Agile Software Development Standard

Introduction
This document identifies a system for measuring and planning work. This system is adapted in part from the referenced 2020 Scrum Guide, with modifications to allow for scaling across multiple teams with consistent measurements.

Purpose
The purpose of the document is to standardize language and procedures regarding methodologies for agile software development utilized by OMES.

Definitions
Agile software development – Any means by which software is developed iteratively, allowing developers to adapt the team, product and process to changing circumstances.

Waterfall – A methodology used for linear development with a defined scope. OMES utilizes a modified version of waterfall designed to be consistent with agile principles and values.

Burndown – A graph detailing the rate of completion of work items.

Close rate – The percentage of story points completed over story points planned.

Kanban – An agile methodology used for linear development without defined scope.

Scrum – An agile methodology used for cyclical product improvement.

Sprint – A unit of work encompassing multiple work items with a defined deadline.

Story points – A numerical representation of the estimated amount of effort a task requires. This is represented using the Fibonacci sequence to illustrate the larger a task, the less precise the estimate will be.

Standard
OMES recognizes three distinct agile software development methodologies for the completion of software development tasks:

- Scrum – Scrum is an agile methodology that focuses on producing small units of value iteratively, then uses feedback from each iteration to guide the next iteration. Scrum provides the most value on projects that are part of a larger product where ongoing support and development will be needed over time. Most software development projects fall within this category.
- Kanban – Kanban is a linear agile methodology that focuses on efficiency. With Kanban, work items are added to a list, prioritized and worked individually. Kanban does not depend on a defined project and is well-suited to situations where work items may be added, removed or changed without notice. Kanban provides the most value to teams utilizing service tickets or small on-demand projects.
- Waterfall – Waterfall is a traditional software development strategy that relies on determining customer requirements before beginning work and delivering the product when work is complete. OMES manages waterfall as a variation of Scrum where work

items and acceptance criteria are planned during a project initiation and reviews are presented to internal stakeholders instead of customers. Waterfall is incredibly valuable for individual projects required to meet legal compliance, or where stakeholders are unable to participate in the planning and review process.

In all cases, OMES maintains the following standards to ensure teams' work is managed, completed and reported in coordination with other teams:

- All teams must maintain two-week sprints, regardless of methodology.
- Sprints must contain the following sprint ceremonies:
  - Sprint planning.
  - Daily standup.
  - Sprint review.
  - Sprint retrospective.
- All teams must provide a biweekly report with the following information:
  - The sprint goal and whether it was met, unless the team is using the Kanban methodology.
  - The amount of work planned in the sprint, expressed as story points.
  - The amount of work completed in the sprint, expressed as story points.
  - The close rate for the current sprint.
  - The average close rate over a period of the last six sprints.
  - The amount of unplanned work (expressed as a percentage of story points) added to the sprint after the sprint started.
  - The burndown for the current sprint.
  - The daily velocity for the current sprint.
  - The sprint velocity over a period of the last six sprints.
  - The names of the individuals that contributed to the sprint.

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

- The 2020 Scrum Guide.

Revision History

This standard is subject to periodic review to ensure relevancy.

Effective Date: 06/11/2024	**Review Cycle:** Annual
Last Revised: 06/11/2024	**Last Reviewed**: 04/07/2025
Approved By: Dan Cronin, Chief Information Officer	