Epic Games - Cloud Developer Platform

Using aop with Substrate

Document Level Classification

[100](#)

Introduction

aop is a command-line utility that helps you login to AWS accounts and K8S clusters managed by Epic Games.

Installing or Upgrading aop

Installing aop is one of the prerequisites for developing on Substrate and is part of the developer toolchain. If you have not yet installed the developer toolchain for the first time, you can refer to the [Prerequisites](#) under [Getting started with Substrate](#).

If you have already completed the [Prerequisites](#) previously and you are only installing or upgrading aop you can accomplish this using the instructions below.

Okta Verify

After installation, make sure to proceed to the next section for [Okta Verify](#).

Mosaic macros cannot be exported to this format.

Direct Download

You can also install a binary from a direct download on the following platforms. Once downloaded, extract the binary and place the extracted binary in your systems PATH.

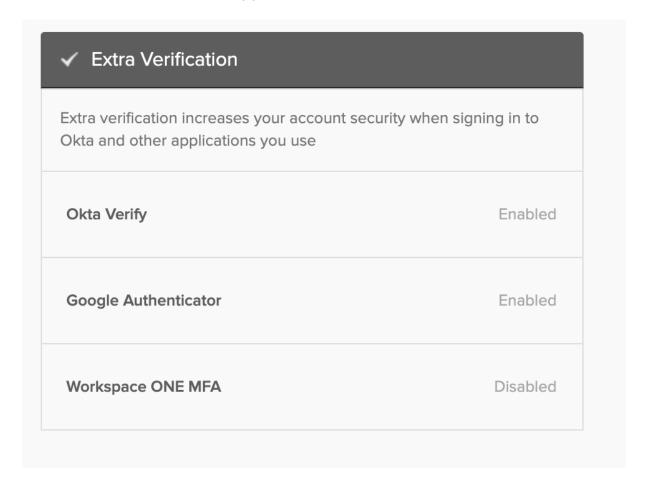| [Linux](#)	[MacOS (Intel)](#)	[MacOS (ARM)](#)	[Windows](#)

Okta Verify

After installation, make sure to proceed to the next section for [Okta Verify](#).

Okta Verify

You will also need to install the Okta Verify app on your phone in order to respond to 2fa challenges during login. Download the Okta Verify app on your smartphone first.

[Android](#)	[iOS](#)

Next, activate Okta Verify in your [Okta account](#). Tip: Click the green "Edit Profile" button to add the app.

Scan the QR code to finish the process and follow the next steps.

Usage

The command line reference for using aop can be found here [AWS/AOP/ K8S SSO Cheat Sheet](#).

Instructions for using aop with substrate infrastructure from the cli can be found here [Accessing your Substrate infrastructure using a Terminal Session (CLI)](#)

Frequently Encountered Errors

ListAccountRoles, exceeded maximum number of attempts, 3, https response error StatusCode: 429, RequestID: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx, TooManyRequestsException: HTTP 429 Unknown Code

Error: Unable to get role page: operation error SSO: ListAccountRoles, exceeded maximum number of attempts, 3, https response error StatusCode: 429, RequestID: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx, TooManyRequestsException: HTTP 429 Unknown Code

Both of the errors above were related to an issue that has since been fixed in [aop version 1.13.7](#). If this error is encountered please upgrade to the latest version using the instructions above.

Support

Team / Contact	Online Infra Platform <online-infra-platform@epicgames.com>

	Cloud Infrastructure Engineering - Tooling <[#cloud-tooling-ext](#)>
Slack Channel	[#cloud-ops-support-ext](#)
Pager	ShitHappens: team-online-infra-sec Email: [online_infra_sec_email@epicgames.opsgenie.net](#)