

## Now Kubernetes deployments are observable

Kentik Kube enables network and infrastructure professionals to gain full visibility of network traffic within the context of their Kubernetes deployments in the cloud and on-prem.

When using Kubernetes in hybrid cloud environments, even the most experienced teams struggle to strike a balance between maintaining reliability and optimizing infrastructure costs. Change is constant: new workloads are migrated and deployed to Kubernetes, teams expand, technologies evolve, and

| us-west-2a                                  |                                       |                                     |               |  |
|---|---------------------------------------|-------------------------------------|---------------|--|
| (a) EKS 10.42.200.0-A ( ↓<br>10.42.200.0/24 | EKS Neighbor Subnet<br>10.42.100.0/24 | (i) shared-subnet<br>10.42.112.0/24 |               |  |
| EKS TGW-FNI                                 | es<br>FKS                             | ()<br>EKS                           |               |  |
|   | ←                                     |                                     |               |  |
|   |                                       |                                     | )             |  |
| us-west-2b                                  | us-west-2c                            | us-west-2d                          |               |  |
| (a) EKS 10.42.201.0-B ▼                     | BKS 10.42.202                         | .о-с 🗸 🐻 ЕКS                        | 10.42.203.0-D |  |
| 6   | 6                                     | §                                   | <u></u>       |  |
| EKS TGW-ENI                                 | EKS TGV                               | V-ENI EKS                           | TGW-ENI       |  |

Network map showing EKS clusters communicating with the internet and within and between AWS regions.

cloud environments grow. In the meantime, teams must fix stubborn performance issues and improve cost margins. Costly architectural decisions and network misconfigurations are difficult to spot with application-centric monitoring tools. Most teams lack the Kubernetes network observability and expertise needed to solve quickly.

#### How Kentik Kube works

Kentik Kube relies on data generated from a lightweight eBPF agent installed on your Kubernetes cluster. It sends data back to the Kentik SaaS platform, allowing you to query, graph, and alert on conditions in your data. This data, coupled with the analytics engine, enables users to gain complete visibility and context into Kubernetes traffic routing and performance. We built Kentik Kube to provide visibility for cloud-managed Kubernetes clusters (AKS, EKS, and GKS) and on-prem, self-managed clusters using the most widely implemented network models.

### **Key benefits**

Quickly answer critical questions

Discover traffic patterns within Kubernetes

Know exactly who was talking to which pod, and when

Visualize Kubernetes traffic contextualized with metadata

Multi-cloud and hybrid cloud visibility, as well as among Kubernetes clusters

MTTR reduction by troubleshooting faster in complex cloud environments

Kentik's comprehensive network observability extends Kubernetes infrastructure – containers, pods, clusters, and nodes.



## Use Kentik Kube to:

**Ensure Kubernetes performance**: Discover which services and pods are experiencing network delays in order to troubleshoot and fix problems faster. Configure alert policies to proactively find high latency nodes, pods, workloads, or services.

**Optimize costs**: Quickly detect traffic changes tied to new deployments or misconfigurations before egress, inter-region transfer, and gateway charges get out of control.



**Get total infrastructure visibility**: Know which pods were deployed on which nodes — even historically. See which pods and services are communicating with other clusters, non-Kubernetes infrastructure, or the internet. Quickly detect top talkers. Identify Kubernetes clusters sending traffic to embargoed countries or unapproved external destinations.

**Determine top talkers**: Identify clients/requesters consuming your Kubernetes services so you can track down problematic connections. Know exactly who was talking to which pod, and when.

# Visualizing with Kentik Kube

Kentik Kube provides east-west and north-south traffic analytics inside and among Kubernetes clusters, and will dynamically map your network once deployed.

Kentik provides a unique level of network-layer expertise and network-centric visibility in Kubernetes out of the box, including:

- Full visibility into inter-pod, inter-node, inter-cluster, pod-to-internet, and internet-to-pod traffic in one platform
- Deep, automated flow log enrichment
- Pod-level visibility into traffic spikes, transit and transfer, and egress
- Alerts and auditing on traffic to and from embargoed, prohibited, or watchlisted domains

# Try Kentik Kube free

Kentik Kube is available for a 30-day free trial. It's included in Kentik Cloud. <u>Sign up to get started</u>.

**ABOUT KENTIK** | Kentik is the network observability company. Our platform is a must-have for the network front line, whether digital business, corporate IT, or service provider. Network professionals turn to the Kentik Network Observability Platform to plan, run, and fix any network, relying on our infinite granularity, AI-driven insights, and fast search. Visit us at <u>kentik.com</u>.

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