Continuous Deployment Standard

Introduction
This document identifies the process for deploying code from a GitHub/Azure DevOps repository to the platform where the resources are hosted. Azure DevOps is used as the single control mechanism for both approval tracking and auditing purposes.

Purpose
The purpose of this document is to define a standard for automation/releasing software.

Definitions
Azure DevOps – This is a SaaS solution offered by Microsoft. It has the ability to host Git repositories and manage test plans, scrum boards, work items and other things needed for a better DevOps practice.

Pipeline – A pipeline is automation; Azure DevOps has two primary kinds: build and release.

Build pipeline – This type of pipeline is used for building and unit testing code.

Release pipeline – This type of pipeline is used for the actual deployment of the code to the hosting platform.

GitHub – This is a SaaS solution offered by Microsoft for hosting Git-based repositories.

Standard
Azure DevOps is to be used for all aspects of a code build and release. This is to make auditing needs simpler to track. Having a single control mechanism for orchestration of code builds to testing and ultimately to a release, gives a clearer view across all aspects of a deployment. Azure DevOps gives flexibility to not only deploy to Azure or OnPrem, but into any cloud platform. A release should be retained for a minimum of 30 days, and the last three releases should be retained. With the use of Azure DevOps, this retention policy is already set in place.

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.

References
- [Creating a CI/CD pipeline with Azure Pipelines and Compute Engine](#)
- [AWS Toolkit for Azure DevOps](#)
- [Configuring a CD pipeline for your Jenkins CI](#)

Revision history

This standard is subject to periodic review to ensure relevancy.

Effective date: 05/06/2022	**Review cycle:** Annual
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Approved by: Joe McIntosh, Chief Information Officer	