



# Monasca

Project Update, OpenStack Summit Vancouver

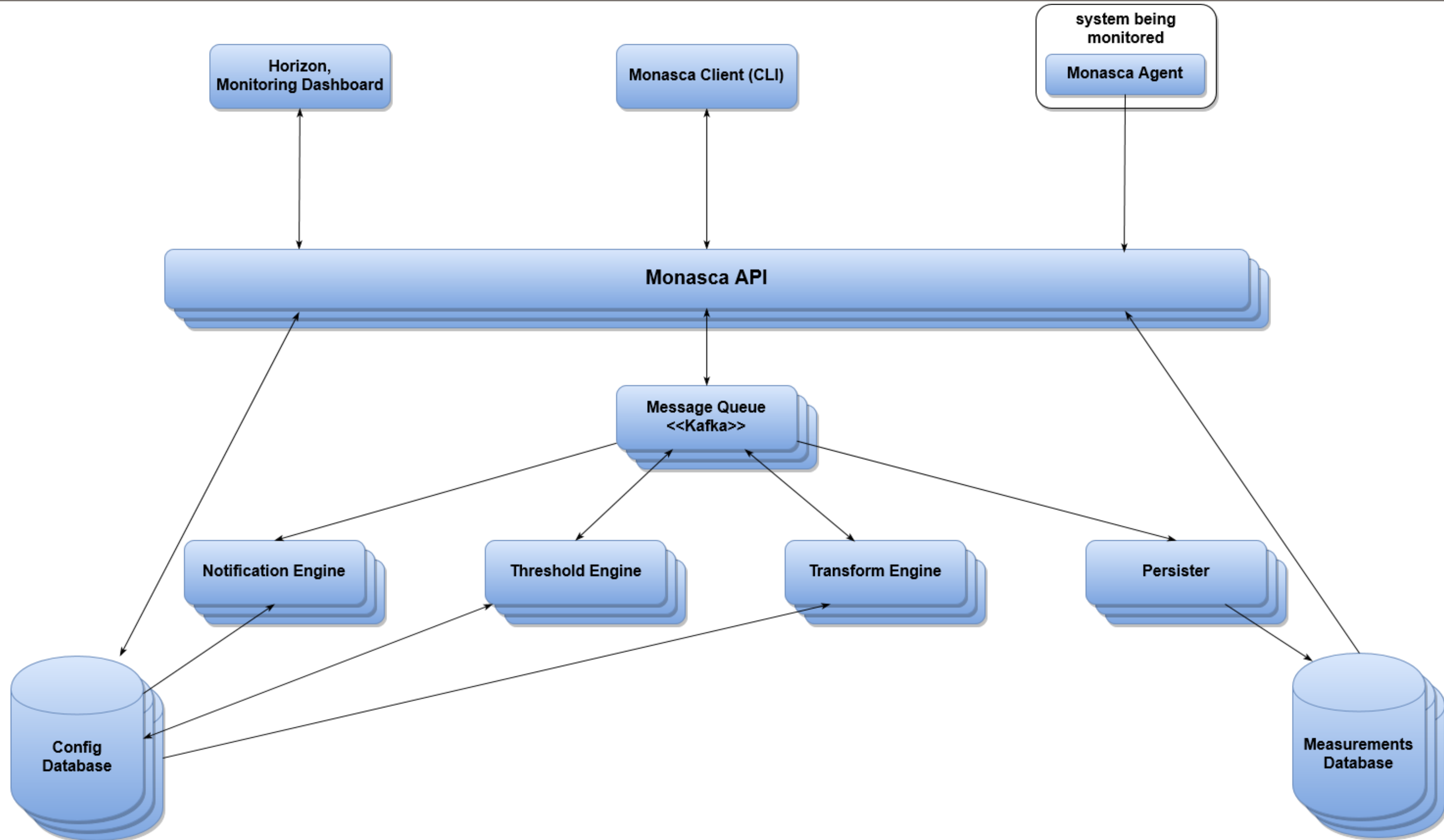
Witek Bedyk (irc: witek)

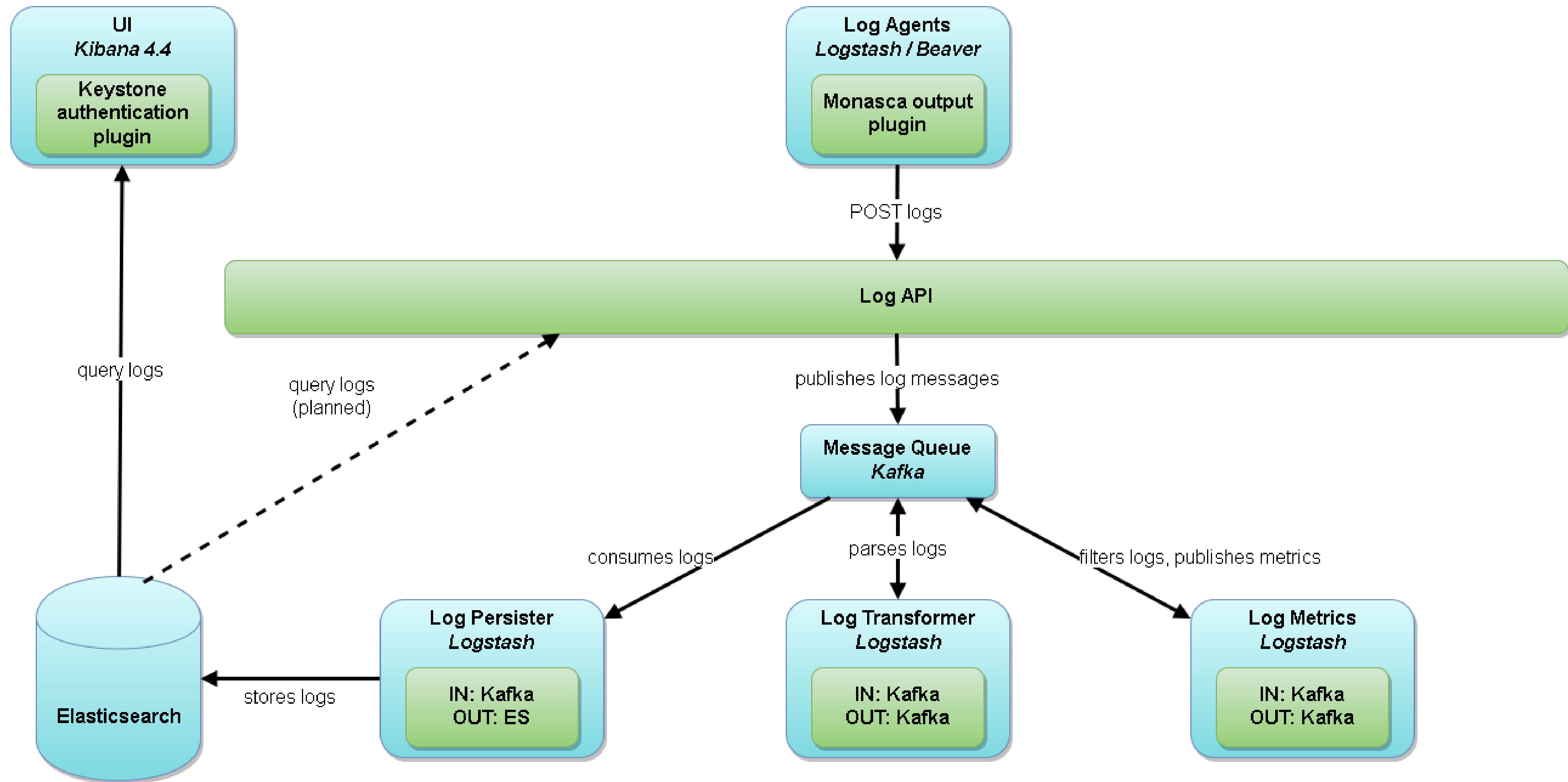
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# What is Monasca?

- 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

Stack  
HPC

  
**Hewlett Packard**  
Enterprise

  
**FUJITSU**

  
**SUSE**

  
**OP5**



# Queens Features

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# 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

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# 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

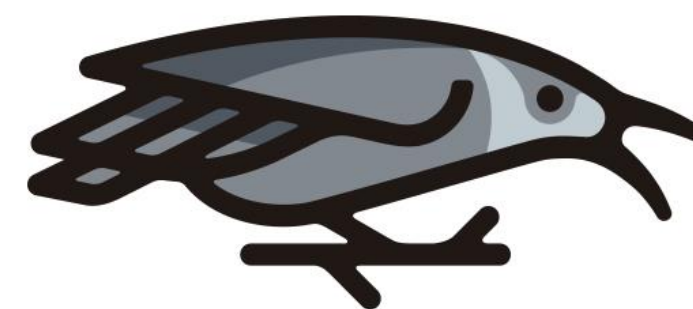
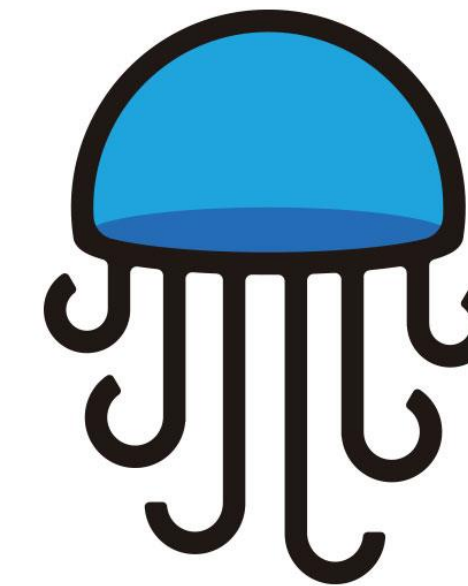


# Notification Engine

- 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](mailto: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](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!



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