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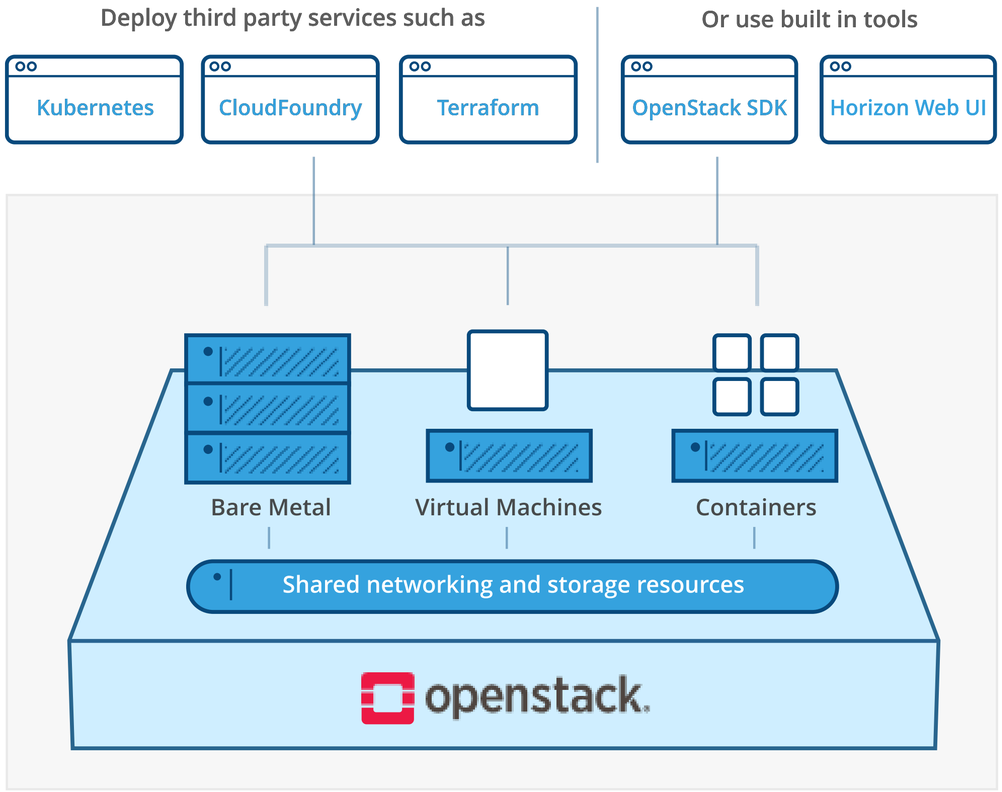
Introduction to OpenStack

OpenStack Korea User Group

What is OpenStack

- OpenStack is cloud operating system which can manage massive computing in data center, storage, network resource and provisioning by APIs.

- Beyond standard Infrastructure-as-a-service function, OpenStack guarantee user application's high availability with orchestration, fault management, and other services provide service management.

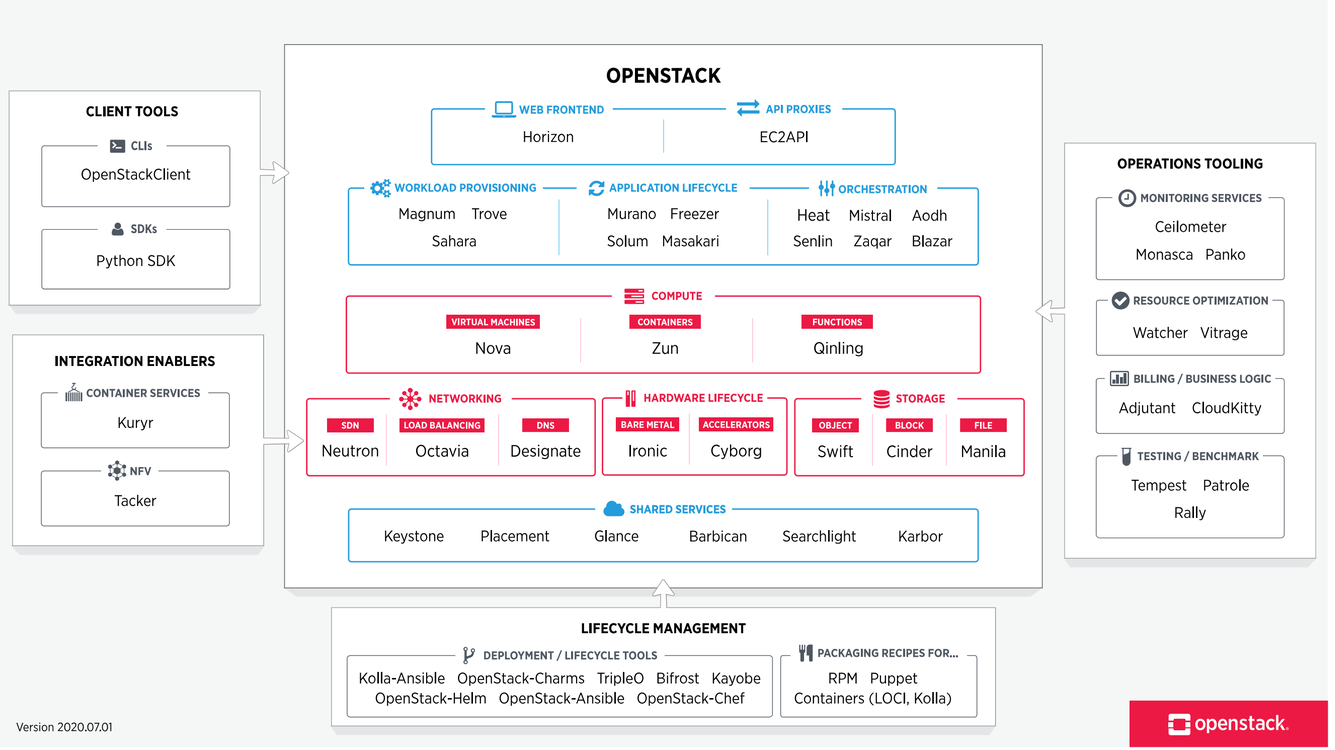


Source: https://www.openstack.org/software/

Components of OpenStack

- OpenStack consists of 6 core components and 39 additional components.

- 6 Core Components
  - Nova : Compute Service
  - Cinder: Block Storage Service
  - Swift: Object Storage Service
  - Neutron: Networking Service
  - Glance: Image Service
  - Keystone: Identity Service



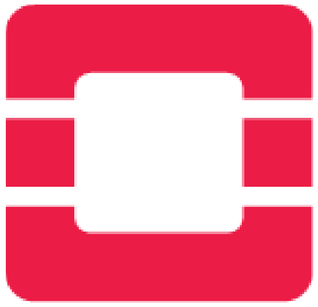
Source : https://www.openstack.org/software/project-navigator/openstack-components#openstack-services

Beyond the OpenStack

- OpenStack Foundation has complemented OpenStack, and announced new open infrastructure projects reinforce open infrastructure.

- Each projects emphasize 4 open, and they are being developed with their own vision and role.

Airship
Lifecycle Management



OpenStack
Programmable Infrastructure for VMs, containers and bare metal

Kata Containers
Secure, lightweight CRI compatible virtualized containers

StarlingX
Edge Cloud Computing Instrastructure

Zuul
CI/CD platform for gating changes across multiple systems/repos

Source : https://superuser.openstack.org/articles/inside-open-infrastructure-the-latest-from-the-openstack-foundation-4/

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Release Period

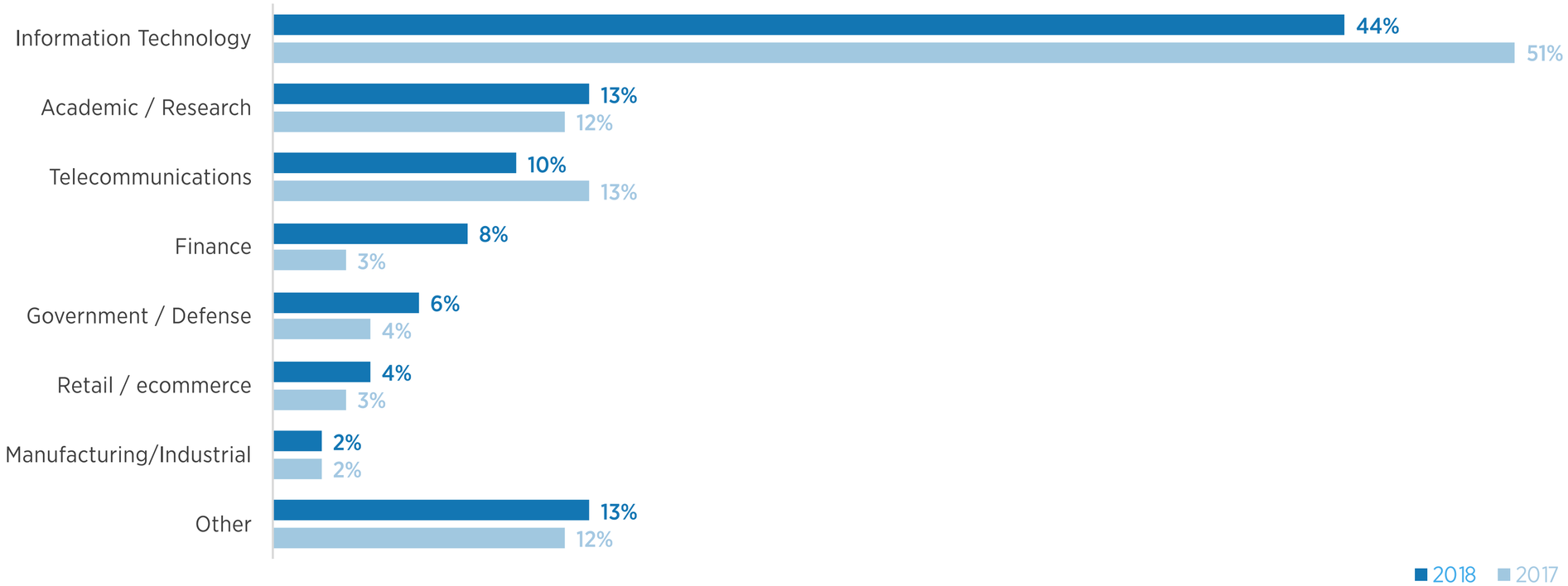
- Announce new releases every 6 month
- The first letter of the release name is in alphabetical order and is named with a place name. The name is decided by voting.
- Support rolling upgrade since Newton version

Refer to : https://releases.openstack.org/

Series	Status	Initial Release Date	Next Phase	EOL Date
Wallaby	Future	2021-04-14 *estimated* (schedule)	Development *estimated 2020-10-14*	
Victoria	Development	2020-10-14 *estimated* (schedule)	Maintained *estimated 2020-10-14*	
Ussuri	Maintained	2020-05-13	Extended Maintenance *estimated 2021-11-12*	
Train	Maintained	2019-10-16	Extended Maintenance *estimated 2021-04-16*	
Stein	Maintained	2019-04-10	Extended Maintenance *estimated 2020-11-11*	

OpenStack by User Survey

Which industries use OpenStack?



2017's sample size of 499, and 2018's sample size of 685.

Source : https://www.openstack.org/user-survey/2018-user-survey-report

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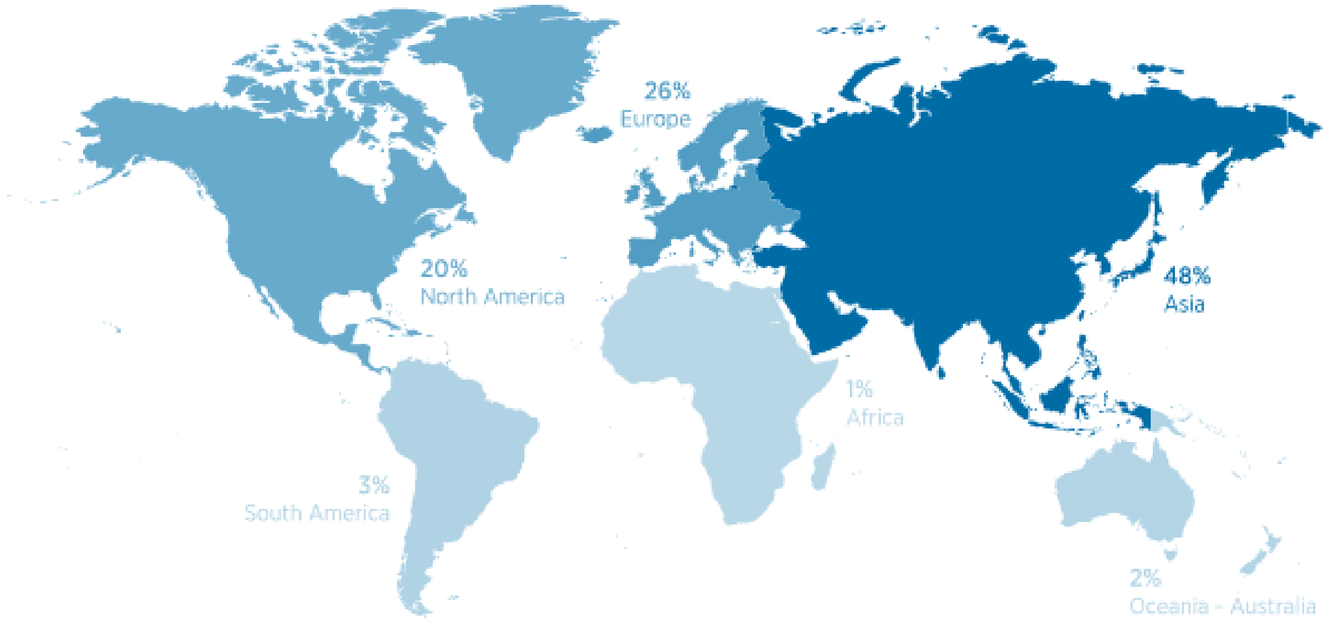
OpenStack by User Survey

Where in the world are OpenStack users?



2018 shows significant increases in respondents in Asia and significant decreases in N. America, compared to both 2016 and 2017.
Sample size of 687.

Source : https://www.openstack.org/user-survey/2018-user-survey-report

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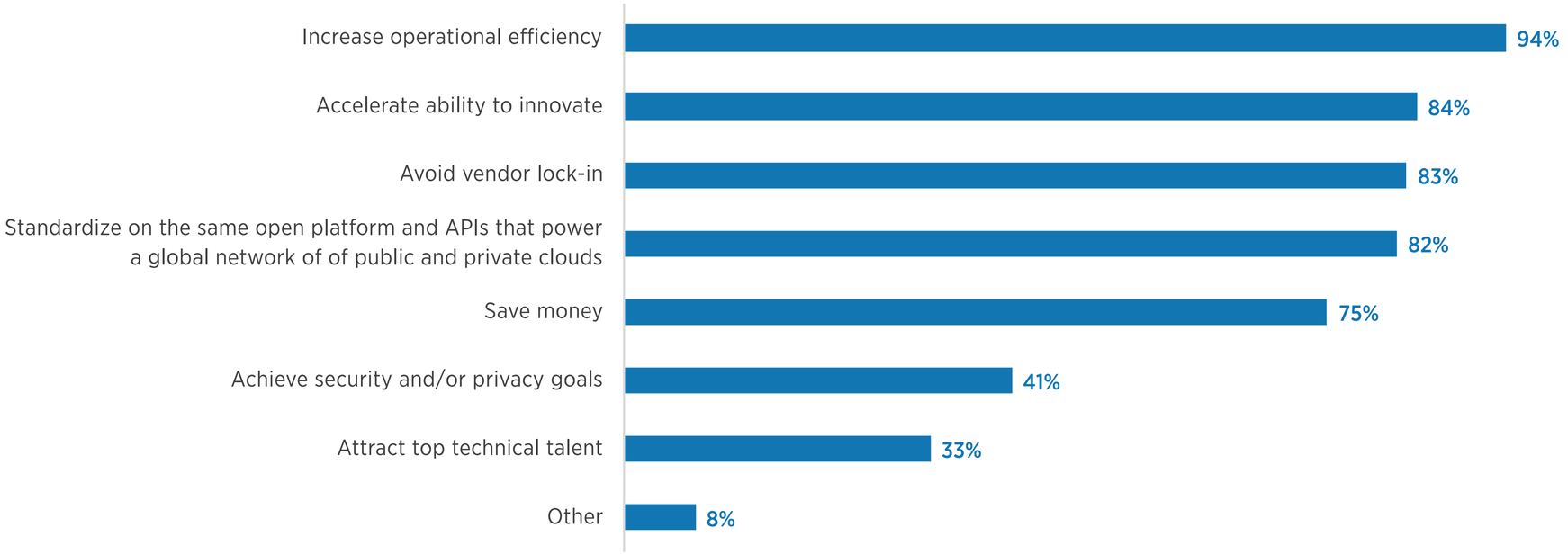
OpenStack by User Survey

Why do organizations choose OpenStack?



2018 results include survey responses among those who who logged at least one deployment and cannot be compared to prior years.

Source : https://www.openstack.org/user-survey/2018-user-survey-report

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THANK YOU

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Open Infrastructure Foundation