

# Information Technology Policy

## *Electronic Commerce Interfaces*

<b>ITP Number</b> ITP-INT003	<b>Effective Date</b> July 27, 1999
<b>Category</b> <b>Integration</b>	<b>Supersedes</b> ITP-INT B2
<b>Contact</b> <a href="mailto:RA-ITCentral@pa.gov">RA-ITCentral@pa.gov</a>	<b>Scheduled Review</b> August 2022

### 1. Purpose

This Information Technology Policy (ITP) establishes the guidelines for the creation and implementation of internal, as well as outsourced Electronic Commerce interfaces and data transactions.

Electronic Commerce has increased the variety and affordability of EDI options available to send or receive information. More powerful and affordable software and hardware have created more affordable and flexible electronic interchange solutions.

### 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 Distributed Software Programs:** Computer programs that are developed and distributed to end users. These programs are also called smart forms or diskettes (or CD) programs. They can range from simple user interfaces for data entry to complex applications that provide the users with tools for managing their information.
- 3.2 Electronic Commerce or E-Commerce:** The activity of electronically maintaining relationships and conducting business transactions that include buying or selling information, services, and goods by means of computer telecommunications networks and/or over the internet.
- 3.3 Electronic Data Interchange (EDI):** The concept of businesses electronically communicating information that was traditionally communicated on paper, such as purchase orders and invoices. EDI implies a sequence of messages between two parties, either of whom may serve as originator or recipient. The formatted data representing the documents may be transmitted from originator to recipient via telecommunications or physically transported on electronic storage media. The usual processing of received messages in EDI is by computer only. Human intervention in the processing of a received message is typically intended only for error conditions, for quality review, and for special situations.

- 3.4 Electronic Interface:** A bridge that allows two programs to share information with each other, even though they may have been developed by different sources or use different programming languages. An interface will often use a standard file format such as Extensible Markup Language (XML) to move information from one system to another. An Electronic Interface could include a website, portal, gateway, marketplace, platform, application program interface (API), etc.
- 3.5 Open Data Protocol (OData):** An open protocol that allows the creation and consumption of queryable and interoperable REST APIs in a simple and standard way.
- 3.6 Representational State Transfer (REST):** A software architectural style which uses a subset of Hypertext Transfer Protocol (HTTP). It is commonly used to create interactive applications that use Web Services.
- 3.7 Simple Object Access Protocol (SOAP):** A messaging protocol specification for exchanging structured information in the implementation of web services in computer networks. It uses XML Information Set for its message format, and relies on application layer protocols, most often HTTP.

#### 4. Objective

To ensure agencies develop and implement Electronic Commerce technologies that facilitate enterprise-wide interoperability and standardization.

#### 5. Policy

Decisions on what type of Electronic Interface to use should be made in conjunction with the other key Electronic Commerce components -- formats, transport mechanisms, and legal or security considerations. As with any electronic solution, it should satisfy the business requirements in an effective, efficient manner and must be consistent with the Commonwealth's enterprise standards as outlined in ITP-INT002 *Electronic Commerce Formats and Standards* and STD-INT002A *Electronic Commerce Standards*.

Electronic Commerce interfaces shall:

- Be compatible with Commonwealth enterprise and desktop computing standards.
- Avoid proprietary and/or non-standard interfaces.
- Conform to national or international standards such as EDI and/or XML (via Internet or other transport mechanisms).
- Adhere to all related Commonwealth and Office for Information Technology policies, Management Directives, etc.

**Interfaces** - All interfaces, regardless of type (i.e., web, Distributed Software Programs, business application systems, commercially available, etc.), shall be compatible with Commonwealth enterprise and desktop computing standards.

**Web Interfaces** - Web interfaces shall be compliant and compatible with Commonwealth enterprise and desktop computing standards. Dynamic web interfaces shall use Hypertext

Markup Language (HTML) and/or XML, and which one of these interfaces is used for a particular system will depend upon business need.

**Web Services** – Web services shall be compliant and compatible with Commonwealth web development standards. Web services shall use SOAP or OData messaging protocol specifications for exchanging structured information in the implementation of web services in computer networks.

**Distributed Software Programs** - These Distributed Software Programs shall be developed in conjunction with Commonwealth enterprise and desktop computing standards.

**Business Application Systems** - Users that have comprehensive data management applications often use their existing systems to translate data into the recipient's, or from the sender's, specified format. When driven by business needs, these interface programs shall consider using EDI standards.

**Commercial Off-The-Shelf (COTS) Software** - The majority of COTS software focuses on developing or supporting information management systems to help their clients manage information for their own internal purposes in addition to providing an Electronic Commerce interface. Any COTS software acquired shall be interoperable with Commonwealth enterprise and desktop computing standards.

**Additional Interface Considerations - Electronic Commerce interfaces should consider:**

- Incorporating data quality checks into the interfaces as much as possible, regardless of sending or receiving information.
- Including, when applicable, a mechanism to ensure the person completing the submission understands the legal responsibilities associated with the submission. For example, some interfaces require the sender to read certification language before they can enter data.
- Developing user-friendly interfaces as much as practical, including edits, help screens, means for additional support, etc.
- Developing, where applicable, multiple media interfaces within a single Electronic Commerce application.

## **6. Responsibilities**

**6.1 Agencies** shall comply with the requirements as outlined in this ITP.

**6.2 Third-party vendors, licensors, contractors, or suppliers** 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*
- Management Directive 210.12 Amended *Electronic Commerce Initiatives and Security*
- ITP-ACC001 *Information Technology Digital Accessibility Policy*
- ITP-INT002 *Electronic Commerce Formats and Standards*
- STD-INT002A *Electronic Commerce Standards*
- ITP-SFT000 *Software Development Life Cycle (SDLC) Policy*
- ITP-SFT001 *Software Licensing*

## 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](mailto: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	7/27/1999	Base Document	
Revision	08/09/2021	ITP Refresh <ul style="list-style-type: none"><li>• Updated Policy Number for consistency</li><li>• Added to current ITP template</li><li>• Added third-party vendors to Scope and Responsibilities Sections</li><li>• Added Definition Section</li><li>• Updated Policy, Related ITPs and Exemption Sections</li></ul>	<a href="#">Revised IT Policy Redline &lt;08/09/2021&gt;</a>