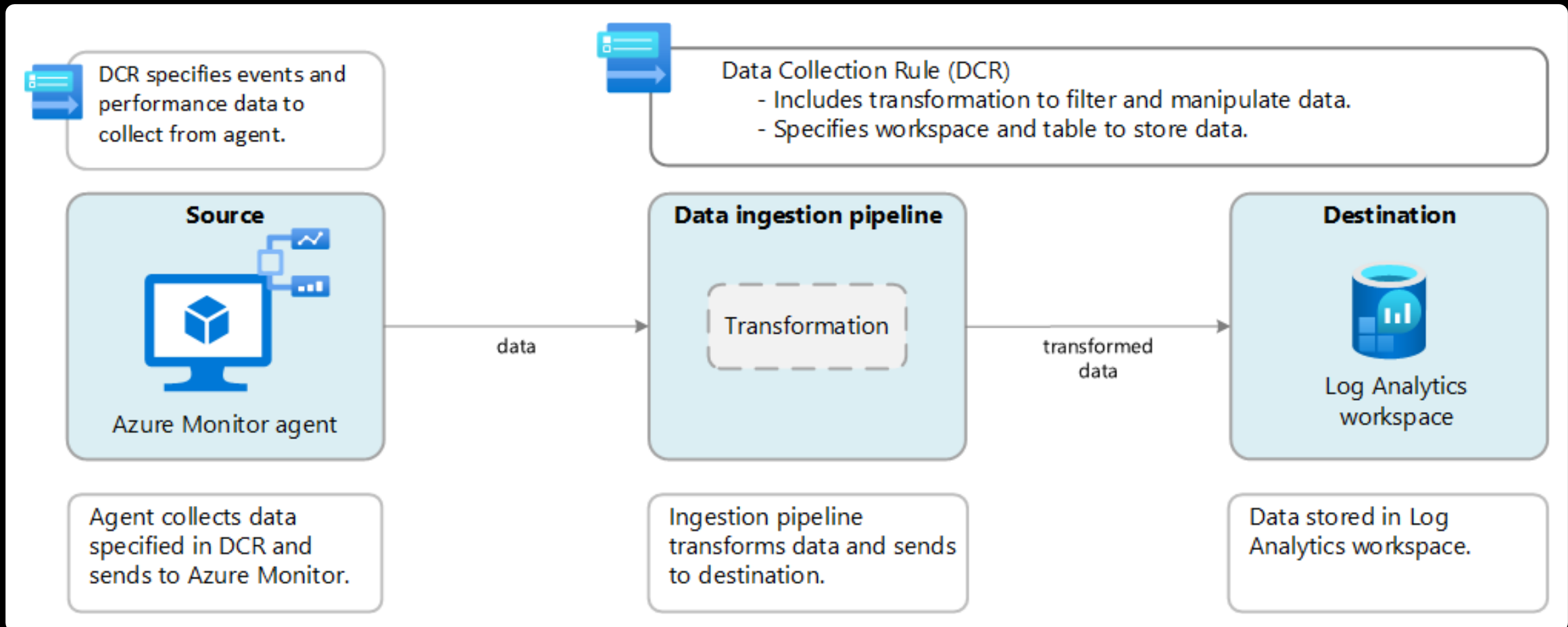Monitoring and logging in AKS

Data Collection Rule - DCR

Specify what data should be collected, how to transform it, and where to send it.

DCR specifies events and performance data to collect from agent.

Data Collection Rule (DCR)
- Includes transformation to filter and manipulate data.
- Specifies workspace and table to store data.

Source

Azure Monitor agent

Data ingestion pipeline

Transformation

Destination

Log Analytics workspace

data

transformed data

Agent collects data specified in DCR and sends to Azure Monitor.

Ingestion pipeline transforms data and sends to destination.

Data stored in Log Analytics workspace.

Data Collection Rule - DCR

dcr-prometheus | Resources ☆ ⋯
Data collection rule

🔍 Search ⬍ «

➕ Add   💾 Save   🗑 Delete

📊 Overview

∨ Configuration

    📊 Data sources

    📦 Resources

> Security

🔍 Filter by name...   All resource groups ∨

☐ **Name**   **Type**   **Location**   **Data collection end...**

☐ aks-cluster   Kubernetes service   Sweden Central   dce-prometheus ∨

---

dcr-prometheus | Data sources ☆ ⋯
Data collection rule

🔍 Search ⬍ «

➕ Add   🗑 Delete

> Settings

∨ Configuration

    📊 Data sources

    📦 Resources

🔍 Filter by name...   Destination : all

☐ **Data source**   **Destination(s)**

☐ Prometheus Metrics   Azure Monitor Workspace

Data Collection Endpoint - DCE

Sits between Azure Monitor Agent (AMA) and Azure Monitor resources like Log Analytics and Prometheus.

Collects data (metrics and logs) from AMA and send it to Azure Monitor.

Provides configuration files (DCR) to AMA to perform data transformation.
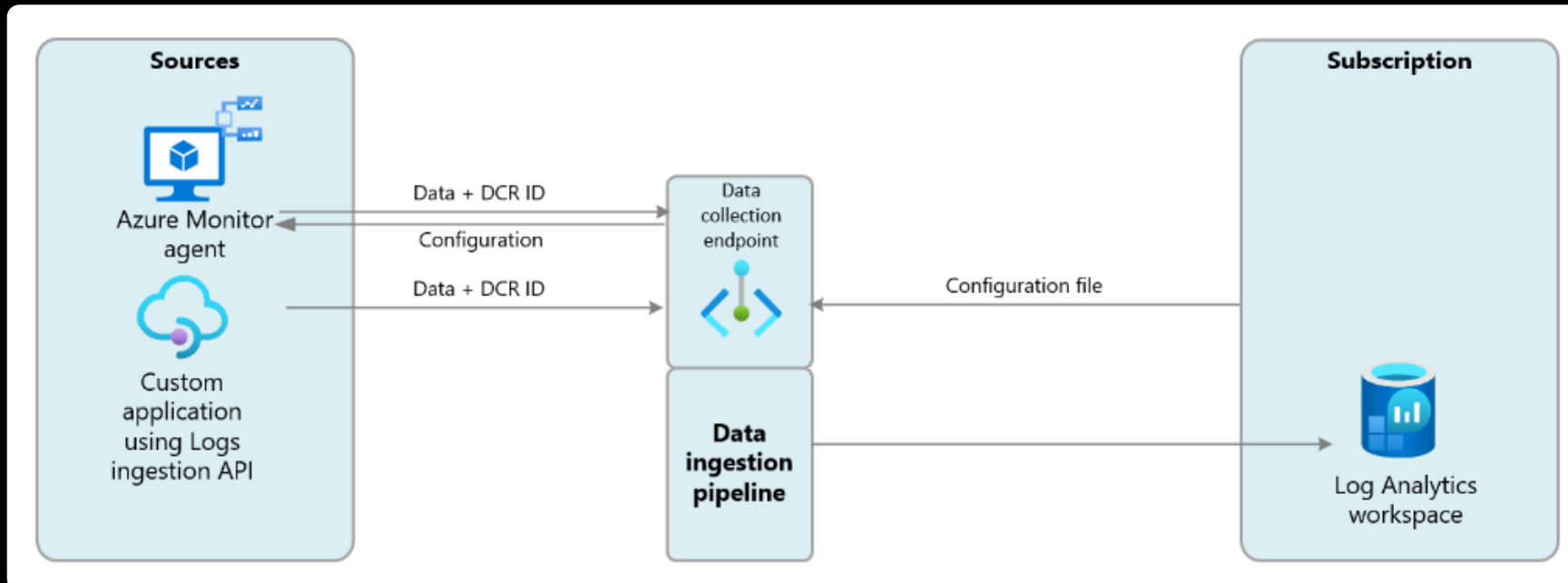
Data Collection Endpoint - endpoints

Configuration access endpoint
Endpoint from which Azure Monitor Agent retrieves data collection rules (DCRs).

Logs ingestion endpoint
Endpoint that ingests logs into the data ingestion pipeline.

Metrics ingestion endpoint
Endpoint that ingests metrics into the data ingestion pipeline.

```
"properties": {
  "configurationAccess": {
    "endpoint": "https://<dce>.<region>.handler.control.monitor.azure.com"
  },
  "logsIngestion": {
    "endpoint": "https://<dce>.<region>.ingest.monitor.azure.com"
  },
    "metricsIngestion": {
      "endpoint": "https://<dce>.<region>.metrics.ingest.monitor.azure.com"
  },
  "networkAcls": { "publicNetworkAccess": "Enabled" }
}
```

DCE
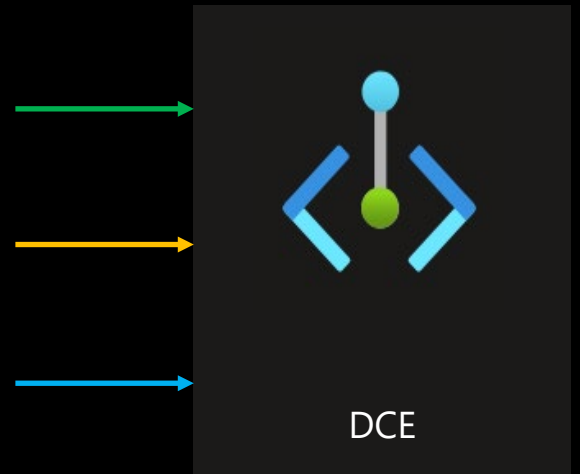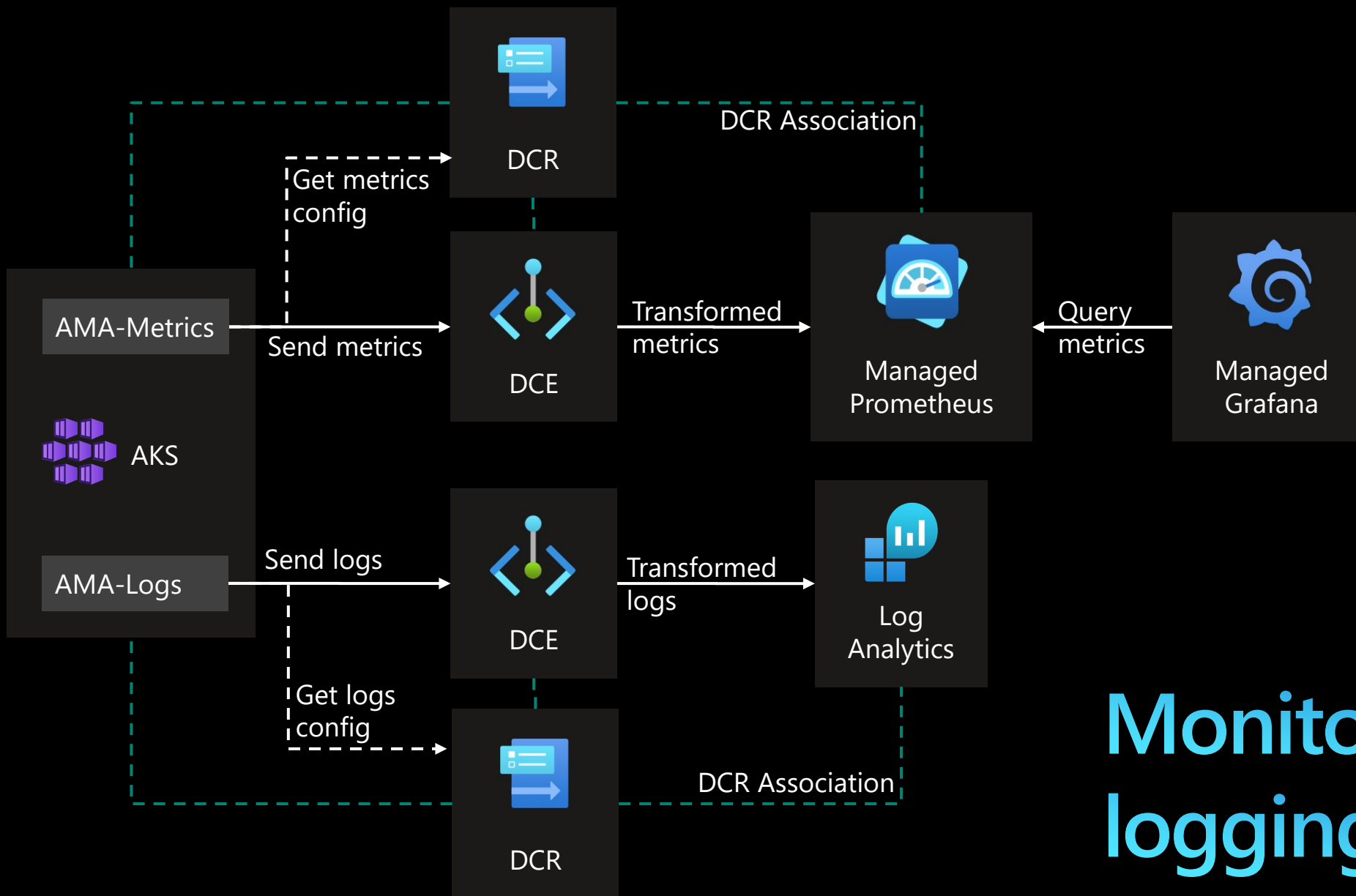
Monitoring and logging for AKS

Monitoring and logging for AKS

Demo

Terraform

Name ↑		Type
aks-cluster	...	Kubernetes service
azure-grafana-85	...	Azure Managed Grafana
azure-prometheus	...	Azure Monitor workspace
dce-log-analytics	...	Data collection endpoint
dce-prometheus	...	Data collection endpoint
dcr-log-analytics	...	Data collection rule
dcr-prometheus	...	Data collection rule
log-analytics-workspace	...	Log Analytics workspace
recording-rules-k8s	...	Prometheus rule group (preview)
recording-rules-nodes	...	Prometheus rule group (preview)
vnet-aks	...	Virtual network