

Deploying from OpenStack Trunk into a Production Environment

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1:50pm



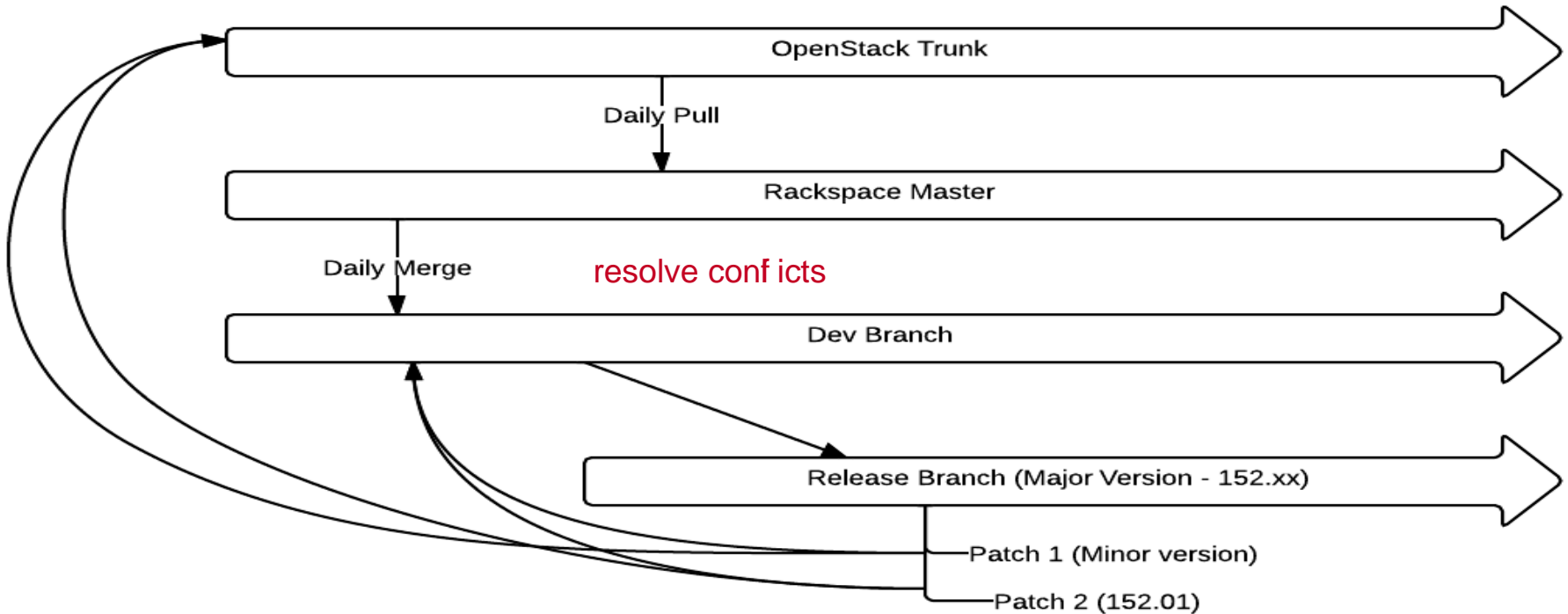
Rackspace Deployment Goal

- Deploying from OpenStack Trunk
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To be able to deploy code from OpenStack trunk on demand to a multi-cell region in a reasonable amount of time with no customer impact

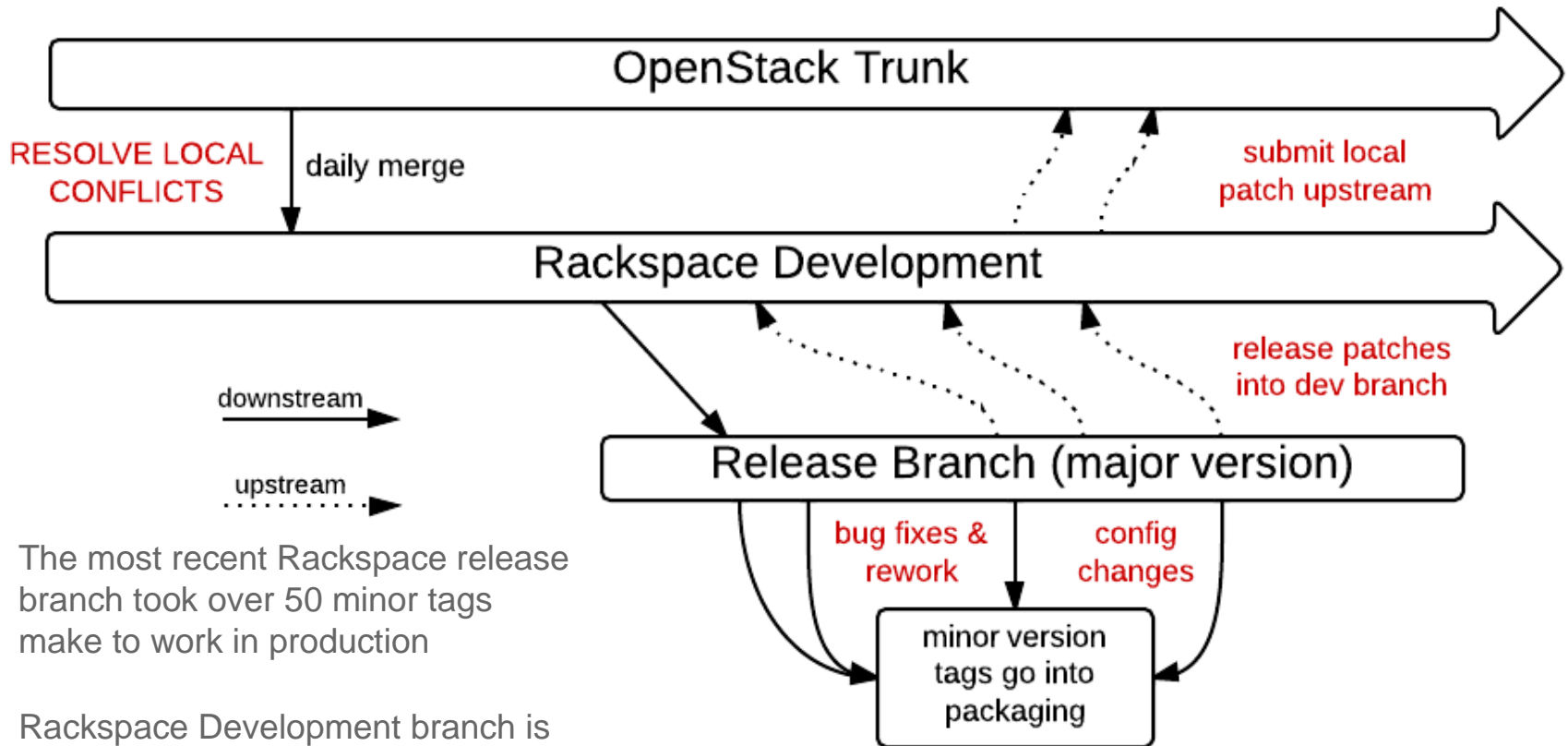
Deploying from OpenStack Trunk

- Branch and Merge Strategy



Merge and Branch Strategy

- Deploying from OpenStack Trunk



- The most recent Rackspace release branch took over 50 minor tags make to work in production
- Rackspace Development branch is about 40 patches on top of OpenStack trunk for internal service compatability

Package and Distribute Strategy

- Deploying from OpenStack Trunk
-

Deploy and Test Strategy

- Deploying from OpenStack Trunk
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Benefits and Challenges

- Deploying from OpenStack Trunk

- Why We Do It (Benefits)

- Issue Resolution

- Early detection of issues and conflicts
- Shorter feedback loop within the community
- Faster resolution of issues

- Early Feature Delivery

- Smaller, incremental periodic releases
- More stable release candidates at end of cycle

- Why It's Hard (Challenges)

- Code Management

- Merge conflicts with local patches
- Disruptive DB migrations
- Service restarts
- Temporary version skew

- Testing

- Devstack-based testing vs testing at scale
- Rework when issues found in RAX deploy pipeline

- Process

- CI/CD vs Release methodology
- Time to merge patches

Looking Ahead

- Deploying from OpenStack Trunk

- Code Management

- Rackspace is actively working to remove local patches that lead to conflicts
- Non-disruptive DB migration pattern throughout OpenStack projects
- Zero downtime service upgrades
- API versioning for rolling upgrades

- Testing

- Provide way for deployer integration tests to move upstream
- Engage community in bug fixes earlier

- Process

- Work with OpenStack Infrastructure Team on improving CI/CD into trunk
- Look for opportunities to keep OpenStack trunk continuously deployable

Related Sessions in Portland

- Deploying from OpenStack Trunk
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TUESDAY, APRIL 16th

- 2:40pm in B110: Gating/Validation of OpenStack Deployments
- 5:20pm in B110: Beyond the API - End to End Testing of OpenStack

WEDNESDAY, APRIL 17th

- 2:40pm in B110: Rackspace testing engine case study/overview
- 4:30pm in C120/121/122: Learning to Scale OpenStack: A Case Study in Rackspace's Open Cloud Deployment

THURSDAY, APRIL 18th

- 9:00am in B119: Continuous-deployment for upstream Openstack

Deploying from OpenStack Trunk

Questions?

THANK YOU



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