Architectural Principles for Oakland County Information Technology

Introduction

Architectural Principles are general rules and guidelines that endure to establish our IT culture and how we deliver upon our mission. These principles will be used in our decision-making process and become a core part of our decision-making fabric.

How the Principles Are Created

The Architecture team will define the initial set of principles based upon our current environment but more importantly to serve as a beacon for where we want to be. Things that will impact the creation of our principles include:

- Our Mission and Plans
- Strategic Initiatives
- Technology Vision
- External Factors
- Best Practices

The list of principles will be reviewed and approved by the EA Governance Board. The EA Governance Board will need to approve any additions, changes or deletions of our principles.

Additions and changes can be submitted to any member of the Architecture team for vetting. If needed, the Architecture Team will prepare the principle for EA Governance Board Review.

Areas of Focus

Our principles will have six areas of focus.

Focus Area	Description
Governance	Statements related to how we govern and enforce our standards and principles.
Business	Statements that impact how our business operates
Technology	Statements that impact how our technology functions
Application	Statements that impact our application development processes
Data	Statements that impact our data
Security	Statements that impact our security

How to Read the Architectural Principles

Number and Statement: a unique number to identify the principle combined with a statement of the principle. The statement is a clear description that everyone has to be able to understand.

Area: identify the focus area(s) that the principle applies to

Rationale: The mapping back to why it is important.

Implications: What it means to have this principle

Architectural Principles

Number 1:

Teams within IT will agree and abide by the architectural principles.

Area: Governance

Rationale: It is the only way we can be consistent in our approach to IT and ensure alignment to our future.

Implications:

- Without the principle, we will fail to make consistent progress toward our end state vision and goals.
- Projects and initiatives will align to our principles to be completed.
- A conflict between an initiative and a principle will need to be reviewed by the EA Governance Board for resolution.

Number 2:

Decisions will be made to provide maximum benefit to the entire enterprise.

Area: Governance

Rationale: An enterprise decision will provide more benefit to IT compared to a silo or domain centric decision.

Implications:

- Application priorities need to be established across the enterprise before work begins
- Application development should seek to create reusable solutions for enterprise benefit

- Some domains may need to alter their processes to align with our principles.

Number 3:

Enterprise operations are maintained in spite of system interruptions.

Area: Business, Technology, Application

Rationale: As more systems use enterprise solutions, it becomes critical that they remain scalable and available.

Implications:

- Interruptions to service need to be managed from cradle to grave.
- Solutions need to be periodically reviewed and undergo a health check.
- Business continuity is critical so design practices may change to include impact assessment.

Number 4:

Organizations, enterprise building blocks, technologies and applications will comply with relevant laws and regulations.

Area: Business, Application, Security, Data

Rationale: We do not want to open ourselves to unneeded risk and the potential of lawsuits.

Implications:

- The enterprise will ensure that laws are adhered to including PCI, PII and CJIS.
- Everyone will understand the applicable laws.
- A change in a policy can affect many systems.

Number 5:

Enterprise building blocks will be created in a manner that allows for reuse by other teams, agencies and CVTs.

Area: Business, Application, Technology, Security and Data

Rationale: We want to create solutions that can help others and be a hosted solution.

Implications:

- Enterprise building blocks code and design will be easily reusable.
- Business process will be clearly understood.

Number 6:

Organizations in the enterprise participate in information management decisions needed to accomplish business objectives.

Area: Business, Application, Technology, Security and Data

Rationale: Information users are the key stakeholders in the application of technology to address a business need. In order to ensure information management is aligned with the business, IT will engage stakeholders of the information environment when needed.

Implications:

- IT will engage stakeholders for developing and maintaining the information environment
- Resources will be committed to implement this principle through their work

Number 7:

Data is a shared asset that has value to the enterprise and is managed and protected accordingly while remaining accessible.

Area: Business, Application, Technology, Security and Data

Rationale: The right data will be available at the right time and right place to enable decision making

Implications:

- The roles of data guardian and data steward will be created for each critical data element. These individuals will ensure the quality and availability of the element to the correct people.
- Data stewards will suggest application enhancements to improve the quality and sustainability of a critical data element
- Data principles and standards will be incorporated into our project delivery process
- Data security and data sharing may come in conflict. Under no circumstances will data sharing be permitted if it compromises confidential information.
- Common data will be easily accessible for reuse throughout the organization
- Access to data does not grant the user rights to modify or disclose the information. The data owner is the only one who can change or disclose information.

- Data and surrounding operations will be secured to our enterprise standards. If a standard does not exist, a new standard will be created to ensure asset protection.

Number 8:

Our technical standards will be followed in the development and procurement of applications.

Area: Application, Technology, Governance and Security

Rationale: The standards are created to simplify our environment, reduce costs and increase reliability.

Implications:

- The application development team will engage Architecture and Technology teams in planning and design to ensure alignment with standards.
- Any deviations from the standards will be approved by Architecture and then the EA Governance Board.
- Standards will be updated once a year to ensure they remain current.
- Annually an Application and Technology Health Check will be performed and systems/applications that do not pass will be upgraded