B.2. Electronic Commerce Interface Guidelines

Information Technology Policy
Commonwealth of Pennsylvania
Governor's Office of Administration/Office for Information Technology

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General
Electronic commerce has grown exponentially over the last several years. This growth has increased the variety and affordability of electronic data interchange (EDI) options available to send or receive information. More powerful and affordable software and hardware have created more affordable and flexible electronic interchange solutions.

The ***Interface*** translates data from a sender's system into a specified format; conversely, it also translates the data from the specified format into the receiver's application. Interfaces can be understood in terms of input and output, end-user and application, public and private. Since interfaces typically crossover multiple categorizations, they will be presented and discussed individually within this bulletin.

It is important to note, 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.

This IT Bulletin applies to all departments, boards, commissions and councils under the Governors jurisdiction. Agencies not under the Governors jurisdiction are strongly encouraged to follow this policy to ensure they develop and implement electronic commerce technologies that facilitate enterprise-wide interoperability and standardization.

Policy
Interface Standards and Guidelines

Electronic commerce interfaces . . .

- Shall be compatible with Commonwealth enterprise and desktop computing standards.
- Shall avoid proprietary and/or non-standard interfaces.
- Shall conform to national or international Electronic Data Interchange (EDI) standards (via Internet or other transport mechanisms)
- Shall consider emergent Extensible Markup Language (XML) technology for both standard (EDI) and non-standard interfaces.
- Shall adhere to all related Commonwealth and Office for Information Technology policy (e.g., IT Bulletins, Management Directives, etc.).

Interfaces - All interfaces, regardless of type (i.e., web, distributed software, business application systems, commercially available, etc.,), must 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 Extensible Markup Language (XML), and which one of these interfaces used for a particular system will depend upon business need.

Distributed Software Programs - Distributed software programs are computer programs that are developed and distributed to end users. These programs are also called smart forms or diskette (or CD) programs. Distributed software programs can range from simple user interfaces for data entry to complex applications that provide the users with tools for managing their information. 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 recipients, or from the senders, 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 (See ITP J.3, Electronic Commerce Legal and Security Guidelines).
- 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.

References and Additional Information:

- Data Interchange Standards Association
- State Electronic Commerce/ Electronic Data Interchange Steering Group (SEES)
- Electronic Commerce Resource Center

Questions

Questions regarding this policy should be directed to the OA/Office for Information Technology via email at RA-ITCentral@pa.gov.