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I. POLICY STATEMENT

A. Policy

It is the policy of the State of Colorado to coordinate and direct the effective management of technology investments throughout their entire life cycle. Further, it is the policy of the State of Colorado that all decisions regarding information technology (IT) investments (initial and continuing) must utilize the strategic approach referred to as the Life Cycle Management (LCM).

LCM is a business decision-making practice that considers benefits, costs and risks (to the entire environment) over the full life cycle (inserting, supporting, and removing) of a product and/or service. IT LCM emphasizes that decisions regarding investments should be based on – in addition to the best practice of utilizing a broad set of criteria (i.e. benefits, costs, etc) – the evaluation of said criteria over the technology's full life cycle (i.e. acquisition costs, deployment costs, supporting costs, maintenance costs, retirement costs). Consideration of impacts across the full timeline is key to enhancing the quality of the investment decisions.

B. Statutory Authority

CRS 24-37.5-101(1)(g); CRS 24-37.5-106 (1)(e); and CRS 24-37.5-204.

C. Coordinating Agency Authority

1) Executive Director of the Department of Personnel and Administration (DPA) – CRS 24-37.5-106 (1)(e); and
2) Commission on Information Management (IMC) – CRS 24-37.5-106 (1)(e).

II. PURPOSE

The purpose of this policy is to ensure the effective management of technology investments throughout their entire life cycle. Moreover, it identifies a successful approach for determining, over time, what key technologies to implement as well as deciding how and when to implement them into the enterprise.

The primary goals of this policy are to encourage investment in that technology which:

1) will work effectively within the current and planned IT enterprise architecture; as well as
2) is efficient to maintain and enhance.

In following, key objectives of this policy are to foster:

A. More effective planning.

Better alignment of technology utilization with the strategic goals of the organization it supports. LCM enables proactive rather than reactive support for the future. This can free time to focus on more thorough planning, critical in reducing costly errors of judgment, to:

- Develop quality solutions using identifiable, measurable, and repeatable processes,
- Establish an organizational structure with appropriate levels of authority to provide timely direction, coordination, control, review, and approval, and
- Identify technology risks early and manage them before they become problems.

B. More efficient budgeting.

Achieving optimum utilization of technology resources as well as reducing the need for emergency expenditures or loss of current investment. LCM assists in stabilizing the costs of managing the technology infrastructure and provides a framework to:

- Deliver systems that integrate with and leverage the current and planned IT infrastructure,
- Deliver systems that are cost-effective to enhance and maintain,
- Identify and assign the roles and responsibilities of all stakeholders throughout the investment life cycle, and
- Provide visibility and comprehensive information to functional and technical managers for all technology resource requirements and expenditures.

C. More responsive adaptation.

Providing the right services to the people who need them – when and where they need them. LCM allows IT staff to quickly identify gaps in the alignment between IT and changing business requirements. Staff can also reduce the risks of deploying and updating technology by doing it correctly the first time. Responsive adaptation enables staff to:

- Deliver quality solutions which meet or exceed customer expectations including promised schedules and cost estimates,
- Confirm business requirements are well defined and subsequently satisfied, and
- Seek technology management accountability.

III. SCOPE OF POLICY

This policy applies to all State agencies as defined in CRS 24-37.5-102(5).

IV. EXEMPTIONS

Colorado state government is a complex enterprise comprised of many heterogeneous lines of business serving a diverse constituency. Therefore, it is recognized there may be instances where exceptions shall be considered by the IMC.

Requests for exception must meet at least one of the following criteria:

- an unforeseen event (e.g. accident, emergency);
- a chance or unplanned event (e.g. contingency, mandate)

Exceptions will be handled on a case-by-case basis. Agencies are discouraged from filing a request for exemption from this policy.

V. RELATED POLICIES, STANDARDS, AND GUIDELINES

A. Related Policies

- ***Aggregation*:** Consider LCM in defining and establishing the scope and timing of aggregation efforts.
- ***Interoperability:*** LCM affects the scope and timing for achieving interoperability.
- ***Privacy*:** LCM affects the scope and timing of purchases so as to best leverage the State's investments to protect electronic privacy.
- ***IT Procurement:*** LCM promotes effective management of IT procurement throughout the entire lifecycle.
- ***Security*:** The dynamic nature of security requires, using LCM, constant evaluation and updating of practices to maintain appropriate security. Unforeseen security events can suddenly change component life cycles.

B. Related Standards

- Life Cycle IT Asset Management – capture data elements along each assets life cycle.

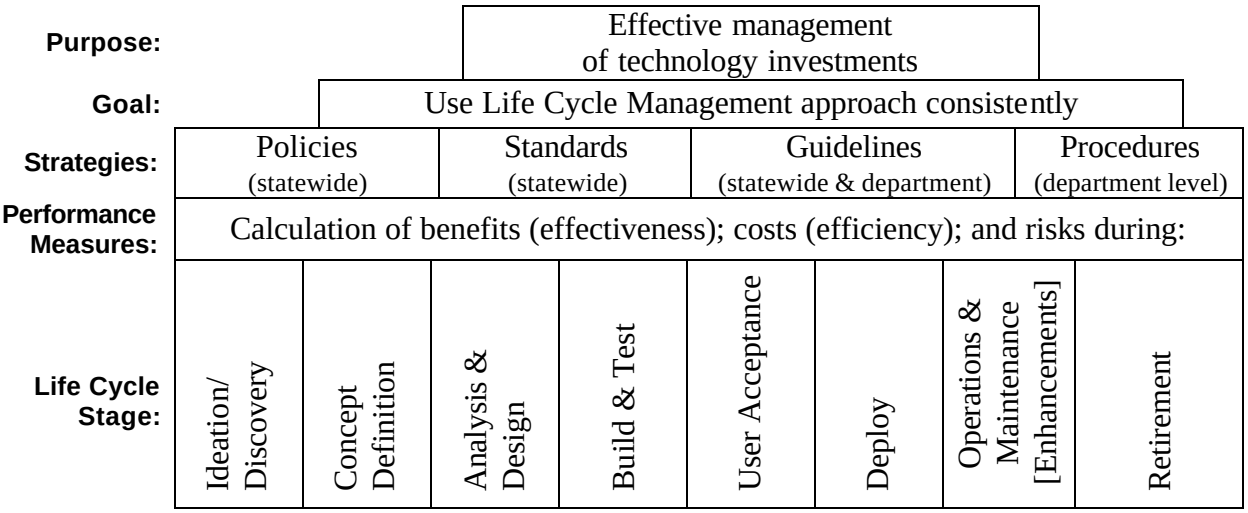
C. Related Guidelines

- IT Life Cycle Management and Governance Process
- Total Cost of Ownership – a calculation of all costs related to technology assets throughout their life cycle from acquisition to disposal.

VI. IMPACT

Best practices show that to effectively manage overall IT costs, one must determine the impact of decisions made at each of the successive stages of a technology investment's life on that stage, any subsequent stages, and possibly any prior stage.

This level of decision support requires a management approach institutionalized in policies, standards, and procedures, which facilitate the evaluation of investment criteria over a comprehensive timeline (i.e. ideation/discovery, concept definition, analysis & design, build & test, user acceptance, operations & maintenance, and retirement). Such a framework is outlined in the graphic below.



A. Implementation

OIT will provide the leadership necessary to develop the statewide pieces including policies, standards, and guidelines. Additionally, as appropriate, OIT will develop universal procedures such as budget instructions, documentation templates, review meetings and associated consultation.

All state agencies should identify and review their IT investment decision-making processes – including:

- Data management (e.g. asset management, change management, problem management, purchasing management, service level management),
- Software and other tools,

- Staff (i.e. skills, roles),
- To confirm their capability to collect and analyze data from along the full expected life cycle of any proposed technology investment.

Use of the LCM approach must be documented, to the appropriate level of breadth and depth, in every technology investment proposal.

B. Compliance

State agencies shall provide satisfactory evidence of compliance with this policy upon the request of OIT or OSPB. Failure to comply with this policy may result in OIT:

a) Recommending investments submitted as a budget request be disapproved, and/or
b) Disapproving investments submitted as a procurement request.

VI. MAINTENANCE

Technological advances and changes in the business requirements of agencies may necessitate periodic revisions to this policy. Policy will be reviewed and updated as appropriate and/or at least annually.

VII. EFFECTIVE DATE

This policy shall be effective from the date of approval by the Chief Technology Officer of the State of Colorado.