# Charmed OSM

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OSM Ecosystem day - September 2020

CANONICAL ubuntu

“Open source, carrier-grade, hardened OSM, with enterprise support and long term security updates, for the community, partners, and telcos.”

Open source

Carrier-grade

Hardened OSM

Full enterprise support

Long term security updates

For the community, partners, and telcos

# Why choose Charmed OSM?

- Partner program for GSIs and NEPs
- High availability
- Automated operations

Canonical’s business is to support Ubuntu at scale in telco and other sectors.
Successful MANO drives NFV transformation and adoption of Ubuntu.
We invest in OSM for the industry, and are happy to partner.

# Canonical in the OSM community

TSC Member

N2VC Lead

DevOps Lead

Charmed OSM Lead

# VNF Configuration Adapter

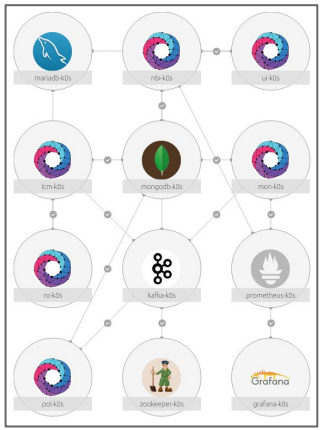
“The Operator Pattern”

Use software to drive software.

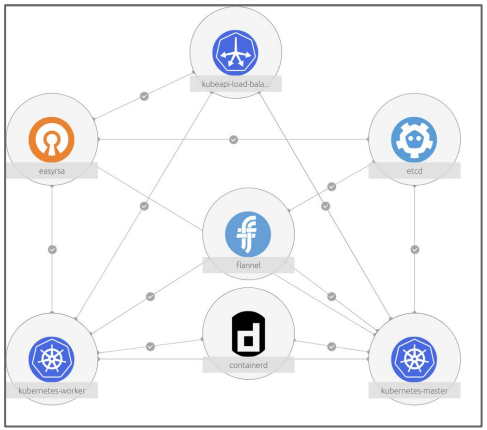
Juju is a *universal operator lifecycle manager*.

# Universal Operators - VM, Cloud, Metal & CAAS

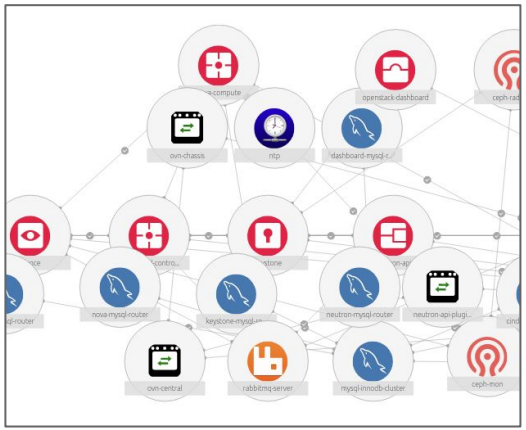
Operators for both new containerized and legacy estate




Kubernetes

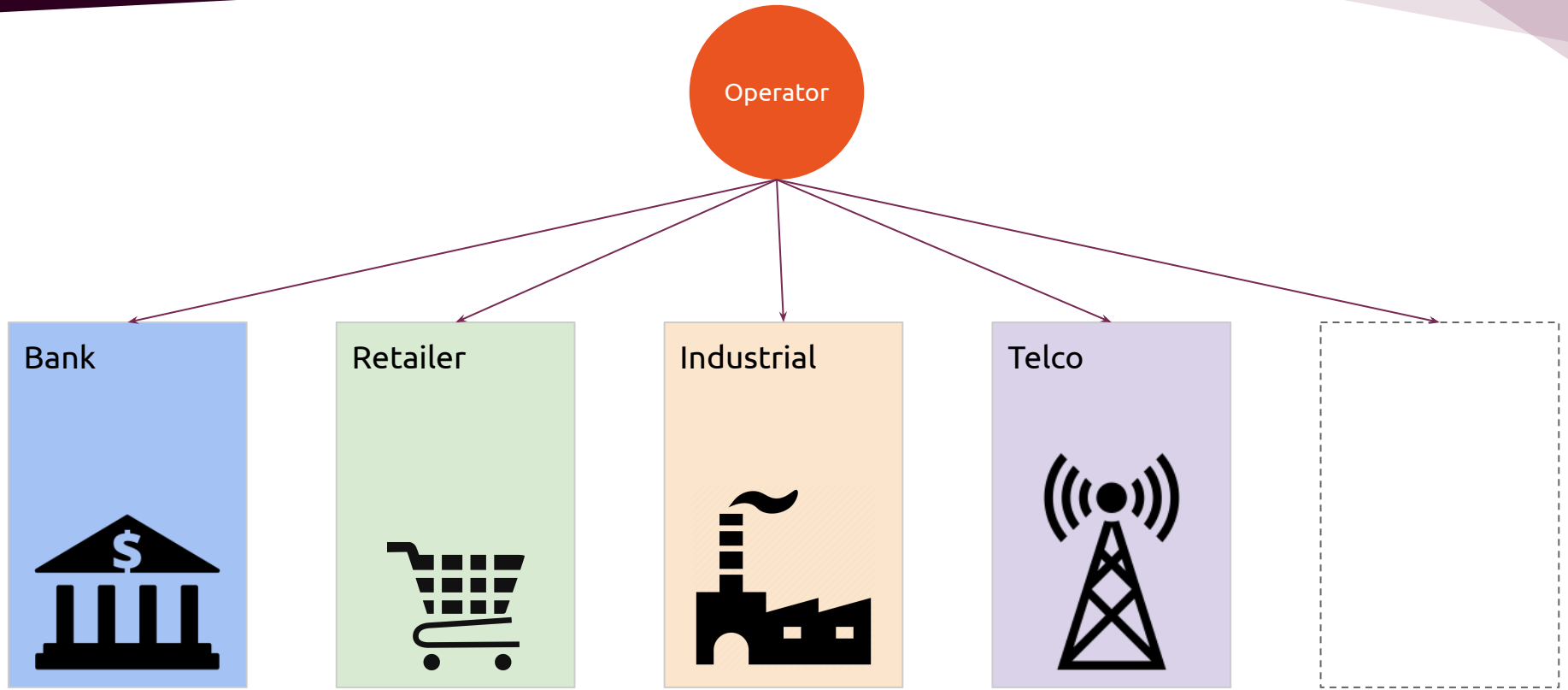



VM / Cloud

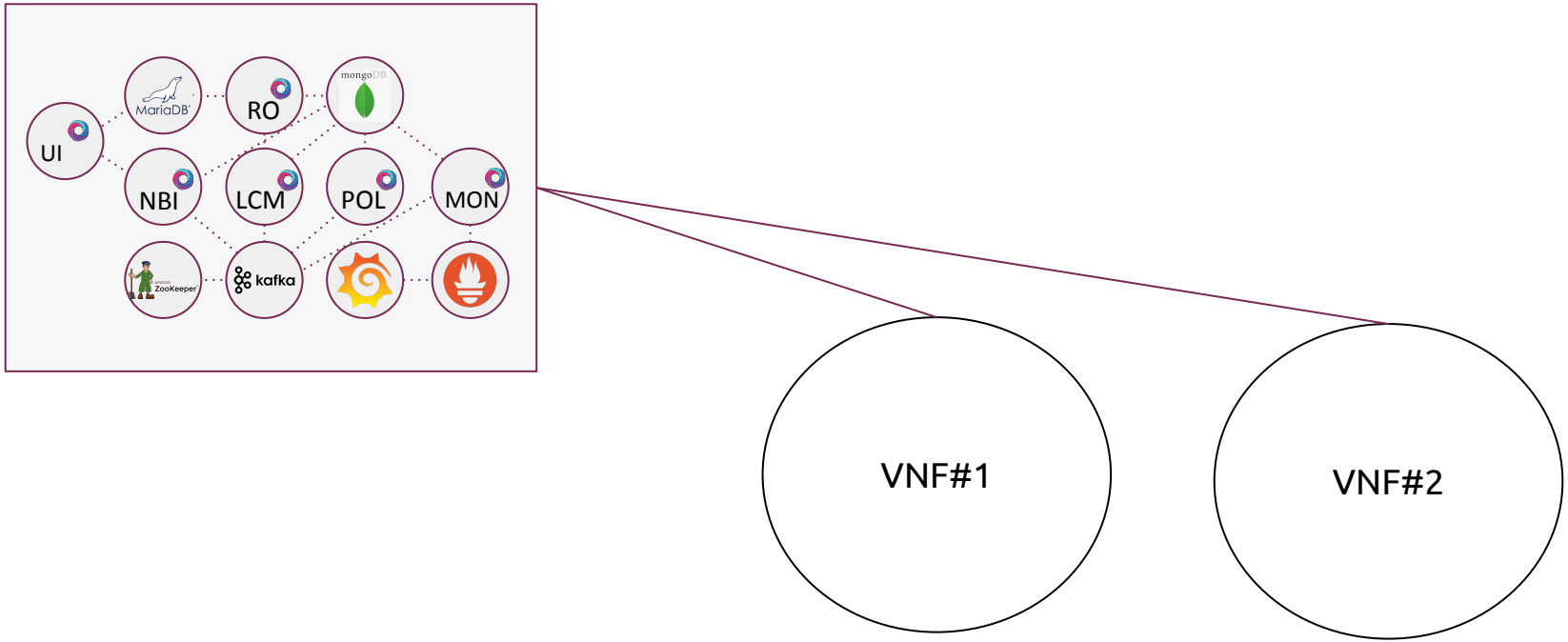



Bare metal

# Exactly the same operator at many companies



# OSM manages VNFs



UI
MariaDB
RO
mongoDB.
NBI
LCM
POL
MON
APACHE
ZooKeeper
kafka

# A charm is an operator package

## Lifecycle

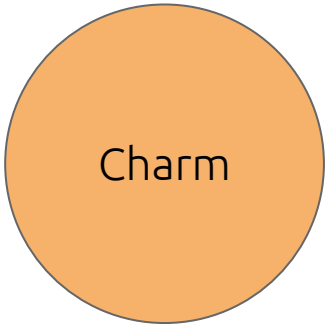
- install
- config
- update
- remove
- scale

## Integration

- relate-mysql
- relate-ldap
- relate-proxy
- relate-...

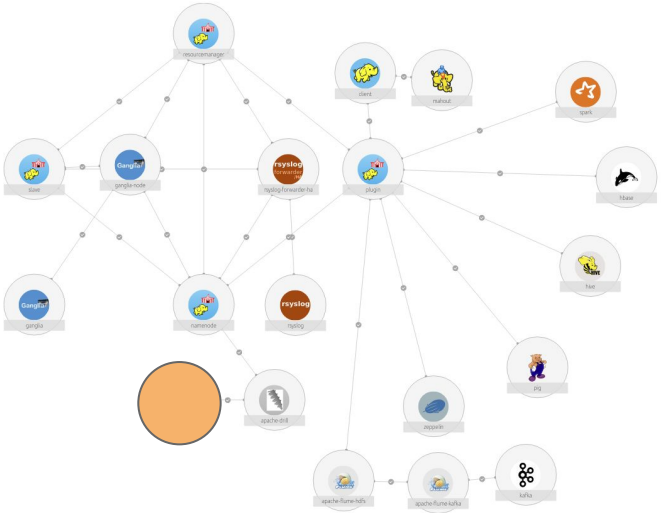
## Workflows / Operations / Actions

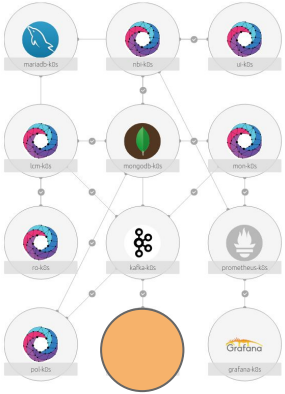
“action: backup”
“action: restore”
“action: scan-viruses”
“action: health-check”
“action: add-repo”
“action: ...”
“action: ...”
“action: ...”

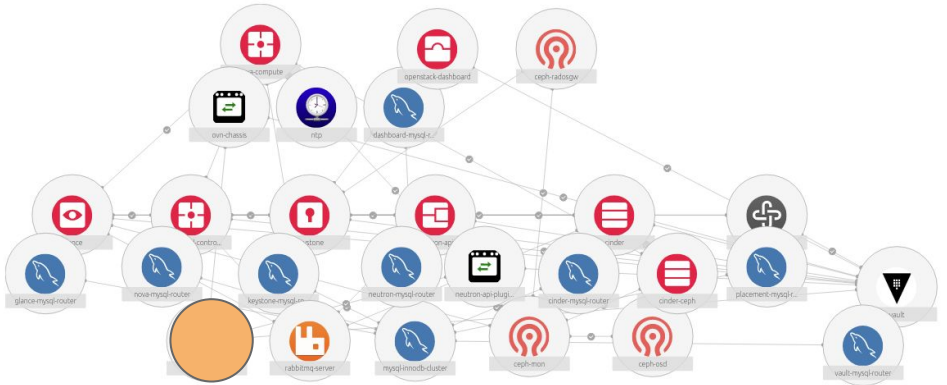


Juju

# Exactly the same charm in many topologies







# Charmhub - the open operator collection

FILTER

Search

Sort by

Categories

- [ ] Analytics
- [ ] App servers
- [ ] Big data
- [ ] Containers
- [ ] Databases
- [ ] Keystone
- [ ] Kubernetes
- [ ] Identity
- [ ] Monitoring
- [ ] Network
- [ ] Openstack
- [ ] Operations
- [ ] Performance
- [ ] Security
- [ ] System
- [ ] Storage

Publisher

- [ ] Charmers
- [ ] Containers
- [ ] Bigdata-charmers

## N2VC

osm-charmers

OSM component in charge of VNF installation, configuration & integration.

## LCM

osm-charmers

OSM component in charge of lifecycle management for VNFs and indicators.

## MON

osm-charmers

OSM Monitoring component in charge of metrics collection.

## NBI

osm-charmers

OSM North Bound Interface component. ETSI SOL005 compliant.

## Prometheus

prometheus-charmers

A systems and service monitoring system that collects metrics.

## Elasticsearch

llama-charmers

Search and analytics engine for textual, numerical, geospatial, structured, and unstructured data.

## Kafka

bigdata-charmers

A unified, high-throughput, low-

## MariaDB

mariadb-charmers

A relational database that provides a SQL interface for fast, scalable

## Grafana

llama-charmers

Multi-platform analytics, monitoring and interactive

# OSM installer

```
$ ./install_osm.sh --charmed
                   --k8s=...
                   --lxd=...
                   --vca=...
```

# Charmed OSM - ecosystem

Any Kubernetes

Flexible VIM options

Charmed applications

Base OS

# Charmed OSM: Key features and Benefits

High availability

Streamlined lifecycle operations

Python operator framework

Operator ecosystem

Unified approach from dev to prod

FIPS compliance & CIS hardening

CVE patching of containers

Long-term enterprise support

Production-grade SLAs

Application delivery service

# OSM partner programmes

CANONICAL Products Partners Careers

Overview Desktop Channel/Reseller IHV/OEM Global System Integrators Public Cloud Become a partner Finc

## Canonical partner programmes

At Canonical, we provide the services our partners need to ensure their hardware and software works optimally with the Ubuntu platform. This means working with technology leaders large and small, to provide the software, services, support and certification they need to complement their core competencies. For technology customers, this has created a thriving market of suppliers with Ubuntu expertise.

Are you an existing partner? Login to the partner portal

Public Cloud ›

IHV/OEM ›

# NEP VNF onboarding and certification

## Use universal operators for your VNFs and leverage Canonical's expertise.

- Operators for VNF and infrastructure management
- Reusable operations code embedding business intent
- CVE patching of containers
- Hardened infrastructure

# Own-brand charmed OSM Partners

For partners who offer OSM
under their own brand.

- Branding and customisation
- Differentiated OSM offering
- Access to pre-certified VNFs
- FIPS, CIS, container CVE patching
- Predictable release cadence

# Embedded charmed OSM

## Integrate upstream charmed OSM with support from Canonical.

- Long-term enterprise support
- Production-grade SLAs
- Rapid deployment
- Integration with logging, monitoring and alerting stack

# Thank you. Questions?

https://charmed-osm.com