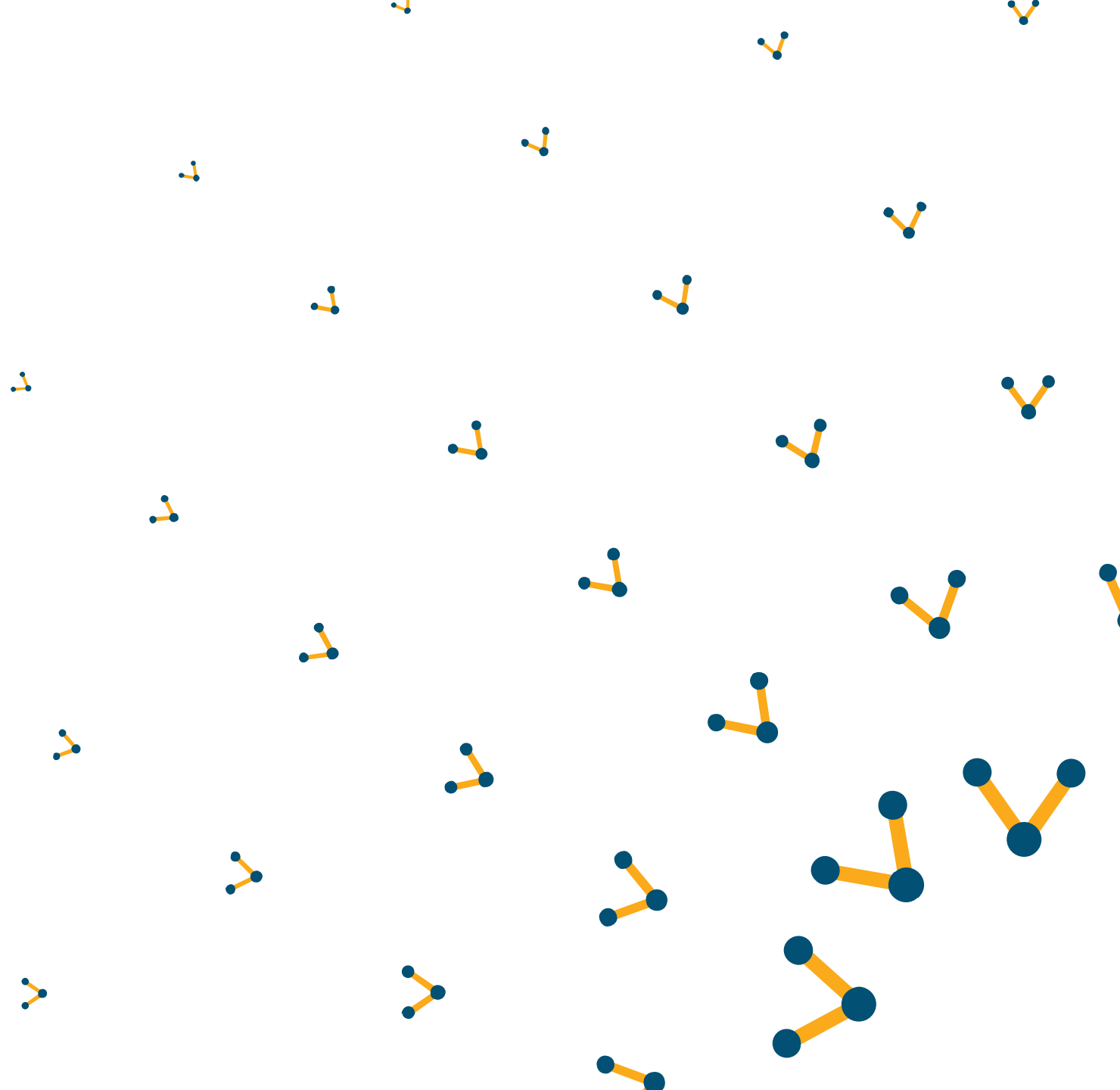
# Manual approach



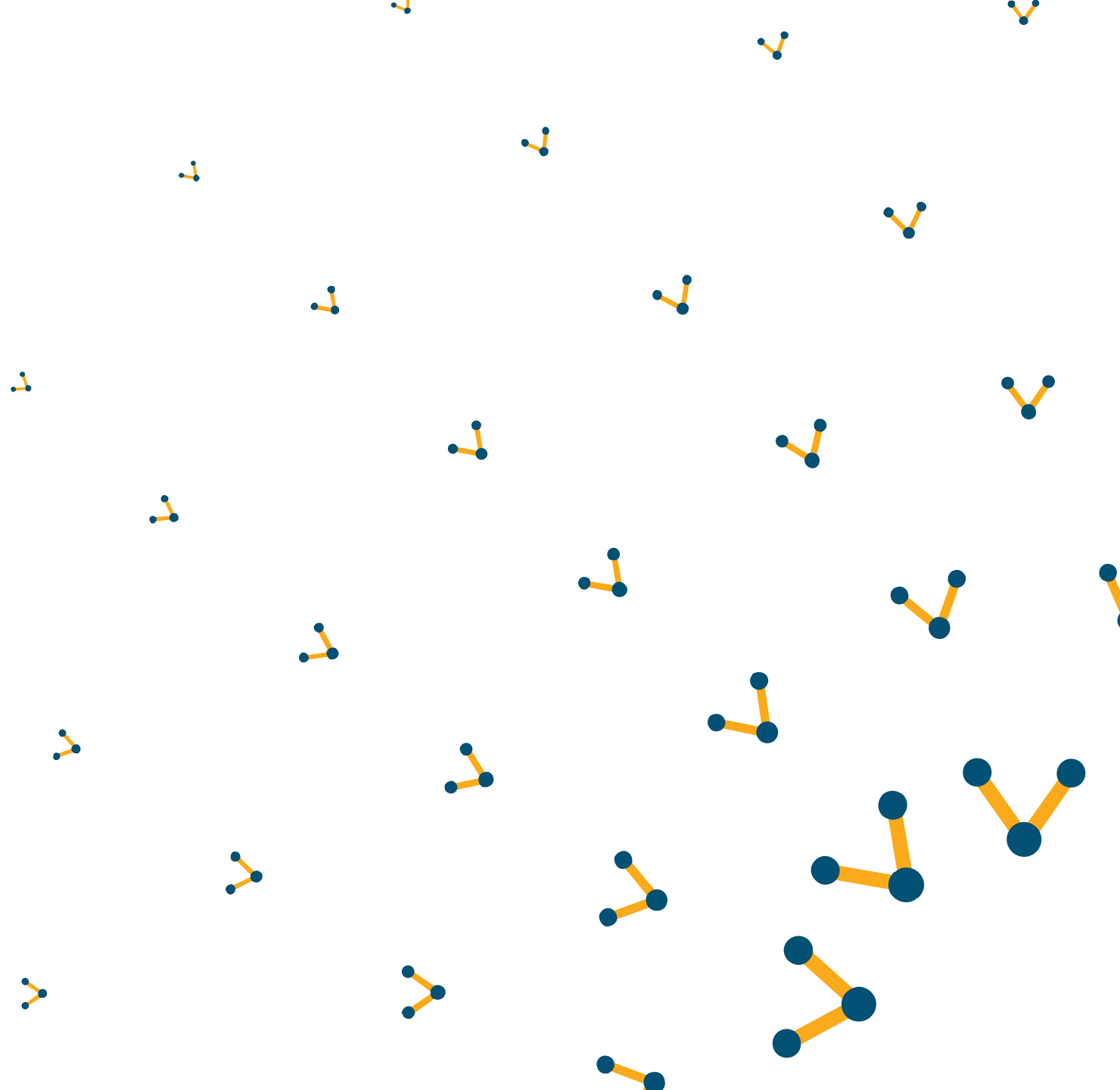
# Template Approach



# Reactive FastMap Approach



# Nano Service Approach



# Q&A

