# **Public Clouds**

*Note:* Kentik users whose level is Member are not able to add, edit, or remove cloud exports.

The setup of cloud exports and cloud devices in the Kentik portal is discussed in the following topics:

- Public Clouds Page
- Cloud Details Page
- AWS Config Status Page
- Cloud Export Settings
- Add or Edit a Cloud

#### Notes:

- For a high-level explanation of public clouds, see Cloud Overview.
- For an explanation of cloud exports and cloud devices, see Cloud Exports and Devices.
- For information about adding a cloud export, see Cloud Setup.

- If you would like assistance with any aspect of monitoring your cloud resources with Kentik, please contact **Customer Support**.

≡ Menu		🐇 kentik			□ Feedback Q 兴 ▼
SETTINGS > Public Clouds					
Public Clouds		aws Add AWS Cloud	Add GCP Cloud	🔥 Add Azure C	Cloud Cloud
AWS				AWS Con us-east-	nfig Status -2: 1 api warning -1: 1 api critical
GCP				ap-south	heast-1: 1 missing flow
ІВМ				us-west	-1: 1 missing flow
Cloud Exports Q Search	Flows per secon	d			
▼ Filters ×	ProviderStatus Name ^	Properties		Devices	FPS Sampled
Provider IBM AWS	Azure et test-test	Resource Group Storage Accour	9: RG-KGEN It: KENTIKNOFLOW	1 device 0 with flow	0.0 🗹 😘 💼
Azure GCP	送 📀 us-east IBM			1 device 0 with flow	0.0 🖻 🖓 📅
	aws AWS us-east-2-	kappa Path: tma-capc Role: arn:aws:ia	om-shared-bucket-ohio.s m::881814380875:role/tm	1 device 1 with flow	12 🖻 🖓 💼 🚺
Z					Showing 24 results

The Public Clouds page enables you to register and monitor in Kentik the resources you maintain in public clouds.

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## **Public Clouds Page**

The Public Clouds page of the Kentik portal (Settings » Public Clouds) shows the cloud exports from all of your organization's public cloud resources that are currently configured to export flow logs to Kentik. The Public Clouds page is covered in the following topics:

- Public Clouds Page UI
- Cloud Exports List

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### Public Clouds Page UI

The Public Clouds page includes the following UI elements:

- Add Cloud: The cloud providers currently supported by Kentik are each represented by a button to the right of the page title. Click a button to configure a new cloud export (see Cloud Setup) for one of the following providers:
  - Amazon Web Services
  - Google Cloud Platform
  - Microsoft Azure
  - IBM Cloud

aws Add AWS Cloud	Add GCP Cloud	🔥 Add Azure Cloud	🖄 Add IBM Cloud

• Flows per second: A horizontal bar chart showing the volume of flow logs per second ingested by Kentik from each of your cloud providers (no bar will be shown for a provider with no cloud exports). Each provider's bar is segmented by color to show the portion of FPS that comes from each cloud export from that provider.



The flows per second chart shows the volume of flow logs from each of your cloud providers.

- AWS Config Status: If the Cloud Exports list includes at least one cloud whose provider is AWS then the AWS Config Status pane appears to the right of the Flows per Second chart. The pane is a list showing the latest heath status (e.g. warning, critical, etc.) of the AWS regions in which your cloud resources are hosted. Click the heading to go to the AWS Config Status Page.
- Show/Hide Filters (filter icon): A button that toggles the Filters pane between expanded and collapsed.
- Search: A field that you can use to filter the Cloud Exports List. When text is entered, the list
  will show only rows containing that text in one of the following columns: Provider, Name,
  Properties, or Devices.

*Note:* Filters added with the **Filters** pane will also appear in this field. You can remove a filter by clicking the **X** in its tag.

- Cloud Exports: A table listing your organization's cloud exports (see Cloud Exports List).
- Filters pane: A set of checkboxes to the left of the Cloud Exports list that enables you to filter the list to specific providers. The pane is either expanded or collapsed by the Show/Hide Filters button.

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### **Cloud Exports List**

The **Cloud Exports** list is a table that shows information about your organization's cloud exports (see **Cloud Exports and Devices**). Click on a column heading to sort the list.

Provide	er Status	Name ^	Properties	Devices	FPS Sampled	
C GCP	•	gcp-west2a-LA	Project: tma-gcp-lab-kentik Subscription: sub-zero	2 devices 1 with flow	22	r 2 🖻
🔨 Azure	•	hipster-shop	Resource Group: MC_azure-rg_Kentik-Kube_e Storage Account: kentikkubestoragaccount1	1 device 0 with flow	0.0	r 2 1
🔨 Azure	⊘	test-test	Resource Group: RG-KGEN Storage Account: KENTIKNOFLOW	1 device 0 with flow	0.0	r 2 🖻
ШВМ	⊘	us-east		1 device 0 with flow	0.0	r 2 🗖
aws AWS	⊘	us-east-2-kappa	Path: tma-capcom-shared-bucket-ohio.s3-us Role: arn:aws:iam::881814380875:role/tma-all	1 device 1 with flow	12	r 5 💼
1						Showing 24 results

The Cloud Exports list provides basic information about each cloud export and access to actions and additional details.

The Cloud Exports list includes the following columns:

- **Provider**: The cloud service provider (e.g. AWS, Azure, etc.) from which the flow logs for this cloud export are being pulled by Kentik.
- Status: The current status of the cloud export (see Cloud Export Status Icons).
- Name: The name specified for the cloud export when it was added or edited. Click a name to go to the cloud export's Cloud Details Page.
- **Properties**: A summary of settings made in the dialog with which the Cloud was added or edited. The properties vary by provider:
  - AWS: Properties include Path and Role.
  - GCP: Properties include Project and Subscription.
  - Azure: Properties include Resource Group and Storage Account.
  - IBM: There are no IBM-specific properties.

- Devices: The devices auto-derived by Kentik when the cloud export was created. The relationship between a cloud export and a device varies depending on provider (see Cloud Exports and Devices).
- **FPS Sampled**: The peak rate of flow records ingested by Kentik from this cloud export's devices over the last 6 hours.
- Edit: A button that opens the configuration dialog for the cloud export (see Cloud Export Settings).
- **Refresh**: A button that retrieves the latest flow logs for this cloud export.
- **Remove**: A button that pops up a confirmation dialog that allows you to remove the cloud export from your organization.

#### **Cloud Export Status Icons**

The following icons display the status of the cloud export:

- Start (blue circle): Kentik is setting up the cloud export based on information provided in the add or edit dialog.
- **Pending** (orange clock): Kentik is in the process of setting up the cloud export based on information provided in the add or edit dialog.
- Error (red exclamation): A configuration or connection issue is preventing Kentik from accessing the flow logs for this cloud export.
- **OK** (green checkmark): Kentik is successfully ingesting flow logs from the source specified with this cloud export.
- **Disabled** (cloud with strikethrough): Export is disabled in the cloud export's settings.
- Halt (red hand): Kentik is halting the cloud export. Please contact Customer Support to determine possible causes and solutions.

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## **Cloud Details Page**

The details page for an individual cloud export, which provides access to the properties and settings of that cloud export, is covered in the following topics:

- Cloud Details Page UI
- Cloud Summary Information
- Cloud Devices List

SETTINGS > Clouds > N California (West-1)

## 🏁 N California (West-1)

Export ID:	17895
Billing Plan:	IBM Cloud East - Kentik Demo New
Plan ID:	11677
S3 Bucket Region:	us-west-1
S3 Bucket Name:	tma-s3-tgw-california
IAM Role ARN:	arn:aws:iam::671678195002:role/tma-aws-ohio-vpc-flow-log
Delete After Read:	On

#### Devices

		Name A	FPS Sampled
BGP v4	BGP v6	acct_demo_california_vpc_58_flow_v5 (103941)	5.0
BGP v4	BGP v6	acct_demo_california_vpc_59_flow_v5 (103942)	2.0
BGP v4	BGP v6	tma_s3_tgw_california (105894)	34
BGP v4	BGP v6	vpc_51_vpc_0776ce5f73a3e5778_us_west_1_flow_v5 (10	0.0
			Showing 15 result
	BGP v4 BGP v4 BGP v4 BGP v4	BGP v4         BGP v6           BGP v4         BGP v6           BGP v4         BGP v6           BGP v4         BGP v6           BGP v4         BGP v6	Name            BGP v4         BGP v6         acct_demo_california_vpc_58_flow_v5 (103941)           BGP v4         BGP v6         acct_demo_california_vpc_59_flow_v5 (103942)           BGP v4         BGP v6         tma_s3_tgw_california (105894)           BGP v4         BGP v6         vpc_51_vpc_0776ce5f73a3e5778_us_west_1_flow_v5 (10

The Cloud Details page provides access to the properties and settings of an individual cloud export.

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🔅 Configure

#### **Cloud Details Page UI**

The Cloud Details page includes the following UI elements:

- Cloud provider (logo): The logo of the provider that hosts this cloud export.
- Cloud name: The name of the cloud export.
- Configure: A button that opens the configuration dialog for this cloud export (see Cloud Export Settings).
- Cloud Summary: Information about the cloud export, including the plan to which it is assigned and other information that varies depending on the provider (see Cloud Summary Information).
- Devices list: A table listing the devices associated with this cloud export (see Cloud Devices List).

### **Cloud Summary Information**

As detailed in the topics below, some cloud export summary information is common to all providers, and other information is specific to a given provider.

#### **Common Summary Information**

The following fields are common to the summary information for cloud exports from all providers:

- Export ID: A unique ID assigned to the cloud export by Kentik.
- Billing Plan: The name of the Kentik plan to which the cloud is assigned (see About Plans).
- **Plan ID**: The ID of the Kentik plan to which the cloud export containing this cloud export is assigned.

#### **AWS Summary Information**

The following additional fields are included in the summary information for cloud exports from AWS:

- **S3 Bucket Region**: The AWS region of the S3 bucket from which Kentik pulls the flow logs for this cloud.
- S3 Bucket Name: The name (not the full ARN) of the S3 bucket.
- IAM Role ARN: The full Amazon resource name of the role that permits services in Kentik's AWS account to access the needed resources in your AWS account.
- **Delete After Read**: The current Delete After Read setting for this cloud, which determines whether flow logs will be automatically deleted in AWS after they've been ingested into Kentik.
- **Description**: The description entered for the cloud when it was created or edited in Kentik.

#### **Azure Summary Information**

The following additional fields are included in the summary information for cloud exports from Azure:

- **Subscription ID**: The Subscription ID of the Azure instance from which Kentik's NSG Flow Exporter application will export flow logs.
- **Resource Group**: The resource group of the Azure resources for which flow logs are collected for this cloud.
- Location: The location of the Azure resources for which flow logs are collected for this cloud.
- **Storage Account**: The name of the Azure storage account to which logs from the abovedescribed Azure resources are exported.

#### **GCP Summary Information**

The following additional fields are included in the summary information for cloud exports from GCP:

- **Project**: The name of the GCP project containing the Pub/Sub topic to which flow logs are exported for this cloud export.
- **Subscription**: The name of the subscription via which Kentik subscribes to your Pub/Sub topic.

#### **IBM Summary Information**

The following additional fields are included in the summary information for cloud exports from IBM Cloud:

• **Description**: The description entered for the cloud when it was created or edited in Kentik.

## **Cloud Devices List**

The **Devices** list is a table providing information about the individual devices that make up a cloud. Click a column heading to sort by that column. The table includes the following columns:

- Status: The current status of the device for flow data, BGP v4, and BGP v6 (see Cloud Device Status).
- Name: The name of the device, as well as its ID (in parentheses).
- **FPS Sampled**: The peak rate of flow records ingested by Kentik from this cloud export's devices over the last 6 hours.

#### **Cloud Device Status**

The status column indicates status for both flow and BGP (v4 and v6):

- Flow status: The current status of flow for the device:
  - OK (green checkmark): Kentik is successfully ingesting flow logs from the device.
  - *Error* (orange exclamation): A configuration or connection issue is preventing Kentik from accessing the flow logs for this device.
  - *Pending* (orange clock): Kentik is setting up the device based on information provided in the add or edit dialog for this cloud export.
- **BGP status**: The current BGP Peering status for IP v4 and v6:
  - *Enabled through another device*: BGP is turned on for this device and a session is currently established indirectly (via another device).

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- *Enabled but not established*: BGP is turned on for this device, but a session is not currently established, either directly or indirectly.

- Not enabled: BGP is turned off for this device.

*Note:* To change BGP settings, see Edit a Cloud.

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## **AWS Config Status Page**

The AWS Configuration Status Page is covered in the following topics:

- About AWS Config Status
- AWS Config Status UI
- Region Status List
- Config Status Details

ccount ID	Export IDs	API	Flow
71678195002	1757 26286 274	0	•
81814380875	52636	9	•
-east-1			
ccount ID	Export IDs	API	Flow
71678195002	57224 406	0	•
34693425129	57220	θ	

The AWS Config Status page shows cloud exports with configuration issues.

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### About AWS Config Status

The AWS Configuration Status page helps with cloud troubleshooting by revealing issues with the configuration of your cloud exports from AWS. The page displays, in tables corresponding to each AWS cloud region, the results of Kentik's AWS configuration checker, which looks at each AWS account (ARN) for which your organization has set up a cloud export. The checker evaluates whether:

- Kentik is able to access the required API endpoints within AWS.
- Kentik is receiving flow logs.

## AWS Config Status UI

The AWS Configuration Status page includes the following UI elements:

- Filter: Enter text to filter the page's config status lists to rows in which the Account ID or Export IDs columns contain the entered text.
- **Region status**: A set of tables, one for each AWS region in which your organization has configured a cloud export, that lists cloud exports that are experiencing issues as reported by the configuration checker (see **Region Status List**).

## **Region Status List**

A region status list is a table listing the cloud exports in a given AWS region that are currently experiencing configuration issues. Click on a row in the list to open the **Config Status Details** sidebar.

The status table for each region includes the following columns:

- Account ID: The ID of the AWS account containing the resources.
- **Export IDs**: The unique IDs assigned by Kentik to the cloud export(s) in this region that are associated with this account ID. Click an ID to go to the **Cloud Details Page** for the corresponding cloud export.
- **API**: A status icon indicating whether Kentik is able to access the API endpoints used to export flow logs for this cloud export.
- Flow: A status icon indicating whether Kentik is receiving flow logs for this cloud export.

*Note:* If a given status icon is not a green checkmark, hover over it to pop up a status description.

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## **Config Status Details**

The **Config Status Details** sidebar appears at the right of the AWS Config Status page when you click on a row in the status list for a given region (see **Region Status List**). The sidebar details the status of the operations required for a successful cloud export from your resources (VPCs, subnets, and/ or interfaces) in a given AWS region that are associated with a given AWS account.

The sidebar includes the following elements:

- Account ID: The ID of the AWS account.
- Region: The AWS region.
- API Access Status: A pane containing a table that lists the AWS APIs that Kentik needs for exports and indicating in the Can Access column which of those API endpoints Kentik is currently able to access.
- Flow Access Status: A pane containing a table that lists the Entity IDs of the AWS VPCs in the account and indicating in the Has Flow column whether Kentik is currently receiving logs from a given VPC.

- For each VPC whose flow log status is "success" (green checkmark), the count of the buckets involved will be stated in blue. Hover over the count to see a popup identifying the bucket(s) in which the logs for the VPC are collected.

- To see the traffic from a listed entity, click the **Open in Data Explorer** icon at the right of the row. Data Explorer will open in a new tab, with the **Filtering** pane (in **Query** sidebar) set to filter results to the individual VPC.

## **Cloud Export Settings**

Editing a cloud export via the Kentik portal involves specifying information in the fields of the **Cloud Export Settings** dialog, which is covered in the following topics.

- About Cloud Export Settings
- Cloud Export Settings UI
- Common Cloud Settings
- AWS Provider Settings
- Azure Provider Settings
- GCP Provider Settings
- IBM Cloud Provider Settings

*Note:* The **Cloud Export Settings** dialog enables you to modify settings for an existing cloud export. The settings for a new cloud export are covered in **Cloud Setup**.

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## **About Cloud Export Settings**

The **Cloud Export Settings** dialog enables you to modify the information that Kentik uses for a cloud export. The dialog is accessed from the following portal locations:

- Public Clouds page: Click the edit icon in the row for a given cloud export in the Cloud Exports List.
- Cloud Details page: Click the Configure button at the upper right (see Cloud Details Page UI).

The fields of the **Cloud Export Settings** dialog vary depending on the provider. As covered in the topics below, some fields are common to all providers (see **Common Cloud Settings**) while other fields are specific to a given provider.

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## Cloud Export Settings UI

The **Cloud Export Settings** dialog for all providers share the same general layout and the following common UI elements:

- **Close button**: Click the **X** in the upper right corner to close the dialog. All elements will be restored to their values at the time the dialog was opened.
- Settings fields: The common and provider-specific fields containing configuration settings for the cloud export (see topics below).
- **Cancel button**: Cancel the add Cloud or edit Cloud operation and exit the dialog. All elements will be restored to their values at the time the dialog was opened.
- **Save button**: Save changes to Cloud settings and exit the dialog.

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### **Common Cloud Settings**

The Cloud Export Settings dialogs for all providers contain the following settings fields:

- Name (required): A user-supplied name string for the cloud export.
- **Description**: A user-supplied description string.
- **Billing Plan**: A drop-down from which you can choose the Kentik plan to which the cloud export will be assigned (see **About Plans**).
- Enabled: A switch that turns on/off the ingest of flow logs for this cloud export.
   Note: Disabling a cloud has no effect on the cloud provider side. Publication and collection of flow logs will continue until discontinued on the cloud provider.
- Inherit BGP Data from another device: If this switch is on you can assign to the devices derived from this cloud export the BGP data from a physical device (e.g. edge router) in a hybrid deployment. This is typically used only when your cloud resources function as an

extension of your data center servers and all traffic to users is served via your physical infrastructure.

 Master BGP Device (shown only if the Inherit BGP switch is on): The device whose BGP table will be shared with the devices derived from this cloud export.

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Name*
N California (West-1)
Description
A very fine cloud indeed.
Billing Plan*
IBM Cloud East - Kentik Demo New (14/10000) IBM Cloud East - Kentik Demo New
The billing plan to which the device should be added.
C Enabled
Inherit BGP data from another device

## **AWS Provider Settings**

Kentik pulls flow logs for a given cloud export from an AWS VPC, subnet, or interface via a destination log folder in an Amazon S3 bucket (for more details, see **AWS Logging Setup Overview**). To establish the connection that enables us to ingest those logs into Kentik we need information that you provide in the following fields:

- S3 Bucket Region: A drop-down list from which you choose the region in which you created the S3 bucket from which Kentik will pull the flow logs (see Create an S3 Bucket).
- Collect logs from alternative S3 bucket(s): A switch that enables the cloud to represent logs from multiple buckets that are not in the same region. If the switch is turned on, the S3 Bucket Name field will be inactivated.

Validation succeeded.	
S3 Bucket Region* US West (N. California) us-	
Collect logs from alternative	S3 bucket(s)
tma-s3-tgw-california	
IAM Role ARN*	
arn:aws:iam::671678195002:role	/tma-aws-ohio-vpc-flow-log

- S3 Bucket Name: The name (not the full ARN) of the S3 bucket.
- **IAM Role ARN**: The full ARN (Amazon resource name) of the role that you created to establish a "trusted relationship" that permits services in Kentik's AWS account to access the needed resources in your AWS account.
- **Delete After Read**: Determines whether or not the logs for this cloud export should be deleted after they've been ingested into Kentik. Turn off if you prefer to manage log deletion on your own.

 Sampling: A set of controls that configure the sampling rate for this cloud export (see Cloud Export Sampling).

#### **Cloud Export Sampling**

The following settings determine the sampling rate for this cloud export:

- Sampling type:
  - Legacy (AWS only): A maximum of 10k flows are randomly sampled per-file.
  - Sampling Rate: Use the rate specified in the Sampling Rate field.
  - Unsampled: No sampling is enabled.
- **Sampling rate** (present only when **Sampling Type** is *Sampling Rate*): Enter the sampling rate in the form of 1:N. Value must be between 2 and 2000.

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## **Azure Provider Settings**

Kentik pulls flow logs for a given cloud export from an Azure "storage account" that represents all resources within a given Azure subscription that share a location and have been assigned to the same resource group. The storage account is accessed by NSG Flow Exporter (a Kentik-built enterprise application for Azure), which forwards the flow logs to KDE. The following settings and controls enable creation of the storage account and authorize access to it by NSG Flow Exporter:

- **Subscription ID**: Enter the Subscription ID of the Azure instance from which Kentik's NSG Flow Exporter application will export flow logs (see **Authorize Access to Azure**).
- **Authorize**: Click to authorize the Azure portal to create a Service Principal representing NSG Flow Exporter.

*Note:* Your Azure role (e.g. Global Administrator) must allow you to grant access by enterprise applications.

- **Resource Group to Monitor** : Enter the resource group of the Azure resources for which you want to generate flow logs for this cloud (see **Specify Azure Resources**).
- Location: Enter the location of the Azure resources for which you want to generate flow logs for this cloud.
- Storage Account Name: Enter a name for the Azure storage account to which logs will be exported from the above-specified Azure resources..
   Note: The name must not be already in use by any other storage account, whether in your subscription or that of another Azure user.
- Sampling: A set of controls that configure the sampling rate for this cloud export (see Cloud Export Sampling).

- Configure Manually: Click the button to open a dialog containing a set of manual configuration steps, then go to the Azure portal and follow the instructions (see Choose Configuration Method).
- Configure Using PowerShell: Click the button to open the Logging Configuration
   Script dialog, which includes a Kentik-generated script (see Generate PowerShell Script).
- Validate configuration: Click the button to begin validation of your flow log export configuration (see Validate Azure Setup).

*Note:* Validation may take up to an hour, during which time the cloud's status (e.g. on the **Public Clouds Page**) will be indicated as "Pending" until Kentik completes registration.



### **GCP** Provider Settings

Kentik pulls flow logs for a given cloud export from the Google Cloud Platform (GCP) by subscribing to a Pub/Sub topic that is publishing flow logs from one or more subnets/VPCs (for more details, see **GCP Process Overview**). To establish the connection that enables us to ingest those logs into Kentik we need information that you provide in the following fields:

• **Project**: All GCP resources (e.g. compute engine services or cloud storage buckets) are contained within a GCP project. Enter the name of the GCP project that contains the Cloud Pub/Sub topic that you created as a destination

Project	
boreal-analog-746	
Subscription*	

for the export of flow logs from your VPC (see Create a New Topic).

• **Subscription**: Enter the name of the subscription that you created to enable Kentik to subscribe to your Pub/Sub topic (see **Create a Pull Subscription**).

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#### **IBM Cloud Provider Settings**

The settings for IBM cloud exports currently include only Common Cloud Settings.

## Add or Edit a Cloud

Clouds are added and edited via the **Cloud Export Settings**. The add/edit process is covered in the following sections:

- Add a Cloud
- Edit a Cloud

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#### Add a Cloud

To add a new Cloud to Kentik:

- 1. Choose Settings from the main Kentik menu.
- 2. On the Settings page, click Public Clouds.

- 3. On the Public Clouds page, click the **Add Cloud** button corresponding to the provider (AWS, Azure, etc.) containing the cloud resources that you'd like to monitor in Kentik.
- 4. The resulting page will correspond to the type of cloud you chose to add (e.g. the Monitor your AWS Cloud page if you clicked the Add AWS Cloud button). Follow the steps on the page to fill in the form (see Cloud Setup).

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## Edit a Cloud

To edit the settings for an existing Cloud:

- 1. Choose **Settings** from the main Kentik menu.
- 2. On the Settings page, click Public Clouds.
- 3. In the **Cloud Exports List** on the Public Clouds page, click the **Edit** icon in the row corresponding to the cloud that you'd like to edit.
- 4. In the resulting dialog, change any fields that you'd like to modify:

- For fields that are common to cloud exports from all cloud providers, see **Common Cloud Settings**.

- For provider-specific fields, find your provider in the topics listed under **Cloud Export Settings**.

5. To save changes, click the **Save** button (lower right).

*Note:* To remove a cloud export from your organization's collection of cloud exports, click the **Remove** button (trash icon) at the right of the cloud's row of the **Cloud Exports** list.