

Heat - Status Update

Orchestration for Openstack



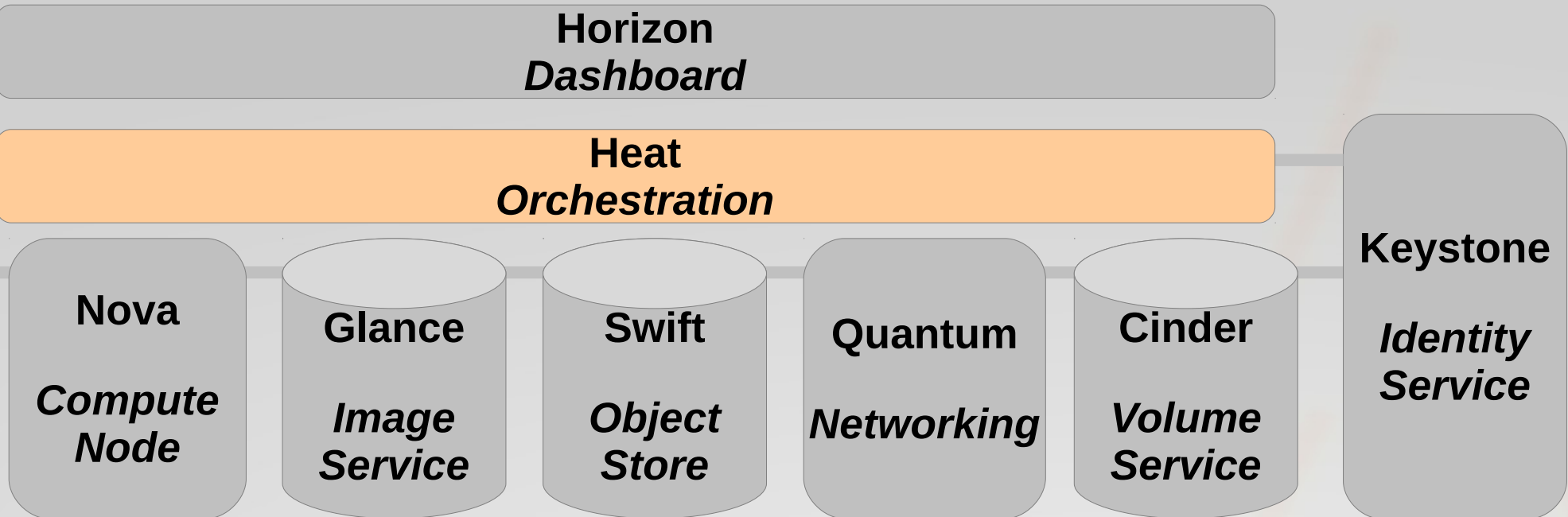
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Openstack Summit – 18th April 2013



Heat Overview

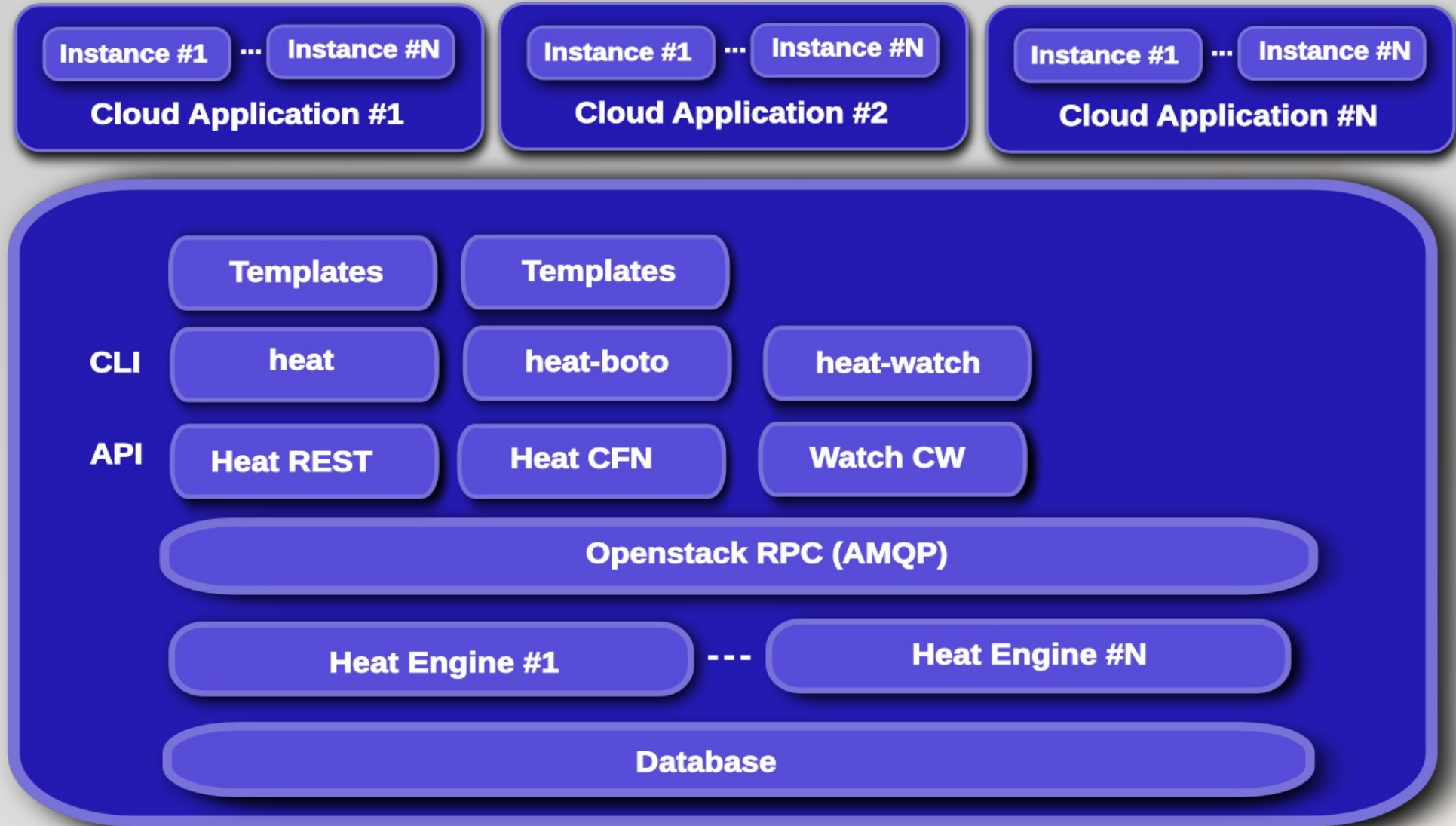
- Started in March 2012
- 25 contributors (9 core)
- ~1900 commits
- ~34,000 lines of code
- 37 different resource types (and counting!)
- We do much more than launch instances :)

Heat Overview

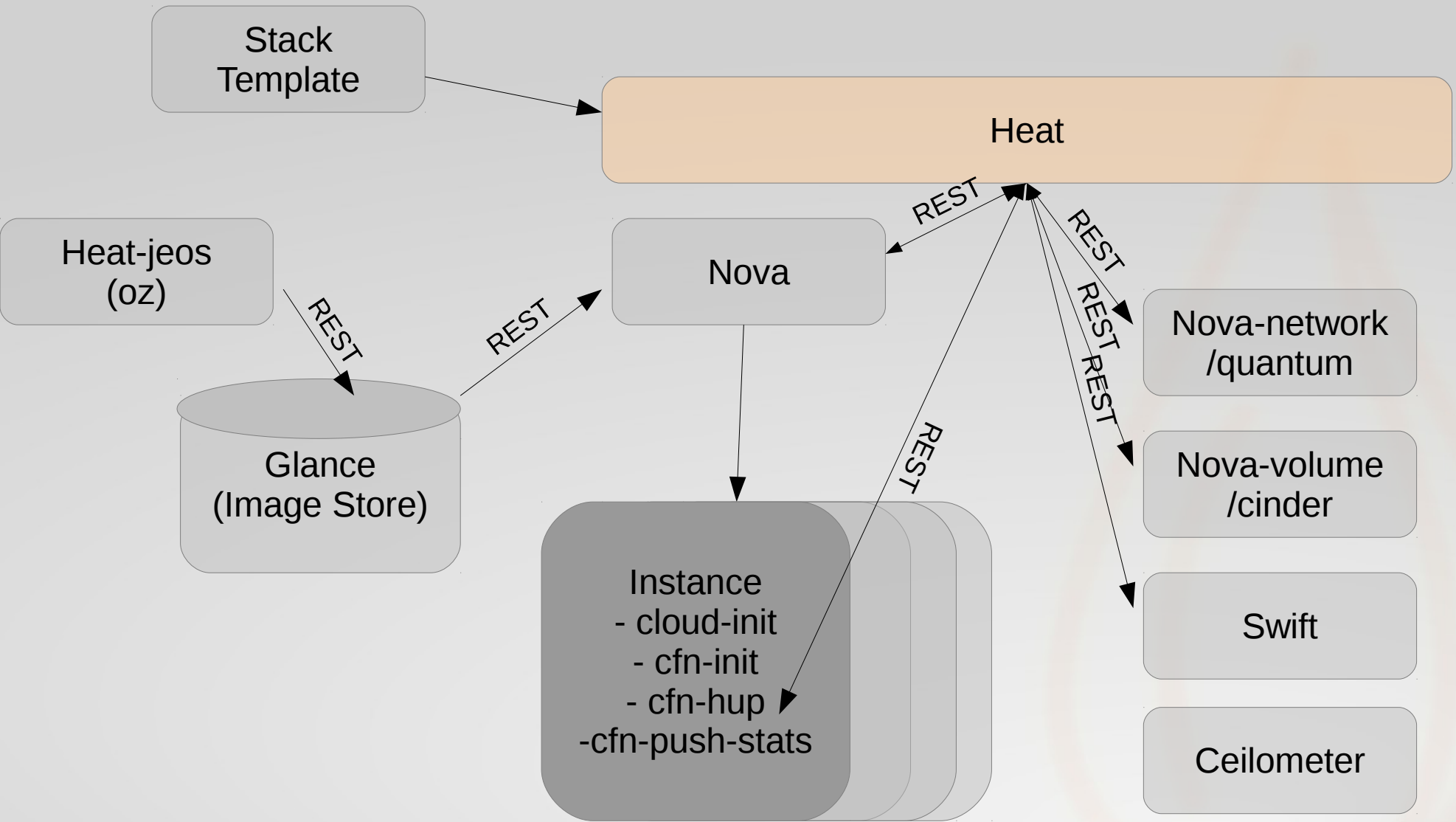


- Provides CFN-compatible and native ReST API
- Abstract configuration of core services to single-template
- HA/Autoscaling features

Heat Overview



Heat Overview





Heat Resource Types

AWS::AutoScaling::AutoScalingGroup	AWS::RDS::DBInstance
AWS::AutoScaling::LaunchConfiguration	AWS::S3::Bucket
AWS::AutoScaling::ScalingPolicy	
AWS::CloudFormation::Stack	
AWS::CloudFormation::WaitCondition	
AWS::CloudFormation::WaitConditionHandle	OS::Heat::AccessPolicy
AWS::CloudWatch::Alarm	OS::Heat::HARestarter
AWS::EC2::EIP	OS::Heat::InstanceGroup
AWS::EC2::EIPAssociation	OS::Quantum::FloatingIP
AWS::EC2::Instance	OS::Quantum::FloatingIPAssociation
AWS::EC2::InternetGateway	OS::Quantum::Net
AWS::EC2::NetworkInterface	OS::Quantum::Port
AWS::EC2::RouteTable	OS::Quantum::Router
AWS::EC2::SecurityGroup	OS::Quantum::RouterGateway
AWS::EC2::Subnet	OS::Quantum::RouterInterface
AWS::EC2::SubnetRouteTableAssociation	OS::Quantum::Subnet
AWS::EC2::Volume	OS::Swift::Container
AWS::EC2::VolumeAttachment	
AWS::EC2::VPC	
AWS::EC2::VPCGatewayAttachment	
AWS::ElasticLoadBalancing::LoadBalancer	
AWS::IAM::AccessKey	
AWS::IAM::User	

Grizzly Features



- 144 bugs fixed
- 19 blueprints implemented
 - New ReST API
 - Quantum Resources
 - YAML templates
 - Python-heatclient
 - Better networking & VPC resource support
 - Improved UpdateStack support
 - Stack Rollback
 - Swift Resource type
 - Improved security (metadata/WaitCondition events)

Havana Roadmap



- Parallel resource creation
- Further improve networking/Quantum support
- Rolling Updates
- Support for new/extended template language
- Add AutoScaling API actions
- Move to Ceilometer for metrics/monitoring/alarms
- More UpdateStack Improvements
- Further improved security (trusts/in-instance credentials)
- Native resource types
- Stack suspend resume
- Configurable LoadBalancer (use LBAAS)

In Closing



- Get involved!
 - Connect with the community via IRC on `#heat@freenode`
 - Check out the repository:
<https://github.com/openstack/heat>
 - Read the Documentation:
<http://wiki.openstack.org/Heat/>
- Heat simple but powerful method for orchestrating OpenStack environments

Questions?

