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Forcepoint Data Classification

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Products Requirements Explanation

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Overview

Forcepoint Data Classification use Kubernetes under the hood and sometimes customers are asking why we are very particular about the hardware requirements, but the answer is not that simple. It is crucial to meet the minimum resource requirements defined for containers, as failing to do so can lead to following problems:

1. **Resource Starvation**: If a container requests more CPU or memory resources than are actually available on the cluster, it can lead to resource starvation. This means other containers may not get the resources they need to run correctly, causing performance degradation or even crashes.

2. **Throttling**: Kubernetes imposes resource limits for containers, and if a container's requested resources exceed its limits, Kubernetes may throttle or terminate the container to prevent it from consuming excessive resources, resulting in performance degradation.

3. **Out of Memory or CrashLoopBackOff Errors**: Oversubscribing memory resources can lead to containers running out of memory, causing them to terminate abruptly or enter a constant restart loop, commonly referred to as a "CrashLoopBackOff" error.

4. **Performance Degradation**: When requested CPU resources are larger than allocated, it can lead to performance issues as containers compete for CPU time, potentially slowing down critical processes and making the application unresponsive.

5. **Difficult Troubleshooting**: Misallocation of resources, whether it is too little or too much, can be challenging to identify and correct. This can lead to extended troubleshooting efforts and downtime as administrators attempt to resolve resource-related issues.

To ensure a stable and efficient Kubernetes deployment of our product, it is essential to accurately configure resource requests and limits for containers based on their actual requirements. This prevents resource-related problems and ensures smooth operation within the Kubernetes cluster.

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About Forcepoint

Forcepoint is the leading user and data protection cybersecurity company, entrusted to safeguard organizations while driving digital transformation and growth. Forcepoint's humanly attuned solutions adapt in real-time to how people interact with data, providing secure access while enabling employees to create value. Based in Austin, Texas, Forcepoint creates safe, trusted environments for thousands of customers worldwide.