Solution Brief

Performance Assurance for Docker Container Environments

Key Benefits

- ✓ **Ensure peak performance** of Docker containers 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

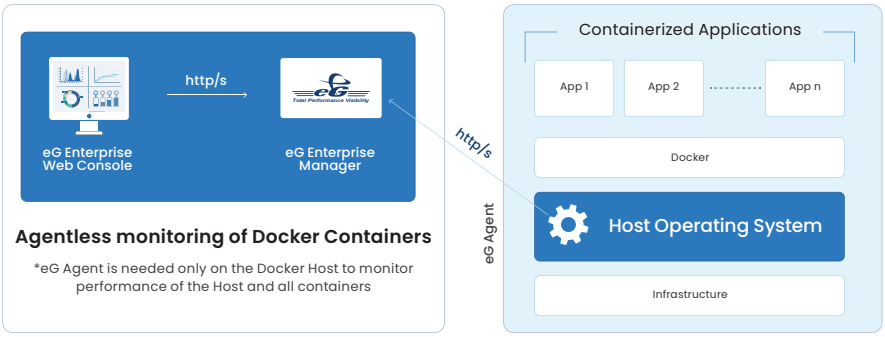
Docker is one of the most popular container platforms in the world with 460,000 Dockerized applications in use globally. Docker containers help deliver repeatable development, build, test, and production environments standardizing the service infrastructure across the entire DevOps pipeline.

When a Docker Host encounters a performance bottleneck, container creation can be affected and container performance can choke. Business-critical applications running on Docker depend on the performance of the entire container environment.

The Next-Gen Monitoring Solution for Your Docker Ecosystem

eG Enterprise is an enterprise-class, converged application and IT monitoring solution that provides unified performance visibility into Docker containers and the applications and databases running on them. Whether you are using Docker for modern app development, microservices, CI/CD, digital transformation, DevOps, or edge computing, eG Enterprise delivers the performance visibility needed to assure success of your IT initiatives.

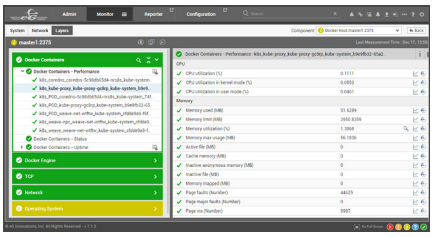
- From a central console get telemetry from across the container environment
- Understand resource usage and capacity needs to futureproof container provisioning
- Obtain code-level visibility of applications running inside Docker containers
- Get correlated insight to identify root cause of performance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



Without having the need to modify the Docker images or any run commands, eG Enterprise tracks the entire container lifecycle from creation to deletion.

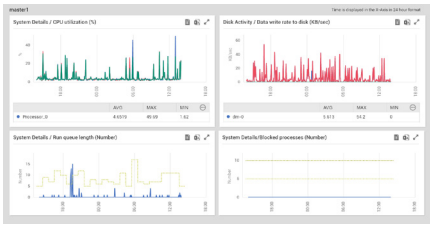
Key Capabilities of eG Enterprise for Monitoring Your Docker Ecosystem

Get Alerted to Bottlenecks in Docker Performance



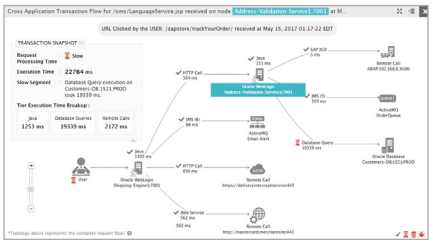
- Know how long each container has been up and whether it has been restarted
- Get details of containers being added and removed; track which containers are running, stopped and paused
- Isolate containers large in size and ones that have not been started for a long time
- Track all container events in real time for troubleshooting

Detect Capacity Issues and Resource Insufficiencies



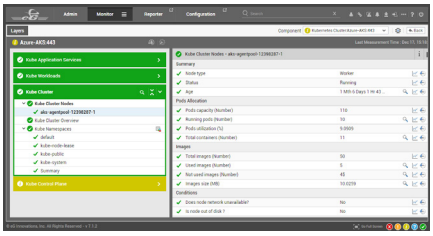
- Monitor CPU, memory and disk utilization of every Docker container and host, and get alerted to high usage levels
- Drill down to see which images are taking more disk space and how long ago they were created
- Monitor processes running on the Docker Host and their resource utilization
- Get alerted if the data usage and metadata space usage exceeds threshold levels

Monitoring the Performance of Containerized Applications



- Get health, availability and performance metrics for applications running on the Docker containers
- Leverage distributed transaction tracing and identify slowness in accessing business transactions
- Gain code-level visibility of web applications and debug errors before the application moves to production
- Using a combination of synthetic simulation and real user monitoring, measure user experience holistically

Monitoring the Kubernetes Platform



- Monitor the key services on the Kubernetes Master: API server, scheduler, controller manager, and etcd
- Get detailed performance insight of Kubernetes nodes, pod allocation, CPU and memory allocation, image usage and deployment status
- Understand resource usage patterns and determine how much additional workload can be deployed per node
- Monitor jobs, pods, deployments and daemonsets by namespaces and get alerted to performance and capacity bottlenecks

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.

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