

# OPEN INFRASTRUCTURE KEEPS THE WORLD CONNECTED

## OPENINFRA PROJECT AND ECOSYSTEM UPDATE



**HORACE LI**

DIRECTOR OF OPENINFRA ASIA

OPENINFRA FOUNDATION @ LINUX FOUNDATION

# WE BUILD OPEN SOURCE SOFTWARE FOR INFRASTRUCTURE



## Platinum Members



## Gold Members



## Silver Members



# UNITING FORCES

## FOR OPEN INNOVATION



# THE OPEN SOURCE STANDARD: OPENINFRA BLUEPRINT



Linux



openstack.



kubernetes

[OPENINFRA.ORG/BLEUPRINT](https://openinfra.org/blueprint)



# OPEN SOURCE FOR INFRASTRUCTURE **IS WHAT WE DO**





# OpenStack from A to Z

**Austin** - 2010 October

**Bexar** - 2011 February

**Cactus** - 2011 April

**Diablo** - 2011 September

**Essex** - 2012 April

**Folsom** - 2012 September

**Grizzly** - 2013 April

**Havana** - 2013 October

**Icehouse** - 2014 April

**Juno** - 2014 October

**Kilo** - 2015 April

**Liberty** - 2015 October

**Mitaka** - 2016 April

**Newton** - 2016 October

**Ocata** - 2017 February

**Pike** - 2017 August

**Queens** - 2018 February

**Rocky** - 2018 August

**Stein** - 2019 April

**Train** - 2019 October

**Ussuri** - 2020 May

**Victoria** - 2020 October

**Wallaby** - 2021 April

**Xena** - 2021 October

**Yoga** - 2022 March

**Zed** - 2022 October

**Antelope** - 2023 March

**Bobcat** - 2023 October

**Caracal** - 2024 April

**Dalmatian** - 2024 October

**Epoxy** - 2025 April

**Flamingo** - 2025 October - Upcoming



# OpenStack from A to Z

**Austin** - 2010 October

**Bexar** - 2011 February

**Cactus** - 2011 April

**Diablo** - 2011 September

**Essex** - 2012 April

**Folsom** - 2012 September

**Grizzly** - 2013 April



**Havana** - 2013 October

**Icehouse** - 2014 April



**Juno** - 2014 October



**Kilo** - 2015 April

**Liberty** - 2015 October

**Mitaka** - 2016 April

**Newton** - 2016 October

**Ocata** - 2017 February



**Pike** - 2017 August



kata  
containers

**Queens** - 2018 February



**Rocky** - 2018 August



STARLINGX

**Stein** - 2019 April

**Train** - 2019 October

**Ussuri** - 2020 May

**Victoria** - 2020 October

**Wallaby** - 2021 April



**Xena** - 2021 October

**Yoga** - 2022 March

**Zed** - 2022 October

**Antelope** - 2023 March

**Bobcat** - 2023 October

**Caracal** - 2024 April

**Dalmatian** - 2024 October

**Epoxy** - 2025 April

**Flamingo** - 2025 October - Upcoming





Toby Ford

AVP, IT

Operations Strategic Realization

AT&T



## The Heart of NFV



devs  
openstack  
summit  
users

BACK IN  
**2014**



GATHER A  
COALITION OF KEY  
STAKEHOLDERS



DEFINE GAPS IN  
CURRENT OPEN SOURCE  
INFRASTRUCTURE  
SOFTWARE



COORDINATE  
UPSTREAM  
WORK

TODAY

# 9/10 WORLD'S LARGEST TELCOS

POWER THEIR NETWORK WITH  **openstack®**



# OpenStack 2025.1 'Epoxy' Highlights

- **Nova**

- Nova's PCI pass-through feature now supports new kernel vfio-PCI variant drivers such as NVIDIA GRID on Ubuntu 24.04. Operators can now create instances using those specific PCI devices and also **live-migrate** them, which strengthens **OpenStack's ability to support AI workloads**.
- The nova-scheduler service now does leader election in an attempt to have only one run host discovery periodically (if configured) instead of all of them running it all the time in parallel.

- **Octavia**

- Octavia now supports using SR-IOV virtual functions for the backend member networks.

- **Tacker**

- Added a set of setup scripts for users enable to **run complex E2E tests** or evaluate practical use cases.

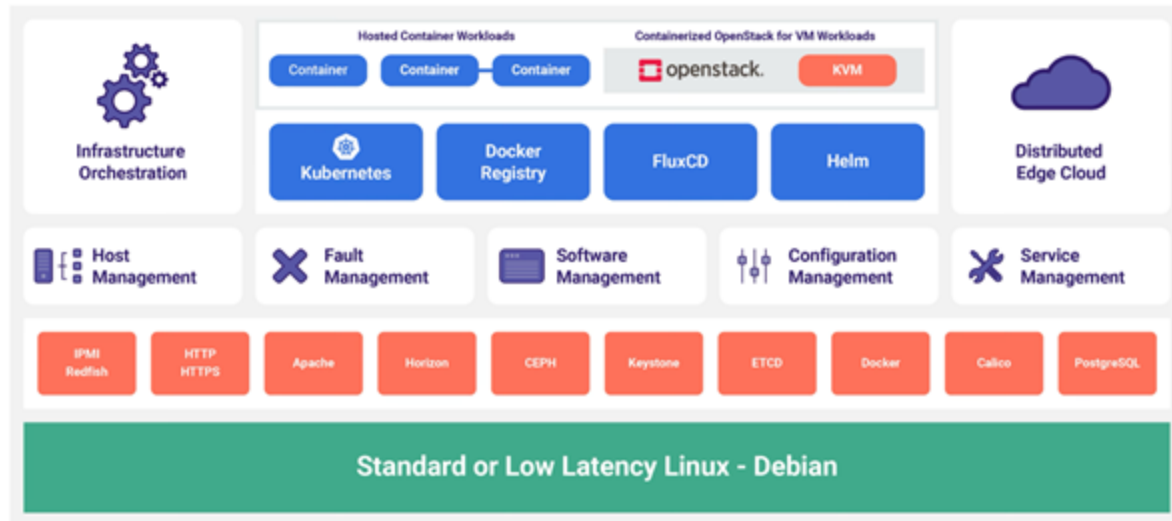
# StarlingX - Follows the OpenInfra Blueprint

StarlingX provides a **deployment-ready, scalable, highly reliable** edge infrastructure software platform.

StarlingX platform services focus on

- **Easy deployment**
- **Low touch manageability**
- **Rapid response to events**
- **Fast recovery**
- **Distributed Cloud architecture**

Currently **running in production** at large telecom operators such as **T-Systems, Verizon, Vodafone, KDDI**, and more.



# StarlingX 10.0 Highlights

- **Manageability** - New Unified Software Management Framework
  - Carry out upgrades and apply patches from one subsystem
  - REST API/CLI interface
- **Robustness** - New Test Automation Framework
  - It's used upstream and allows users to set it up and run the same tests in their local environment
- **Security**
  - Integrating the Harbor container registry
  - IPsec support on L2 networks
- **Networking** improvements
  - IPv4/IPv6 dual-stack support



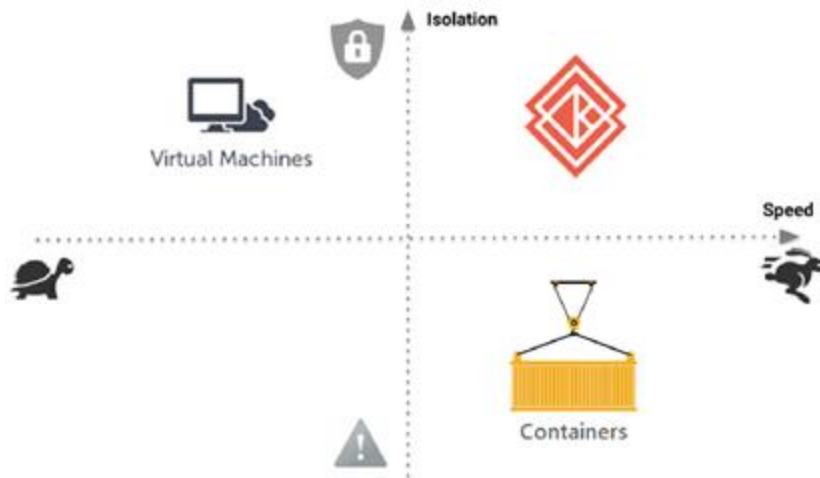
**The speed of containers,  
the security of VMs.**

Kata Containers is an open-source container runtime, building lightweight virtual machines that seamlessly plug into the container's ecosystem.

# Evolution



**the speed of containers,**  
**the security of VMs.**



- ◆ 2015 – Intel launches Clear Containers open source project
- ◆ 2017 - Merger of Hyper.SH runV and Intel® Clear Containers projects under OpenInfra Foundation
- ◆ May 2018 – V1.0 released
  - Container/pod isolated by lightweight VM.
  - OCI-compatible runtime
- ◆ 2019 – Alibaba, Tencent, Baidu, Huawei, Stackpath put Kata Containers in production
- ◆ October 2020 – V2.0 released
  - Rust-agent for improved performance
- ◆ October 2022 – V3.0 released
  - New experimental Rust runtime
- ◆ July 2024 – V3.7.0 released, becoming the base for the first CoCo release





# Highlights



**OCI-compatible runtime that enhances the security of container workloads in a lightweight virtual machines.**

**Works seamlessly with Kubernetes and Docker**  
and is a drop-in replacement for runc

**Open Source**  
Open governance project under the Open Infrastructure Foundation umbrella

**Multi Architecture**  
x86, ARM, IBM Power, IBM s/390x

**Multi Hypervisor**  
QEMU, Cloud Hypervisor, Firecracker, Stratovirt





# WHITEPAPER



[katacontainers.io](https://katacontainers.io)



**ANT  
GROUP**



# CASE STUDY



[katacontainers.io](https://katacontainers.io)



## USERS

Consume  
services

## ECOSYSTEM

Hires  
developers

## DEVELOPERS

Build products  
for users





**110,000**

**COMMUNITY MEMBERS**

**USERS**

**DEVELOPERS**

**ECOSYSTEM**



# A LOOK INTO THE FUTURE

## Cybersecurity is in the Focal Point

le: Growing interest in Kata Containers as a secure container runtime

## 6G and beyond

Already in the works, but there's a lot to be done

## O-RAN and vRAN rollouts

le: Vodafone's deployments in Europe with StarlingX

## AI in Networks?!

Moving beyond chatbots to accelerate data analysis and more

Forbes

FORBES > INNOVATION > CLOUD

VMware Customers  
Cautious after Recent  
Broadcom Actions

ComputerWeekly.com

Uncertainty lingers with Broadcom's VMware  
acquisition

**OVER 60% OF OPENINFRA MEMBERS  
HAVE ALREADY MIGRATED A CUSTOMER FROM  
VMWARE TO AN OPENSTACK-BASED PRODUCT**



# OpenInfra

## SUMMIT > EUROPE'25



**OCTOBER 17-19, 2025**  
**PARIS-SACLAY, FRANCE**

[OPENINFRA.DEV/SUMMIT](https://openinfra.dev/summit) →





# JOIN US!



