

# Monitoring Containerized Applications In Kubernetes Environments



## Key Benefits

- ✓ **Ensure peak performance** of kubernetes clusters and the applications running on them
- ✓ **Understand capacity needs** and plan well for resource expansion
- ✓ **Troubleshoot problems faster** with automated correlative intelligence and root cause diagnosis
- ✓ **Get centralized visibility** of Docker hosts, containers and the applications from a single pane of glass
- ✓ **Detect user experience issues proactively** and fix them before they become business-impacting



*eG Enterprise delivers a robust, reliable and extremely valuable solution to deliver maximum uptime and user satisfaction. Pre-emptive alerting helps us to address performance issues immediately before they affect system and application availability.*

**Mike Montano**  
Senior Manager, Allscripts

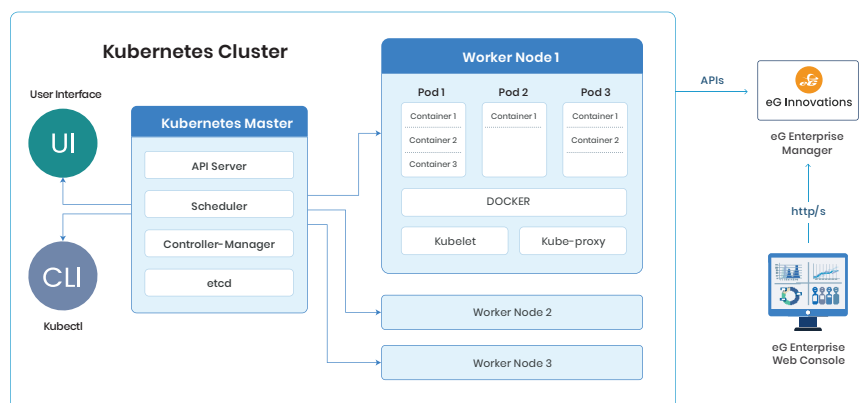


Kubernetes is taking the world by storm. Modern applications are built on the microservices architecture with containers as the means for deployment and operation of application components and Kubernetes as the platform for orchestration, to automate and manage container provisioning. The performance of these distributed and elastic applications depends on how the container orchestration is set up and how resources are provisioned dynamically to support automatic scaling, based on business need.

## Single-Pane-of-Glass Monitoring for Your Kubernetes Ecosystem

eG Enterprise is an enterprise-class, converged application and IT monitoring solution that provides unified performance visibility into the Kubernetes orchestration environment, the containers provisioned, and workloads running on them.

- From a central console get telemetry from across your Kubernetes cluster, nodes, and pod deployments
- Understand resource usage and capacity needs to future-proof container provisioning
- Obtain code-level visibility of applications running inside the containers
- Get correlated insight to identify root cause of performance bottlenecks
- Automate monitoring in your auto-scaling Kubernetes environment

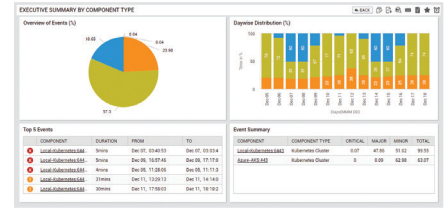


eG Enterprise leverages Kubernetes APIs to agentlessly monitor the entire Kube cluster. Support Kubernetes deployment on premises and on the cloud (e.g. Amazon EKS) from one console.

# Key Capabilities of eG Enterprise for Monitoring Your Kubernetes Ecosystem

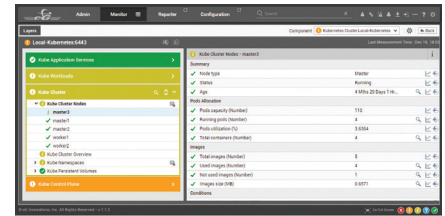
## Get In-Depth Visibility into the Kubernetes Cluster

- Get a cluster-level overview of pods, deployments, CPU, and memory allocation
- Monitor the master node and all worker nodes in a Kube cluster
- For each node, monitor pod allocation, image usage, CPU, and memory allocation and utilization
- Track all namespaces associated with the cluster; monitor the activation status, age, and pod service association for each namespace



## Monitor the Kubernetes Control Plane

- Monitor the status of all the critical services (API server, controller manager, etcd, and scheduler) in the Kubernetes control plane and be alerted to failures.
- See specific messages and notifications for each service to understand failures.
- Monitor all cluster events from one place: container, pod, node, deployment, DaemonSet, image, image manager, pod worker, jobs, scheduler, load balancer, etc.



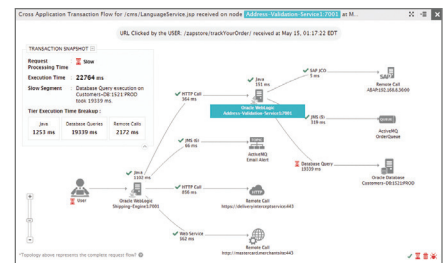
## Track Resource Provisioning, Availability and Usage to Support Container Creation

- For each pod in a namespace, track pod CPU and memory allocation and utilization
- Understand resource usage patterns and determine the additional workload that can be deployed per node
- For each DaemonSet in a namespace, monitor DaemonSet availability on nodes, missed scheduled, details of pods, and nodes running the DaemonSet
- Get alerted to failed jobs, failed pods, and longest running jobs



## Monitor the Performance and User Experience of Containerized Applications

- Automatically discover and manage micro services running on Kubernetes-provisioned containers
- Track health, availability, and performance metrics for applications
- Leverage distributed transaction tracing and identify slowness in accessing business transactions



## About eG Innovations

eG Innovations is dedicated to helping businesses across the globe transform IT service delivery into a competitive advantage and a center for productivity, growth and profit. Many of the world's largest businesses use eG Enterprise to enhance IT service performance, increase operational efficiency, ensure IT effectiveness and deliver on the ROI promise of transformational IT investments across physical, virtual and cloud environments.