

Connecting KumoScale Telemetry to an External Prometheus Server

Configuring Pull Telemetry – Prometheus

The following section describes how to configure the Prometheus TSDB to pull telemetry data from KumoScale storage nodes and KumoScale Provisioner.

- Install Prometheus software on your telemetry server.
- Copy the KumoScale SSL certificate files into a folder on the machine running Prometheus. Contact your KIOXIA support engineer if you have not received these files with your KumoScale installation package.
- Add a section for KumoScale telemetry to your Prometheus configuration file. The following code snippet shows a typical yaml file (the KumoScale-specific items are commented in bold):

```
# metrics_path defaults to “/metrics”

# scheme defaults to “http”

scrape_configs:

  #Add KumoScale nodes job, as Listed below

  - job_name: kumoscale-nodes

  #scrape_interval: 15s

  #Add KumoScale nodes job metrics path below

  metrics_path: SSDAgentServer/NVMEOF/v1/metrics

  scheme: https

  static_configs:

    #Add KumoScale nodes IP:port as described below

    - targets: [171.20.10.15:443,171.20.10.17:443]

  tls_config:

    # Add the location path of ssdtoolbox.pem file

    key_file: /root/ssdtoolbox.pem

    # Add the location path of ssdtoolbox.pem file

    cert_file: /root/ssdtoolbox.pem

    insecure_skip_verify: true

    bearer_token: # Add KumoScale token


  # To get KumoScale Provisioner metrics, add ks-provisioner job as described below

  - job_name: ks-provisioner

  # Add Provisioner's metrics path, which is typically '/metrics'

  metrics_path: /metrics

  scheme: https

  static_configs:

    #Add Provisioner IP:Port

    - targets: [172.28.11.108:30100]

  tls_config:

    # Add the location path of ssdtoolbox.pem file

    key_file: /root/ssdtoolbox.pem

    # Add the location path of ssdtoolbox.pem file

    cert_file: /root/ssdtoolbox.pem

    insecure_skip_verify: true

    bearer_token: # Add Provisioner token
```

- The user may belong to any one of KumoScale RBAC Roles (ADMIN / STORAGE / NETWORK / MONITOR).
- Validate that your Prometheus server is configured successfully: login to ‘PrometheusIP:9090’ and validate that the Provisioner and KumoScale nodes were added successfully to Prometheus.
- Run the following REST API commands to access the configured metric feeds:

Get metrics from KumoScale storage nodes:

```
curl -k -u admin:<password> --cert ./ssdtoolbox.pem https://<StorageNode_IP>/SSDAgentServer/NVMEof/v1/metrics
```

Get metrics from KumoScale Provisioner:

```
curl -k -s --cert ./ssdtoolbox.pem -H 'Authorization: Bearer <token>' https://<ProvisionerIP>:30100/metrics
```

[Next: Automating Metrics Collection](#)