



Observability (logs, metrics, telemetry)

Information Security for Workload Factory

NetApp

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Observability (logs, metrics, telemetry)

Learn about observability in NetApp Workload Factory

Observability signals help support operational monitoring, troubleshooting, and investigations. In NetApp Workload Factory, observability includes metrics, telemetry, and operational records that provide visibility into service behavior, AI usage, and actions performed through Workload Factory. Telemetry and operational records support internal monitoring and customer-facing audit visibility, and Tracker helps you review the progress, status, and details of supported operations.

Telemetry and operational records

Workload Factory uses the following telemetry and operational record types:

- OpenTelemetry traces exported via OTLP HTTP to SigNoz (internal observability)
- AI usage metering (token counts, model costs) stored in AWS Timestream
- NetApp Console audit records (action name, status, request/response metadata, timestamps)

Audit logging in Workload Factory

Workload Factory provides Tracker, a monitoring feature, so you can monitor which operations are running and when. With Tracker, you can track the progress and status of FSx for ONTAP, credentials, and link operations, review details for operation tasks and subtasks, and diagnose any issues or failures.

Several actions are available in Tracker. You can filter jobs by time frame (last 24 hours, 7 days, 14 days, or 30 days), workload, status, and user; find jobs using the search function; and download the jobs table as a CSV file.

- [Monitor operations using Tracker in Workload Factory](#)

Related information

- [Metrics and telemetry for NetApp Workload Factory](#)

Metrics and telemetry for NetApp Workload Factory

NetApp Workload Factory collects and stores volume-level and file system-level metrics in AWS CloudWatch to give you operational visibility into storage performance and capacity. Computed metrics, such as throughput, are derived from these collected values. Learn about the metric definitions, collection cadence, refresh behavior, and retention details.

Metrics included

NetApp Workload Factory uses these metrics for operational logs and events:

- Volume-level CloudWatch metrics (collected per volume)

- File system-level CloudWatch metrics (collected per file system)
- Computed metrics
- Collection schedule and retention

About operational metrics

Computed metrics use this formula:

- $\text{Throughput (Bytes/Second)} = (\text{NetworkSentBytes} + \text{NetworkReceivedBytes}) / \text{period}$

Refresh behavior:

- Volume and cluster metrics are refreshed every 12 hours.
- Latency metrics are refreshed every 20 minutes.
- DynamoDB items auto-expire after 14 days.

About telemetry data collection

- OpenTelemetry traces exported via OTLP HTTP to SigNoz (internal observability)
- AI usage metering (token counts, model costs) stored in AWS Timestream
- NetApp Console audit records (action name, status, request/response metadata, timestamps)

Volume-level CloudWatch metrics (collected per volume)

Metric	AWS CloudWatch name	Unit	What it measures
Volume storage capacity	StorageCapacity	Bytes	Total provisioned capacity
Storage used	StorageUsed	Bytes	Actual data stored
Data read bytes	DataReadBytes	Bytes	Read throughput
Data write bytes	DataWriteBytes	Bytes	Write throughput
Data read operations	DataReadOperations	Count	Read IOPS
Data write operations	DataWriteOperations	Count	Write IOPS
Metadata operations	MetadataOperations	Count	Metadata IOPS
Data read operation time	DataReadOperationTime	Seconds	Read latency
Data write operation time	DataWriteOperationTime	Seconds	Write latency
Metadata operation time	MetadataOperationTime	Seconds	Metadata latency

File system-level CloudWatch metrics

Metric	AWS CloudWatch name	Unit	What it measures
SSD storage capacity	StorageCapacity	Bytes	Total SSD tier capacity
SSD storage used	StorageUsed (SSD tier)	Bytes	SSD tier consumption

Metric	AWS CloudWatch name	Unit	What it measures
Capacity pool used	StorageUsed (Capacity Pool)	Bytes	Capacity pool consumption
CPU utilization	CPUUtilization	Percent	File server CPU
SSD capacity utilization	StorageCapacityUtilization	Percent	SSD tier percent used
Network throughput utilization	NetworkThroughputUtilization	Percent	Network percent utilized
Disk IOPS utilization	DiskIopsUtilization	Percent	Disk IOPS percent utilized
Disk throughput utilization	FileServerDiskThroughputUtilization	Percent	Disk throughput percent utilized
Disk IOPS utilization (server)	FileServerDiskIopsUtilization	Percent	Server disk IOPS percent utilized
Storage efficiency savings	StorageEfficiencySavings	Bytes	Space saved by efficiency
Network received	NetworkReceivedBytes	Bytes	Inbound network
Network sent	NetworkSentBytes	Bytes	Outbound network

Collection schedule and retention

Time range	Collection period	Datapoints	Storage	Retention
1 day	24 minutes	~60	DynamoDB	14 days (TTL)
1 week	~2.8 hours	~60	DynamoDB	14 days (TTL)
1 month	12 hours	~60	DynamoDB	14 days (TTL)
3 months	~1.5 days	~60	DynamoDB	14 days (TTL)
1 year	~6 days	~60	DynamoDB	14 days (TTL)

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