



**Maine State Government  
Dept. of Administrative & Financial Services  
Office of Information Technology (OIT)**

## **Microsoft Low-Code Governance**

### **1.0. Purpose**

1.1. This document captures the guidance details for the State of Maine Executive Branch with respect to three Microsoft low-code platforms: [Power Automate](https://powerautomate.microsoft.com/en-us/)<sup>1</sup> (previously known as Flow), [Power Applications](https://powerapps.microsoft.com/en-us/),<sup>2</sup> and [Dynamics 365](https://dynamics.microsoft.com/en-us/).<sup>3</sup> The intent is to help both the agencies and OIT to create and maintain Microsoft low-code applications in a sustainable way by complying with industry best practices.

### **2.0. Governance Framework**

#### **2.1. Governance Committee**

2.1.1. The Maine State Executive Branch has created a Microsoft Low-code Platform Governance Committee to oversee the utilization of the Microsoft low-code platforms within the Maine State Executive Branch. The following persons/roles/designates are members of this committee:

2.1.1.1. OIT Enterprise Architect (Committee Chair);

2.1.1.2. OIT Director, Computing Infrastructure & Services;

2.1.1.3. OIT Executive Director, Enterprise Shared Services;

2.1.1.4. Any OIT Application Director with investment in the Microsoft low-code platforms; and

2.1.1.5. Representation from each of the stakeholder Departments that are either already invested, or seriously considering investing, in the Microsoft low-code platforms. It may be important to have these Department representatives be familiar with these tools.

#### **2.2. Governance Framework**

2.2.1. The State of Maine instance of all of these Microsoft low-code platforms are hosted in the Microsoft Government Community Cloud. This provides various built-in integrations with the Office 365 ecosystem, such as interface with the enterprise Active Directory.

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<sup>1</sup> <https://powerautomate.microsoft.com/en-us/>

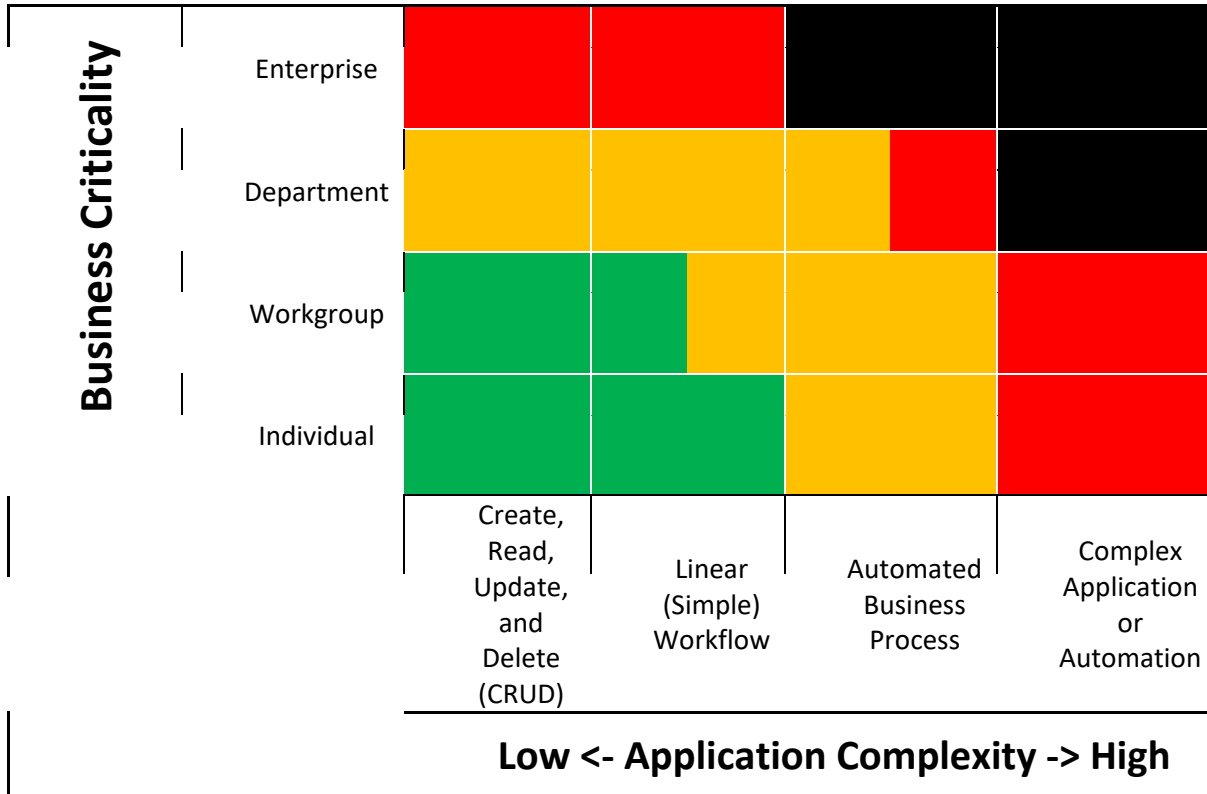
<sup>2</sup> <https://powerapps.microsoft.com/en-us/>

<sup>3</sup> <https://dynamics.microsoft.com/en-us/>

## Microsoft Low-Code Governance

2.2.2. The Governance Framework defines four color-coded tiers of applications created in these Microsoft low-code platforms. (This model was adapted from a Gartner paper.)

- Black - Created and maintained by OIT
- Red - Oversight by OIT
- Yellow - Co-supported with other agency makers & super users
- Green - Self-sustaining for individual agency makers



2.2.3. The matrix above is intended to help make decisions about how complex and critical an application is. If the application is a simple create/read/update/delete files or records without much logic, it is likely low complexity. But as logic, branches, approvals, formulas, and filters are added to the application, it becomes more complex. If the application breaks and the agency has an easy workaround that can be implemented without a big inconvenience, it is likely lower criticality. But if the application breaks and agency cannot move forward at all, or can move forward with great difficulty, it is likely high criticality. OIT oversees red applications, and maintains black applications, because these are deemed so important that they cannot break without immediate OIT support.

## Microsoft Low-Code Governance

### 2.3. Use Cases for the Three Products

2.3.1. Some suggested high-level uses for the three products are provided below. This is not an exhaustive guidance. Agencies are strongly urged to discuss their business use cases with the OIT Applications Director for further guidance that is more tailored to their business use cases.

2.3.1.1. If it is about gluing together existing O365 products for internal users, then use Power Automate (Flow). Examples:

2.3.1.1.1. Email someone when an Excel file (located in OneDrive and/or SharePoint) is updated.

2.3.1.1.2. Incorporate a Microsoft Form to collect data from the public without extra expense.

2.3.1.1.3. Document-based approval workflows, as long as all the documents are located in OneDrive and/or SharePoint.

2.3.1.2. If it is about collecting data from authenticated/verified users, and/or about creating logical workflows, then use Power Applications. Examples:

2.3.1.2.1. Power Applications forms can be used for data entry, data viewing, or data editing.

2.3.1.2.2. Power Applications can be used on Android and iOS using the native Power Applications mobile app.

2.3.1.2.3. In order to utilize Power Applications for external users, a Portal add-on is needed at an additional cost.

2.3.1.3. If it is about taking advantage of pre-built, sophisticated applications that are model Power Applications under the cover, then use Dynamics 365. Presuming the agency business case mostly aligns with the pre-built offering, then there could be a significant cost advantage to starting from the pre-built package, as opposed to building a Power Application from scratch. Examples:

2.3.1.3.1. Customer Relationship Management

2.3.1.3.2. Case Management

2.3.1.3.3. Supply Chain Management

2.3.2. The following questions must be answered when an application enters the Red and Black categories:

2.3.2.1. Name of the requesting agency?

2.3.2.2. Name of the desired product (Power Automate, Power Applications (Flow), Dynamics 365)?

2.3.2.3. How will the application be identified (naming convention defined below)?

2.3.2.4. Briefly, what does the application do?

2.3.2.5. Who is the maker of this application?

2.3.2.6. Does the agency already have an existing environment of the Microsoft low-code platform?

## Microsoft Low-Code Governance

- 2.3.2.7. Will the application transact in any data classified at Traffic Light Protocol (TLP): Amber, or TLP: Red, as defined in the [Data Classification Policy](#)?<sup>4</sup>
- 2.3.2.8. How many internal (State of Maine) users are projected to consume this application? Do they already have a dedicated Active Directory Group? If not, suggest a name for creating such a Group.
- 2.3.2.9. Does this application require the external web portal for consumption by external (non-State of Maine) users?
- 2.3.2.10. Does this application require Connectors? Does this App require [Premium Connectors](#)?<sup>5</sup>
- 2.3.2.11. Does the application require an App Maker Account (i.e., an account different from a personal Office 365 account)?
- 2.3.2.12. What is the business criticality level of this application? (Low if the cessation of the functioning of this app still enables the agency to conduct its essential business; High if the cessation of the functioning of this app prevents the agency from conducting its essential business.)
- 2.3.2.13. Who supports this Application? Makers? Other Power Users? OIT?
- 2.3.2.14. Is there any history of prior requests (approved/denied) by the Microsoft Low-code Platform Governance Committee?
- 2.3.2.15. Has this application already been approved by the Microsoft Low-code Platform Governance Committee?

### 3.0. Infrastructure

- 3.1. Basic functionality of Power Automate (Flow) and Power Applications are both available in the G3 license (which is the license most State of Maine employees have) at no extra expense. By default, G3 license holders have access to the default environment and default connectors. Premium licenses are Microsoft Per User licenses that grant users access to premium connectors and the Dataverse. A Per User license allows that user unrestricted access to any application in any environment. However, if a business unit chooses to just license a user one application at a time, a Per App license might make more economical sense. For Portal applications, both anonymous and authenticated external users require additional licensing. For further details, please refer to the OIT Service Catalog, and/or consult with the OIT Microsoft Low-code Platform Licensing Lead.
- 3.2. Data collected through Power Automate (Flow) and Power Applications is permitted to be stored in many destinations. However, the most obvious candidates are OneDrive and SharePoint.
- 3.3. A Connector is a wrapper around an application programming interface (API) that allows the underlying service to talk to a Microsoft low-code platform. It provides a way for users to leverage a set of pre-built actions and triggers to build their

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<sup>4</sup> <https://www.maine.gov/oit/sites/maine.gov/oit/files/inline-files/DataClassificationPolicy.pdf>

<sup>5</sup> <https://powerautomate.microsoft.com/en-us/connectors/>

## Microsoft Low-Code Governance

applications. Some connectors are an interface to an external service, i.e., a service that is external to the State of Maine Office 365. Microsoft maintains a rich [catalog](#)<sup>6</sup> of connectors. Premium connectors are those that require an extra fee beyond the baseline G3 license. The premium connectors are identified with the diamond icon in the catalog. One of the most important premium connectors is the interface to on-prem data sources.

- 3.4. [Dataverse](#)<sup>7</sup> (previously called Common Data Service) consumption is only available with an elevated Per User license, for the maker and user (at extra cost). Dataverse is the default standard data structure for storing relational information. The reason to use the Dataverse is that it provides the data structures for commonly used objects, such as address, phone number, account, calendar, etc. Utilizing such pre-built objects can save development time. Another reason to use Dataverse is for storing complex relational data and any backend data of a model application.

### 4.0. Application Development and Management Practices

- 4.1. If the application is intended for anything other than personal use, especially, for Green and Yellow applications, it is recommended that a Department create a dedicated Departmental App Makers Active Directory Group. No matter which individual creates the application, they will share ownership with this entire group. Also, please note that just sharing application ownership does not actually share ownership of any ancillary resource that the application may need to function.
- 4.2. In the interest of business continuity, it is recommended that each version of an active application should be exported as a package (as a backup), and its ownership should be shared.
- 4.3. Canvas v. Model-Driven Applications
  - 4.3.1. In general, Microsoft low-code applications fall under [two categories](#):<sup>8</sup> Canvas and Model-driven. A Canvas application is built around the user experience, whereas, a Model-driven application is built around a preset data model. In general terms, Canvas applications may be easier to build from scratch, but may run into challenge scaling up later. Whereas, Model-driven applications face a higher challenge in building from scratch, while facing an easier path scaling up.
- 4.4. Life-Cycle Management
  - 4.4.1. A default environment is automatically created when a tenant is initially set up, which is available for all makers in that tenant. This default environment is meant to store only applications that are used only by individuals for personal productivity applications – not for business critical applications.

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<sup>6</sup> <https://docs.microsoft.com/en-us/connectors/connector-reference/>

<sup>7</sup> <https://docs.microsoft.com/en-us/power-apps/maker/data-platform/data-platform-intro>

<sup>8</sup> <https://docs.microsoft.com/en-us/power-apps/maker/>

## Microsoft Low-Code Governance

- 4.4.2. None of the Microsoft Low-code platform products comes with a built-in, life-cycle manager for promoting applications from lower environments into production. Therefore, lower environments must be simulated through standalone instances, with explicit naming conventions. By default, the standalone name for the application signifies the production instance, whereas the lower environments are identified by suffixes. Thus, “HRMS Dev”, “HRMS Test”, and “HRMS Staging” are lower environments; whereas, the unqualified “HRMS” is the production application. The same naming convention applies to Portal applications as well.
- 4.4.3. Even for applications in the Green and Yellow categories, those deemed business-critical by the agency should have at least two Instances: production and non-production. For any application in the Red and Black categories, two environments constitute the minimum requirement.
- 4.4.4. Microsoft provides detailed [Life-cycle Management Best Practices](#)<sup>9</sup> that are strongly recommended. This is especially critical in migrating applications through their development and deployment lifecycle.
- 4.4.5. Each environment can be pegged to one or more Active Directory groups, subjected to its own data loss prevention policies, as well as permission to premium connectors. The Microsoft Low-code Platform Governance Committee will meet monthly to review the new connectors added to the tenant and determine if they should be allowed by tenant users or not. The data loss prevention policies will be adjusted to reflect that determination.
- 4.4.6. Besides the default Active Directory group(s) associated with the environment, and the application, the application administrator may also handcraft authorizations (i.e., rights and privileges) amongst the entire State of Maine Active Directory population.
- 4.4.7. Applications in the Red and Black categories must have an independent entry in the [Applications Inventory](#)<sup>10</sup> (intranet only). Please contact the relevant OIT Application Director for guidance.
- 4.4.8. Applications in the Red and Black categories are required to complete the [OIT Application Deployment Certification Policy](#)<sup>11</sup> prior to being deployed into production. Deployment certification helps ensure that applications are secure, accessible, and compliant with all information technology policies. The time required to complete the deployment certification process is variable based on application complexity. For accessibility and security

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<sup>9</sup> <https://docs.microsoft.com/en-us/power-platform/alm/basics-alm>

<sup>10</sup> [https://portal.lb.state.me.us/appinv/appinvgui.app\\_inventory.menu](https://portal.lb.state.me.us/appinv/appinvgui.app_inventory.menu)

<sup>11</sup> <https://www.maine.gov/oit/sites/main.gov.oit/files/inline-files/ApplicationDeploymentCertification.pdf>

## Microsoft Low-Code Governance

testing, the target service level agreement is two (2) weeks. Please contact the relevant OIT Application Director for further guidance.

### 4.5. Power Platform Administration Roles

4.5.1. In general, Microsoft provides two kinds of Administration roles:

4.5.1.1. [Tenant-wide Admin Roles](#):<sup>12</sup> These roles are reserved for OIT personnel.

4.5.1.2. [Environment-specific Admin Roles](#):<sup>13</sup> These roles may be delegated to Agency makers on a case-by-case basis.

### 4.6. Dynamics 365

4.6.1. Due to their intrinsic complexity, all Dynamics 365 applications belong to either Red, or Black, categories. This does not apply to a (legacy) Dynamics 365 environment that does not actually host a Dynamics 365 application. Any use of Dynamics 365 always involves licenses beyond the baseline Office 365 subscription.

### 4.7. Support and Troubleshooting

4.7.1. When reporting or troubleshooting application problems, makers and users should follow the escalation path as outlined in the accompanying document [Escalation Path for Power Platform](#).<sup>14</sup>

4.7.2. The Microsoft Low-code Platform Governance Committee is committed to identifying new Power Platform “champions” and include them in the State of Maine Microsoft365 Champions team to help support other app makers across the State of Maine.

## 5.0. Document Information

5.1. Initial Issue Date: August 21, 2021

5.2. Latest Revision Date: December 27, 2023

5.3. Point of Contact: [Enterprise.Architecture@maine.gov](mailto:Enterprise.Architecture@maine.gov)

5.4. Approved By: Chief Information Officer, OIT

5.5. Legal Citation: [Title 5, Chapter 163: Office of Information Technology](#)<sup>15</sup>

5.6. Waiver: [Waiver Policy](#)<sup>16</sup>

5.7. FOAA: [FOAA Policy](#)<sup>17</sup>

5.8. Distribution: [Internet](#)<sup>18</sup>

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<sup>12</sup> <https://docs.microsoft.com/en-us/power-platform/admin/use-service-admin-role-manage-tenant>

<sup>13</sup> <https://docs.microsoft.com/en-us/power-platform/admin/database-security>

<sup>14</sup> <https://www.maine.gov/oit/sites/maine.gov.oit/files/inline-files/PowerPlatformEscalationPath.pdf>

<sup>15</sup> <https://legislature.maine.gov/statutes/5/title5ch163sec0.html>

<sup>16</sup> <https://www.maine.gov/oit/sites/maine.gov.oit/files/inline-files/waiver.pdf>

<sup>17</sup> <https://www.maine.gov/oit/sites/maine.gov.oit/files/inline-files/FOAAPolicy.pdf>

<sup>18</sup> <https://www.maine.gov/oit/policies-standards>

## Microsoft Low-Code Governance

### 6.0. Definitions

- 6.1. **Dataverse:** A Microsoft solution that allows users to store and manage data used by business applications. Data within Dataverse is stored within a set of tables. App makers can then use Power Applications to build applications that use this data.
- 6.2. **Connector:** A proxy or a wrapper around an API that allows the underlying service to talk to Microsoft Power Automate, Microsoft Power Applications, and Azure Logic Apps. It provides a way for users to connect their accounts and leverage a set of prebuilt actions and triggers to build their apps and workflows.
- 6.3. **Low-Code Platform:** A platform that provides a development environment used to create applications through a graphical user interface.

### 7.0. Abbreviations

- 7.1. **API:** Application Programming Interface
- 7.2. **CRUD:** Create, Read, Update, and Delete
- 7.3. **OIT:** Office of Information Technology
- 7.4. **TLP:** Traffic Light Protocol