

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

COTS-Cloud Policy

1.0. Statement

1.1. The Office of Information Technology (OIT) is committed to minimizing the *Total Cost of Ownership (TCO)* for *Information Assets* across the enterprise. This includes leveraging existing Information Assets, where possible, to satisfy the business needs of multiple parties. It also includes strategically utilizing Commercial Off-The-Shelf (COTS) Information Assets, and the Commercial Public Cloud, where appropriate. This policy outlines the decision sequence for the acquisition and hosting of new/replacement Information Assets.

2.0. Definitions

- 2.1. *Account Manager:* Agency information technology customer liaison.
- 2.2. *Application Director:* Senior Manager within OIT responsible for delivery of application services to the Agencies.
- 2.3. *Information Assets:* The full spectrum of all I.T. products, including business applications, system software, development tools, utilities, appliances, etc.
- 2.4. *Infrastructure as a Service (laaS):* Computing infrastructure (e.g., Processor, Storage, Operating System, etc.) consumed from the Public Cloud.
- 2.5. *OIT Hosting:* Full-service, horizontal infrastructure platforms (e.g., Oracle database, Microsoft SQL database, Oracle Fusion Java Middleware, Microsoft Internet Information Services, VMWare ESxi, etc.) provided by OIT. The implementation of OIT Hosting is between two OIT divisions.
- 2.6. *OIT Housing:* Equipment that resides in an OIT data center, where OIT provides the physical security, uninterrupted electricity, climate control, rack space, Internet connectivity and network segmentation. The OIT Housing Vendor provides all other requirements.
- 2.7. *Platform as a Service (PaaS):* Development and/or Deployment framework consumed from the Public Cloud.

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2.8. *Software as a Service (SaaS):* End-user Information Asset consumed from the Public Cloud.

3.0. Applicability

- 3.1. This policy applies to:
 - 3.1.1. All State of Maine personnel, both employees and contractors;
 - 3.1.2. Executive Branch Information Assets, irrespective of hosting location; and
 - 3.1.3. Information Assets from other Maine State Government branches that use the State network.

4.0. Responsibilities

4.1. The Application Directors, the Account Managers, the Computing Infrastructure & Services Division, the Enterprise Data Service Division, the Enterprise Architect, and the Agency Business Partners collaborate toward satisfying this policy.

5.0. Directives

- 5.1. This section is about the product acquisition and can be summarized as *Reuse-Buy-Build*.
 - 5.1.1. The decision sequence for new/replacement Information Asset:
 - 5.1.1.1. Leverage current Information Asset for reuse
 - 5.1.1.2. Commercial Off the Shelf (COTS) Information Asset (highly-configurable)
 - 5.1.1.3. Custom developed Information Asset (OIT-Created)
 - 5.1.2 The best value from a sunk investment is to reuse it to the maximum extent possible. Therefore, leveraging existing Information Assets is the first option.
 - 5.1.3. Since Agency business partners have distinct business requirements, reuse of an existing Information Asset may not always be practical. When new Information Assets are necessary, consider COTS first. It is critical to select a COTS product that can be configured to meet business requirements, so that product customization may be reduced to the absolute minimum.
 - 5.1.3. Only if COTS is not viable, then in-house custom development may be considered. There must be compelling technical and/or business reasons to choose custom development.
- 5.2. Only after the product acquisition decision is made, the hosting decision is undertaken. This could be either Remote Hosting (Public Cloud or OIT Housing), or OIT Hosting.
- 5.3. The *Hosting-Customization Policy* identifies the applicable policies for each hosting

¹ https://www.maine.gov/oit/sites/maine.gov.oit/files/inline-files/hosting-customization-policy.pdf

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and customization scenario.

- 5.4. The *Hosting and Housing Policy*² identifies the differences between OIT Hosting and OIT Housing.
- 5.5. For both COTS and Custom products, the hosting decision should carefully consider all three options: Public Cloud, OIT Housing, and OIT Hosting. Each option must be evaluated, and the final decision made based upon the combined score of TCO, functionality/usability, and Cybersecurity.
- 5.6. Here are some of the considerations in evaluating the TCO amongst Public Cloud, OIT Housing, and OIT Hosting.

The Public Cloud is more likely to yield economies-of-scale, expense pegged to actual usage, as opposed to the peak provisioning, and reduced initial capital outlay. However, the Public Cloud also creates other challenges, such as regulatory compliance, network latency, and integration with the on-premises ecosystem.

OIT Hosting offers the tightest possible integration with the on-premises ecosystem, and minimizes network latency.

If, on the other hand, a willing vendor is available to assist in Housing of an Information Asset within an OIT data center, that could potentially offer a best-of-both-worlds solution.

- 5.7. Irrespective of the hosting option, Data remains a strategic asset for the State, and the State retains sovereign ownership of its own data at all times. For Public Cloud hosting, at the end of the engagement, the vendor must return back the State data at a mutually agreed-upon format. Also, while OIT handles the technical details, the Agency business units remain the fiduciary stewards of their data.
- 5.8. *To the extent the Public Cloud is chosen*, the order of preference is as follows:
 - 5.8.1. Public Cloud Software as a Service (SaaS)
 - 5.8.2. Public Cloud Platform as a Service (PaaS)
 - 5.8.3. Public Cloud *Infrastructure as a Service (IaaS)*

This sequence reflects both the order of implementation difficulty, as well as the distribution of Cybersecurity liability.

6.0. Document Information

- 6.1. Initial Issue Date: 3 February 2010
- 6.2. Latest Revision Date: 1 July 2019
- 6.3. Point of Contact: Enterprise.Architect@Maine.Gov

² https://www.maine.gov/oit/sites/maine.gov.oit/files/inline-files/hosting-housing-policy.pdf

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- 6.4. Approved By: Chief Information Officer, OIT
- 6.5. Legal Citation: <u>Title 5, Chapter 163: Office of Information Technology</u>³
- 6.6. Waiver Process: Waiver Policy⁴

³ https://legislature.maine.gov/statutes/5/title5ch163sec0.html

⁴ https://www.maine.gov/oit/sites/maine.gov.oit/files/inline-files/waiver.pdf