

KUBERNETES CERTIFIED SERVICE PROVIDER (KCSP) - SECURITY AUDIT

PROBLEM

Many CIOs deploying Kubernetes for the first time face new security considerations and recognize that the tools that work for the rest of the company's network security may not necessarily directly apply to Kubernetes. The environment is new, often the team skills are new, and it's not uncommon for internal security teams to not have extensive familiarity with Kubernetes strengths and weaknesses. So, how can you diligently measure and test your security?

1. Review of process alignment to Kubernetes best practices.

- Principle of Least Privilege
- Encryption & Privacy
- Application Security
- Kubernetes Ingress & Egress
- Role Based Access Control
- Secure Disaster Recovery

2. Testing & Verification

- **Securing K8s Cluster / Architecture**
 - CIS Kubernetes Benchmarks / Kubernetes Benchmarking
 - Protecting Sensitive Metadata (in cloud environments)
 - Encrypting Kubernetes Secrets
 - Cluster Hardening – RBAC
 - Known issues with current K8s Version
- **Securing Cluster Networking**
 - Network Policies
 - Two-Way Authentication Between Services
 - Encrypting Ingress
 - Encrypting Horizontal Traffic

- **Application Security – m9sweeper Real-Time Scan**

- Kubernetes Vulnerability Scanning
- Limiting Application Privileges
- Proper Firewalling and Access Controls
- Active Monitoring of Kernel Calls

3. Report & Remediation Recommendations

- Report of Scanning Results
- Report of K8s Best Practice Alignment
- Report of Remediation Recommendations
- Quote for Centroid's Remediation

ABOUT CENTROID

Headquartered in Troy, Michigan, Centroid is a provider of managed cloud services and enterprise workload consulting services across the major Hyperscalers. With expert resources throughout the United States, South America, and India for 24/7 support, the company employs roughly 450+ people. Centroid is recognized at the highest level of alliance relationship with Oracle for nearly 25+ years and is one of Oracle's leading cloud service providers in North America. In addition, Gartner has recognized Centroid in 2021, 2022, and 2023 in their Market Guide for Oracle Cloud Infrastructure Professional and Managed Services.