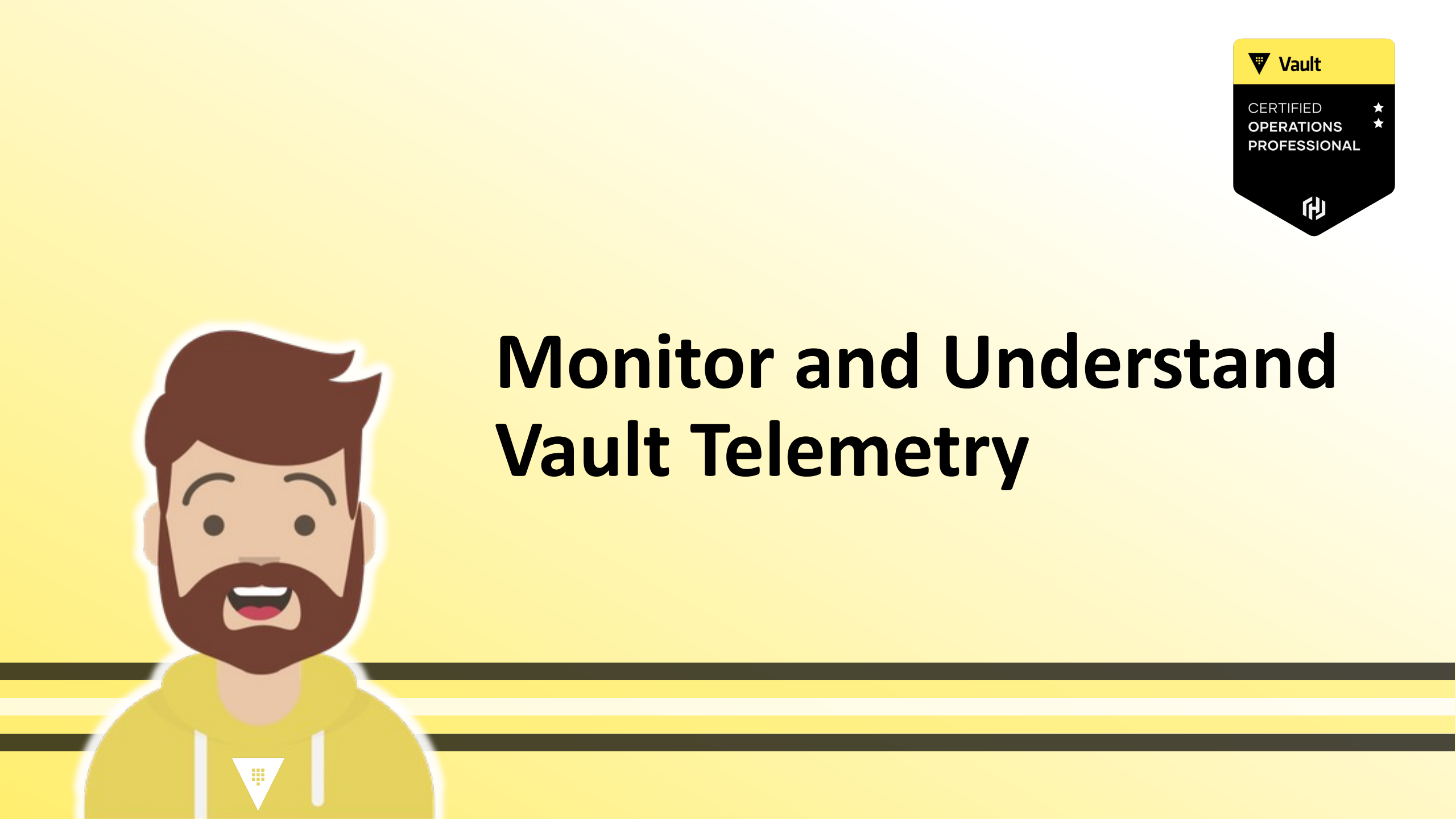


Monitor and Understand Vault Telemetry

What is Telemetry?

- The collection of various runtime metrics about the performance of different components of the Vault environment
- Can be used for debugging but it can also be used for performance monitoring and trending
- Metrics are aggregated every 10 seconds and retained for one minute
- The telemetry information is sent to a local or remote agent which generally aggregates this information to an aggregation solution, such as DataDog or Prometheus, for example

What Does Vault Support?

- Supports the following providers:
  - `statsite`
  - `statsd`
  - `circonus`
  - `dogstatsd`
  - `prometheus`
  - `stackdriver`

Example of Metrics Collected

Metric	Description
vault.core.handle_request	Duration of requests handled by Vault. This is the key measurement of Vault's response time
vault.runtime.total_gc_pause_ns	Garbage collection pause. You don't want this happening frequently or taking too long
mem.used_percent	Percentage of physical memory in use
mem.total_bytes	Total amount of physical memory available on the server
vault.audit.log_request	Duration of time taken by all audit log requests across all audit log devices
vault.policy.get_policy	Time taken to get a policy

https://www.vaultproject.io/docs/internals/telemetry

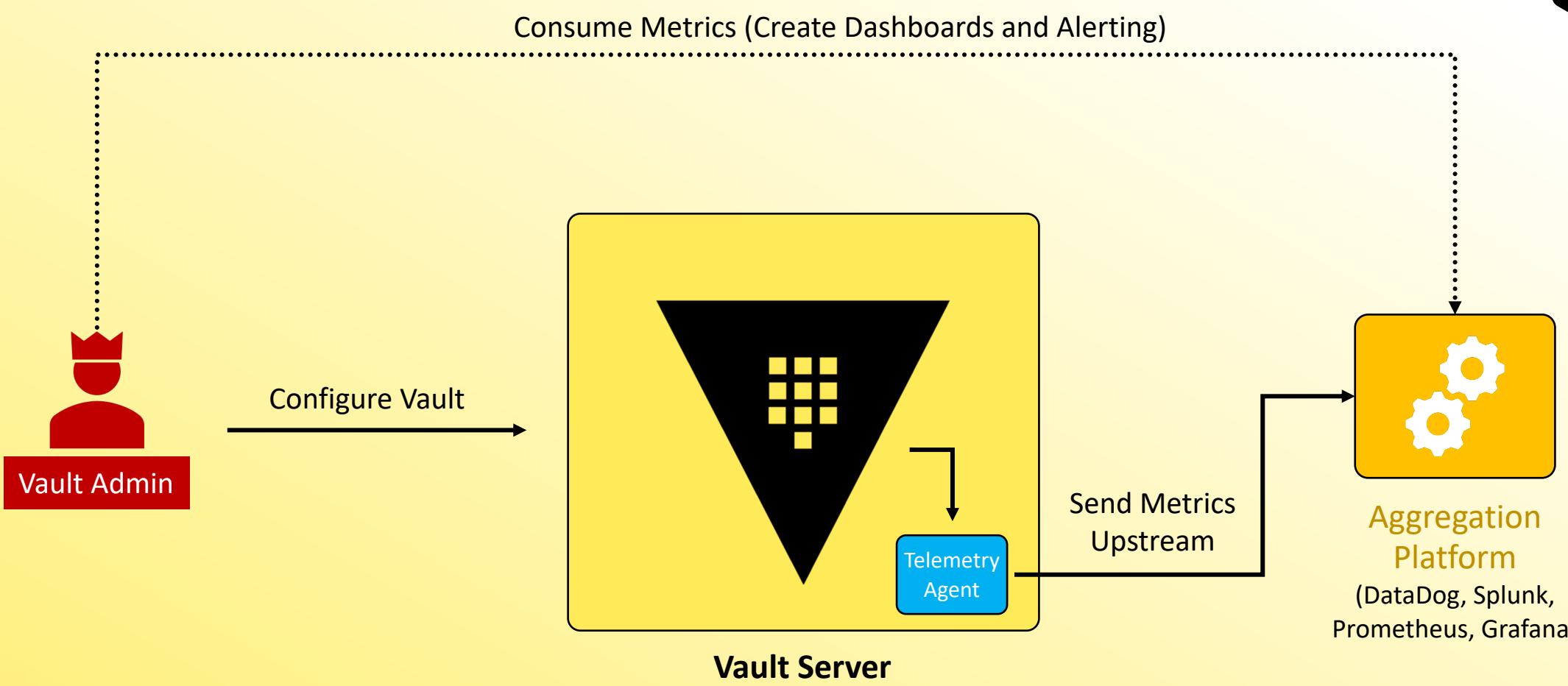
Telemetry Configuration

- Telemetry is configured in the Vault configuration file using the `telemetry` stanza
- The configuration specifies the upstream system to publish the metrics to…

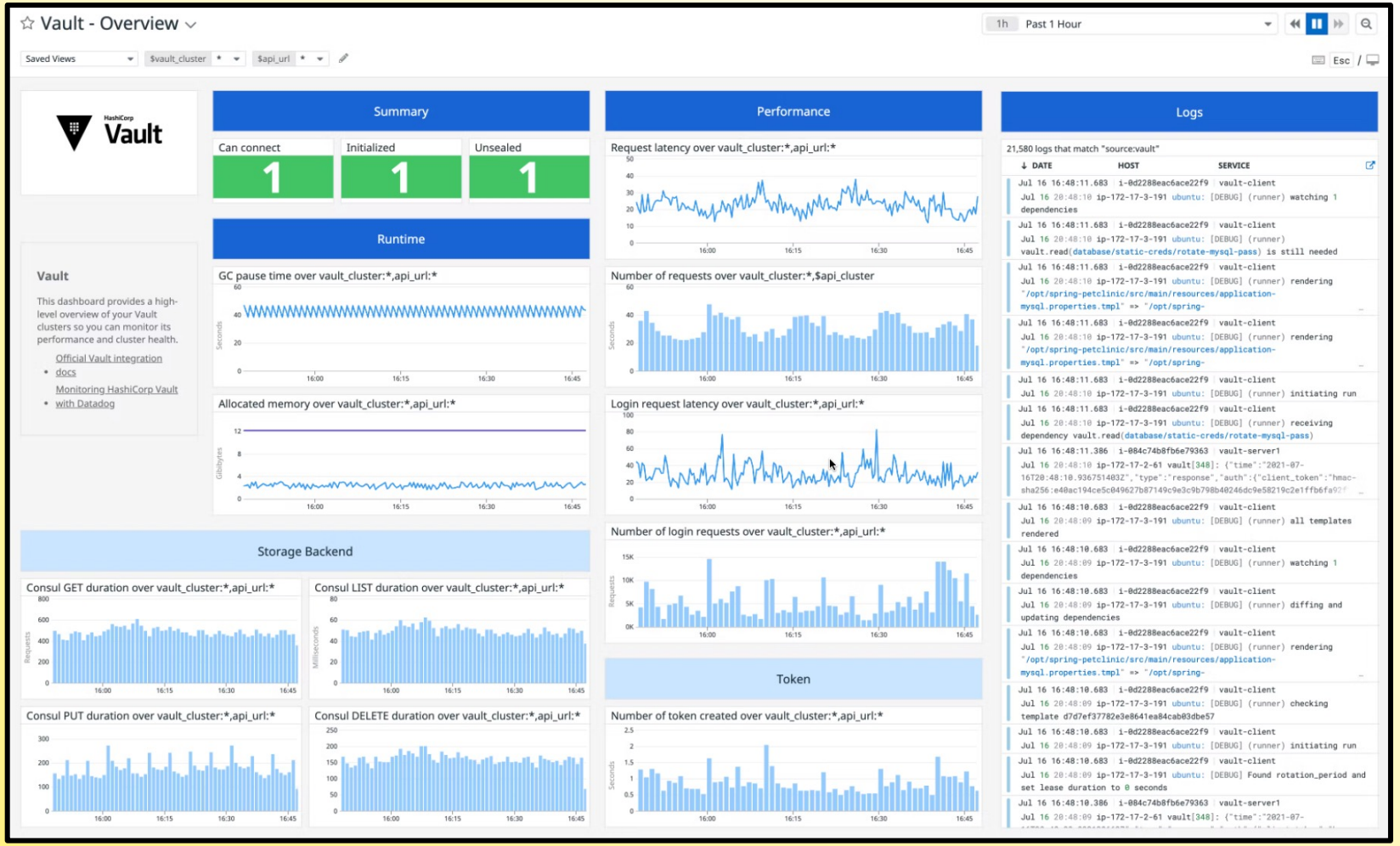
Terminal

```
…
telemetry {
  dogstatsd_addr = "metrics.hcvop.com:8125"
  dogstatsd_tags = ["vault_env:production"]
}
seal "transit" {
  address = "transit.hcvop.com:8200"
  key_name = "autounseal"
…
```

Telemetry Workflow



Dashboards & Monitoring



https://www.datadoghq.com/blog/vault-monitoring-with-datadog/