Monasca
Project Update, OpenStack Summit Vancouver
Witek Bedyk (irc: witek)
What is Monasca?

- Monitoring/Logging-as-a-Service
- Microservices message-bus based architecture
- Highly available
- Scalable
- High performant
- Fault tolerant
- Multi-tenant
Statistics for Queens

- Organisations: 19
- Contributors: 72
- Commits: 230
- Reviews: 851
- Lines of Code: 38,793
Main Contributors
Queens Features
InfluxDB + Apache Cassandra

- State-of-the-art TSDB
- Performance: can write ~1.4 million values/s
- Flexible queries
- Handling large data volumes
- Closed-source clustering

Target: 50 billion measurements in 45 days,
200 million metrics,
200 compute nodes,
8000 VMs

- Proven general purpose database
- HA + Scalability
- Limited row width
- Compression rate
Grafana Integration

Standalone

- Monasca datasource
- Keystone authentication
- Fork of ver. 4.1.2

With Horizon

- Use Horizon plugin as proxy
- Pass Horizon session cookie
Monasca Agent

- New plugins:
  - Ceph
  - LXC (Linux Containers)
  - Network congestion
- Extended plugins (new metrics added):
  - cAdvisor
  - Kubernetes
  - Prometheus
  - Libvirt
OpenStack-wide Goals

- Support Python 3.5
- WSGI Deployment
- Split Tempest Plugins
- Policy in Code
Rocky Features
Database Migrations (Alembic)

- Easy handling of DB schema changes
- Operators can safely upgrade between the versions

https://review.openstack.org/563967
Apache Kafka upgrade

- Upgrade to Apache Kafka 1.0.x
- Change Kafka client to pykafka or confluent
- Use asynchronous interfaces for better performance
- Extensive testing required
Ceilometer Publisher

- Push Ceilometer measurements to Monasca API
- Avoid reinventing the wheel
- Easier installation

https://review.openstack.org/562400
Alerting Manager

- Grouping
  - Deduplicate alarms
- Silencing
  - E.g. During maintenance
- Inhibition
  - Correlate alarms
Notification Engine

- Templates for webhook notifications
  - Flexible request format
  - Easy integration with other services/tools
Cross-Project Work

- Self-healing SIG
  - Vitrage
  - Congress
  - Watcher
  - Ceilometer
  - Heat
Cross-Project Work

CloudKitty – Rating as a Service

- Translates metrics to prices
- Collector for Monasca
Deployments

- SUSE OpenStack Cloud
- Docker Compose (monasca-docker)
- Kubernetes (monasca-helm)
- OpenStack Ansible
We want your feedback

- Mailing list (please add [monasca] tag)
  
  openstack-dev@lists.openstack.org

- IRC at freenode
  
  #openstack-monasca

- Weekly team meeting
  
  Wednesdays 1500 UTC
  
  #openstack-meeting-3
  
  http://eavesdrop.openstack.org/#Monasca_Team_Meeting
How to contribute

- Reviews
  https://storyboard.openstack.org/#!/board/60

- Bugfixes
  https://storyboard.openstack.org/#!/worklist/213

- OpenStack wide goals

- Installers

- Documentation

- Monasca Project Onboarding
  Wed 5:30pm – Room 223
Q&A

Thank you!