OpenStack Roadmap Highlights

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Overview of Information Sources

➡ Current release cycle is Ussuri
  - Release planned for the week of May 11, 2020
    - https://releases.openstack.org/ussuri/schedule.html

➡ Project specs folder
  - https://specs.openstack.org/openstack/<project_name>-specs/
    - eg: https://specs.openstack.org/openstack/ironic-specs/

➡ Launchpad
  - Many projects track blueprints and bugs in this tool
    - https://launchpad.net/<project_name>
    - eg: https://launchpad.net/nova
Overview of Information Sources

Storyboard

- Open source task tracking tool
- Some OpenStack projects switched over already
- https://storyboard.openstack.org
- eg: Ironic project - https://storyboard.openstack.org/#!/project_group/75
Overview of Information Sources

➡ Open reviews

• Using Gerrit for patch (code, test cases, documentation) reviews
  
  •  [https://review.opendev.org/](https://review.opendev.org/)
  
  • You can filter for repositories to see open reviews
  
  • eg: Ironic main repo - [https://review.opendev.org/#/q/project:openstack/ironic](https://review.opendev.org/#/q/project:openstack/ironic)

➡ Source code

• Available on Gitea
  
  •  [https://opendev.org](https://opendev.org)
  
  • eg: Ironic related repositories - [https://opendev.org/explore/repos?q=ironic&tab=&sort=recentupdate](https://opendev.org/explore/repos?q=ironic&tab=&sort=recentupdate)
Nova Highlights

➡ Enhancements in areas such as security, images, instance rescue, and SR-IOV

➡ Features under development

• Image pre-caching on compute nodes
  • Utilizing virt driver support to cache base images —> edge use cases, improved network utilization, etc
  • https://specs.openstack.org/openstack/nova-specs/specs/ussuri/approved/image-precache-support.html

• Enhancements to SR-IOV NUMA Affinity Policies
  • Ability to specify a per-VM NUMA affinity policy for SR-IOV devices
Nova Highlights

Features under development - highlights

• Enable encrypted emulated virtual TPM devices
  • Support applications and operating systems that expect a physical TPM device in place
  • https://specs.openstack.org/openstack/nova-specs/specs/ussuri/approved/add-emulated-virtual-tpm.html

• Nova - Cyborg integration
  • Hardware acceleration support for scheduling and instance operations
  • https://specs.openstack.org/openstack/nova-specs/specs/ussuri/approved/nova-cyborg-interaction.html
Neutron Highlights

Features under development - highlights

• Convergence of ML2+OVS+DVR and OVN
  • Goal to have OVN as reference ML2 plugin for OVS-based environments
    • Improved user experience and better feature parity
  • https://specs.openstack.org/openstack/neutron-specs/specs/ussuri/ml2ovs-ovn-convergence.html

• Improve network segmentation support for edge deployments
  • Adjust L2 domain scope and further enhancements
  • https://bugs.launchpad.net/neutron/+bug/1832526

• Discussions started to support Neutron - Cyborg integration
Ironic Highlights

- Bare Metal as a Service project
- Features under development - highlights
  - L3-based deployment
    - Utilizing vendor support for virtual media connection, booting and power management on L3
    - Avoiding L2 dependency
  - [https://specs.openstack.org/openstack/ironic-specs/specs/not-implemented/L3-based-deployment.html](https://specs.openstack.org/openstack/ironic-specs/specs/not-implemented/L3-based-deployment.html)
Ironic Highlights

Features under development - highlights

- Metal Kubed
  - Bare metal host provisioning for Kubernetes utilizing Ironic
  - Ongoing cluster-api integration
  - Works as a Kubernetes application - runs on Kubernetes and is managed through Kubernetes interfaces
- [https://metal3.io](https://metal3.io)
- [https://github.com/metal3-io/](https://github.com/metal3-io/)
Cyborg Highlights

➡ Framework to manage and utilize hardware accelerator resources

➡ Main priority for Ussuri is a new version of the API to improve functionality and user experience
  • API endpoints for Nova integration to support discovery, scheduling and instance operations
  • Improved query and management options for accelerator and device inventory
  • Enhanced authorization for programming specific devices
  • https://specs.openstack.org/openstack/cyborg-specs/specs/ussuri/approved/cyborg-api.html
Next OSF Event:
June 8-11, 2020
Vancouver, BC

Registration is now live!
https://opendevptg2020.eventbrite.com/
Thank you!