Please Standby
We’ll be starting shortly
Monitoring as Code With Sensu + Ansible

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XLAB Steampunk

Helping ISVs build high-quality Ansible Collections.

Design & Development

Maintenance & Support

Certification

galaxy.ansible.com/steampunk
galaxy.ansible.com/sensu/sensu_go
We take Steampunk very seriously!
Overview

- What is Sensu?
- Monitoring as Code vs Infrastructure as Code
- Introduction to Sensu Go Ansible Collection
- Automating remediation of Sensu events using Ansible Tower
What is Sensu?

- Turn-key **Observability Pipeline** for any cloud
- Unified infrastructure and application **monitoring-as-code**
- **Automation** for DevOps and SRE teams
- **Reuse existing tools** (Nagios, Telegraf, StatsD, Prometheus)
- Complete visibility, **from bare metal to Kubernetes**

![Logos of various cloud providers and technologies]
Sensu Use Cases

- **Eliminate data silos** by integrating with existing systems of record, and data platforms like ElasticSearch, Splunk!
- **Fill gaps in observability tooling** between metrics, logging, and tracing
- **Consolidate monitoring tools** with support for existing plugins & exporters (Nagios, StatsD, Telegraf, Prometheus, Sensu)
- **Automate diagnosis & self-healing** with built-in auto-remediation or integrations with Ansible Tower, RunDeck, and SaltStack
What is **Sensu**?

- Agent-based monitoring & observability
- Flexible **subscription** model for service-based monitoring
- RBAC, Rest API with web and cli client interfaces
- Powerful event pipeline: alerting, data routing & **remediation**
What is Sensu?

But wait there’s more!!!!!!

- Declarative configuration files for all pipeline elements
- Extensible with shareable assets (https://bonsai.sensu.io)
- Process both metrics and service checks
Monitoring + Automation

Why Monitoring?
Provides the necessary, actionable information about failures, defects or problems in the system.

Why Automation?
Makes complexity manageable. Automation reduces the need to perform repetitive or tedious manual tasks, freeing up human resources for innovation.
Monitoring + Automation

Sensu: Monitoring as Code
Declare all your monitoring workloads as simple to understand resource collections.

Ansible: Infrastructure as Code
Automate provisioning of infrastructure and services (like Sensu) using declarative idempotent playbook resources.
Sensu Go Ansible Collection

Collections are great advancement for Ansible community

- Packages modules and roles together!
- Available in Ansible Galaxy (or private sources)
- Modules no longer tied to to Ansible releases
- Sensu Go Collection can be updated/released in conjunction with upstream Sensu Go releases
Sensu Go Ansible Collections Demo
Sensu: Monitoring as Code

Key Concepts:

**Entity**: agents + proxies  
**Checks**: scheduled monitoring workloads run by agents  
**Observability Pipelines**: filter + transform + process  
**Events**: the base data structure Sensu Go pipeline processes  
**Subscriptions**: loosely couples checks to entities  
**Assets**: sharable binaries to support monitoring workloads, Sensu installs at runtime without the need to pre-provision hosts.
Sensu Demo
Building a Monitoring Workflow
Self-healing Infrastructure

Close the loop between monitoring and automation for better alerts.

Use operator knowledge encoded in Ansible Tower automation to resolve Sensu events.

Only escalate alerts to humans for situation existing playbooks can’t resolve!
Self-healing infrastructure with Sensu + Ansible

- Sensu Ansible Tower integration
  - Uses Ansible Tower Jobs Template API
  - Granular flow control when Ansible Tower jobs are triggered

- Benefits
  - Reduce alert fatigue by leveraging Ansible playbooks as remediation tools
  - Allows for further escalation if automation fails to resolve Sensu event
Self-healing
Infrastructure as code
Sensu Monitoring as Code: Recap

- Declarative resources, manageable via API using the Ansible Sensu Go collection or using sensuctl
- Subscriptions, loosely coupling service monitoring workloads with operational infrastructure
- Assets let you update monitoring workloads without re-provisioning infrastructure
- Sensu + Ansible Tower = Self-healing infrastructure
Next Steps with Sensu

● Watch our on-demand webinar on how to use the Sensu Ansible Tower integration

● Join the Sensu Community
  http://discourse.sensu.io/signup

● Contact us for a 1:1 demo
  https://sensu.io/contact
Curious to know more about testing collections?

Watch our free webinar
Testing Ansible Collections
available on demand

steampunk.si/webinars-training/intro-testing-ansible-collections

Visit us: steampunk.si
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