



State Data Platform Standard

Introduction

Google Cloud Platform is the state data platform for the State of Oklahoma Modern Data Strategy.

Purpose

The purpose of this document is to describe and identify the state standards for GCP and to outline its intended use as the established SDP.

Definitions

Google Cloud Platform – Provides infrastructure as a service, service platform and serverless computing environments, in addition to other cloud service offerings.

BigQuery – A GCP Scalable managed enterprise data warehouse for analytics.

Hub and spoke model – A distribution method where a centralized hub exists. Data can be shared or exchanged upon registration and approval by the authorized agency data owner. Data must be stored in an agency spoke to be registered on the hub. A centralized data catalog provides the ability for an authorized consumer to view the schema. Agencies may use their spoke functionalities without registering or sharing data in the hub. In GCP, agency spokes are containerized and masked from other agencies or individual view.

Standard

The primary purpose of the SDP is to provide a secure platform to replicate critical data sets from source to an agency spoke that delivers meaningful insight, improve quality, accuracy and timeliness of the key performance indicator's approved analytics and visualization, and enable AI/ML in a multi-cloud environment. However, as approved GCP/SDP may be utilized for transactional datasets allowing for agencies to rapidly scale application and respond to market shifts delivering cloud-based services.

All access to GCP must be in accordance with the state security provisioning standards, active directory and Azure Active Directory. Per state access provisioning, all GCP access service accounts must be provided in accordance with an established provisioning standard with a ServiceNow request ticket.

All agencies must procure GCP services, either as a pay-as-you-go agreement or a negotiated enterprise agreement to control overage charges. Agency data is prohibited from being stored on GCP outside of the approved ok.gov domain. Exceptions must receive written approval from the State of Oklahoma chief information officer.

To achieve maximum benefits from the GCP environment, the following services are approved but not limited to:

- Compute.
 - App Engine.
 - Google Kubernetes Engine.
 - Cloud Functions.
 - Cloud Run.

- Storage and databases.
 - Cloud Storage.
 - Cloud SQL.
 - Cloud DataStore.
- Big data.
 - BigQuery.
 - Cloud DataFlow.
 - Cloud DataProc.
 - Cloud Composer.
 - Cloud Dataprep.
 - Cloud Pub/Sub.
 - Cloud Data Studio.
- Management tools.
 - Cloud Console.
 - Cloud Shell.
 - Operations Suite.
 - Cloud Deployment Manager.
- Identity and security.
 - Cloud Identity.
 - Cloud IAM.
 - Cloud Data Loss Prevention.
 - Cloud Security Command Center.
- Location of data and procedures: Critical production data and processes must be stored and replicated in at least two regional zones to ensure data sets and processes remain operational. Per federal, state and business classification and compliance standards, all agency data must be stored on U.S. soil and be hosted in the following approved regional priorities:
 - us-central.
 - us-east.
 - us-west.
 - us-**.

Data may only be deployed to other GCP zones outside the U.S. upon written approval from the State of Oklahoma chief information officer.

Compliance

This standard shall take effect upon publication and is made pursuant to Title 62 O.S. §§ 34.11.1 and 34.12 and Title 62 O.S. § 35.8. OMES IS may amend and publish the amended standards policies and standards at any time. Compliance is expected with all published policies and standards, and any published amendments thereof. Employees found in violation of this standard may be subject to disciplinary action, up to and including termination.

Rationale

To coordinate and require central approval of state agency information technology purchases and projects to enable the chief information officer to assess the needs and capabilities of state agencies as well as streamline and consolidate systems to ensure that the state delivers essential public services to its citizens in the most efficient manner at the lowest possible cost to taxpayers.

Revision history

This standard is subject to periodic review to ensure relevancy.

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Approved by: Joe McIntosh, Chief Information Officer	