# Monitoring Alibaba Cloud

Beta Version

Alibaba Cloud: Aliyun PowerPack version 101

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# Chapter 1

# Introduction

## Overview

This manual describes how to monitor Aliyun cloud services in SL1 using the Dynamic Applications in the *Alibaba Cloud: Aliyun* PowerPack.

The following sections provide an overview of Aliyun and the *Alibaba Cloud: Aliyun* PowerPack:

This chapter covers the following topics:


*What Does the Alibaba Cloud: Aliyun PowerPack Monitor?* ..... 3

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## What Does the Alibaba Cloud: Aliyun PowerPack Monitor?

Aliyun, also known as AliCloud, is Alibaba's cloud computing service platform. To monitor Aliyun cloud services using SL1, you must install the *Alibaba Cloud: Aliyun* PowerPack. This PowerPack enables you to discover, model, and collect data about Aliyun cloud resources.

The *Alibaba Cloud: Aliyun* PowerPack includes:

- An example credential you can use to create SOAP/XML credentials to connect to the Aliyun service
- Dynamic Applications to discover and monitor Aliyun cloud resources
- Device Classes for each type of Aliyun component device monitored by SL1

The Dynamic Applications in the *Alibaba Cloud: Aliyun* PowerPack can monitor performance metrics and/or collect configuration data for the following Aliyun services and components:

- CloudDisk
- Elastic Compute Service (ECS)

# What are Aliyun Regions and Zones?

An Aliyun **region** is an individual data center located in a specific geographic locale. Regions have a canonical naming scheme of:

*[country/continent] [direction] [number]*

For example, the "US East 1" region is located in the United States, on the East Coast, and it is the #1 data center in that region.

Aliyun regions are also commonly referred to by the city, state, or country in which the data center is located. For example, "China North 2" is commonly referred to as "Beijing", "Asia Pacific SE 2" is commonly referred to as "Sydney", etc.

The Dynamic Applications in the *Alibaba Cloud: Aliyun* PowerPack create a "region" component device for each discovered region. The component devices for regions include both the region name and city/state description.

All instances of an Aliyun service within a specific region then reside in one or more zones. A **zone** is an independent infrastructure set within a regional data center. Some regions have multiple zones, while others have only a single zone.

The Aliyun naming convention for a zone is:

*region[a-z]*

For example, zone "a" for the region "us-east-1" is named "us-east-1a".

The Dynamic Applications in the *Alibaba Cloud: Aliyun* PowerPack create a "zone" component device for each discovered zone.

Component devices that represent Aliyun services reside under the appropriate "region" and "zone" component devices.

# Dynamic Applications: Naming Scheme and Roles

The Dynamic Applications in the *Alibaba Cloud: Aliyun* PowerPack include three types:

- ***Discovery***. These Dynamic Applications poll Aliyun for new instances of services or changes to existing instances of services.
- ***Configuration***. These Dynamic Applications retrieve configuration information about each service instance and retrieve any changes to that configuration information.
- ***Performance***. These Dynamic Applications poll Aliyun for performance metrics.

Discovery Dynamic Applications are responsible for searching the Aliyun cloud for instances of specific services. Typically, a Discovery Dynamic Application will then align Performance Dynamic Applications and Configuration Dynamic Applications for each discovered service instance.

The general Dynamic Application hierarchy is:

- Account Configuration
    - Region Discovery
        - Zone Discovery
            - Service Discovery
                - Instance Discovery
                    - Instance Config
                    - Instance Performance

# Installing the Alibaba Cloud: Aliyun PowerPack

Before completing the steps in this manual, you must import and install the latest version of the *Alibaba Cloud: Aliyun* PowerPack.

**TIP:** By default, installing a new version of a PowerPack overwrites all content from a previous version of that PowerPack that has already been installed on the target system. You can use the ***Enable Selective PowerPack Field Protection*** setting in the **Behavior Settings** page (System > Settings > Behavior) to prevent new PowerPacks from overwriting local changes for some commonly customized fields. (For more information, see the ***System Administration*** manual.)

**IMPORTANT:** The minimum required MySQL version is 5.6.0.

To download and install the PowerPack:

1. Search for and download the PowerPack from the **PowerPacks** page (Product Downloads > PowerPacks & SyncPacks) at the ScienceLogic Support Site.

2. In SL1, go to the **PowerPacks** page (System > Manage > PowerPacks).
3. Click the **[Actions]** button and choose *Import PowerPack*. The **Import PowerPack** dialog box appears.
4. Click **[Browse]** and navigate to the PowerPack file from step 1.
5. Select the PowerPack file and click **[Import]**. The **PowerPack Installer** modal displays a list of the PowerPack contents.
6. Click **[Install]**. The PowerPack is added to the **PowerPacks** page.

**NOTE:** If you exit the **PowerPack Installer** modal without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPacks** page. However, the imported PowerPack will appear in the **Imported PowerPacks** modal. This page appears when you click the **[Actions]** menu and select *Install PowerPack*.

# Chapter 2

# Configuration and Discovery

## Overview

The following sections describe how to configure and discover Alibaba Aliyun services and component devices for monitoring by SL1 using the *Alibaba Cloud: Aliyun* PowerPack:

This chapter covers the following topics:


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*Creating a SOAP/XML Credential for Aliyun* ..... 7

*Creating an Aliyun Virtual Device* ..... 8

*Discovering Aliyun Component Devices* ..... 9

*Viewing Aliyun Component Devices* ..... 11


## Prerequisites

To configure the SL1 system to monitor Aliyun using the *Alibaba Cloud: Aliyun* PowerPack, you must have the account access key ID and password for the Aliyun service you want to monitor.

**NOTE:** To properly discover and model your Aliyun service in SL1, the account must have at least Read-Only access to the Aliyun service you want to monitor.

## Creating a SOAP/XML Credential for Aliyun

To configure SL1 to monitor Aliyun, you must first create a SOAP/XML credential. This credential allows SL1 (specifically, the Dynamic Applications in the *Alibaba Cloud: Aliyun* PowerPack) to connect with the Aliyun

service. An example SOAP/XML credential that you can edit for your own use is included in the PowerPack.

To configure a SOAP/XML credential to access Aliyun:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. Locate the sample credential included in the *Alibaba Cloud: Aliyun* PowerPack, called **Alibaba Cloud: Aliyun Credential**, then click its wrench icon ( ).
3. Enter values in the following fields:

   - ***Profile Name***. Enter a new name for the Aliyun credential.
   - ***Content Encoding***. Select *text/xml*.
   - ***Method***. Select POST.
   - ***HTTP Version***. Select HTTP/1.1.
   - ***URL***. Keep the default value.

**NOTE:** The Aliyun service does not require a specific URL to access the service, but SL1 does require a URL value when creating SOAP/XML credentials. Therefore, the ***URL*** field must have an entry but the value itself does not matter.

   - ***HTTP Auth User***. Enter the account access key ID for the Aliyun service.
   - ***HTTP Auth Password***. Enter the account access key password for the Aliyun service.

4. Click **[Save As]**.
5. In the confirmation message, click **[OK]**.

## Creating an Aliyun Virtual Device

Because the Aliyun service does not have a static IP address, you cannot discover an Aliyun device using discovery. Instead, you must create a ***virtual device*** that represents the Aliyun service. A virtual device is a user-defined container that represents a device or service that cannot be discovered by SL1. You can use the virtual device to store information gathered by policies or Dynamic Applications.

**TIP:** If you have multiple Aliyun subscriptions you want to monitor, you should create a separate credential and virtual root device for each.

To create a virtual device that represents your Aliyun service:

1. Go to the **Device Manager** page (Registry > Devices > Device Manager).
2. Click **[Actions]** and select *Create Virtual Device* from the menu. The **Virtual Device** modal page appears.

3. Enter values in the following fields:

    - ***Device Name***. Enter a name for the device. For example, you could enter "Alibaba Cloud" in this field.
    - ***Organization***. Select the organization for this device. The organization you associate with the device limits the users that will be able to view and edit the device. Typically, only members of the organization will be able to view and edit the device.
    - ***Device Class***. Select *Alibaba | Aliyun Account*.
    - ***Collector***. Select the collector group that will monitor the device.

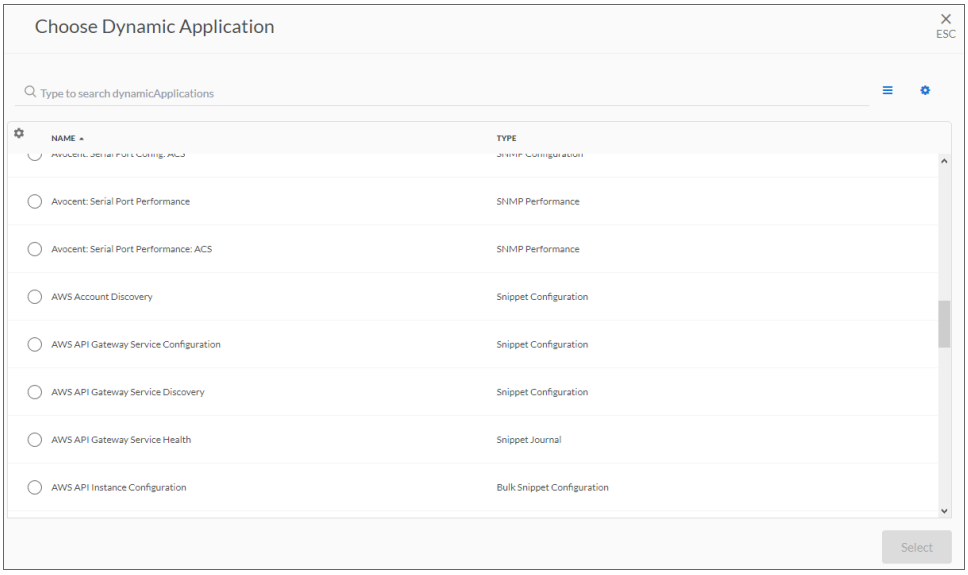
4. Click **[Add]** to create the virtual device.

# Discovering Aliyun Component Devices

To discover all of the components of your Aliyun service, you must manually align the "Aliyun Account Configuration" and "Aliyun Region Discovery" Dynamic Applications with the Aliyun virtual device.

To discover your Aliyun service, perform the following steps:

1. Go to the **Devices** page and click on the Aliyun virtual device to open the **Device Investigator**.
2. Click the **[Collections]** tab.
3. Click **[Edit]** and then click **[Align Dynamic App]**. The **Align Dynamic Application** window appears.
4. Click *Choose Dynamic Application*. The **Choose Dynamic Application** window appears:




5. Select the "Aliyun Account Configuration" Dynamic Application and click **[Select]**. The name of the selected Dynamic Application appears in the **Align Dynamic Application** window.

6. If a default credential is listed below the Dynamic Application and it is the *credential you created for your Aliyun service*, skip ahead to step 7. Otherwise, uncheck the box next to the credential name.
7. Click *Choose Credential*. The **Choose Credential** window appears.
8. Select the *credential you created for your Aliyun service* for the Dynamic Application and click the **[Select]** button. The name of the selected credential appears in the **Align Dynamic Application** window.
9. Click the **[Align Dynamic App]** button. When the Dynamic Application is successfully aligned, it is added to the **Collections** tab, and a confirmation message appears at the bottom of the tab.
10. Repeat these steps to align the "Aliyun Region Discovery" Dynamic Application with the Aliyun virtual device.

When you align the "Aliyun Account Configuration" Dynamic Application with the Aliyun virtual device, the Dynamic Application creates a component device representing the Aliyun account.

When you align the "Aliyun Region Discovery" Dynamic Application to the account component device, the Dynamic Application determines the regions used by the Aliyun account and creates a component device for each region.

Under each region, SL1 then discovers the following component device categories:

- Availability Zones
    - CloudDisk services
        - CloudDisk instances
    - Elastic Compute Service (ECS) services
        - ECS instances

**TIP:** To *unalign* a Dynamic Application from a device, click the **[Actions]** button (···) for that Dynamic Application and select *Unalign Dynamic App*. However, be advised that when you unalign a Dynamic Application, you also delete the data it has collected.

## Discovering Aliyun Component Devices in the SL1 Classic User Interface

To discover all of the components of your Aliyun service, you must manually align the "Aliyun Account Configuration" and "Aliyun Region Discovery" Dynamic Applications with the Aliyun virtual device.

To discover your Aliyun service, perform the following steps:

1. Go to the **Device Manager** page (Registry > Devices > Device Manager).
2. Click the wrench icon ( ) for your Aliyun virtual device.
3. In the **Device Administration** panel, click the **[Collections]** tab. The **Dynamic Application Collections** page appears.
4. Click **[Actions]** and select *Add Dynamic Application* from the menu.

5. In the **Dynamic Application Alignment** modal page:
    - In the ***Dynamic Applications*** field, select the "Aliyun Account Configuration" Dynamic Application.
    - In the ***Credentials*** field, select the *credential you created for your Aliyun service*.
6. Click **[Save]** to align the Dynamic Application with the Aliyun virtual device.
7. Repeat steps 4-6 to align the "Aliyun Region Discovery" Dynamic Application with the Aliyun virtual device.

When you align the "Aliyun Account Configuration" Dynamic Application with the Aliyun virtual device, the Dynamic Application creates a component device representing the Aliyun account.

When you align the "Aliyun Region Discovery" Dynamic Application to the account component device, the Dynamic Application determines the regions used by the Aliyun account and creates a component device for each region.

Under each region, SL1 then discovers the following component device categories:

- Availability Zones
    - CloudDisk services
        - CloudDisk instances
    - Elastic Compute Service (ECS) services
        - ECS instances

# Viewing Aliyun Component Devices

In addition to the **Devices** page, you can view the Aliyun service and all associated component devices in the following places in the user interface:

- The **Device Investigator** Map page (click **Map** in the **Device Investigator** page) displays a map of a particular device and all of the devices with which it has parent-child relationships. Double-clicking any of the listed devices reloads the page to make the selected device the primary device.

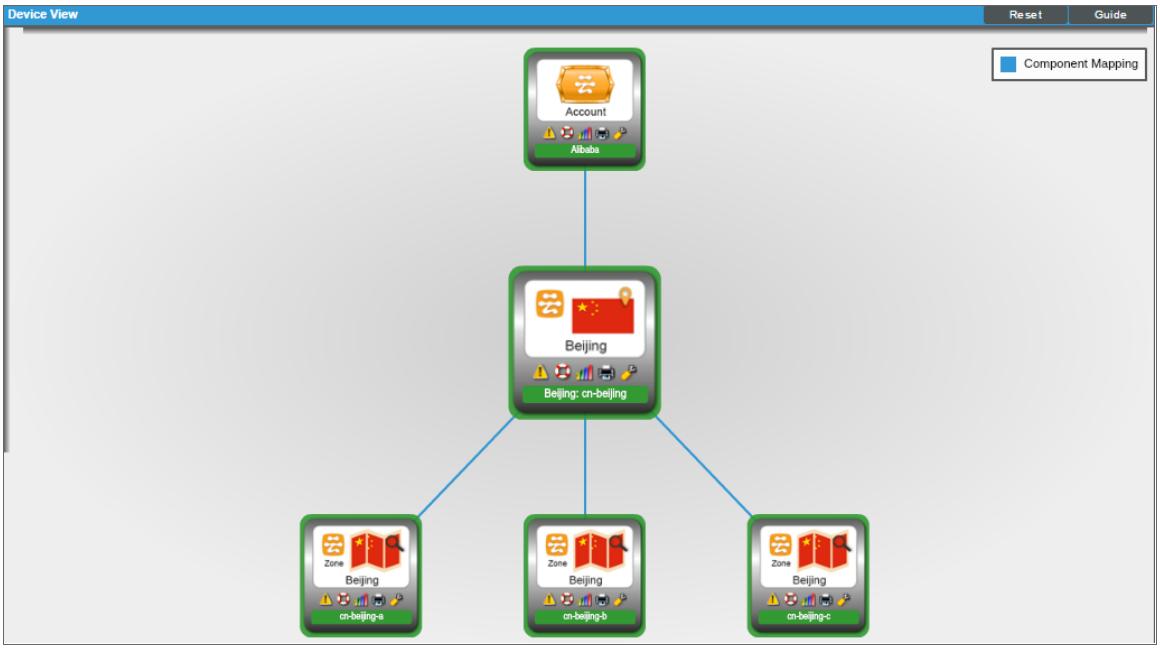
- The **Device Components** page (Devices > Device Components) displays a list of all root devices and component devices discovered by SL1. The **Device Components** page displays all root devices and component devices in an indented view, so you can easily view the hierarchy and relationships between child devices, parent devices, and root devices. To view the component devices associated with an Aliyun service, find the Aliyun virtual device and click its plus icon (+).

- The **Component Map** page (Classic Maps > Device Maps > Components) allows you to view devices by root node and view the relationships between root nodes, parent components, and child components in a map. This makes it easy to visualize and manage root nodes and their components. SL1 automatically updates the **Component Map** as new component devices are discovered. The platform also updates each map with the latest status and event information. To view the map for an Aliyun service, go to the **Component Map** page and select the map from the list in the left NavBar. To learn more about the **Component Map** page, see the ***Views*** manual.

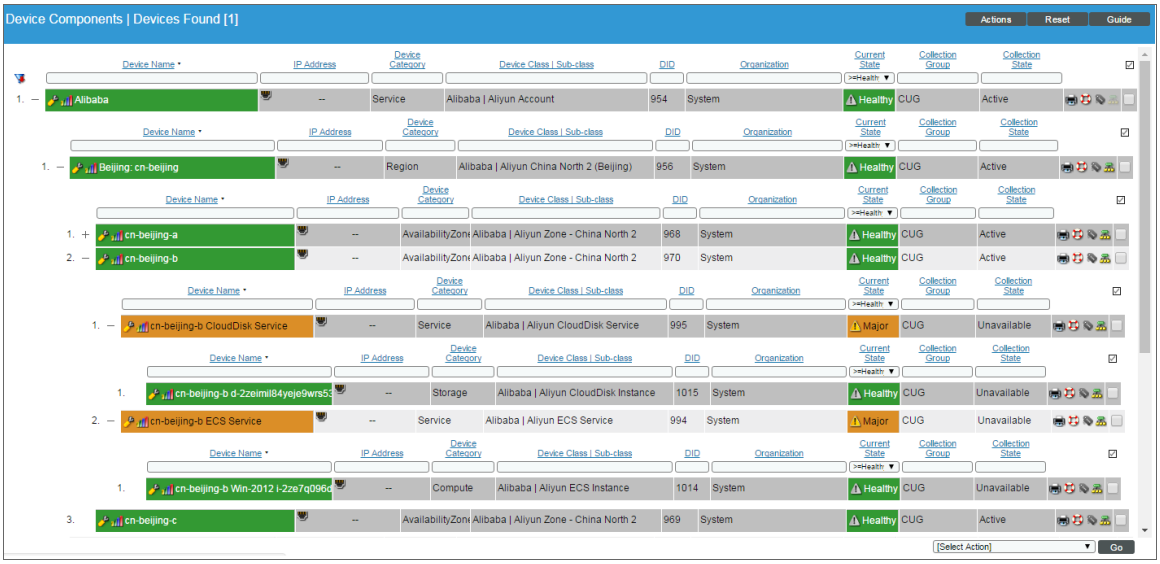
# Viewing Aliyun Component Devices in the SL1 Classic User Interface

In addition to the **Device Manager** page (Registry > Devices > Device Manager), you can view the Aliyun service and all associated component devices in the following places in the user interface:

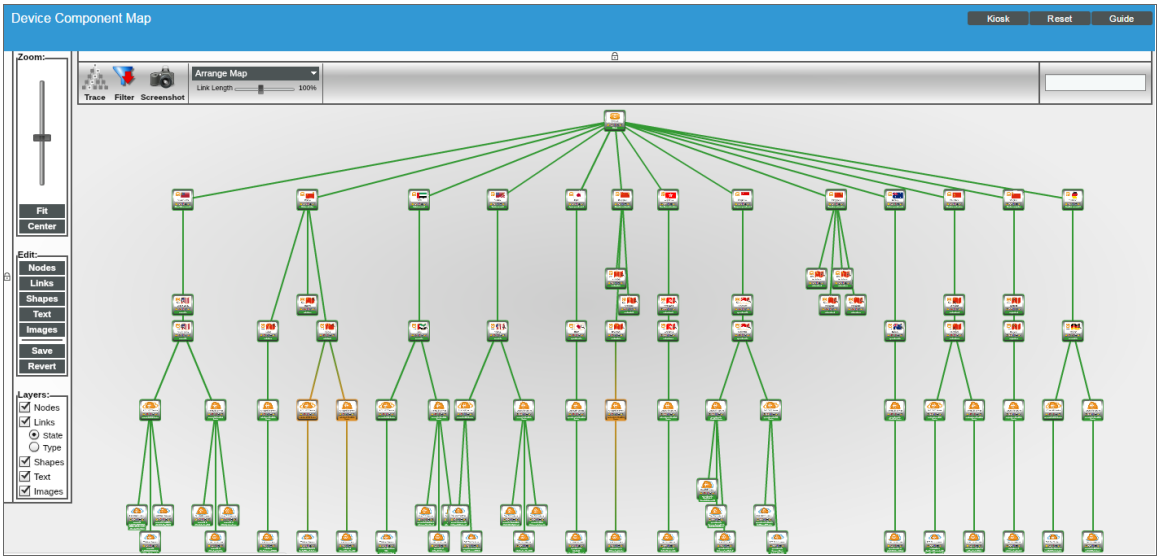
- The **Device View** modal page (Registry > Devices > Device Manager > graph icon > Topology) displays a map of a particular device and all of the devices with which it has parent-child relationships. Double-clicking any of the devices listed reloads the page with the selected device as the primary device:



- The **Device Components** page (Registry > Devices > Device Components) displays a list of all root devices and component devices discovered by SL1 in an indented view, so you can easily view the hierarchy and relationships between child devices, parent devices, and root devices. To view the component devices associated with the Aliyun service, find the Aliyun virtual device and click its plus icon (+):




- The **Component Map** page (Classic Maps > Device Maps > Components) allows you to view devices by root node and view a map of the relationships between root nodes, parent components, and child components. This makes it easy to visualize and manage root nodes and their components. SL1 automatically updates the **Component Map** as new component devices are discovered. The platform also updates each map with the latest status and event information. To view the map for the Aliyun service, go to the **Component Map** page and select the map from the list in the left NavBar. To learn more about the **Component Map** page, see the ***Views*** manual.



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