INTERNAL MANAGEMENT POLICY & PROCEDURE

Department of Corrections

Applicability: ☐ Adult Operation Only   ☐ JUVENILE Operations Only   ☒ DEPARTMENT-WIDE

INFORMATION TECHNOLOGY & RECORDS: Application Structure Management

Original Date Issued: 04-06-15   Replaces IMPP Issued: 04-06-15   CURRENT EFFECTIVE DATE: 04-25-23

Approved By: _____, **Secretary**   **Next Scheduled Review:** 05/2026

POLICY

Applications developed within the Department of Corrections shall comply with Statewide and Department architectures. Applications shall be capable of interacting with other Departments and selected statewide applications and databases.

DEFINITIONS

Data Abstraction/Object Oriented: A style in which data elements are defined in generic "classes" of objects and are populated with values as instances of each class are created.

Distributed: An architecture style that contains separate processes that communicate with each other via structured messages.

Event-based, Implicit Invocation: An architecture style that allows for separate processes to become activated based on an event or condition that is transmitted between processes.

Hierarchical Program: Programming style that uses a single main program to act as a driver for any number of subroutines, which may explicitly invoke internal routines.

Layered: Hierarchically designed architecture that contains a series of applications that act independently but support adjoining layers.

Pipes and Filters: An architectural style that allows for each process in a system to respond to a specific set of inputs and delivers a specific set of outputs.

Repository: A physical resource (disk device or memory) that allows for independent processes or applications that post data to and retrieve data from a single data store.

PROCEDURES

I.   Application Structure

    A.   All Application Development staff shall utilize application structures that are identified in the Kansas Statewide Technical Architecture that include one or more approved architectural styles:

        1.   Hierarchical Program;

        2.   Layered;

        3.   Distributed;

4.   Event-Based, Implicit Invocation;

5.   Repository;

6.   Pipes and Filters; or

7.   Data Abstraction / Object Oriented.

B.   This applies to all applications developed, maintained and implemented as a project or are mission critical for the agency, shared over data communications lines, or are supported by the agency's IT division.

C.   This type of structured architecture shall assist the agency in planning, defining, developing, and documenting application software. Successful utilization promotes:

1.   Identification of application structural techniques to meet a business problem;

2.   Tracking of key requirements to ensure inclusion;

3.   Proper management of resources and their allocation;

4.   Identification of design inconsistencies and resolution to those issues;

5.   Collective decision-making and collaboration; and

6.   Retention of information critical for long-term support, audits and system documentation.

D.   Application planning shall consider the following:

1.   <u>Development;</u>

2.   Deployment;

3.   Operational Support;

4.   Service Level Planning; and

5.   Reporting.

II.   Responsibilities:

A.   The Chief Information Officer or designee shall:

1.   Verify components developed or purchased for an application conform to the architectural structure defined for the application, and

2.   Develop a naming convention for all system component types.

B.   The Project Manager shall:

1.   Analyze architectural styles from the below perspectives:

a.   Conceptual View;

b.   Model View;

c.   Design View; and

d.   Physical View.

2. Determine the business processes affected by the application and resolves issues concerning integration, financial support and available resources.

3. Implement application development, management, structure and design disciplines in the planning and execution of application development projects.

4. Employ version control techniques over the system development.

5. Confirm the below deliverables are required outputs for any application development project. These products or deliverables include the following, as described in the Kansas State-wide Technical Architecture:

   a. Detailed System Design;

   b. General System Design;

   c. Needs Analysis;

   d. Project Plan;

   e. Source Code;

   f. System Concept;

   g. System Procedures;

   h. Test Plan; and

   i. Training Plan.

C. The Lead Developer shall:

   1. Identify the specific architectural structure for the application.

III. This IMPP shall serve as final policy in all departmental facilities, and no General Orders shall be developed or implemented on this subject.

NOTE: The policy and procedures set forth herein are intended to establish directives and guidelines for staff and offenders and those entities who are contractually bound to adhere to them. They are not intended to establish State created liberty interests for employees or offenders, or an independent duty owed by the Department of Corrections to employees, offenders, or third parties. Similarly, those references to the standards of various accrediting entities as may be contained within this document are included solely to manifest the commonality of purpose and direction as shared by the content of the document and the content of the referenced standards. Any such references within this document neither imply accredited status by a departmental facility or organizational unit, nor indicate compliance with the standards so cited. The policy and procedures contained within this document are intended to be compliant with all applicable statutes and/or regulatory requirements of the Federal Government and the state of Kansas. This policy and procedure is not intended to establish or create new constitutional rights or to enlarge or expand upon existing constitutional rights or duties.

REPORTS

None.

REFERENCES

None.

HISTORY

04-06-15 Original
04-25-23 Revision 1

ATTACHMENTS

None.