



Welcome to OpenInfra Live

Thanks For Joining Us

Platinum Members



Gold Members

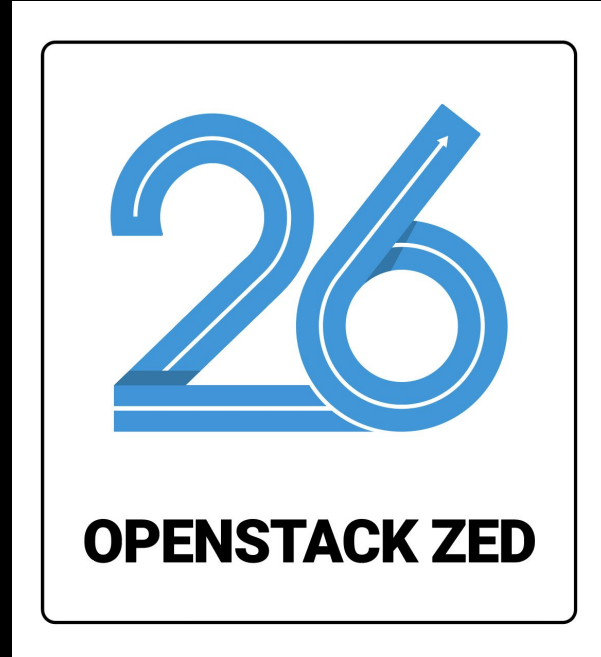


Silver Members



OpenStack Zed by the Numbers

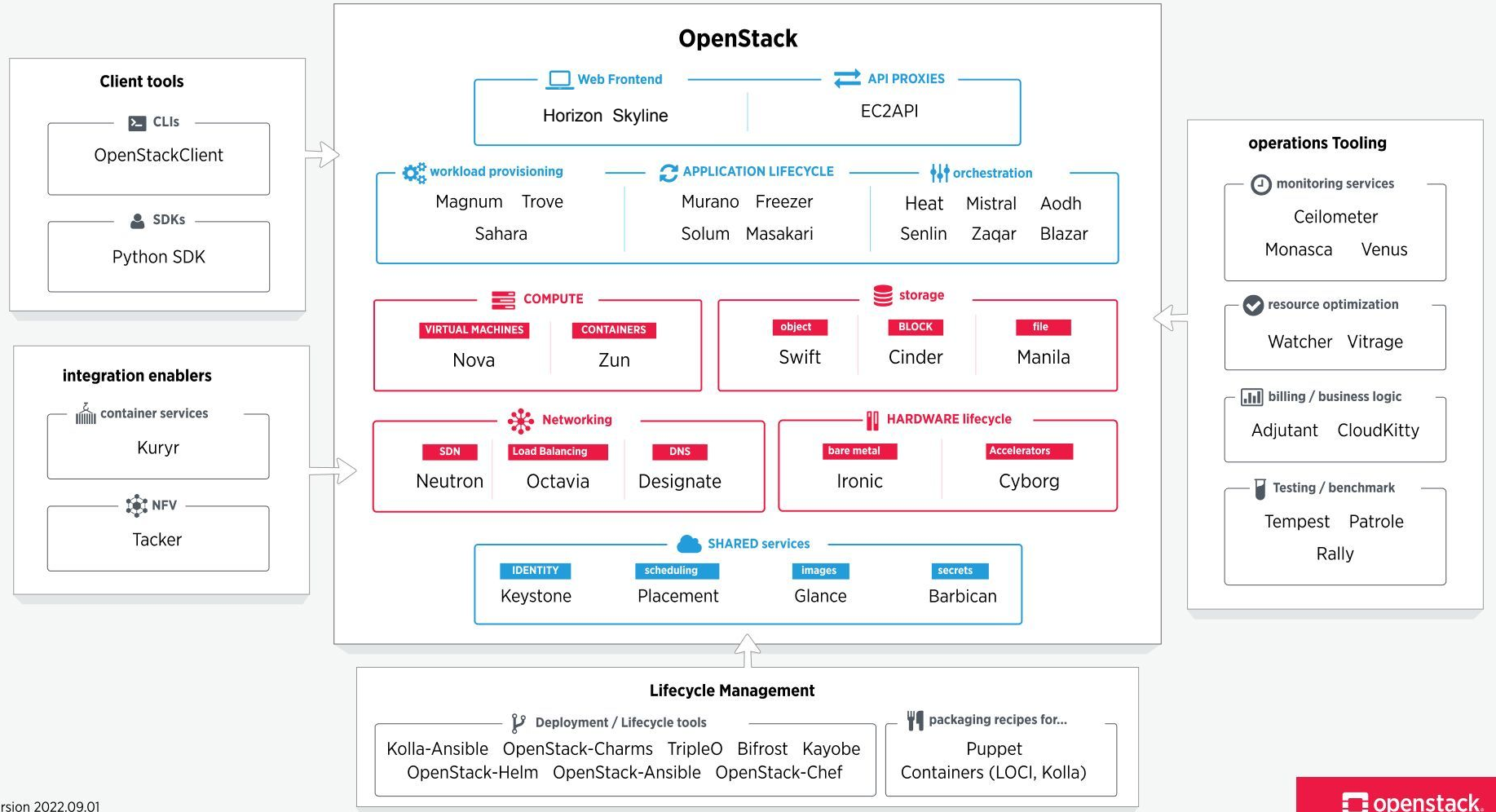
- **15,500 changes**
- **710 contributors**
- **140 different organizations**
- **44 countries**
- **27 weeks**



Increased Upstream Investment & Production Usage

Over 12 years, 26 Releases...

- 40 million cores in production, 166% growth since 2020
- Since 2012, our community has merged over 576,000 changes from over 8,900 contributors
- Over 180 public cloud data centers distributed worldwide
- 9/10 telcos run OpenStack
- Global and growing: Bloomberg, Walmart, CERN, OVHCloud, LINE, Workday, China Unicom, China Mobile
- Users becoming leaders in upstream contribution: BBC R&D, Blizzard Entertainment, NVIDIA among top 20 contributing organizations=
- Wide-ranging deployment sizes: dozens to millions of cores
- Growing investments around the world: Bloomberg as gold member, 10+ new Silver members from Africa, Vietnam, France, Poland, and the United States



Manila

Carlos Silva

Manila Zed Highlights

- **OpenStack client feature parity**
 - After an effort of various cycles, OpenStack Manila reached feature parity between the native client and OpenStack client
 - Deprecating Manila shell commands in the future
 - Currently missing API microversion auto negotiation
- **Metadata APIs for share snapshots**
 - Works similarly to the share metadata in Manila
 - Easy for defining characteristics for snapshots and querying shares based on their metadata
- **Improved scalability with CephFS/NFS**
 - The Ceph NFS driver now allows users to consume NFS clusters deployed using cephadm. For more details, please check the release notes

Manila Zed Highlights

- **New driver additions**
 - The MacroSan driver was added to Manila
 - Please check the [features support matrix](#)
- **Replication enhancements for NetApp driver**
 - For a better accuracy to determine if a replica is in sync or not, the driver will consider different factors
 - Helps to keep replicas always in-sync in case there is need for failover
- **Secure RBAC updates**
 - RBAC defaults of all Shared File System service (manila) APIs have been updated to remove “system” scope personas.
- **Lots of bugs closed**
- **Please refer to the [Release Notes](#) for more information**

Manila 2023.1/Antelope plans

- **Updates for OpenStack Client**
 - Version auto-negotiation to Manila's OpenStack client
- **Close the gap of features on Manila UI**
 - Manila UI is falling behind in comparison to OSC. The idea is to close the gap by having contributors actively working on covering those features.
- **Adding more coverage to OpenStack SDK**
- **Continue the rootwrap -> privsep migration**
- **Get more tempest test coverage for RBAC**
- **Join us for those discussions (or even [bring your own topics](#)) during PTG!**

Ironic

Jay Faulkner



Ironic

OpenStack is honoring Ilya Etingof, a longtime Ironic contributor.
The OpenStack Zed release has been dedicated to his memory.

Ironic Zed - By the Numbers

18 releases of OpenStack containing Ironic.

43 different contributors across all Ironic projects during the Zed cycle.

6200 downloads of Ironic Zed-cycle bugfix releases from pypi

Ironic Zed Highlights

- **Moving towards Self-Service Bare Metal as a Service**
 - Ironic has added the project-scoped manager role to the RBAC model.
 - Project-scoped admins or managers can create and delete nodes for their project.
 - Ironic can now automatically mark a node as “leased” to a project when provisioned by a project member
- **Hardware support enhancements**
 - More SNMP-controlled PDUs are supported for power control.
 - HTTPS certificate validation enhancements for iLO and iRMC BMCs.
 - Ironic now maintains connections to Redfish BMCs after a password change.
 - Support for connecting to iRMC BMCs over SNMPv3 with encryption and authentication.

Ironic Zed Highlights

- **Operator quality-of-life improvements**
 - Per-node kernel command line options can now be templated to include default values.
 - A new DoS prevention mechanism, limiting concurrent deployments and cleaning.
 - Kickstart driver has been greatly improved, including better CI and support for deployments directly from an OS repository.
 - Ironic can be configured to skip devices when cleaning a node, permitting an operator to leave long-lived data or RAID arrays untouched during cleaning.
- **Ironic Standalone improvements**
 - Ironic now supports dnsmasq DHCP server, directly without the use of Neutron or having to configure a DHCP server outside of Ironic control.
 - Ironic delivered two intermediate bugfix releases, 20.2 and 21.0, giving standalone users early access to features added in Zed.
 - Use of Kickstart driver by standalone Ironic users is now documented.

Ironic Zed Removals/Deprecations

- **Deprecated Features and Integrations**
 - Support for syslinux-based bootloaders, including isolinux and pxelinux
 - Upstream syslinux has not been updated since 2019.
 - Legacy BIOS style booting with virtual media is no longer supported.
 - This used isolinux under the hood, and has to be removed with it.
- **Removed Features and Integrations in Zed**
 - Instance network booting support.
 - New instances deployed with Ironic now only support local boot.
 - This is different than the network booting Ironic performs to manage nodes.
 - Trusted boot support
 - Trusted boot required instance network booting support.
 - This is not to be confused with UEFI Secure Boot or similar technologies.

Nova

Sylvain Bauza

Nova Zed Highlights

- Zed metrics
 - [Blueprints](#)
 - 14 Accepted
 - 6 Implemented and one no longer needed.
 - Bugs
 - [45 bugfixes merged](#) (not incl. backports) compared to [36](#) last cycle
 - Untriaged bug reports from [28](#) to [5](#)
 - Steady number of contributors : [54](#)
 - Kudos to the team for the hard work !

Nova Zed Highlights

- [Virtual IOMMU support](#)
 - You can now attach new vIOMMU devices when creating an instance
- [Hyper-V enlightenments](#)
 - Windows guests will have better performance as we now use other enlightenments
- [Full instance lifecycle support with VDPA ports](#)
 - Live-migrate/hot-plug an instance or suspend it or attach/detach the ports
- [Rebuild a volume-backed instance](#)
 - Instances with a volume attached as root disk can now be rebuilt
- [Unshelve instance to a specific host](#)
 - New 'host' API parameter for unshelve and new behavior when passing AZ
- [Keypair API modification](#)
 - Can only import a public key now

Nova Antelope PTG discussions

- Sustainability efforts we could work for this cycle (power consumption & observability)
- How to resolve Ironic<->Nova compute inconsistencies
- Next steps on RBAC
- PCI devices using Placement API
- FQDNs in metadata
- Mutable MTU for guests
- ... and more !

But also...

- How to help new contributors for joining us
- Discussions with operators about their issues or their feature requests

Nova/Placement at the PTG

- Tuesday, Wed, Thurs, Friday Oct 18-21 1pm-5pm UTC
- Operators are more than welcome to join !
 - Tuesday Oct 18 1-3pm UTC
 - Wednesday Oct 19 4-5pm UTC
- Details (logistics and topics) in <https://etherpad.opendev.org/p/nova-antelope-ptg>

Neutron

Lajos Katona

Neutron Zed Highlights

- Neutron FWAAS is again a fully supported Neutron stadium project.
- Add OVN to the mechanism drivers that support minimum bandwidth QoS rule and placement allocation.
- Add NDP proxy support to L3 routers.
- Support for baremetal provisioning using OVN's built-in DHCP server has been added for IPv4.
- Floating IP port forwarding API supports port ranges.
- Add QoS rule type Packet per Second.
- SQLAlchemy 2.0 adoption both in Neutron and in stadium projects

Neutron Zed Highlights

- The good things in this cycle
 - We Discussed ~13 RFEs.
 - We reviewed and approved 5 specs (more under review).
 - Secure RBAC work was continued in this cycle based on feedback from users.
 - Continued CI rationalization and improvement.
- The bad things in this cycle
 - We introduced experimental flag for drivers which lack resources, the Linuxbridge driver is experimental from Zed.

Neutron 2023.1/Antelope plans

- Attention on quota classes implementation
- Continue the efforts to use OpenstackSDK everywhere.
- DNS improvements

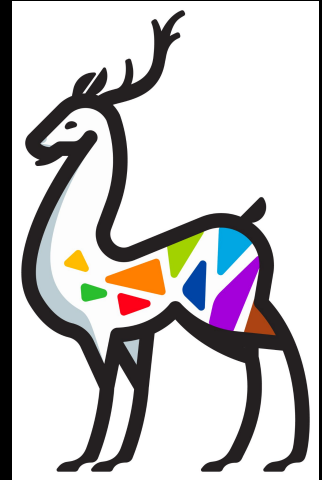
Skyline

Wu Wenxiang



Skyline Zed Highlights

- Support OpenStack Train+.
- Integration with required OpenStack modules: keystone / nova / neutron / glance.
- Also support optional OpenStack modules: cinder / octavia / manila / ironic / heat / zun / magnum / trove.
- Support integration with Prometheus API.
- OpenID SSO login support.
- Other system settings related APIs.



Skyline 2023.1/Antelope plans

- Kolla-Ansible integration.
- Refactor with monorepo and configuration or micro-frontends.
- Stress testing diff with Horizon.

Venus

Liye Pang

Venus Accomplishments in Zed

- Support deploying via devstack, it can be access and use in Horizon project.
- Added the Horizon display plugin for venus (venus-dashboard)
- Support multi-dimensional retrieval of logs of openstack components, hosts, services, etc.
- Add some O&M, such as the retention time of ES data.
- Added Venus API document to OpenStack documents, users can better integrate with the Venus project.

Venus Highlights for Antelope

- Scenario-log analysis: Collect typical error log types for each module and form templates, so that can be prompted when these errors are retrieved.
- Anomaly detection of logs: Algorithms based on rules (regular expressions, etc.), keyword weights and AC automata are used to realize automatic discovery of cloud platform error logs

Interop Working Group

Martin Kopec

Interop WG Zed Highlights

- 2 new target programs:
 - OpenStack with Load Balancer (Octavia)
 - OpenStack with Key Manager (Barbican)
- We have been working on addressing the feedback we got during the summit (WIP)
 - Easier execution of the IWG tooling
 - Having more tests to gain better interoperability coverage

Interop WG 2023.1/Antelope plans

- Improve automation so that interoperability tooling is easier to execute and requires less steps
- Introduce new programs containing more tests
- We welcome any new contributors, in case you want to help with technical side of IWG, contact us
 - <https://wiki.openstack.org/wiki/Governance/InteropWG>



PTG PROJECT TEAMS GATHERING

OCTOBER 17-21, 2022

VIRTUAL

Learn more at

openinfra.dev/ptg

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Thursdays at 14:00 UTC

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