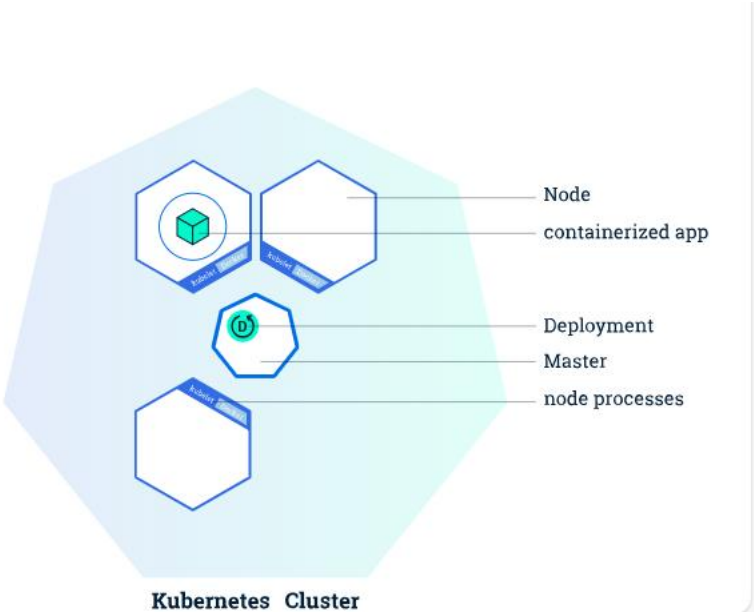
Intelligent Kubernetes Observability Dashboard

Context:
Modern cloud-native applications rely heavily on Kubernetes for scalability and resilience. However, monitoring these dynamic environments can be complex due to the sheer volume of metrics, logs, and events generated across clusters, namespaces, and workloads.



Designed and implemented a **smart, actionable dashboard** using **New Relic** that provides **real-time observability** into a Kubernetes cluster. This dashboard should help DevOps and SRE teams quickly identify performance bottlenecks, resource inefficiencies, and potential failure points across Node , App, Deployment and Node Processes.

Current Updates

- Visualize **cluster health**, node status, and pod lifecycle events.
- Track **resource utilization** (CPU, memory, disk, network) across namespaces and workloads.
- Highlight **anomalies** such as pod restarts, crash loops, and high error rates.
- Include **custom NRQL queries** to surface insights not available in default dashboards.
- Provide **actionable recommendations** or alerts based on observed patterns.
- Ensure the dashboard is **intuitive**, **scalable**, and **customizable** for different teams.

- A **cost optimization view** showing over-provisioned or underutilized resources.
- Reusable Template

Future Ideas

- Integration with **Pixie** for deep telemetry.
- Use of **Flex** to send APM data over API
- Use of **machine learning or heuristics** to detect anomalies.