Alerts for version 1.5.2 of CDP PVC Data Services

Date published:
Date modified:

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KubePodCrashLooping

Reference information for KubePodCrashLooping used as part of Pulse in CDP Private Cloud Data Services.

Summary

Pod is crash looping.

PromQL Expression

rate(kube_pod_container_status_restarts_total{component="kube-state-metrics",appType="{{ $app.code }}"}[15m]) > 0

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubePodNotReady

Reference information for KubePodNotReady used as part of Pulse in CDP Private Cloud Data Services.

Summary

Pod has been in a non-ready state for more than 15 minutes.

PromQL Expression

sum by (namespace, pod, appType, appId, appName, workloadId) (max by(namespace, pod, owner_kind, appType, appId, appName, workloadId) (kube_pod_status_phase{component="kube-state-metrics", phase=~"Pending|Unknown",appType="{{ $app.code }}"}) * on(namespace, pod) group_left(owner_kind) max by(namespace, pod, owner_kind, appType, appId, appName, workloadId) (kube_pod_owner{owner_kind!="Job",appType="{{ $app.code }}"})) > 0

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeDeploymentGenerationMismatch

Reference information for KubeDeploymentGenerationMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

Deployment generation mismatch due to possible roll-back

PromQL Expression

kube_deployment_status_observed_generation{component="kube-state-metrics",appType="{{ $app.code }}"} != kube_deployment_metadata_generation{component="kube-state-metrics",appType="{{ $app.code }}"}

Time Period

      15m

Severity

      critical

Source

      environments/{{ $app.code }}

KubeDeploymentReplicasMismatch

Reference information for KubeDeploymentReplicasMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

      Deployment has not matched the expected number of replicas.

PromQL Expression

      (kube_deployment_spec_replicas{component="kube-state-metrics",appType="{{ $app.code }}"} ! = kube_deployment_status_replicas_available{component="kube-state-metrics",appType="{{ $app.code }}"}) and (changes(kube_deployment_status_replicas_updated{component="kube-state-metrics",appType="{{ $app.code }}"}[5m]) == 0)

Time Period

      15m

Severity

      critical

Source

      environments/{{ $app.code }}

KubeStatefulSetReplicasMismatch

Reference information for KubeStatefulSetReplicasMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

      Deployment has not matched the expected number of replicas.

PromQL Expression

      (kube_statefulset_status_replicas_ready{component="kube-state-metrics",appType="{{ $app.code }}"} != kube_statefulset_status_replicas{component="kube-state-metrics",appType="{{ $app.code }}"}) and (changes(kube_statefulset_status_replicas_updated{component="kube-state-metrics",appType="{{ $app.code }}"}[5m]) == 0)

Time Period

      15m

Severity

      critical

Source

      environments/{{ $app.code }}

KubeStatefulSetGenerationMismatch

Reference information for KubeStatefulSetGenerationMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

StatefulSet generation mismatch due to possible roll-back

PromQL Expression

kube_statefulset_status_observed_generation{component="kube-state-metrics",appType="{{ $app.code }}"} !=
kube_statefulset_metadata_generation{component="kube-state-metrics",appType="{{ $app.code }}"}

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeStatefulSetUpdateNotRolledOut

Reference information for KubeStatefulSetUpdateNotRolledOut used as part of Pulse in CDP Private Cloud Data Services.

Summary

StatefulSet update has not been rolled out.

PromQL Expression

max without (revision) (kube_statefulset_status_current_revision{component="kube-state-metrics",appType="{{ $app.code }}"} unless
kube_statefulset_status_update_revision{component="kube-state-metrics",appType="{{ $app.code }}"}) * (kube_statefulset_replicas{component="kube-state-metrics",appType="{{ $app.code }}"} !=
kube_statefulset_status_replicas_updated{component="kube-state-metrics",appType="{{ $app.code }}"})

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeDaemonSetRolloutStuck

Reference information for KubeDaemonSetRolloutStuck used as part of Pulse in CDP Private Cloud Data Services.

Summary

DaemonSet rollout is stuck.

PromQL Expression

kube_daemonset_status_number_ready{component="kube-state-metrics",appType="{{ $app.code }}"} / kube_daemonset_status_desired_number_scheduled{component="kube-state-metrics",appType="{{ $app.code }}"} < 1.00

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeContainerWaiting

Reference information for KubeContainerWaiting used as part of Pulse in CDP Private Cloud Data Services.

Summary

Pod container waiting longer than 1 hour

PromQL Expression

sum by (namespace, pod, container, appType, appId, appName, workloadId) (kube_pod_container_status_waiting_reason{component="kube-state-metrics",appType="{{ $app.code }}"}) > 0

Time Period

1h

Severity

critical

Source

environments/{{ $app.code }}

KubeDaemonSetNotScheduled

Reference information for KubeDaemonSetNotScheduled used as part of Pulse in CDP Private Cloud Data Services.

Summary

DaemonSet pods are not scheduled.

PromQL Expression

kube_daemonset_status_desired_number_scheduled{component="kube-state-metrics",appType="{{ $app.code }}"} - kube_daemonset_status_current_number_scheduled{component="kube-state-metrics",appType="{{ $app.code }}"} > 0

Time Period

10m

Severity

critical

Source

environments/{{ $app.code }}

KubeDaemonSetMisScheduled

Reference information for KubeDaemonSetMisScheduled used as part of Pulse in CDP Private Cloud Data Services.

Summary

DaemonSet pods are misscheduled.

PromQL Expression

kube_daemonset_status_number_misscheduled{component="kube-state-metrics",appType="{{ $app.code }}"} > 0

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeCronJobRunning

Reference information for KubeCronJobRunning used as part of Pulse in CDP Private Cloud Data Services.

Summary

CronJob did not complete in time

PromQL Expression

time() - kube_cronjob_next_schedule_time{component="kube-state-metrics",appType="{{ $app.code }}"} > 3600

Time Period

1h

Severity

critical

Source

environments/{{ $app.code }}

KubeJobCompletion

Reference information for KubeJobCompletion used as part of Pulse in CDP Private Cloud Data Services.

Summary

Job did not complete in time

PromQL Expression

kube_job_spec_completions{component="kube-state-metrics",appType="{{ $app.code }}"} - kube_job_status_succeeded{component="kube-state-metrics",appType="{{ $app.code }}"} > 0

Time Period

1h

Severity

critical

Source

environments/{{ $app.code }}

KubeJobFailed

Reference information for KubeJobFailed used as part of Pulse in CDP Private Cloud Data Services.

Summary

Job failed to complete.

PromQL Expression

kube_job_failed{component="kube-state-metrics",appType="{{ $app.code }}"} > 0

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeHpaReplicasMismatch

Reference information for KubeHpaReplicasMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

HPA has not matched desired number of replicas.

PromQL Expression

(kube_horizontalpodautoscaler_status_desired_replicas{component="kube-state-metrics",appType="{{ $app.code }}"} !=
kube_horizontalpodautoscaler_status_current_replicas{component="kube-state-metrics",appType="{{ $app.code }}"}) and
changes(kube_horizontalpodautoscaler_status_current_replicas{appType="{{ $app.code }}"}
[15m]) == 0

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeHpaMaxedOut

Reference information for KubeHpaMaxedOut used as part of Pulse in CDP Private Cloud Data Services.

Summary

HPA is running at max replicas

PromQL Expression

kube_horizontalpodautoscaler_status_current_replicas{component="kube-state-metrics",appType="{{ $app.code }}"} ==

kube_horizontalpodautoscaler_spec_max_replicas{component="kube-state-metrics",appType="{{ $app.code }}"}

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeQuotaExceeded

Reference information for KubeQuotaExceeded used as part of Pulse in CDP Private Cloud Data Services.

Summary

Namespace quota has exceeded the limits.

PromQL Expression

kube_resourcequota{component="kube-state-metrics", type="used",appType="{{ $app.code }}"} / ignoring(instance, job, type) (kube_resourcequota{component="kube-state-metrics", type="hard",appType="{{ $app.code }}"} > 0) > 0.90

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

MonitoringPlatformTopologyConfigurationDurationHigh

Reference information for MonitoringPlatformTopologyConfigurationDurationHigh used as part of Pulse in CDP Private Cloud Data Services.

Summary

The avg monitoring platform reconfiguration time is longer than 5 minutes

PromQL Expression

rate(monitoring_platform_topology_configuration_duration_seconds_sum[10m]) / rate(monitoring_platform_topology_configuration_duration_seconds_count[10m]) > 300

Time Period

15m

Severity

warning

Source

controlplane/

MonitoringPlatformUpgradeFailed

Reference information for MonitoringPlatformUpgradeFailed used as part of Pulse in CDP Private Cloud Data Services.

Summary

The monitoring components of an environment were failed to be updated to the latest version.

PromQL Expression

monitoring_platform_upgrade_failed == 1

Time Period

0s

Severity

critical

Source

controlplane/

MonitoringPlatformProvisionFailed

Reference information for MonitoringPlatformProvisionFailed used as part of Pulse in CDP Private Cloud Data Services.

Summary

Provisioning of monitoring components for an environment have failed.

PromQL Expression

monitoring_platform_provision_failed > 0

Time Period

5m

Severity

critical

Source

controlplane/

MonitoringDbAccessUnavailable

Reference information for MonitoringDbAccessUnavailable used as part of Pulse in CDP Private Cloud Data Services.

Summary

Ping failed to the monitoring database.

PromQL Expression

monitoring_db_unavailable == 1

Time Period

0s

Severity

warning

Source

  controlplane/

AlertAdministrationConfigurationFailed

Reference information for AlertAdministrationConfigurationFailed used as part of Pulse in CDP Private Cloud Data Services.

Summary

  Alert administration configuration failed.

PromQL Expression

  alert_administration_configuration_failed == 1

Time Period

  2m

Severity

  critical

Source

  controlplane/

AlertManagerConfigurationDurationHigh

Reference information for AlertManagerConfigurationDurationHigh used as part of Pulse in CDP Private Cloud Data Services.

Summary

  The avg alert manager reconfiguration time is longer than 5 minutes.

PromQL Expression

  rate(alert_administration_alert_manager_configuration_duration_seconds_sum[10m]) / rate(alert_administration_alert_manager_configuration_duration_seconds_count[10m]) > 300

Time Period

Severity

  warning

Source

  controlplane/

AlertAdministrationTopologyStreamReceiveFailedRatioHigh

Reference information for AlertAdministrationTopologyStreamReceiveFailedRatioHigh used as part of Pulse in CDP Private Cloud Data Services.

Summary

  Failed to receive topology stream messages.

PromQL Expression

  (rate(alert_administration_topology_stream_receive_failed_total[5m]) / rate(alert_administration_topology_stream_receive_total[5m])) * 100 > 10

Time Period

5m

Severity

warning

Source

controlplane/

AlertAdministrationBuiltInRuleLoadingFailed

Reference information for AlertAdministrationBuiltInRuleLoadingFailed used as part of Pulse in CDP Private Cloud Data Services.

Summary

Failed to load built-in alert rules

PromQL Expression

alert_administration_built_in_rule_loading_failed == 1

Time Period

0s

Severity

critical

Source

controlplane/

AlertAdministrationCmImportFailed

Reference information for AlertAdministrationCmImportFailed used as part of Pulse in CDP Private Cloud Data Services.

Summary

Failed to import CM alert settings

PromQL Expression

alert_administration_cm_import_failed == 1

Time Period

0s

Severity

warning

Source

controlplane/

AlertRuleConfigurationDurationHigh

Reference information for AlertRuleConfigurationDurationHigh used as part of Pulse in CDP Private Cloud Data Services.

Summary

The avg alert rule reconfiguration time is longer than 5 minutes.

PromQL Expression

rate(alert_administration_alert_rules_configuration_duration_seconds_sum[10m]) /
rate(alert_administration_alert_rules_configuration_duration_seconds_count[10m]) > 300

Time Period

0s

Severity

warning

Source

controlplane/

PrometheusConfigmapReloadFailed

Reference information for PrometheusConfigmapReloadFailed used as part of Pulse in CDP Private Cloud Data Services.

Summary

Configmap reloader in Prometheus pod is failing to load the updated configmap.

PromQL Expression

configmap_reload_last_reload_error == 1

Time Period

30s

Severity

critical

Source

environments/infra

EnvironmentPrometheusConnectionCheckFailed

Reference information for EnvironmentPrometheusConnectionCheckFailed used as part of Pulse in CDP Private Cloud Data Services.

Summary

Environment Prometheus is inaccessible from Control Plane.

PromQL Expression

platform_environment_prometheus_connection_request_failed > 0

Time Period

5m

Severity

warning

Source

controlplane/

PrometheusNotConnectedToAlertmanager

Reference information for PrometheusNotConnectedToAlertmanager used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus is not connected to alertmanager

PromQL Expression

max_over_time(prometheus_notifications_alertmanagers_discovered[5m]) < 1

Time Period

10m

Severity

critical

Source

environments/infra

PrometheusAlertmanagerNotificationFailing

Reference information for PrometheusAlertmanagerNotificationFailing used as part of Pulse in CDP Private Cloud Data Services.

Summary

Alertmanager is failing to send notifications

PromQL Expression

rate(alertmanager_notifications_failed_total[10m]) > 0

Time Period

0s

Severity

critical

Source

environments/infra

PrometheusAlertmanagerConfigurationReloadFailure

Reference information for PrometheusAlertmanagerConfigurationReloadFailure used as part of Pulse in CDP Private Cloud Data Services.

Summary

Alertmanager is failing to reload configuration

PromQL Expression

alertmanager_config_last_reload_successful != 1

Time Period

0s

Severity

warning

Source

environments/infra

ControlPlanePrometheusBadConfig

Reference information for ControlPlanePrometheusBadConfig used as part of Pulse in CDP Private Cloud Data Services.

Summary

Failed Prometheus configuration reload.

PromQL Expression

max_over_time(prometheus_config_last_reload_successful[5m]) == 0

Time Period

10m

Severity

critical

Source

controlplane/

ControlPlanePrometheusNotificationQueueRunningFull

Reference information for ControlPlanePrometheusNotificationQueueRunningFull used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus alert notification queue predicted to run full in less than 30m.

PromQL Expression

(predict_linear(prometheus_notifications_queue_length[5m], 60 * 30) > min_over_time(prometheus_notifications_queue_capacity[5m]))

Time Period

15m

Severity

warning

Source

controlplane/

ControlPlanePrometheusErrorSendingAlertsToSomeAlertmanage

Reference information for ControlPlanePrometheusErrorSendingAlertsToSomeAlertmanagers used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus has encountered more than 1% errors sending alerts to a specific Alertmanager.

PromQL Expression

(rate(prometheus_notifications_errors_total[5m]) / rate(prometheus_notifications_sent_total[5m])) * 100 > 1

Time Period

15m

Severity

> warning

Source

> controlplane/

ControlPlanePrometheusErrorSendingAlertsToAnyAlertmanager

Reference information for ControlPlanePrometheusErrorSendingAlertsToAnyAlertmanager used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Prometheus encounters more than 3% errors sending alerts to any Alertmanager.

PromQL Expression

> min without (alertmanager) (rate(prometheus_notifications_errors_total{alertmanager!~``}[5m]) / rate(prometheus_notifications_sent_total{alertmanager!~``}[5m])) * 100 > 3

Time Period

> 15m

Severity

> critical

Source

> controlplane/

ControlPlanePrometheusTSDBReloadsFailing

Reference information for ControlPlanePrometheusTSDBReloadsFailing used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Prometheus has issues reloading blocks from disk.

PromQL Expression

> increase(prometheus_tsdb_reloads_failures_total[3h]) > 0

Time Period

> 4h

Severity

> warning

Source

> controlplane/

ControlPlanePrometheusTSDBCompactionsFailing

Reference information for ControlPlanePrometheusTSDBCompactionsFailing used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Prometheus has issues compacting blocks.

PromQL Expression

increase(prometheus_tsdb_compactions_failed_total[3h]) > 0

Time Period

4h

Severity

warning

Source

controlplane/

ControlPlanePrometheusNotIngestingSamples

Reference information for ControlPlanePrometheusNotIngestingSamples used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus is not ingesting samples.

PromQL Expression

(rate(prometheus_tsdb_head_samples_appended_total[5m]) <= 0 and (sum without(scrape_job) (prometheus_target_metadata_cache_entries) > 0 or sum without(rule_group) (prometheus_rule_group_rules) > 0))

Time Period

10m

Severity

warning

Source

controlplane/

ControlPlanePrometheusDuplicateTimestamps

Reference information for ControlPlanePrometheusDuplicateTimestamps used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus is dropping samples with duplicate timestamps.

PromQL Expression

rate(prometheus_target_scrapes_sample_duplicate_timestamp_total[5m]) > 0

Time Period

10m

Severity

warning

Source

controlplane/

ControlPlanePrometheusOutOfOrderTimestamps

Reference information for ControlPlanePrometheusOutOfOrderTimestamps used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus drops samples with out-of-order timestamps.

PromQL Expression

rate(prometheus_target_scrapes_sample_out_of_order_total[5m]) > 0

Time Period

10m

Severity

warning

Source

controlplane/

ControlPlanePrometheusRemoteStorageFailures

Reference information for ControlPlanePrometheusRemoteStorageFailures used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus fails to send samples to remote storage.

PromQL Expression

(rate(prometheus_remote_storage_samples_failed_total[5m]) /
(rate(prometheus_remote_storage_samples_failed_total[5m]) +
rate(prometheus_remote_storage_samples_total[5m]))) * 100 > 1

Time Period

0s

Severity

critical

Source

controlplane/

ControlPlanePrometheusRemoteWriteBehind

Reference information for ControlPlanePrometheusRemoteWriteBehind used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus remote write is behind.

PromQL Expression

(max_over_time(prometheus_remote_storage_highest_timestamp_in_seconds[5m]) -
ignoring(remote_name, url) group_right
max_over_time(prometheus_remote_storage_queue_highest_sent_timestamp_seconds[5m])) > 120

Time Period

0s

Severity

critical

Source

controlplane/

ControlPlanePrometheusRemoteWriteDesiredShards

Reference information for ControlPlanePrometheusRemoteWriteDesiredShards used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus remote write desired shards calculation wants to run more than configured max shards.

PromQL Expression

(max_over_time(prometheus_remote_storage_shards_desired[5m]) > max_over_time(prometheus_remote_storage_shards_max[5m]))

Time Period

15m

Severity

warning

Source

controlplane/

ControlPlanePrometheusPrometheusRuleFailures

Reference information for ControlPlanePrometheusPrometheusRuleFailures used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus is failing rule evaluations.

PromQL Expression

increase(prometheus_rule_evaluation_failures_total[5m]) > 0

Time Period

15m

Severity

critical

Source

controlplane/

ControlPlanePrometheusMissingRuleEvaluations

Reference information for ControlPlanePrometheusMissingRuleEvaluations used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus is missing rule evaluations due to slow rule group evaluation.

PromQL Expression

increase(prometheus_rule_group_iterations_missed_total[5m]) > 0

Time Period

15m

Severity

warning

Source

controlplane/

ControlPlanePrometheusTargetLimitHit

Reference information for ControlPlanePrometheusTargetLimitHit used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus has dropped targets because some scrape configs have exceeded the targets limit.

PromQL Expression

increase(prometheus_target_scrape_pool_exceeded_target_limit_total[5m]) > 0

Time Period

15m

Severity

warning

Source

controlplane/

ControlPlanePrometheusLabelLimitHit

Reference information for ControlPlanePrometheusLabelLimitHit used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus has dropped targets because some scrape configs have exceeded the labels limit.

PromQL Expression

increase(prometheus_target_scrape_pool_exceeded_label_limits_total[5m]) > 0

Time Period

15m

Severity

warning

Source

controlplane/

ControlPlanePrometheusScrapeBodySizeLimitHit

Reference information for ControlPlanePrometheusScrapeBodySizeLimitHit used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Prometheus has dropped some targets that exceeded body size limit.

PromQL Expression

> increase(prometheus_target_scrapes_exceeded_body_size_limit_total[5m]) > 0

Time Period

> 15m

Severity

> warning

Source

> controlplane/

ControlPlanePrometheusScrapeSampleLimitHit

Reference information for ControlPlanePrometheusScrapeSampleLimitHit used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Prometheus has failed scrapes that have exceeded the configured sample limit.

PromQL Expression

> increase(prometheus_target_scrapes_exceeded_sample_limit_total[5m]) > 0

Time Period

> 15m

Severity

> warning

Source

> controlplane/

ControlPlanePrometheusTargetSyncFailure

Reference information for ControlPlanePrometheusTargetSyncFailure used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Prometheus has failed to sync targets.

PromQL Expression

> increase(prometheus_target_sync_failed_total[30m]) > 0

Time Period

> 5m

Severity

> critical

Source

> controlplane/

PrometheusRemoteWriteConfigurationDurationHigh

Reference information for PrometheusRemoteWriteConfigurationDurationHigh used as part of Pulse in CDP Private Cloud Data Services.

Summary

> The avg prometheus remote-write reconfiguration time is longer than 5 minutes

PromQL Expression

> rate(remote_write_reconcile_duration_seconds_sum[10m]) /
> rate(remote_write_reconcile_duration_seconds_count[10m]) > 300

Time Period

> 15m

Severity

> warning

Source

> controlplane/

RemoteWriteConfigurationFailed

Reference information for RemoteWriteConfigurationFailed used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Remote-write configuration failed.

PromQL Expression

> max_over_time(monitoring_remote_write_configuration_failed[2m]) > 0

Time Period

> 0s

Severity

> critical

Source

> controlplane/

TargetDown

Reference information for TargetDown used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Target Down

PromQL Expression

> 100 * (count(up == 0) BY (job, namespace, service, appType, appName) / count(up) BY (job,
> namespace, service, appType, appName)) > 10

Time Period

> 10m

Severity

warning

Source

environments/de

DataLakeClusterHealthIsBad

Reference information for DataLakeClusterHealthIsBad used as part of Pulse in CDP Private Cloud Data Services.

Summary

Data lake cluster health is bad

PromQL Expression

cm_cluster_health == 7

Time Period

0s

Severity

critical

Source

environments/

DataLakeClusterHealthIsConcerning

Reference information for DataLakeClusterHealthIsConcerning used as part of Pulse in CDP Private Cloud Data Services.

Summary

Data lake cluster health is concerning

PromQL Expression

cm_cluster_health == 6

Time Period

0s

Severity

warning

Source

environments/

DataLakeClusterIsStopped

Reference information for DataLakeClusterIsStopped used as part of Pulse in CDP Private Cloud Data Services.

Summary

Data lake cluster health is stopped

PromQL Expression

cm_cluster_health == 3 or cm_cluster_health == 4

Time Period

0s

Severity

warning

Source

environments/

DataLakeDidNotStart

Reference information for DataLakeDidNotStart used as part of Pulse in CDP Private Cloud Data Services.

Summary

Data lake cluster did not start

PromQL Expression

cm_cluster_health == 2

Time Period

15m

Severity

warning

Source

environments/

DataLakeHealthUnknownOrDisabled

Reference information for DataLakeHealthUnknownOrDisabled used as part of Pulse in CDP Private Cloud Data Services.

Summary

Data lake cluster health is unknown or disabled

PromQL Expression

cm_cluster_health == 0 or cm_cluster_health == 1

Time Period

10m

Severity

warning

Source

environments/

HiveJvmPauseTimeCritical

Reference information for HiveJvmPauseTimeCritical used as part of Pulse in CDP Private Cloud Data Services.

Summary

Hive JVM GC pause time critical

PromQL Expression

sum(increase(jvm_gc_collection_seconds_sum{appType="dw"}[300s])) without (gc) / 3 >= 20

Time Period

0s

Severity

> critical

Source

> environments/dw

HiveJvmPauseTimeWarning

Reference information for HiveJvmPauseTimeWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Hive JVM GC pause time warning

PromQL Expression

> sum(increase(jvm_gc_collection_seconds_sum{appType="dw"}[300s])) without (gc) / 3 > 10

Time Period

> 0s

Severity

> warning

Source

> environments/dw

HiveJvmThreadsDeadlocked

Reference information for HiveJvmThreadsDeadlocked used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Hive JVM threads deadlocked

PromQL Expression

> jvm_threads_deadlocked > 0

Time Period

> 0s

Severity

> critical

Source

> environments/dw

HiveJvmHeapPercentCritical

Reference information for HiveJvmHeapPercentCritical used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Hive JVM heap percent critical

PromQL Expression

> 100 * jvm_memory_bytes_used{appType="dw"} / (jvm_memory_bytes_max{appType="dw"} > 0) > 95

Time Period

> 0s

Severity

> critical

Source

> environments/dw

HiveJvmHeapPercentWarning

Reference information for HiveJvmHeapPercentWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Hive JVM heap percent warning

PromQL Expression

> 100 * jvm_memory_bytes_used{appType="dw"} / (jvm_memory_bytes_max{appType="dw"} > 0)
> > 80

Time Period

> 0s

Severity

> warning

Source

> environments/dw

LargeNumberOfCompactionFailuresWarning

Reference information for LargeNumberOfCompactionFailuresWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Large number of compaction failures

PromQL Expression

> (max(compaction_num_failed{appType="dw"}) by (appId, appName) +
> max(compaction_num_attempted{appType="dw"}) by (appId, appName)) /
> (max(compaction_num_failed{appType="dw"}) by (appId, appName) +
> max(compaction_num_attempted{appType="dw"}) by (appId, appName) +
> max(compaction_num_succeeded{appType="dw"}) by (appId, appName)) > .01

Time Period

> 0s

Severity

> warning

Source

> environments/dw

OldestInitiatedCompactionPassedThresholdWarning

Reference information for OldestInitiatedCompactionPassedThresholdWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

Oldest initiated compaction passed threshold

PromQL Expression

12 * 3600 >= max(compaction_oldest_enqueue_age_in_sec{appType="dw"}) by (appId, appName, namespace, service) > 3600

Time Period

0s

Severity

warning

Source

environments/dw

OldestInitiatedCompactionPassedThresholdError

Reference information for OldestInitiatedCompactionPassedThresholdError used as part of Pulse in CDP Private Cloud Data Services.

Summary

Oldest initiated compaction passed threshold

PromQL Expression

max(compaction_oldest_enqueue_age_in_sec{appType="dw"}) by (appId, appName) > 12 * 3600

Time Period

0s

Severity

critical

Source

environments/dw

OldestReadyForCleaningCompactionPassedThresholdWarning

Reference information for OldestReadyForCleaningCompactionPassedThresholdWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

Oldest uncleaned compaction passed threshold

PromQL Expression

max(oldest_ready_for_cleaning_age_in_sec{appType="dw"}) by (appId, appName) > 24 * 3600

Time Period

0s

Severity

warning

Source

environments/dw

OldAbortedTransactionNotClearedWarning

Reference information for OldAbortedTransactionNotClearedWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

Old aborted transaction not cleared

PromQL Expression

48 * 3600 >= max(oldest_aborted_txn_age_in_sec{appType="dw"}) by (appId, appName) > 24 * 3600

Time Period

0s

Severity

warning

Source

environments/dw

OldAbortedTransactionNotClearedCritical

Reference information for OldAbortedTransactionNotClearedCritical used as part of Pulse in CDP Private Cloud Data Services.

Summary

Old aborted transaction not cleared

PromQL Expression

max(oldest_aborted_txn_age_in_sec{appType="dw"}) by (appId, appName) > 48 * 3600

Time Period

0s

Severity

critical

Source

environments/dw

PartitionsWithManyAbortsCritical

Reference information for PartitionsWithManyAbortsCritical used as part of Pulse in CDP Private Cloud Data Services.

Summary

Tables/partitions with many aborts

PromQL Expression

max(tables_with_x_aborted_transactions{appType="dw"}) by (appId, appName) > 0

Time Period

0s

Severity

critical

Source

environments/dw

OldestOpenNonReplTransactionPassedThresholdWarning

Reference information for OldestOpenNonReplTransactionPassedThresholdWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

Oldest open transaction passed threshold

PromQL Expression

3 * 24 * 3600 >= max(oldest_open_non_repl_txn_age_in_sec{appType="dw"}) by (appId, appName) > 24 * 3600

Time Period

0s

Severity

warning

Source

environments/dw

OldestOpenNonReplTransactionPassedThresholdCritical

Reference information for OldestOpenNonReplTransactionPassedThresholdCritical used as part of Pulse in CDP Private Cloud Data Services.

Summary

Oldest open transaction passed threshold

PromQL Expression

max(oldest_open_non_repl_txn_age_in_sec{appType="dw"}) by (appId, appName) > 3 * 24 * 3600

Time Period

0s

Severity

critical

Source

environments/dw

LargeNumberOfActiveDeltasWarning

Reference information for LargeNumberOfActiveDeltasWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

Table/partition with large number of active delta directories

PromQL Expression

max(compaction_num_active_deltas{appType="dw"}) by (appId, appName) > 200

Time Period

0s

Severity

warning

Source

environments/dw

LargeNumberOfSmallDeltasWarning

Reference information for LargeNumberOfSmallDeltasWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

Table/partition with large number of small delta directories

PromQL Expression

max(compaction_num_small_deltas{appType="dw"}) by (appId, appName) > 200

Time Period

0s

Severity

warning

Source

environments/dw

LargeNumberOfObsoleteDeltasWarning

Reference information for LargeNumberOfObsoleteDeltasWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

Table/partition with large number of obsolete delta directories

PromQL Expression

max(compaction_num_obsolete_deltas) by (appId, appName, namespace, service) > 200

Time Period

0s

Severity

warning

Source

environments/dw

ExcessiveAcidMetadataCompletedTxnComponentsWarning

Reference information for ExcessiveAcidMetadataCompletedTxnComponentsWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

The COMPLETED_TXN_COMPONENTS metadata table is too large

PromQL Expression

1000000 >= max(compaction_num_completed_txn_components{appType="dw"}) by (appId, appName) > 500000

Time Period

0s

Severity

warning

Source

environments/dw

ExcessiveAcidMetadataCompletedTxnComponentsCritical

Reference information for ExcessiveAcidMetadataCompletedTxnComponentsCritical used as part of Pulse in CDP Private Cloud Data Services.

Summary

The COMPLETED_TXN_COMPONENTS metadata table is too large

PromQL Expression

max(compaction_num_completed_txn_components{appType="dw"}) by (appId, appName) > 1000000

Time Period

0s

Severity

critical

Source

environments/dw

ExcessiveAcidMetadataTxnToWriteIdWarning

Reference information for ExcessiveAcidMetadataTxnToWriteIdWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

The TXN_TO_WRITE_ID metadata table is too large

PromQL Expression

1000000 >= max(compaction_num_txn_to_writeid{appType="dw"}) by (appId, appName) > 500000

Time Period

0s

Severity

warning

Source

environments/dw

ExcessiveAcidMetadataTxnToWriteIdCritical

Reference information for ExcessiveAcidMetadataTxnToWriteIdCritical used as part of Pulse in CDP Private Cloud Data Services.

Summary

The TXN_TO_WRITE_ID metadata table is too large

PromQL Expression

max(compaction_num_txn_to_writeid{appType="dw"}) by (appId, appName) > 1000000

Time Period

0s

Severity

critical

Source

environments/dw

ActivityOnTableWithDisabledAutoCompactionWarning

Reference information for ActivityOnTableWithDisabledAutoCompactionWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

Activity on table with disabled auto-compaction

PromQL Expression

sum(increase(num_writes_to_disabled_compaction_table{appType="dw"}[24h])) by (appId, appName) > 0

Time Period

0s

Severity

warning

Source

environments/dw

ExcessiveInitiatorFailuresInTheLast24hError

Reference information for ExcessiveInitiatorFailuresInTheLast24hError used as part of Pulse in CDP Private Cloud Data Services.

Summary

Compactor initiation failures in the last 24h

PromQL Expression

sum(increase(compaction_initiator_failure_counter[24h])) by (appId, appName, namespace, service) >= 5

Time Period

0s

Severity

      critical

Source

      environments/dw

ExcessiveCleanerFailuresInTheLast24hWarning

Reference information for ExcessiveCleanerFailuresInTheLast24hWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

      Compactor cleaner failures in the last 24h

PromQL Expression

      5 > sum(increase(compaction_cleaner_failure_counter[24h])) by (appId, appName, namespace, service) >= 2

Time Period

      0s

Severity

      warning

Source

      environments/dw

ExcessiveCleanerFailuresInTheLast24hCritical

Reference information for ExcessiveCleanerFailuresInTheLast24hCritical used as part of Pulse in CDP Private Cloud Data Services.

Summary

      Compactor cleaner failures in the last 24h

PromQL Expression

      sum(increase(compaction_cleaner_failure_counter[24h])) by (appId, appName, namespace, service) >= 5

Time Period

      0s

Severity

      critical

Source

      environments/dw

LongRunningInitiatorCycleWarning

Reference information for LongRunningInitiatorCycleWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

      Long Running Initiator Cycle

PromQL Expression

> 12 * 3600 * 1000 >= max(compaction_initiator_cycle_duration) by (appId, appName, namespace, service) > 6 * 3600 * 1000

Time Period

> 0s

Severity

> warning

Source

> environments/dw

LongRunningInitiatorCycleCritical

Reference information for LongRunningInitiatorCycleCritical used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Long Running Initiator Cycle

PromQL Expression

> max(compaction_initiator_cycle_duration) by (appId, appName, namespace, service) > 12 * 3600 * 1000

Time Period

> 0s

Severity

> critical

Source

> environments/dw

ImpalaJvmPauseTimeCritical

Reference information for ImpalaJvmPauseTimeCritical used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Impala JVM pause time critical

PromQL Expression

> increase(impala_jvm_gc_total_extra_sleep_time_millis{appType="dw"}[5m]) / 1000 >= 60

Time Period

> 0s

Severity

> critical

Source

> environments/dw

ImpalaJvmGcTimeCritical

Reference information for ImpalaJvmGcTimeCritical used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Impala JVM GC pause time critical

PromQL Expression

> increase(impala_jvm_gc_time_millis{appType="dw"}[5m]) / 1000 >= 60

Time Period

> 0s

Severity

> critical

Source

> environments/dw

ImpalaJvmPauseTimeWarning

Reference information for ImpalaJvmPauseTimeWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Impala JVM pause time warning

PromQL Expression

> increase(impala_jvm_gc_total_extra_sleep_time_millis{appType="dw"}[5m]) >= 30000 and
> increase(impala_jvm_gc_total_extra_sleep_time_millis{appType="dw"}[5m]) < 60000

Time Period

> 0s

Severity

> warning

Source

> environments/dw

ImpalaJvmGcTimeWarning

Reference information for ImpalaJvmGcTimeWarning used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Impala JVM GC pause time warning

PromQL Expression

> increase(impala_jvm_gc_time_millis{appType="dw"}[5m]) >= 30000 and
> increase(impala_jvm_gc_time_millis{appType="dw"}[5m]) < 60000

Time Period

> 0s

Severity

> warning

Source

> environments/dw

ImpalaCatalogTimedOutCnxnRequest

Reference information for ImpalaCatalogTimedOutCnxnRequest used as part of Pulse in CDP Private Cloud Data Services.

Summary

Impala catalog timed out cnxn request

PromQL Expression

rate(impala_thrift_server_CatalogService_timedout_cnxn_requests{appType="dw"}[2m]) > 1

Time Period

5m

Severity

warning

Source

environments/dw

ImpalaStatestoreTimedOutCnxnRequest

Reference information for ImpalaStatestoreTimedOutCnxnRequest used as part of Pulse in CDP Private Cloud Data Services.

Summary

Impala statestore timed out cnxn request

PromQL Expression

rate(impala_thrift_server_StatestoreService_timedout_cnxn_requests{appType="dw"}[2m]) > 1

Time Period

5m

Severity

warning

Source

environments/dw

ImpalaBackendTimedOutCnxnRequest

Reference information for ImpalaBackendTimedOutCnxnRequest used as part of Pulse in CDP Private Cloud Data Services.

Summary

Impala backend timed out cnxn request

PromQL Expression

rate(impala_thrift_server_backend_timedout_cnxn_requests{appType="dw"}[2m]) > 1

Time Period

5m

Severity

warning

Source

> environments/dw

ImpalaHs2FrontendTimedOutCnxnRequest

Reference information for ImpalaHs2FrontendTimedOutCnxnRequest used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Impala hs2 frontend timed out cnxn request

PromQL Expression

> rate(impala_thrift_server_hiveserver2_frontend_timedout_cnxn_requests{appType="dw"}[2m]) > 1

Time Period

> 5m

Severity

> warning

Source

> environments/dw

ImpalaHs2HttpFrontendTimedOutCnxnRequest

Reference information for ImpalaHs2HttpFrontendTimedOutCnxnRequest used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Impala hs2 http frontend timed out cnxn request

PromQL Expression

> rate(impala_thrift_server_hiveserver2_http_frontend_timedout_cnxn_requests{appType="dw"}[2m]) > 1

Time Period

> 5m

Severity

> warning

Source

> environments/dw

PrometheusNotConnectedToAlertmanager

Reference information for PrometheusNotConnectedToAlertmanager used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Prometheus is not connected to alertmanager

PromQL Expression

> max_over_time(prometheus_notifications_alertmanagers_discovered[5m]) < 1

Time Period

10m

Severity

critical

Source

environments/infra

PrometheusAlertmanagerNotificationFailing

Reference information for PrometheusAlertmanagerNotificationFailing used as part of Pulse in CDP Private Cloud Data Services.

Summary

Alertmanager is failing to send notifications

PromQL Expression

rate(alertmanager_notifications_failed_total[10m]) > 0

Time Period

0s

Severity

critical

Source

environments/infra

PrometheusAlertmanagerConfigurationReloadFailure

Reference information for PrometheusAlertmanagerConfigurationReloadFailure used as part of Pulse in CDP Private Cloud Data Services.

Summary

Alertmanager is failing to reload configuration

PromQL Expression

alertmanager_config_last_reload_successful != 1

Time Period

0s

Severity

warning

Source

environments/infra

PrometheusConfigmapReloadFailed

Reference information for PrometheusConfigmapReloadFailed used as part of Pulse in CDP Private Cloud Data Services.

Summary

Configmap reloader in Prometheus pod is failing to load the updated configmap.

PromQL Expression

configmap_reload_last_reload_error == 1

Time Period

30s

Severity

critical

Source

environments/infra

EnvPrometheusBadConfig

Reference information for EnvPrometheusBadConfig used as part of Pulse in CDP Private Cloud Data Services.

Summary

Failed Prometheus configuration reload.

PromQL Expression

max_over_time(prometheus_config_last_reload_successful[5m]) == 0

Time Period

10m

Severity

critical

Source

environments/infra

EnvPrometheusNotificationQueueRunningFull

Reference information for EnvPrometheusNotificationQueueRunningFull used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus alert notification queue predicted to run full in less than 30m.

PromQL Expression

(predict_linear(prometheus_notifications_queue_length[5m], 60 * 30) >
min_over_time(prometheus_notifications_queue_capacity[5m]))

Time Period

15m

Severity

warning

Source

environments/infra

EnvPrometheusErrorSendingAlertsToSomeAlertmanagers

Reference information for EnvPrometheusErrorSendingAlertsToSomeAlertmanagers used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus has encountered more than 1% errors sending alerts to a specific Alertmanager.

PromQL Expression

(rate(prometheus_notifications_errors_total[5m]) / rate(prometheus_notifications_sent_total[5m])) * 100 > 1

Time Period

15m

Severity

warning

Source

environments/infra

EnvPrometheusErrorSendingAlertsToAnyAlertmanager

Reference information for EnvPrometheusErrorSendingAlertsToAnyAlertmanager used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus encounters more than 3% errors sending alerts to any Alertmanager.

PromQL Expression

min without (alertmanager) (rate(prometheus_notifications_errors_total{alertmanager!~``}[5m]) / rate(prometheus_notifications_sent_total{alertmanager!~``}[5m])) * 100 > 3

Time Period

15m

Severity

critical

Source

environments/infra

EnvPrometheusTSDBReloadsFailing

Reference information for EnvPrometheusTSDBReloadsFailing used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus has issues reloading blocks from disk.

PromQL Expression

increase(prometheus_tsdb_reloads_failures_total[3h]) > 0

Time Period

4h

Severity

warning

Source

environments/infra

EnvPrometheusTSDBCompactionsFailing

Reference information for EnvPrometheusTSDBCompactionsFailing used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus has issues compacting blocks.

PromQL Expression

increase(prometheus_tsdb_compactions_failed_total[3h]) > 0

Time Period

4h

Severity

warning

Source

environments/infra

EnvPrometheusNotIngestingSamples

Reference information for EnvPrometheusNotIngestingSamples used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus is not ingesting samples.

PromQL Expression

(rate(prometheus_tsdb_head_samples_appended_total[5m]) <= 0 and (sum without(scrape_job) (prometheus_target_metadata_cache_entries) > 0 or sum without(rule_group) (prometheus_rule_group_rules) > 0))

Time Period

10m

Severity

warning

Source

environments/infra

EnvPrometheusDuplicateTimestamps

Reference information for EnvPrometheusDuplicateTimestamps used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus is dropping samples with duplicate timestamps.

PromQL Expression

rate(prometheus_target_scrapes_sample_duplicate_timestamp_total[5m]) > 0

Time Period

10m

Severity

warning

Source

environments/infra

EnvPrometheusOutOfOrderTimestamps

Reference information for EnvPrometheusOutOfOrderTimestamps used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus drops samples with out-of-order timestamps.

PromQL Expression

rate(prometheus_target_scrapes_sample_out_of_order_total[5m]) > 0

Time Period

10m

Severity

warning

Source

environments/infra

EnvPrometheusRemoteStorageFailures

Reference information for EnvPrometheusRemoteStorageFailures used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus fails to send samples to remote storage.

PromQL Expression

(rate(prometheus_remote_storage_samples_failed_total[5m]) /
(rate(prometheus_remote_storage_samples_failed_total[5m]) +
rate(prometheus_remote_storage_samples_total[5m]))) * 100 > 1

Time Period

0s

Severity

critical

Source

environments/infra

EnvPrometheusRemoteWriteBehind

Reference information for EnvPrometheusRemoteWriteBehind used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus remote write is behind.

PromQL Expression

(max_over_time(prometheus_remote_storage_highest_timestamp_in_seconds[5m]) -
ignoring(remote_name, url) group_right
max_over_time(prometheus_remote_storage_queue_highest_sent_timestamp_seconds[5m])) > 120

Time Period

0s

Severity

critical

Source

environments/infra

EnvPrometheusRemoteWriteDesiredShards

Reference information for EnvPrometheusRemoteWriteDesiredShards used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus remote write desired shards calculation wants to run more than configured max shards.

PromQL Expression

(max_over_time(prometheus_remote_storage_shards_desired[5m]) >
max_over_time(prometheus_remote_storage_shards_max[5m]))

Time Period

15m

Severity

warning

Source

environments/infra

EnvPrometheusPrometheusRuleFailures

Reference information for EnvPrometheusPrometheusRuleFailures used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus is failing rule evaluations.

PromQL Expression

increase(prometheus_rule_evaluation_failures_total[5m]) > 0

Time Period

15m

Severity

critical

Source

environments/infra

EnvPrometheusMissingRuleEvaluations

Reference information for EnvPrometheusMissingRuleEvaluations used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus is missing rule evaluations due to slow rule group evaluation.

PromQL Expression

increase(prometheus_rule_group_iterations_missed_total[5m]) > 0

Time Period

15m

Severity

warning

Source

environments/infra

EnvPrometheusTargetLimitHit

Reference information for EnvPrometheusTargetLimitHit used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus has dropped targets because some scrape configs have exceeded the targets limit.

PromQL Expression

increase(prometheus_target_scrape_pool_exceeded_target_limit_total[5m]) > 0

Time Period

15m

Severity

warning

Source

environments/infra

EnvPrometheusLabelLimitHit

Reference information for EnvPrometheusLabelLimitHit used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus has dropped targets because some scrape configs have exceeded the labels limit.

PromQL Expression

increase(prometheus_target_scrape_pool_exceeded_label_limits_total[5m]) > 0

Time Period

15m

Severity

warning

Source

environments/infra

EnvPrometheusScrapeBodySizeLimitHit

Reference information for EnvPrometheusScrapeBodySizeLimitHit used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus has dropped some targets that exceeded body size limit.

PromQL Expression

increase(prometheus_target_scrapes_exceeded_body_size_limit_total[5m]) > 0

Time Period

15m

Severity

warning

Source

environments/infra

EnvPrometheusScrapeSampleLimitHit

Reference information for EnvPrometheusScrapeSampleLimitHit used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus has failed scrapes that have exceeded the configured sample limit.

PromQL Expression

increase(prometheus_target_scrapes_exceeded_sample_limit_total[5m]) > 0

Time Period

15m

Severity

warning

Source

environments/infra

EnvPrometheusTargetSyncFailure

Reference information for EnvPrometheusTargetSyncFailure used as part of Pulse in CDP Private Cloud Data Services.

Summary

Prometheus has failed to sync targets.

PromQL Expression

increase(prometheus_target_sync_failed_total[30m]) > 0

Time Period

5m

Severity

critical

Source

  environments/infra

KubePodCrashLooping

Reference information for KubePodCrashLooping used as part of Pulse in CDP Private Cloud Data Services.

Summary

  Pod is crash looping.

PromQL Expression

  rate(kube_pod_container_status_restarts_total{component="kube-state-metrics",appType="{{ $app.code }}"}[15m]) > 0

Time Period

  15m

Severity

  critical

Source

  environments/{{ $app.code }}

KubePodNotReady

Reference information for KubePodNotReady used as part of Pulse in CDP Private Cloud Data Services.

Summary

  Pod has been in a non-ready state for more than 15 minutes.

PromQL Expression

  sum by (namespace, pod, appType, appId, appName, workloadId) (max by(namespace, pod, owner_kind, appType, appId, appName, workloadId) (kube_pod_status_phase{component="kube-state-metrics", phase=~"Pending|Unknown",appType="{{ $app.code }}"}) * on(namespace, pod) group_left(owner_kind) max by(namespace, pod, owner_kind, appType, appId, appName, workloadId) (kube_pod_owner{owner_kind!="Job",appType="{{ $app.code }}"})) > 0

Time Period

  15m

Severity

  critical

Source

  environments/{{ $app.code }}

KubeDeploymentGenerationMismatch

Reference information for KubeDeploymentGenerationMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

  Deployment generation mismatch due to possible roll-back

PromQL Expression

kube_deployment_status_observed_generation{component="kube-state-metrics",appType="{{ $app.code }}"} !=
kube_deployment_metadata_generation{component="kube-state-metrics",appType="{{ $app.code }}"}

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeDeploymentReplicasMismatch

Reference information for KubeDeploymentReplicasMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

Deployment has not matched the expected number of replicas.

PromQL Expression

(kube_deployment_spec_replicas{component="kube-state-metrics",appType="{{ $app.code }}"} != kube_deployment_status_replicas_available{component="kube-state-metrics",appType="{{ $app.code }}"}) and
(changes(kube_deployment_status_replicas_updated{component="kube-state-metrics",appType="{{ $app.code }}"}[5m]) == 0)

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeStatefulSetReplicasMismatch

Reference information for KubeStatefulSetReplicasMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

Deployment has not matched the expected number of replicas.

PromQL Expression

(kube_statefulset_status_replicas_ready{component="kube-state-metrics",appType="{{ $app.code }}"} != kube_statefulset_status_replicas{component="kube-state-metrics",appType="{{ $app.code }}"}) and
(changes(kube_statefulset_status_replicas_updated{component="kube-state-metrics",appType="{{ $app.code }}"}[5m]) == 0)

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeStatefulSetGenerationMismatch

Reference information for KubeStatefulSetGenerationMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

StatefulSet generation mismatch due to possible roll-back

PromQL Expression

kube_statefulset_status_observed_generation{component="kube-state-metrics",appType="{{ $app.code }}"} !=
kube_statefulset_metadata_generation{component="kube-state-metrics",appType="{{ $app.code }}"}

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeStatefulSetUpdateNotRolledOut

Reference information for KubeStatefulSetUpdateNotRolledOut used as part of Pulse in CDP Private Cloud Data Services.

Summary

StatefulSet update has not been rolled out.

PromQL Expression

max without (revision) (kube_statefulset_status_current_revision{component="kube-state-metrics",appType="{{ $app.code }}"} unless
kube_statefulset_status_update_revision{component="kube-state-metrics",appType="{{ $app.code }}"}) * (kube_statefulset_replicas{component="kube-state-metrics",appType="{{ $app.code }}"} !=
kube_statefulset_status_replicas_updated{component="kube-state-metrics",appType="{{ $app.code }}"})

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeDaemonSetRolloutStuck

Reference information for KubeDaemonSetRolloutStuck used as part of Pulse in CDP Private Cloud Data Services.

Summary

DaemonSet rollout is stuck.

PromQL Expression

kube_daemonset_status_number_ready{component="kube-state-metrics",appType="{{ $app.code }}"} /
kube_daemonset_status_desired_number_scheduled{component="kube-state-metrics",appType="{{ $app.code }}"} < 1.00

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeContainerWaiting

Reference information for KubeContainerWaiting used as part of Pulse in CDP Private Cloud Data Services.

Summary

Pod container waiting longer than 1 hour

PromQL Expression

sum by (namespace, pod, container, appType, appId, appName, workloadId)
(kube_pod_container_status_waiting_reason{component="kube-state-metrics",appType="{{ $app.code }}"}) > 0

Time Period

1h

Severity

critical

Source

environments/{{ $app.code }}

KubeDaemonSetNotScheduled

Reference information for KubeDaemonSetNotScheduled used as part of Pulse in CDP Private Cloud Data Services.

Summary

DaemonSet pods are not scheduled.

PromQL Expression

kube_daemonset_status_desired_number_scheduled{component="kube-state-metrics",appType="{{ $app.code }}"} -
kube_daemonset_status_current_number_scheduled{component="kube-state-metrics",appType="{{ $app.code }}"} > 0

Time Period

10m

Severity

critical

Source

environments/{{ $app.code }}

KubeDaemonSetMisScheduled

Reference information for KubeDaemonSetMisScheduled used as part of Pulse in CDP Private Cloud Data Services.

Summary

DaemonSet pods are misscheduled.

PromQL Expression

kube_daemonset_status_number_misscheduled{component="kube-state-metrics",appType="{{ $app.code }}"} > 0

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeCronJobRunning

Reference information for KubeCronJobRunning used as part of Pulse in CDP Private Cloud Data Services.

Summary

CronJob did not complete in time

PromQL Expression

time() - kube_cronjob_next_schedule_time{component="kube-state-metrics",appType="{{ $app.code }}"} > 3600

Time Period

1h

Severity

critical

Source

environments/{{ $app.code }}

KubeJobCompletion

Reference information for KubeJobCompletion used as part of Pulse in CDP Private Cloud Data Services.

Summary

Job did not complete in time

PromQL Expression

kube_job_spec_completions{component="kube-state-metrics",appType="{{ $app.code }}"} -
kube_job_status_succeeded{component="kube-state-metrics",appType="{{ $app.code }}"} > 0

Time Period

1h

Severity

critical

Source

environments/{{ $app.code }}

KubeJobFailed

Reference information for KubeJobFailed used as part of Pulse in CDP Private Cloud Data Services.

Summary

Job failed to complete.

PromQL Expression

kube_job_failed{component="kube-state-metrics",appType="{{ $app.code }}"} > 0

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeHpaReplicasMismatch

Reference information for KubeHpaReplicasMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

HPA has not matched desired number of replicas.

PromQL Expression

(kube_horizontalpodautoscaler_status_desired_replicas{component="kube-state-
metrics",appType="{{ $app.code }}"} !=
kube_horizontalpodautoscaler_status_current_replicas{component="kube-state-
metrics",appType="{{ $app.code }}"}) and
changes(kube_horizontalpodautoscaler_status_current_replicas{appType="{{ $app.code }}"}
[15m]) == 0

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeHpaMaxedOut

Reference information for KubeHpaMaxedOut used as part of Pulse in CDP Private Cloud Data Services.

Summary

HPA is running at max replicas

PromQL Expression

kube_horizontalpodautoscaler_status_current_replicas{component="kube-state-metrics",appType="{{ $app.code }}"} ==
kube_horizontalpodautoscaler_spec_max_replicas{component="kube-state-metrics",appType="{{ $app.code }}"}

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

KubeQuotaExceeded

Reference information for KubeQuotaExceeded used as part of Pulse in CDP Private Cloud Data Services.

Summary

Namespace quota has exceeded the limits.

PromQL Expression

kube_resourcequota{component="kube-state-metrics", type="used",appType="{{ $app.code }}"} /
ignoring(instance, job, type) (kube_resourcequota{component="kube-state-metrics",
type="hard",appType="{{ $app.code }}"} > 0) > 0.90

Time Period

15m

Severity

critical

Source

environments/{{ $app.code }}

OzoneUnhealthy

Reference information for OzoneUnhealthy used as part of Pulse in CDP Private Cloud Data Services.

Summary

Ozone Unhealthy

PromQL Expression

cm_service_health{service_type="OZONE"} != 2

Time Period

10m

Severity

> warning

Source

> environments/infra

MachineLearningKubernetesCriticalPodCrashLooping

Reference information for MachineLearningKubernetesCriticalPodCrashLooping used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Critical Machine Learning Pod is crash looping

PromQL Expression

> increase(kube_pod_container_status_restarts_total{pod=~"{{ .Values.alerts.mlCriticalPodsRegexp }}", appType="ml"} [15m]) > 2

Time Period

> 0s

Severity

> critical

Source

> environments/ml

MachineLearningKubernetesNonCriticalPodCrashLooping

Reference information for MachineLearningKubernetesNonCriticalPodCrashLooping used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Machine Learning Pod is crash looping

PromQL Expression

> increase(kube_pod_container_status_restarts_total{pod!
> ~"{{ .Values.alerts.mlCriticalPodsRegexp }}", appType="ml"} [15m]) > 2

Time Period

> 0s

Severity

> warning

Source

> environments/ml

MachineLearningKubernetesCriticalPodNotHealthy

Reference information for MachineLearningKubernetesCriticalPodNotHealthy used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Machine Learning Pod has been in a non-ready state for longer than an hour

PromQL Expression

min_over_time(sum by (namespace, pod) (kube_pod_status_phase{phase=~"Pending|Unknown| Failed", appType="ml", pod=~"{{ .Values.alerts.mlCriticalPodsRegexp }}"})[10m:]) > 0

Time Period

0s

Severity

critical

Source

environments/ml

MachineLearningKubernetesNonCriticalPodNotHealthy

Reference information for MachineLearningKubernetesNonCriticalPodNotHealthy used as part of Pulse in CDP Private Cloud Data Services.

Summary

Machine Learning Pod has been in a non-ready state for longer than an hour

PromQL Expression

min_over_time(sum by (namespace, pod) (kube_pod_status_phase{phase=~"Pending|Unknown| Failed", appType="ml", pod!~"{{ .Values.alerts.mlCriticalPodsRegexp }}"})[10m:]) > 0

Time Period

0s

Severity

warning

Source

environments/ml

MachineLearningKubeDeploymentGenerationMismatch

Reference information for MachineLearningKubeDeploymentGenerationMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

Machine Learning deployment generation does not match, this indicates that the Deployment has failed but has not been rolled back

PromQL Expression

kube_deployment_status_observed_generation{component="kube-state-metrics",appType="ml"} ! = kube_deployment_metadata_generation{component="kube-state-metrics",appType="ml"}

Time Period

15m

Severity

warning

Source

environments/ml

MachineLearningKubeDeploymentReplicasMismatch

Reference information for MachineLearningKubeDeploymentReplicasMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

Machine Learning deployment has not matched the expected number of replicas

PromQL Expression

(kube_deployment_spec_replicas{component="kube-state-metrics",appType="ml"} != kube_deployment_status_replicas_available{component="kube-state-metrics",appType="ml"}) and (changes(kube_deployment_status_replicas_updated{component="kube-state-metrics",appType="ml"}[5m]) == 0)

Time Period

15m

Severity

warning

Source

environments/ml

MachineLearningKubeStatefulSetReplicasMismatch

Reference information for MachineLearningKubeStatefulSetReplicasMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

Machine Learning StatefulSet has not matched the expected number of replicas

PromQL Expression

(kube_statefulset_status_replicas_ready{component="kube-state-metrics",appType="ml"} != kube_statefulset_status_replicas{component="kube-state-metrics",appType="ml"}) and (changes(kube_statefulset_status_replicas_updated{component="kube-state-metrics",appType="ml"}[5m]) == 0)

Time Period

15m

Severity

warning

Source

environments/ml

MachineLearningKubeStatefulSetGenerationMismatch

Reference information for MachineLearningKubeStatefulSetGenerationMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

Machine Learning StatefulSet generation does not match, this indicates that the StatefulSet has failed but has not been rolled back

PromQL Expression

kube_statefulset_status_observed_generation{component="kube-state-metrics",appType="ml"} != kube_statefulset_metadata_generation{component="kube-state-metrics",appType="ml"}

Time Period

15m

Severity

warning

Source

environments/ml

MachineLearningKubeStatefulSetUpdateNotRolledOut

Reference information for MachineLearningKubeStatefulSetUpdateNotRolledOut used as part of Pulse in CDP Private Cloud Data Services.

Summary

Machine Learning StatefulSet update has not been rolled out

PromQL Expression

max without (revision) (kube_statefulset_status_current_revision{component="kube-state-metrics",appType="ml"} unless kube_statefulset_status_update_revision{component="kube-state-metrics",appType="ml"}) * (kube_statefulset_replicas{component="kube-state-metrics",appType="ml"} != kube_statefulset_status_replicas_updated{component="kube-state-metrics",appType="ml"})

Time Period

15m

Severity

warning

Source

environments/ml

MachineLearningKubeDaemonSetRolloutStuck

Reference information for MachineLearningKubeDaemonSetRolloutStuck used as part of Pulse in CDP Private Cloud Data Services.

Summary

DaemonSet rollout is stuck

PromQL Expression

kube_daemonset_status_number_ready{component="kube-state-metrics",appType="ml"} / kube_daemonset_status_desired_number_scheduled{component="kube-state-metrics",appType="ml"} < 1.00

Time Period

15m

Severity

warning

Source

environments/ml

MachineLearningKubeContainerWaiting

Reference information for MachineLearningKubeContainerWaiting used as part of Pulse in CDP Private Cloud Data Services.

Summary

Machine Learning container has been in waiting state for longer than 1 hour

PromQL Expression

sum by (namespace, pod, container, appType, appId, appName, workloadId)
(kube_pod_container_status_waiting_reason{component="kube-state-metrics",appType="ml"}) > 0

Time Period

1h

Severity

warning

Source

environments/ml

MachineLearningKubeDaemonSetNotScheduled

Reference information for MachineLearningKubeDaemonSetNotScheduled used as part of Pulse in CDP Private Cloud Data Services.

Summary

There is at least one pod in a DaemonSet that are not scheduled

PromQL Expression

kube_daemonset_status_desired_number_scheduled{component="kube-state-metrics",appType="ml"} - kube_daemonset_status_current_number_scheduled{component="kube-state-metrics",appType="ml"} > 0

Time Period

10m

Severity

warning

Source

environments/ml

MachineLearningKubeDaemonSetMisScheduled

Reference information for MachineLearningKubeDaemonSetMisScheduled used as part of Pulse in CDP Private Cloud Data Services.

Summary

DaemonSet is mis scheduled

PromQL Expression

kube_daemonset_status_number_misscheduled{component="kube-state-metrics",appType="ml"} > 0

Time Period

15m

Severity

warning

Source

environments/ml

MachineLearningKubeCronJobRunning

Reference information for MachineLearningKubeCronJobRunning used as part of Pulse in CDP Private Cloud Data Services.

Summary

CronJob is taking more than 1h to complete

PromQL Expression

time() - kube_cronjob_next_schedule_time{component="kube-state-metrics",appType="ml"} > 3600

Time Period

1h

Severity

warning

Source

environments/ml

MachineLearningKubeJobCompletion

Reference information for MachineLearningKubeJobCompletion used as part of Pulse in CDP Private Cloud Data Services.

Summary

Machine Learning job is taking more than one hour to complete

PromQL Expression

kube_job_spec_completions{component="kube-state-metrics",appType="ml"} - kube_job_status_succeeded{component="kube-state-metrics",appType="ml"} > 0

Time Period

1h

Severity

warning

Source

environments/ml

MachineLearningKubeJobFailed

Reference information for MachineLearningKubeJobFailed used as part of Pulse in CDP Private Cloud Data Services.

Summary

Machine Learning job failed to complete

PromQL Expression

> kube_job_failed{component="kube-state-metrics",appType="ml"} > 0

Time Period

> 15m

Severity

> warning

Source

> environments/ml

MachineLearningKubeHpaReplicasMismatch

Reference information for MachineLearningKubeHpaReplicasMismatch used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Machine Learning HPA has not matched the desired number of replicas

PromQL Expression

> (kube_horizontalpodautoscaler_status_desired_replicas{component="kube-state-metrics",appType="ml"} !=
> kube_horizontalpodautoscaler_status_current_replicas{component="kube-state-metrics",appType="ml"}) and
> changes(kube_horizontalpodautoscaler_status_current_replicas{appType="ml"}[15m]) == 0

Time Period

> 15m

Severity

> warning

Source

> environments/ml

MachineLearningKubeHpaMaxedOut

Reference information for MachineLearningKubeHpaMaxedOut used as part of Pulse in CDP Private Cloud Data Services.

Summary

> Machine Learning HPA has been running at max replicas

PromQL Expression

> kube_horizontalpodautoscaler_status_current_replicas{component="kube-state-metrics",appType="ml"} == kube_horizontalpodautoscaler_spec_max_replicas{component="kube-state-metrics",appType="ml"}

Time Period

> 15m

Severity

> warning

Source

> environments/ml