Information Technology Policy

Message-Oriented Middleware

ITP Number		Effective Date
ITP-INT001		September 7, 2006
Category		**Supersedes**
Information		None
Contact		**Scheduled Review**
RA-ITCentral@pa.gov		July 2022

1.   Purpose

This Information Technology Policy (ITP) establishes enterprise-wide standards and guidance for Message-Oriented Middleware. Message-Oriented Middleware operates on the principles of message queuing and/or message passing and is a method for integrating and connecting systems across heterogeneous environments. Middleware enables users and developers to interconnect program logic and data between systems or processes using consistently defined interfaces.

Message-Oriented Middleware capabilities include:
- Asynchronous messaging for process-to-process and application interoperability;
- Distributed transaction processing;
- Reliable transfer of information between dissimilar networks and applications running on those networks;
- Guaranteed delivery of messages;
- Uniform and orderly message delivery;
- Secure messaging, including access control, payload encryption and privacy;
- Automated business functions;

2.   Scope

This ITP applies to all offices, departments, boards, commissions and councils under the Governor's jurisdiction (hereinafter referred to as "agencies"). Agencies not under the Governor's jurisdiction are strongly encouraged to follow this ITP.

Third-party vendors, licensors, contractors or suppliers shall meet the policy requirements of this ITP that are applicable to the products and services provided to the Commonwealth.

3.   Definitions

3.1 Message-Oriented Middleware – a concept that involves the passing of data between applications using a communication channel that carries self-contained units of information (messages). In a Message-Oriented Middleware-based communication environment, messages are usually sent and received asynchronously. Using message-based communications, applications are abstractly decoupled; senders and receivers are never aware of each other. Instead, they send and receive messages to and from the messaging system. It is the responsibility of the messaging system to get the messages to their intended destinations.

4.   Objective

The main objectives of this policy are to:
- Provide a more uniform approach to application integration.
- Provide a common method of setting and achieving enterprise priorities.
- Reduce costs for application integration.

- Decrease time in production for application integration.
- Enhance and promote integration standardization.
- Enhance information sharing through connecting applications and systems.
- Improve enterprise IT security.
- Leverage existing IT investments and skills.

5. Policy

New projects requiring point-to-point messaging, based on the architectural guidance in BPD-INT001B *Message-Oriented Middleware Integration Best Practices Guidelines*, are required to use one of the current standard Message-Oriented Middleware products defined in STD-INT001A *Message-Oriented Middleware Product Standard*.

Major revisions to existing applications requiring integration and not using the current standard will be reviewed through the appropriate governing bodies to determine if the existing application warrants a change in standards at that time. For applications using integration products classified as "Retire," a date for migration from this technology has been established..

IT projects related to application integration will be subject to review prior to inception for compliance with this standard through a review by appropriate governing bodies and cross functional solution architects.

Agencies shall determine if an IT Project Proposal or an IT Investment submission, based on the criteria outlined in ITP-BUS001 *IT Planning and Projects* and ITP-BUS002 *IT Investment Review Process* are required prior to engaging in the implementation or upgrade of an Electronic Document Management System (EDMS).

6. Responsibilities
- **6.1 Agencies** shall comply with the requirements as outlined in this ITP.
- **6.2 Third-party vendors, licensors, contractors, or suppliers** creating custom applications on behalf of Commonwealth entities shall comply with the requirements as outlined in this ITP.

7. Related ITPs/Other References
Definitions of associated terms of this policy are published on the Office of Administration's public portal: http://www.oa.pa.gov/Policies/Pages/Glossary.aspx

Commonwealth policies, including Executive Orders, Management Directives, and IT Policies are published on the Office of Administration's public portal: http://www.oa.pa.gov/Policies/Pages/default.aspx

- Management Directive 205.34 Amended *Commonwealth of Pennsylvania Information Technology Acceptable Use Policy*

- ITP-BUS000 Information Technology Policy Governance

- ITP-BUS001 *IT Planning and Projects*

- ITP-BUS002 *IT Investment Review Process*

- STD-INT001A *Message-Oriented Middleware Product Standards*

- BPD-INT001B *Message-Oriented Middleware Best Practices*

8. Authority
Executive Order 2016-06 *Enterprise Information Technology Governance*

9. Publication Version Control
It is the Authorized User's responsibility to ensure they have the latest version of this publication, which appears on https://itcentral.pa.gov for Commonwealth personnel and on the Office of Administration public portal: http://www.oa.pa.gov/Policies/Pages/default.aspx. Questions regarding this publication are to be directed to RA-ITCentral@pa.gov.

10. Exemption from This Policy
In the event an agency chooses to seek an exemption from the guidance within this ITP, a request for a policy waiver is to be submitted via the enterprise IT policy waiver process. Refer to ITP-BUS004 *IT Policy Waiver Review Process* for guidance.

This chart contains a history of this publication's revisions. Redline documents detail the revisions and are available to CWOPA users only.

Version	Date	Purpose of Revision	Redline Link
Original	09/7/2006	Base Document	
Revision	10/25/2010	ITP Refresh	
Revision	07/12/2021	- ITP Refresh - Added to ITP Template - Added Third-party vendors to Scope and Responsibilities Sections - Added Definitions Section - Updated Policy, Related ITPs and Exemption Sections	Revision IT Policy Redline <07/12/2021>