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/

- You can filter for repositories to see open reviews

- eg: Ironic main repo - https://review.opendev.org/#/q/project:openstack/ironic

➡ Source code

- Available on Gitea

- https://opendev.org

- eg: Ironic related repositories - 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

  - https://specs.openstack.org/openstack/nova-specs/specs/ussuri/approved/vm-scoped-sriov-numa-affinity.html

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

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://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 !

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