INC-2343 datadog-prod-in-awsstprod-reached-open-files-limit

👤 Eric Swanson

Limit is 2,000 parallel tailed logs per agent.

- Identifying highest instant volume sources will be helpful in reducing the immediate impact
  - **NOTE**: Adjust focus to number of FILES across all agents sharing that open file limit, NOT the individual logfile message volume.

- removing lower volume errors can free up headroom and also do cleanup we should be getting to for hygiene anyway.
  - 240 errors per hour vs 411k logs in 10 minutes...........

- https://docs.datadoghq.com/agent/logs/?tab=tailfiles
  - The maximum number of files that can be tailed in parallel.

- https://github.com/dbt-labs/helm-charts/blob/0a4284ca62da696dcc77ce920e99f92d2194791a/charts/datadog/values.yaml#L40-L42 ⧉

```
env:
  - name: DD_LOGS_CONFIG_OPEN_FILES_LIMIT
    value: '2000'
```

- pod_name: datadog-agent-x8sr9
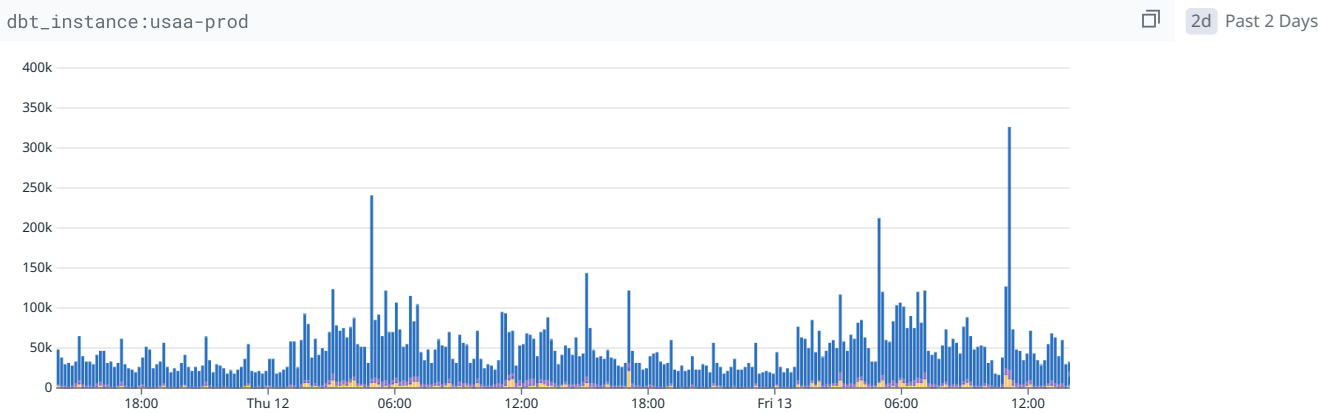- asg: usaa-prod-run-orc-worker-group2024091219383967100000004

📈 **Orchestration Overview**

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usaa-prod orc-dispatch Log count by kube_node and index   `2d` Apr 12 - Apr 14
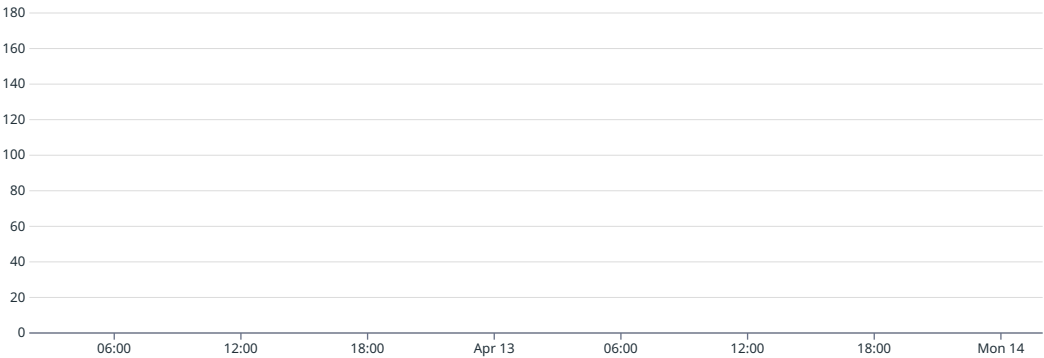
No Data

Logfile Message Count Spikes by Filename in usaa-prod

usaa-prod logs excluding high volume spike message contents
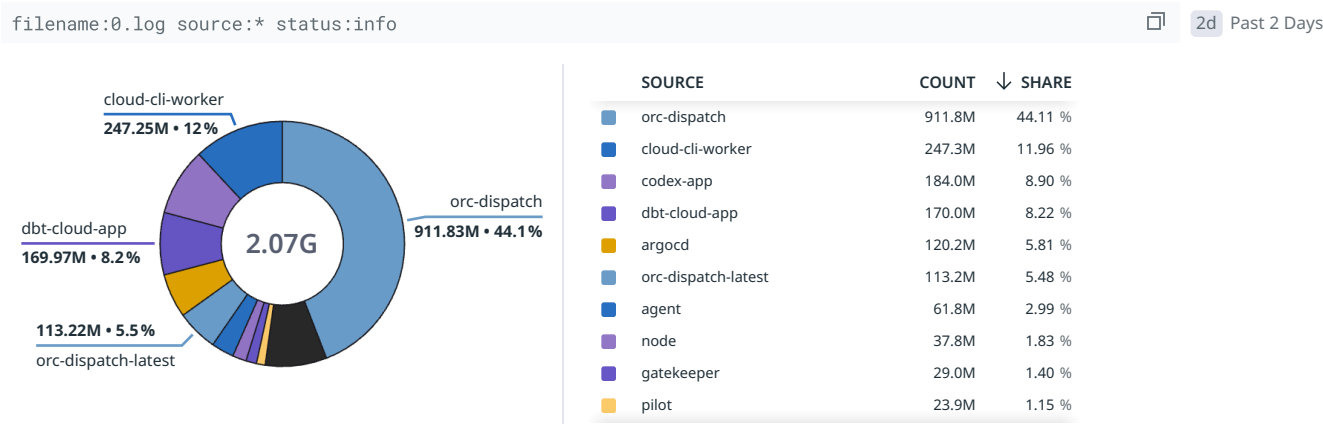
Apr 12 - Apr 14

Excluded Logs

Apr 12 - Apr 14

Logfile Message Count Spikes by Filename in usaa-prod

dbt_instance:usaa-prod message:("Account not entitled to feature, returning False." OR "Account extra requirements not met, returning Fa

COUNT	~VOLUME	MESSAGE ⧉
≈363K	┄┄98K	HH:mm:ss target * is ::
≈127K	┄31.2K	HH:mm:ss set * session variables complete
≈126K	┄34.4K	HH:mm:ss target * is :*:
≈118K	┄29.6K	HH:mm:ss EXCEPTION: Model .. does not exist
≈74.8K	┄18.7K	HH:mm:ss stage load logging complete
≈67.2K	┄18.5K	HH:mm:ss EXCEPTION: Cant extract ETL audit columns ETL_CREA_NR, ETL_CREA_GMT_TS
<1K	┄<1K	HH:mm:ss target relation is :"PENTCAOITDW"."*"."*":

0.log info volume by top 10 services

filename:0.log source:* status:info   ⧉   2d Past 2 Days

cloud-cli-worker
247.25M • 12%

dbt-cloud-app
169.97M • 8.2%

113.22M • 5.5%
orc-dispatch-latest

orc-dispatch
911.83M • 44.1%

2.07G

SOURCE	COUNT	↓ SHARE
orc-dispatch	911.8M	44.11 %
cloud-cli-worker	247.3M	11.96 %
codex-app	184.0M	8.90 %
dbt-cloud-app	170.0M	8.22 %
argocd	120.2M	5.81 %
orc-dispatch-latest	113.2M	5.48 %
agent	61.8M	2.99 %
node	37.8M	1.83 %
gatekeeper	29.0M	1.40 %
pilot	23.9M	1.15 %

▸ **Paging Alert Events**

Open File Count Investigation

agent log ingestion patterns

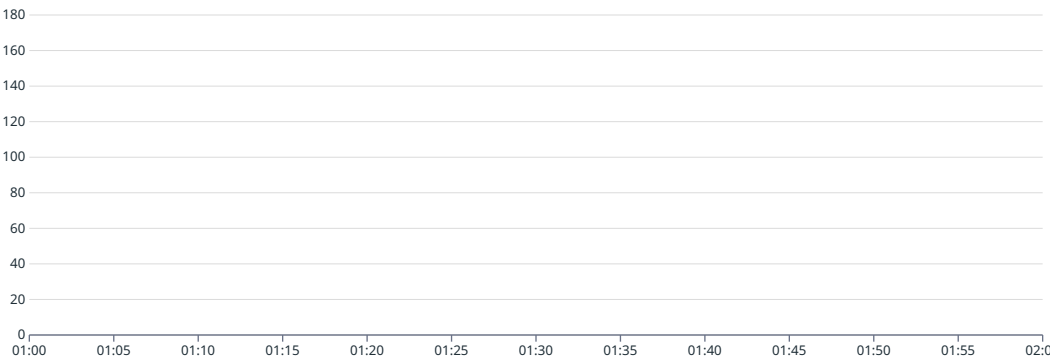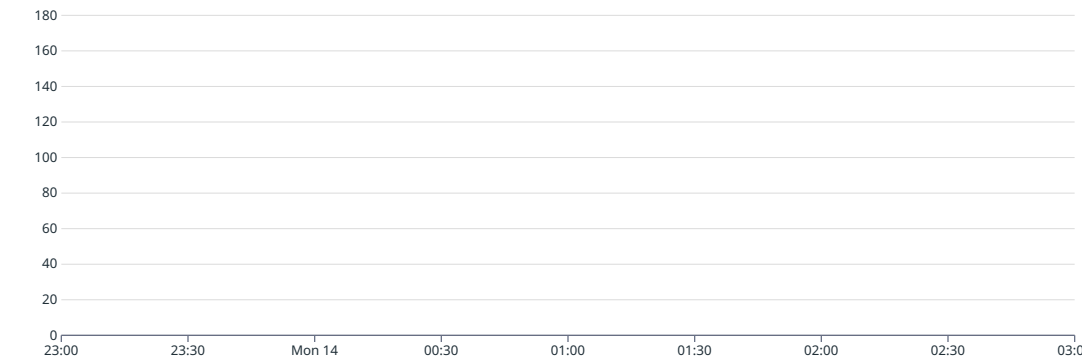| COUNT	~VOLUME	STATUS	SERVICE	MESSAGE	

🔍

No matching results found

CORE | INFO | (pkg/logs/schedulers/ad/scheduler.go:73 in Schedule) | Received a new logs config: container_collect_all

1h 1:00 am

```
180
160
140
120
100
 80
 60
 40
 20
  0
   01:00  01:05  01:10  01:15  01:20  01:25  01:30  01:35  01:40  01:45  01:50  01:55  02:0
```
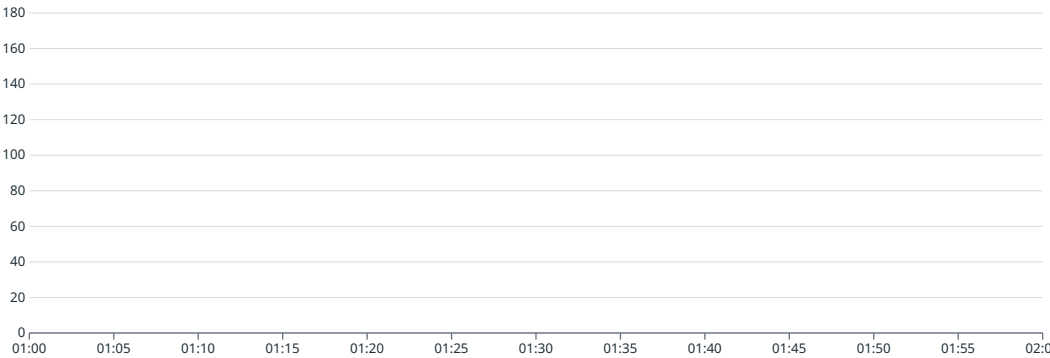
pkg/logs/launchers/file/launcher.go starting a new tailer

1h 1:00 am - 2:00 am

```
180
160
140
120
100
 80
 60
 40
 20
  0
   01:00  01:05  01:10  01:15  01:20  01:25  01:30  01:35  01:40  01:45  01:50  01:55  02:0
```

pkg/logs/tailers/file/tailer.go closed "for tailer key" read "bytes and" lines

CPU usage (%)

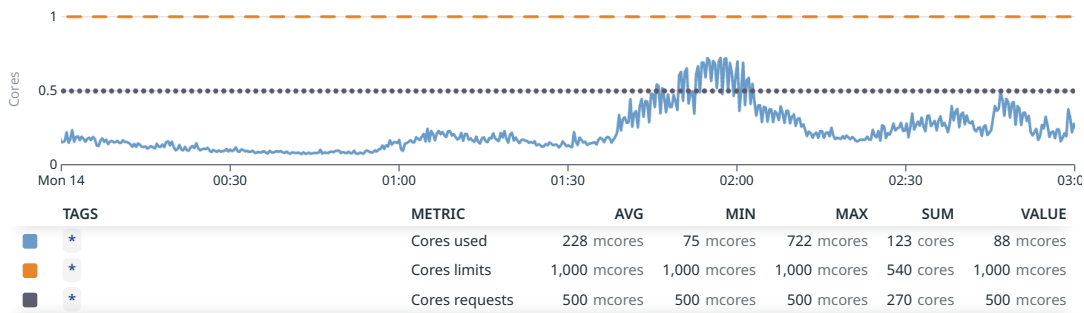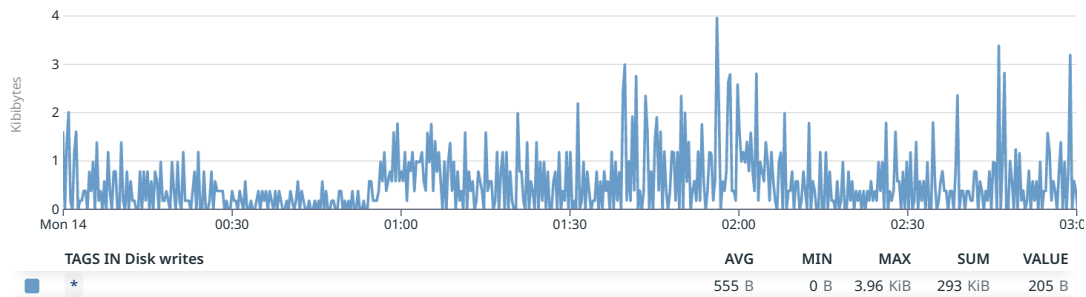|	TAGS	METRIC	AVG	MIN	MAX	SUM	VALUE
	*	system.cpu.idle{host:...	44.74 %	0 %	96.80 %	8,053 %	94.60 %
	*	system.cpu.system{h...	9.03 %	0.89 %	22.08 %	1,626 %	1.25 %
	*	system.cpu.iowait{ho...	0.099 %	0 %	0.44 %	18 %	0.017 %
	*	system.cpu.user{host...	46.11 %	2.28 %	92.30 %	8,300 %	4.12 %
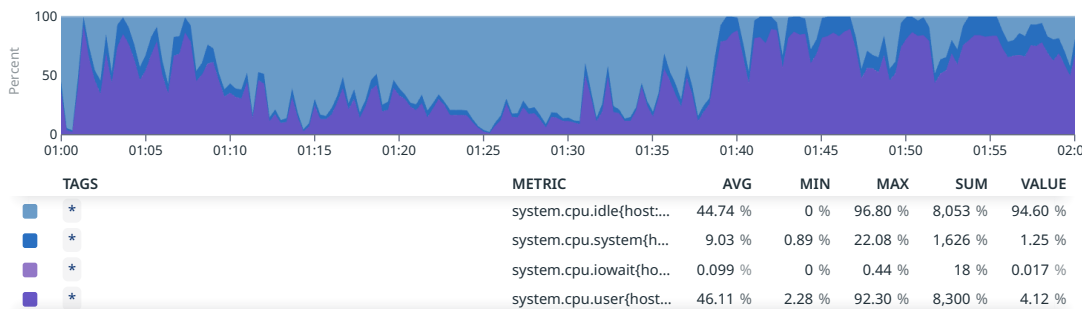
USAA Agent pod CPU Requests, Limits and Usage during 2 AM Paging alert for Max Open Files limit reached 3h 12:00 am - 3:00 am

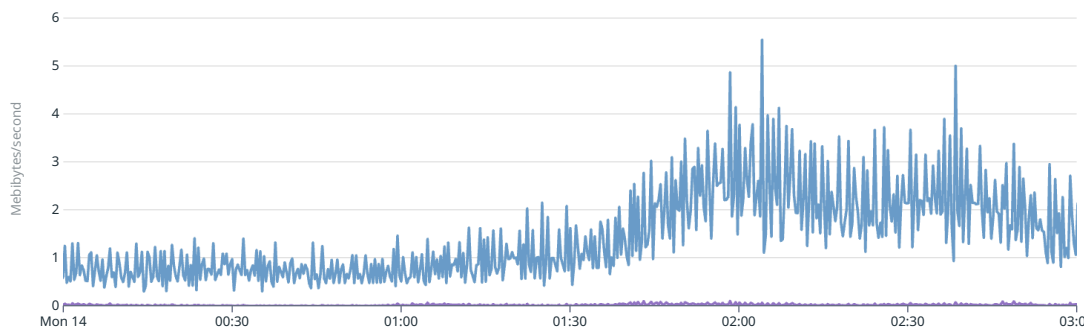|	TAGS	METRIC	AVG	MIN	MAX	SUM	VALUE
	*	Cores used	228 mcores	75 mcores	722 mcores	123 cores	88 mcores
	*	Cores limits	1,000 mcores	1,000 mcores	1,000 mcores	540 cores	1,000 mcores
	*	Cores requests	500 mcores	500 mcores	500 mcores	270 cores	500 mcores

Disk I/O

TAGS IN Disk writes	AVG	MIN	MAX	SUM	VALUE
■ *	555 B	0 B	3.96 KiB	293 KiB	205 B

Network Rate

Pod Ephemeral Storage Usage
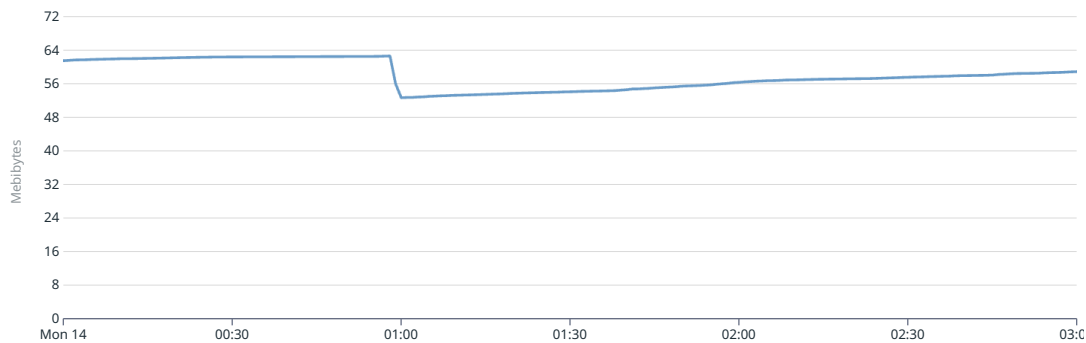
USAA Agent pod open file count during 2AM Paging Alert window
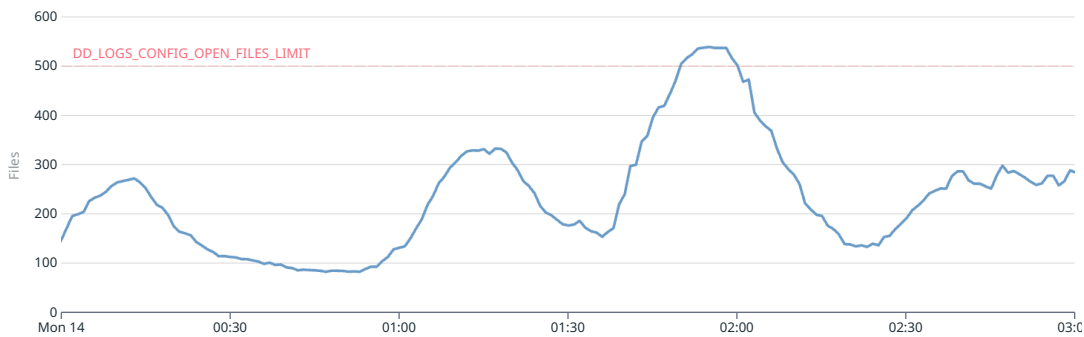
```
status:info dbt_instance:usaa-prod service:orc-dispatch @filename:client.py
```

COUNT	~VOLUME	@FILENAME	MESSAGE	

🔍

No matching results found

Additional Details

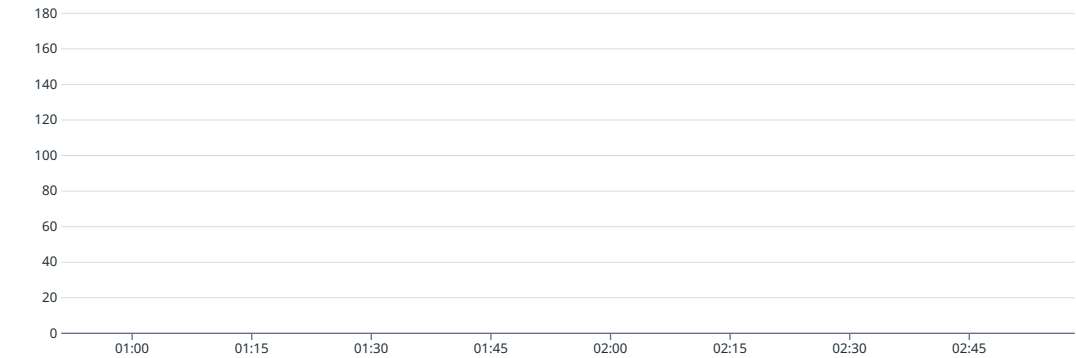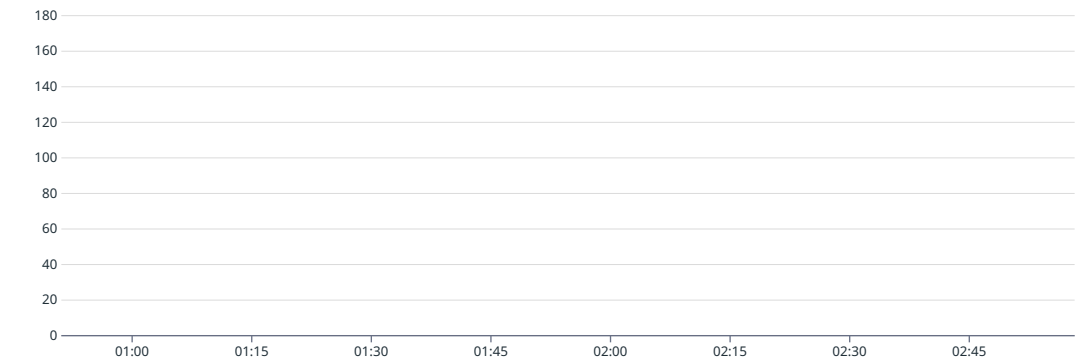### Impact window: Agent check status by check name

No Data

dbt-cloud-app account feature log volume around impact window
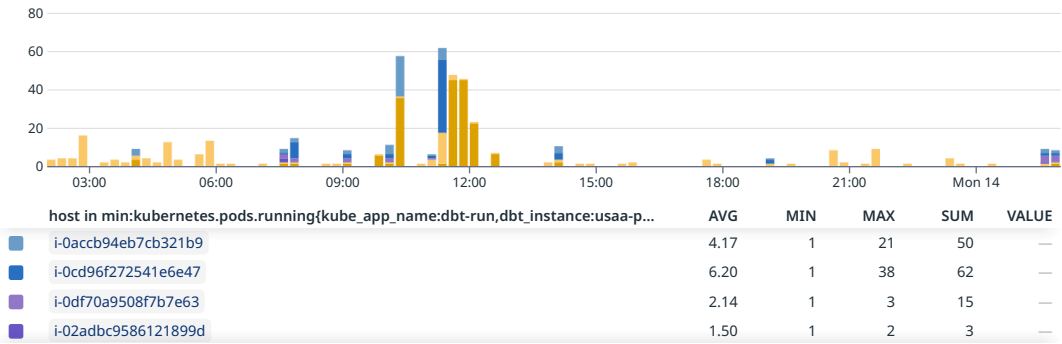
Top 5 orc-dispatch log source filenames by volume

USAA Prod Datadog Agent max open file count 4h rollup past 4w

15 minute sum of minimum kubernetes.pods.running (Gauge) by host for dbt-run in usaa-prod

host in min:kubernetes.pods.running{kube_app_name:dbt-run,dbt_instance:usaa-p...	AVG	MIN	MAX	SUM	VALUE
■ i-0accb94eb7cb321b9	4.17	1	21	50	—
■ i-0cd96f272541e6e47	6.20	1	38	62	—
■ i-0df70a9508f7b7e63	2.14	1	3	15	—
■ i-02adbc9586121899d	1.50	1	2	3	—

15 minute sum of minimum kubernetes.pods.running (Gauge) by host for dbt-run in usaa-prod

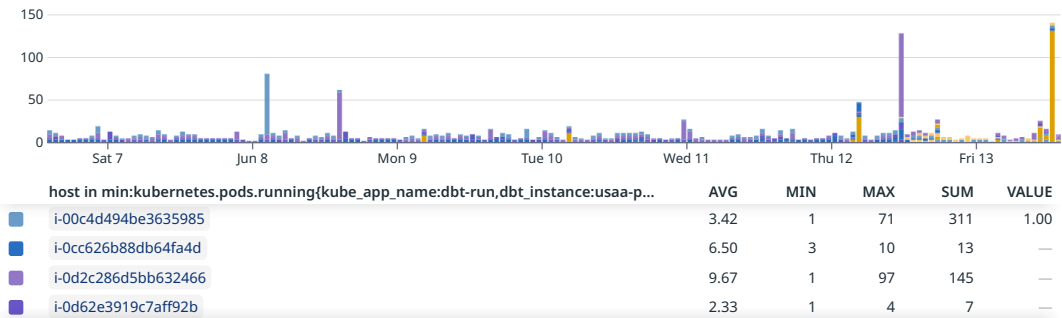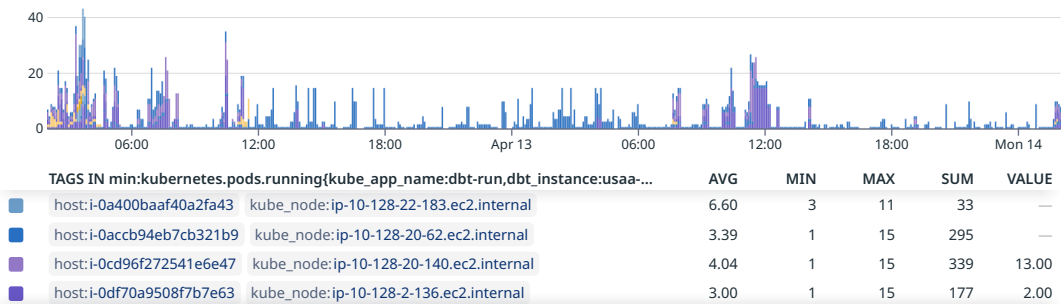| host in min:kubernetes.pods.running{kube_app_name:dbt-run,dbt_instance:usaa-p...	AVG	MIN	MAX	SUM	VALUE
■ i-00c4d494be3635985	3.42	1	71	311	1.00
■ i-0cc626b88db64fa4d	6.50	3	10	13	—
■ i-0d2c286d5bb632466	9.67	1	97	145	—
■ i-0d62e3919c7aff92b	2.33	1	4	7	—

15 minute sum of minimum kubernetes.pods.running (Gauge) by host for dbt-run in usaa-prod

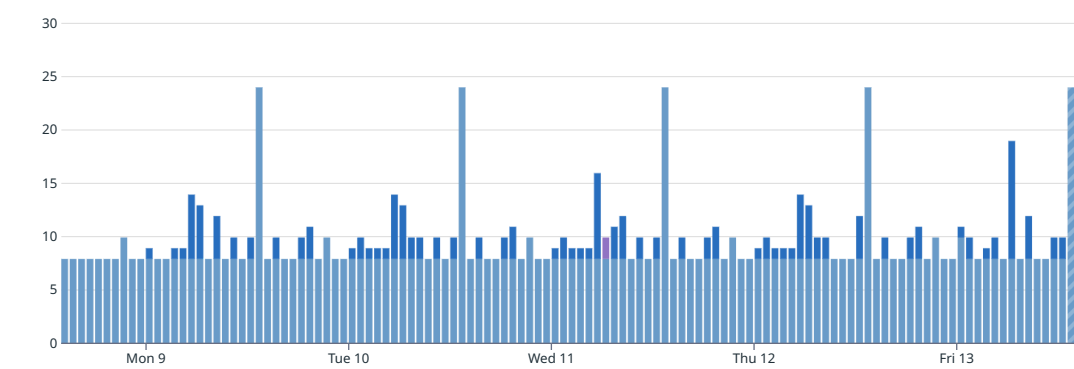| TAGS IN min:kubernetes.pods.running{kube_app_name:dbt-run,dbt_instance:usaa-...	AVG	MIN	MAX	SUM	VALUE
■ host:i-0a400baaf40a2fa43 kube_node:ip-10-128-22-183.ec2.internal	6.60	3	11	33	—
■ host:i-0accb94eb7cb321b9 kube_node:ip-10-128-20-62.ec2.internal	3.39	1	15	295	—
■ host:i-0cd96f272541e6e47 kube_node:ip-10-128-20-140.ec2.internal	4.04	1	15	339	13.00
■ host:i-0df70a9508f7b7e63 kube_node:ip-10-128-2-136.ec2.internal	3.00	1	15	177	2.00

15 minute sum of minimum kubernetes.pods.running (Gauge) by host and kube_node (ip) for dbt-run in usaa-prod `1d` Past 1 Day

| TAGS IN min:kubernetes.pods.running{kube_app_name:dbt-run,dbt_instance:usaa-...		AVG	MIN	MAX	SUM	VALUE
host:i-0d2c286d5bb632466	kube_node:ip-10-128-14-124.ec2.internal	3.58	1	15	258	3.00
host:i-0d62e3919c7aff92b	kube_node:ip-10-128-44-159.ec2.internal	3.63	1	9	29	—
host:i-0da23b64322c608e7	kube_node:ip-10-128-21-124.ec2.internal	2.74	1	15	468	1.00
host:i-0e93463a384aff156	kube_node:ip-10-128-19-177.ec2.internal	6.00	1	13	30	—

Hourly count of st TRUNCATED orc-dispatch Error Logs by dbt_instance `5d` Past 5 Days

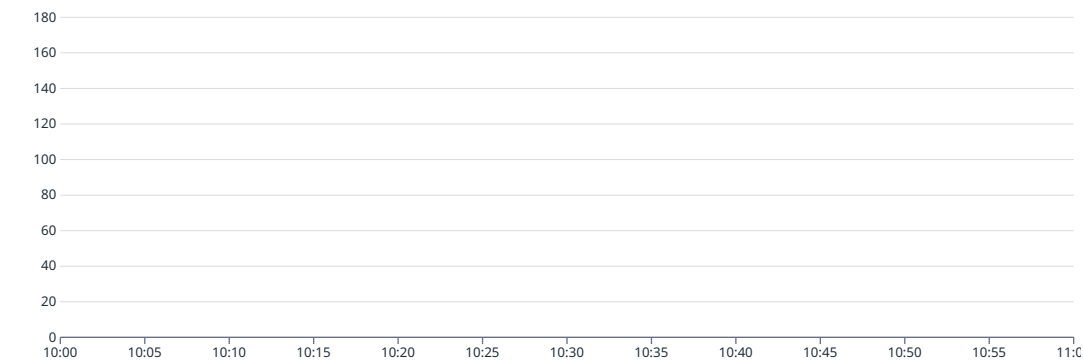## orc-dispatch Host Warning Logs by Container

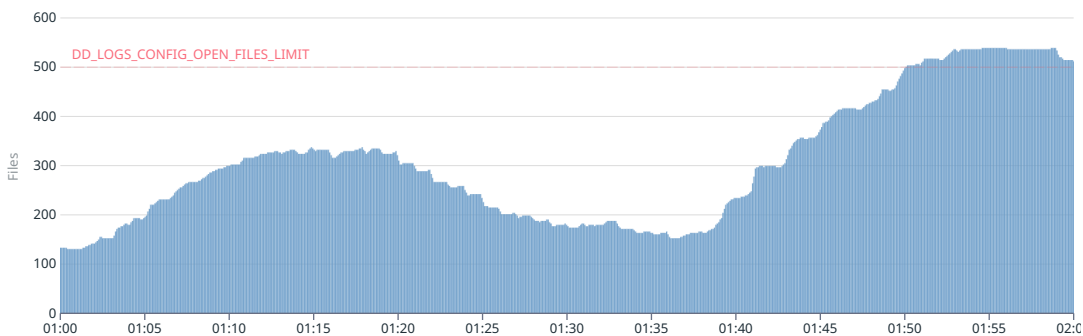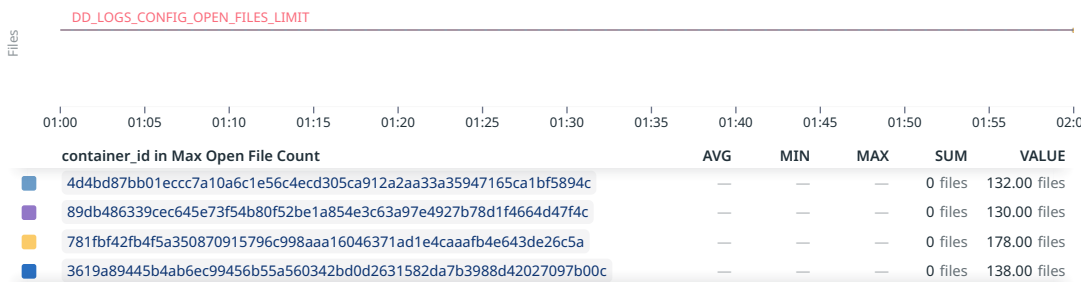### 1h rollup of warning log count by container name for host with most log volume
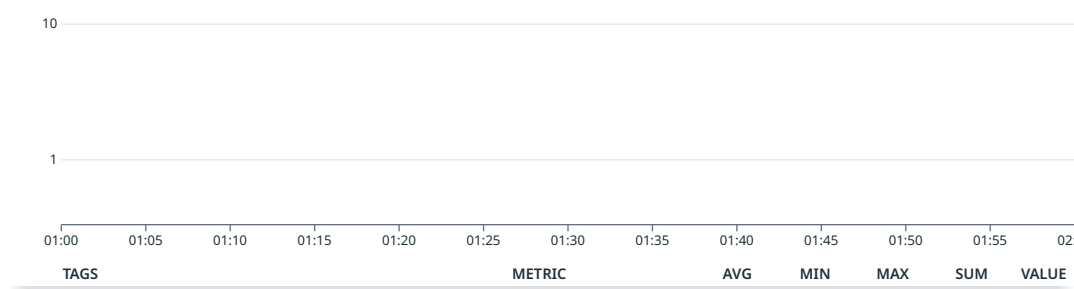
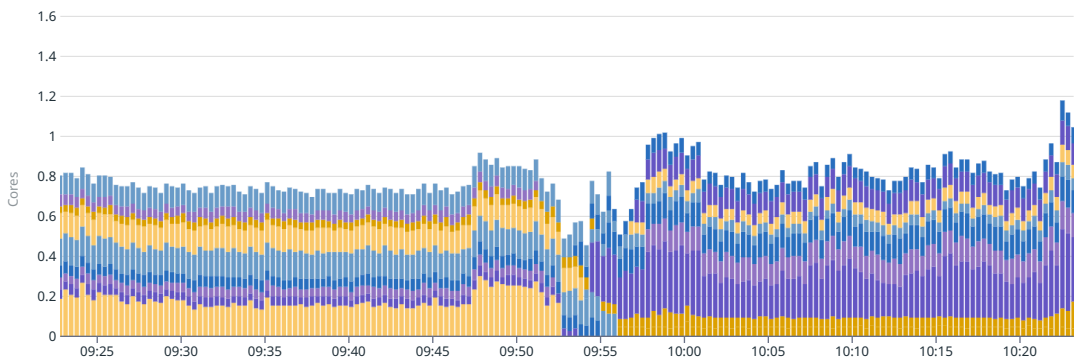| TAGS	METRIC	AVG	MIN	MAX	SUM	VALUE

USAA Prod Datadog Agent max open file 1h rollup count 1w

USAA Prod Datadog Agent max open file 2h rollup count 2w by agent id

container_id in Max Open File Count	AVG	MIN	MAX	SUM	VALUE
4d4bd87bb01eccc7a10a6c1e56c4ecd305ca912a2aa33a35947165ca1bf5894c	—	—	—	0 files	132.00 files
89db486339cec645e73f54b80f52be1a854e3c63a97e4927b78d1f4664d47f4c	—	—	—	0 files	130.00 files
781fbf42fb4f5a350870915796c998aaa16046371ad1e4caaafb4e643de26c5a	—	—	—	0 files	178.00 files
3619a89445b4ab6ec99456b55a560342bd0d2631582da7b3988d42027097b00c	—	—	—	0 files	138.00 files

CPU Usage by Pod

1h 9:22 am - 10:23 am

WARN **May 08, 2025 at 1:54:44.000 am** (about 1 month ago)

View Full Details ⟨⟩

MESSAGE

```
2025-05-08 05:54:44 UTC | CORE | WARN | (pkg/logs/launchers/file/provider/file_provider.go:232 in FilesToTail) |
Reached the limit on the maximum number of files in use:  500
```

TAGS

HOST	SERVICE	SOURCE
▣ i-020476c2d34bc2e88	agent	agent

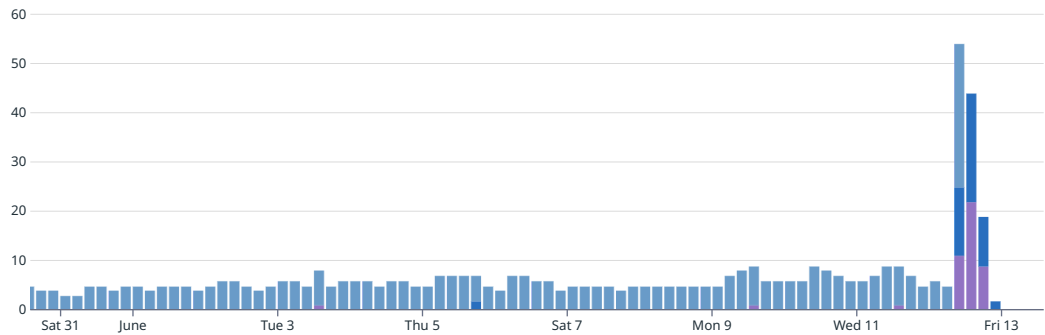| CONTAINER NAME	DOCKER IMAGE	POD NAME
⦀ agent	gcr.io/datadoghq/agent	datadog-agent-g8b2w

availability-zone:us-east-1c   aws_account:850607893674   aws_autoscaling_groupname:usaa-prod-run-orc-worker-group202409121938396710000...   +51

EVENT ATTRIBUTES

———————————————— Show More ∨ ————————————————

Count by dbt_instance over "source:datadog dbt_instance:usaa* @evt.type:"Agent Startup""

14d Past 14 Days

Count by dbt_instance over "source:datadog dbt_env:prod @evt.type:"Agent Startup""

1d Past 1 Day

260	prod-us
107	prod-us-c3
98	prod-us-c1
84	bhp-cloud
55	prod-us-c2
39	prod-emea
34	prod-us2-c1
32	biahealthnz-pr
32	onsemi-cloud
28	workday-clou