## ACCREDITED STANDARDS COMMITTEE X9, INC. FINANCIAL INDUSTRY STANDARDS



#### CATALOG OF AMERICAN NATIONAL STANDARDS, TECHNICAL REPORTS and GUIDELINES

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#### HOW TO PURCHASE STANDARDS ONLINE

The Accredited Standards Committee X9 (ASC X9) is the only organization accredited by the American National Standards Institute (ANSI)\* developing technical standards for the financial services industry.

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#### **TERMS AND DEFINITIONS**

Accredited Standards Committee X9, Inc. (ASC X9, Inc.)	Accredited Standards Committee X9, Incorporated, Financial Industry Standards. The ANSI-accredited body that develops national financial industry standards.
American National Standards Institute (ANSI)	A national federation of standards developers. X9 is not ANSI, X9 is accredited by ANSI and each organization has their own separate membership.
American National Standard	Standards developers accredited by the American National Standards Institute (ANSI) use the "Approved American National Standard" mark and term the standard an American National Standard.
Continuous Maintenance Standard	Maintenance of a standard by consideration of recommended changes to any part of it according to a documented schedule for consideration and action by the consensus body. X9 uses the periodic maintenance process.
International Organization for Standards (ISO)	International Organization for Standardization, or ISO/IEC.
Reaffirmed	An American National Standard that has been reviewed and approved by the consensus body and no changes have been made to it.

## X9.93 Set - Financial transaction messages -- Electronic benefits transfer (EBT) Part 1: Messages and Part 2: Files -- SAVE 10%

These standards provide all parties involved in Electronic Benefits Transfer (EBT) transactions with technical specifications for exchanging financial transaction messages. The documents standardize message formats based on the ISO 8583 standard and thereby maximize EBT productivity for all stakeholders in the industry. These standards describe messages in both an offline & online processing environment. It specifies message structure, format and content, data elements & values for data elements used in EBT. Data representation used in individual systems is subject to the commercial relationships between the parties contracting to each system. The message formats specified in this standard are designed to ensure that compatibility between systems conforming to these standards are always feasible. **Price: \$108.00** 

## X9 Designing for Image Compatibility Collection -- Save 30% Collection Includes:

- X9/TR-2 Understanding, Designing and Producing Checks
- X9/TR-100 Check Related Payment Standard Part 1: Organization of Standards; Part 2: Definitions used in Standards
- X9.100-10 Paper for MICR Documents
- X9.100-20 Print and Test Specifications for Magnetic Ink Printing (MICR) Part 1: Print Specifications, Part 2: Conformance Testing, Part 3: Secondary Reference Documents (Formerly X9.27)
- X9.100-30 Optical Background Measurement for MICR Documents (formerly part of X9.7)
- X9.100-110 Document Imaging Compatibility (formerly part of X9.7)
- X9.100-111 Physical Check Endorsements (Formerly X9.53-1996)
- X9.100-160-1 Magnetic Ink Printing (MICR) Part 1: Placement and Location (Formerly X9.13)
- X9.100-160-2 Magnetic Ink Printing (MICR) Part 2: EPC Field Use

Price: \$450.00

## X9 MICR Document Printing Collection -- Save 30% Collection Includes:

- X9/TR-2 Understanding, Designing and Producing Checks
- X9/TR-6 Guide to Quality MICR Printing and Evaluation
- X9/TR-100 Check Related Payment Standard Part 1: Organization of Standards; Part 2: Definitions used in Standards
- X9.100-10 Paper for MICR Documents
- X9.100-20 Print and Test Specifications for Magnetic Ink Printing (MICR) Part 1: Print Specifications, Part 2: Conformance Testing, Part 3: Secondary Reference Documents
- X9.100-30 Optical Background Measurement for MICR Documents (formerly part of X9.7)
- X9.100-110 Document Imaging Compatibility (formerly part of X9.7)
- X9.100-120 Bank Deposit Tickets
- X9.100-130 Universal Interbank Batch/Bundle Ticket (Formerly X9.64)
- X9.100-160-1 Magnetic Ink Printing (MICR) Part 1: Placement and Location (Formerly X9.13)
- X9.100-160-2 Magnetic Ink Printing (MICR) Part 2: EPC Field Use

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- X9.100-161 Creating MICR Document Specification Forms (Formerly X9.47)
- X9.100-170 Check Fraud Deterrent Icon (Formerly X9.51)

#### Price: \$740.00

## X9 Encryption Collection – Save 20% Collection Includes:

- X9/TR-39 Retail Financial Services Compliance Guideline Part 1: Online PIN Security and Symmetric Key Management (formerly TG-3)
- X9.24 Part 1 and Part 2 Retail Financial Services Symmetric Key Management
- X9.80 Prime Number Generation, Primary Testing and Primality Certificates
- X9.92-1 Public Key Cryptography for the Financial Services Industry Digital Signature Algorithms Giving Partial Message Recovery Part 1: Elliptic Curve Pintsov-Vanstone Signatures (ECPVS)

Price: \$350.00

#### Check Image Exchange Basics Collection (Formerly Check 21) -- Save 30%! A newly updated collection to allow persons dealing with payments to meet Check 21 requirements. Check Image Compliance Collection contains:

- X9/TR-33 Check Image Quality Assurance Standards and Processes
- X9/TR-100 Check Related Payment Standard Part 1: Organization of Standards; Part 2: Definitions used in Standards
- X9.100-110 Document Imaging Compatibility (formerly part of X9.7)
- X9.100-111 Physical Check Endorsements
- X9.100-140 Specifications for an Image Replacement Document (IRD) (formerly DSTU X9.90)
- X9.100-160-1 Magnetic Ink Printing (MICR) Part 1: Placement and Location (Formerly X9.13)
- X9.100-160-2 Magnetic Ink Printing (MICR) Part 2: EPC Field Use
- X9.100-181 TIFF Image Format for Image Exchange
- X9.100-187 Electronic Exchange of Check and Image Data

## Price: \$450.00 - If you purchase this package we recommend you also purchase the X9 MICR Collection to improve quality.

#### **Paper Check Standards**

#### X9/TR-2 Understanding, Designing and Producing Checks

Certain elements of check design are specified in X9 American National Standards or are mandated by the Uniform Commercial Code (UCC) and the Federal Reserve Board's Regulation CC. TR-2 presents guidelines for the design and production of a check and describes the proper location of the data elements on the check, along with the rationale for those requirements. Additionally, TR-2 provides a summary of requirements and other optional elements, with references, where appropriate, to standards and legal documents. The guidelines contained in this report are intended to promote greater uniformity in the design and production of checks, which will improve processing and handling throughout the check processing system.

#### **Publication Date: 2005**

#### Price: \$100.00

#### X9/TR-6 Guide to Quality MICR Printing and Evaluation

This technical report covers all MICR printing and is intended to improve MICR quality via understanding and uniform interpretation of existing standards and specifications of MICR. The basic elements of MICR are defined in existing American National Standards, which are referenced where appropriate. This document serves as a single reference for the foremost set of elements that will produce quality MICR documents.

**Publication Date: 2011** 

Price: \$100.00

#### X9/TR-8 Check Security

X9 TR 8 Check Security provides information for people involved in paper check or electronic check processing to become more familiar with industry practices and processes that identify and deter fraudulent use of paper checks, check images, and electronically transmitted check data. This report also discusses tools that detect and prevent fraud, covering topics from hightech software to low-tech physical control of the source documents. These guidelines do not cover all possible techniques or preventive measures. While there are no guarantees that these techniques or measures will prevent fraudulent check use, they do provide the basics necessary to evaluate vulnerability to check fraud.

#### **Publication Date: 2010**

Price: \$100.00

#### X9/TR-33 Check Image Quality Assurance Standards and Processes

The purpose of this Technical Report is to provide a framework for assuring and assessing image quality to support the exchange of check images between financial institutions. It provides a detailed understanding of the problems and limitations associated with the image capture process, automated methods and systems that might be used to detect check quality problems (i.e., image defects and usability issues). It is anticipated that this report will establish common terminology around check image quality so as to facilitate communication among operations and technical managers at financial institutions. **Publication Date: 2006** Price: \$100.00

#### X9/TR-100 Check Related Payment Standards Part 1: Organization of Standards; Part 2: **Definitions used in Standards**

Part 1 provides the numbering scheme for all standards associated with paper-based and image-based check payments. The basic numbering scheme is divided into two sections; core standards and application standards. Core standards cover such items as paper requirements, MICR requirements, optical requirements and image requirements. Application standards cover such items as check documents, deposit tickets, internal documents, image replacement documents, other documents, MICR, security and electronic. **PUBLISHED JANUARY 2012** 

**Part 2** lists the definitions of terms used within X9's paper-based and image-based check payment standards. This technical report is available in electronic form free of charge to aid the user in identifying the standards for purchase.

## Publication Date: 2011Free of Charge Download: www.x9.org orwww.ansi.orgFree of Charge Download: www.x9.org or

#### X9.100-10 (Formerly X9.18) Paper for MICR Documents

This standard establishes paper specifications for the MICR documents that are used in the US Payments System. While checks and deposit tickets are the primary documents considered in these specifications, users of MICR/OCR E-13B font readers will be well served by applying these specifications to internal documents, when intended for use in reader/sorters. This standard gives specifications to those attributes most important and most common both to raw base stock and to finished printed products of MICR documents. When available, methodology for measurements of the various paper attributes shall conform to those of the Technical Association of Pulp and Paper Industry (TAPPI). The specifications state what are considered to be the appropriate requirements for paper documents intended for external processing from the viewpoint of the end user, namely the institution performing post encoding in proof-of-deposit applications and those that operate reader/sorter equipment for in-clearing and transit clearing applications. Nonetheless, these same specifications are also considered appropriate requirements for paper before any print process is applied to base stock. Base stock, either from rolls or from sheets, must meet the specifications as well as fully processed, end user documents. Paper specifications from the standpoint of fraud prevention and security are not given within this standard. The various features that paper can have that hinder fraud and aid authentication of original document are addressed in ANSI X9.100-170 Check Fraud Deterrent Icon standard and in X9/TR 8 Check Security. Although reference may be made within this standard to various commonly used paper-based security features, setting specifications for paper-based security features are excluded from the scope of this standard. There are additional paper characteristics important to document printers and end users in terms of printability and mechanical performance in their individual operations that are related to document performance. Paper characteristics such as moisture content, filler content. brightness, pH, coefficient of friction, ink absorption, etc., are guite variable within the industry and are not covered in this standard because many of them are not measurable by the end user due to exposure to other conditions during the manufacturing processes. **Publication Date: 2011** Price: \$60.00

## X9.100-20 (Formerly X9.27) Print and Test Specifications for Magnetic Ink Printing (MICR) Part 1: Print Specifications, Part 2: Conformance Testing, Part 3: Secondary Reference Documents

**Part 1** of this standard specifies the shape, dimensions, magnetic signal level, and tolerances for the E-13B characters which include ten numerals and four special symbols printed in magnetic ink and used for the purpose of character recognition. It describes the various known types of printing defects and other printing considerations, together with the tolerances permitted. **Part 2** provides informative conformance testing requirements for the Part 1 specifications. **Part 3** specifies the requirements for secondary reference documents and the test equipment for calibrating and maintaining their signal level.

Publication Date: 2006 (R2011)

Price: \$140.00

## X9.100-30 (Formerly part of X9.7) Optical Background Measurement for MICR Documents

The scope of the standard is the specification of the optical measurement methodology for the parameters of reflectance, PCS, DCR, Paxel Count, and opacity which are needed for MICR

#### X9.100-40-1 and X9.100-40-2 Specifications for Check Image Tests Part 1: Definition of Elements and Structures for Check Image Tests and Part 2: Application and Registration Procedures

**Part 1** defines the elements and structures for standard check image tests used by the financial industry to assess specific attributes of check images. The specification establishes a framework for defining check image tests, conveying the results from executing a check image test, and conveying any parameters used in executing check image tests. **Part 2** describes the application and registration procedures used to register check image tests that conform to this ANS X9.100-40 Part 1 standard. Check image tests that are submitted to X9 for consideration in accordance with ANS X9.100-40 Part 2 shall be entered in the X9 Registry for Check Image Tests after the Application for a new check image test is approved. In this standard, the term "check" includes checks, substitute checks, and related check-sized financial items such as deposit tickets, cash tickets, and batch headers. Although the initial application for this standard is to support check image tests pertaining to image quality, the standard is applicable to any check image test that has a business purpose and is compatible with the structure defined herein.

#### Publication Date: 2006

#### X9.100-110 (Formerly part of X9.7) Document Imaging Compatibility

This standard specifies the location and background design of essential check data fields and is intended for all business size and personal size checks. Note that this standard equally applies to anything in between, in terms of document size, including all money orders, rebate checks, remotely created checks (commonly known as RCCs), WIC checks, etc. They may fall anywhere in between the referenced common sizes, but must also conform to the limitations of the MICR printing as specified in ANS X9.100-160-1, *Magnetic Ink Printing (MICR)*.

#### Publication Date: 2011

#### X9.100-111 (Formerly X9.53) Physical Check Endorsements

This standard provides for the legibility and uniformity of the endorsement process as defined within the exchange standard file format standards. It does not apply to the targeting of correct areas for placement of endorsement overlay areas on a check image. This standard specifies the parameters for the design elements on the back of the check and the placement and data content of endorsements.

This standard is not intended to modify existing MICR standards for checks. This standard is not intended to apply to electronic endorsements, as defined within check image exchange standards (file format standards). It does apply to targeting correct areas for placement of endorsement overlays in check images.

#### **Publication Date: 2009**

#### X9.100-120 (Formerly X9.33) Bank Deposit Tickets

Specifies certain deposit ticket parameters to aid in the processing of personal size and business size deposit tickets through conventional bank deposit and imaging processes. While this standard does not establish a specific design, orientation and layout for bank deposit tickets, it does provide specifications for a range within which key design elements shall be placed. Other bank specific information is excluded from this standard. This standard will improve the understanding of deposit tickets by providing background information that may be valuable in designing deposit tickets. It is hoped that the use of this standard will result in

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#### Price: \$140.00 for Parts 1 & 2

#### Price: \$60.00

Price: \$60.00

greater uniformity in several aspects of deposit ticket design that will improve the processing and handling of deposit tickets throughout the entire check processing system. **Publication Date: 2010** Price: \$60.00

#### X9.100-130 (Formerly X9.64) Universal Interbank Batch/Bundle Ticket

This standard specifies the required elements of the universal interbank batch/bundle ticket. It is expected that bankers refer to this standard when designing this form. This standard is sufficiently flexible to meet differing document and institution needs without unnecessary constraints. It provides the reader with specifications for a universal interbank batch/bundle ticket that contains data that may be recognized among all financial institutions wishing to utilize interbank batch/bundle tickets and not adversely affect those that do not. **Publication Date: 2011** Price: \$60.00

#### X9.100-140 (Formerly DSTU X9.90) Specifications for an Image Replacement Document (IRD)

This standard establishes the construction, layout, data elements, data content, and printing specifications for Image Replacement Documents (IRD). An IRD is a substitute image copy of a check or a replacement for a previous IRD that includes a machine readable MICR line. An IRD that conforms to this standard and meets the requirements of a Substitute Check within Regulation CC is considered the practical and legal equivalent of the original paper check or of a previous IRD. This standard does not address operational, implementation, or settlement issues. These issues may include but are not limited to: the use of security features that are available after imaging, image compression, conversion methods, and IRD printing techniques. The informative annexes attached to this standard provide information that may prove useful to those planning on implementing the standard.

Publication Date: 2008

Price: \$100.00

#### X9.100-151 (Formerly X9.40) Check Correction Strips

Covers the design and the functional characteristics of the strip extension ("strip") as affixed to a check. These strips provide a new MICR clear band area used to modify or correct the MICR line of items for forward collection, returns, rejects, or other banking interchange systems. **Publication Date: 2010** Price: \$60.00

#### X9.100-160-1 (Formerly X9.13) Magnetic Ink Printing (MICR) Part 1: Placement and Location

Part 1 of this standard covers only design considerations that apply to placement and location of magnetic ink printing on checks, drafts, and other documents intended for automated processing among depository institutions. Other types of documents such as internal control forms are not covered. A complete understanding of MICR printing requires reference to other standards and technical guidelines listed in Clause 2.

#### Publication Date: 2009

#### Price: \$100.00

#### X9.100-160-2 (Formerly X9.13, Annex A only) Magnetic Ink Printing (MICR) Part 2: EPC Field Use

Part 2: EPC Field Use Part 2 of the MICR standard establishes external processing code (EPC) assignments and management, and specifies the MICR characters approved for use in the U.S. Payments System.

Publication Date: 2009

#### Price: \$60.00

X9.100-161 (Formerly X9.47) Creating MICR Document Specification Forms The contents for MICR Document specification Forms are specified in this X9 American **PUBLISHED JANUARY 2012** 

National Standard. It may be used to create specifications for the design and manufacture of checks and deposit tickets, as well as other financial institution MICR documents. The standard is sufficiently flexible to meet the needs of a variety of financial institutions. The standard is not the specification form itself.

#### **Publication Date: 2010**

#### Price: \$60.00

#### X9.100-170 (Formerly X9.51) Check Fraud Deterrent Icon

Establishes the design and usage requirements of a check fraud deterrent icon (CFDI) for visually communicating the presence of security features on a check. The standard specifies minimal overt security features which meet the requirements for deterring both counterfeiting and alteration that printers are to use prior to printing a check fraud deterrent icon onto a check. This standard also establishes the requirements for use of a check fraud deterrent icon, the location on the check for the icon, and the location of and requirements for the associated warning box and verbiage.

#### Publication Date: 2010

Price: \$60.00

## X9.100-140 (Formerly DSTU X9.90) Specifications for an Image Replacement Document (IRD)

This standard establishes the construction, layout, data elements, data content, and printing specifications for Image Replacement Documents (IRD). An IRD is a substitute image copy of a check or a replacement for a previous IRD that includes a machine readable MICR line. An IRD that conforms to this standard and meets the requirements of a Substitute Check within Regulation CC is considered the practical and legal equivalent of the original paper check or of a previous IRD. This standard does not address operational, implementation, or settlement issues. These issues may include but are not limited to: the use of security features that are available after imaging, image compression, conversion methods, and IRD printing techniques. The informative annexes attached to this standard provide information that may prove useful to those planning on implementing the standard.

#### Publication Date: 2008

#### Price: \$100.00

#### X9.100-181 TIFF Image Format for Image Exchange

The scope of this standard is to define specific TIFF fields and parameters for check image exchange and the allowable values for those parameters. This standard will only address the use of G4 bi-level image (black/white) compressions within the TIFF 6.0 structure. A "least common denominator" approach was used to identify the fields that everyone should read and the required or allowable values for these fields that everyone will be expected to support. To accomplish interoperability, some of the fields and values are more restrictive compared to what is being generated in today's environment. In addition, this standard clarified areas that have been interpreted in different ways. This standard will not address changing the industry TIFF (Tagged Image File Format) revision 6.0 (final June 3, 1992) specification owned by Adobe Systems Inc. as it is used for a wider variety of industry uses. Also, JPEG (grayscale) compressions will be addressed in a separate standard to be developed in the future. **Publication date: 2010** 

#### X9.100-182 (Parts 1,2-1,2-2,2-3, and TR 40-2011) Bulk Data and Image Delivery

This standard establishes eXtensible Markup Language (XML) data elements, structures, and schemas for the bulk delivery of financial data and associated images for various business purposes. The XML framework defined by this standard is independent of network technologies and computing platforms, and is extendable to support new data structures as needs are identified. Part 1 is an Overview. Part 2-1 defines check related elements and components for general check payment delivery. Part 2-2 defines check related elements and components that can be used to deliver images and check data for IRD creation conforming to the ANS X9.100-140 standard, and in accordance with Regulation CC for substitute checks. Part 2-3 defines check related elements and components that can be used to deliver images complete with the tri-part XML XSD schema validation files. The TR 40-2011 Technical Report, which is included with the standard, provides background reference material for a specific business implementation to transfer data from an X9.100-187 image cash letter file to the ANSI X9.100-182 XML standard file. It provides a structured mapping approach that includes field-by-field data content mapping from the image cash letter file records to the respective XML element layers.

Publication Date: 2011

Price: \$160.00

#### X9.100-183 – Electronic Check Adjustments

This standard establishes the file sequences, record types, and field formats to be used for the electronic exchange of check adjustment messages.

The standard format supports check related adjustment notices and requests for individual checks, bundles of checks, check cash letters and attachment of images. It supports the full range of adjustment types currently in use by financial institutions and will support web-based or mainframe system transmission. The standard may be used whether or not the particular check, bundle of checks, or cash letter was presented via paper or via an electronic check exchange file.

The informative annexes attached to this standard provide information, which may prove useful to those planning on implementing the standard. This standard does not address certain operational, implementation, or settlement issues. These issues may include, but are not limited to a choice of: data and image compression, encryption, and transmission specifications and data representation.

This standard should not replace return functionality as documented in the ANSI X9.100-187 Exchange of Check and Image Data-Domestic specification.

#### Publication Date: 2010

Price: \$60.00

#### X9.100-187-Specifications for Electronic Exchange of Check and Image Data - Domestic

Since the enactment of Check 21, there has been unprecedented adoption of image exchange. This standard replaces the use of DSTU X9.37 and establishes the basis for U.S. check image exchange involving settlement between two financial institutions. ANS X9.100-180 has been adopted for Canadian internal country exchange. It is only used in the U.S. for specialized applications and is not used for U.S. financial exchange. This standard incorporates fixes and clarifications identified in various industry companion documents associated with DSTU X9.37. It also establishes requirements and limitations that are compatible with current industry practice. However, this standard maintains flexibility in order to accommodate the needs of different institutions and exchange networks. It does not have the extent of flexibility contained in ANS X9.100-180 and is not intended to cover all types of image exchange. Users of this standard should be aware that most financial exchanges utilize a "companion document" that defines the specific requirements and implementation rules for exchange within a particular network or institution agreement. The companion document should reference the specific edition of this standard that applies with the specific version of the companion document in use. This standard, including the normative annexes, establishes the file sequences, record types, and field formats to be used for the electronic exchange of check MICR line, associated check processing data and check images in the form of cash letters. This standard does not address operational, implementation, or settlement issues. These issues may include, but are not limited to, a choice of: data and image compression, encryption, and transmission specifications and data representation. The informative annexes attached to this standard provide information that may prove useful to those planning to implement the standard.

#### Publication Date: 2008

#### Price: \$100.00

#### Electronic Retail, Security and Electronic Benefits Transfer (EBT) Standards

## TR-38-3 Financial Services - UNIversal Financial Industry Message Scheme Part 3: ISO 20022 Modelling Guidelines – Identical to TR/ISO 20022-3 TS

ISO 20022-3 was prepared to complement ISO 20022-1 with detailed modeling guidelines to be used to construct ISO 20022 compliant business transactions and message sets.
Publication Date: 2009
Price: \$100.00

## TR-38-4 - Financial Services - UNIversal Financial Industry Message Scheme Part 4: ISO 20022 XML Design Rules – Identical to TR/ISO 20022-4 TS

ISO 20022-3 was prepared to complement ISO 20022-1 with the XML syntax design rules to be applied by the ISO 20022 Registration Authority to translate and ISO 20022 compliant definitions into an ISO 20022 XML message schema for the production of ISO 20022 XML message instances.

Publication Date: 2009

#### Price \$100.00

## X9.58 Financial Transaction Messages – Electronic Benefits Transfer (EBT) – Food Stamps - (Includes Technical Corrigendum, 2008)

This standard provides all parties involved in Electronic Benefits Transfer (EBT) transactions for Food Stamps with technical specifications for exchanging financial transaction messages between an acquirer and an EBT card issuer processor. It specifies message structure, format and content, data elements and values for data elements used in the Food Stamp program. The method by which settlement takes place is not within the scope of this standard. **Publication Date: 2007 Price: \$60.00** 

## X9.59 Electronic Commerce for the Financial Services Industry: Account Based Secure Payments Objects

A) Payment Model Description - This standard describes a model of account based electronic payments. It identifies the roles played by different components of the payment process and the flow of information between those roles. The roles are the consumer, who wishes to make a payment, a merchant which provides value, and their respective Financial Institutions, the consumer financial institution and the merchant financial institution. B) Secure Object Specifications - This standard specifies a collection of electronic payment objects and references digital signature techniques to secure their content. The objects are all defined in terms of how they need to be constructed, signed and verified in computing machinery that is acting on behalf of a consumer and a merchant. A concrete syntax is specified in order that the signature can be constructed or verified at any location that has access to the consumer's public key and associated data. A business recommendation is made that the payment routing code (or PAN) used in conjunction with secure payment objects defined by this standard is not accepted as valid in non-authenticated transactions. Several usage scenarios are given to show examples of real applications where the standard objects may be applicable. Confidentiality for the payment information may be desired and is neither required, nor precluded, by this standard. Prudent implementers may choose to conduct a risk assessment to determine the need for confidentiality. Also policy issues, including terms and conditions of the agreements between the parties, are not covered in this standard. While some of the information described in the standard must survive interchange between cooperating financial institutions, the syntax of how it appears in any particular payment protocol is not specified. **Publication Date: 2006** Price: \$100.00

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#### X9.93-1 Financial Transaction Messages – Electronic Benefits Transfer (EBT) Part 1: Messages

This standard provides all parties involved in Electronic Benefits Transfer (EBT) transactions with technical specifications for exchanging financial transaction messages. The document standardizes message formats based on the ISO 8583 standard and thereby maximizes EBT productivity for all stakeholders in the industry. This standard describes messages in both an offline and online processing environment. It specifies message structure, format and content, data elements and values for data elements used in EBT. The method by which EBT settlement takes place is not within the scope of this standard. Data representation used in individual systems is subject to the commercial relationships between the parties contracting to each system. The message formats specified in this standard are designed to ensure that compatibility between systems conforming to this standard is always feasible. **Publication Date: 2008** Price: \$60.00

#### X9.93-2 Financial Transaction Messages – Electronic Benefits Transfer (EBT) Part 2: Files

This standard provides all parties involved in Electronic Benefits Transfer (EBT) transactions with technical specifications for exchanging financial transaction files for the Women, Infants, and Children (WIC) program and the framework for adding other EBT files and detail records in the future. The document standardizes file formats and thereby maximizes EBT productivity for all stakeholders in the industry. This standard describes files and records between the acquirer and card issuer or their agents. It specifies file structure, format and content, data elements and values for data elements used in EBT. The method by which the settlement of funds takes place is not within the scope of this standard. Data representation used in individual systems is subject to the commercial relationships between the parties contracting to each system. The file formats specified in this standard are designed to ensure that compatibility between systems conforming to this standard is always feasible.

#### **Publication Date: 2008**

#### Price: \$60.00

#### X9.104-1 Financial transaction card originated messages, card acceptor to acquiring host messages Part 1: Messages, data elements and code values

This part of X9.104 defines a common interface for the exchange of information between point of sale systems or terminal devices located in a retail establishment and the acquiring host transaction processing system(s). This part of X9.104 is applicable to all aspects of payment processing required by these retail facilities, including the reporting of specific products that are part of a purchase. The standard defines a sufficient number of message types and data elements to facilitate the exchange of all necessary information related to: (1) payment transactions originated by point of sale systems or terminal devices, and (2) automated control of the systems and devices. Price: \$100.00

#### Publication Date: Reaffirmed 2011

#### X9.104-2 Financial transaction card originated messages, card acceptor to acquiring host messages Part 2: Convenience store and petroleum marketing industry

Part 2 of this two part American National Standard X9.104 provides example of messages used in the convenience store and petroleum marketing industry based on the message formats defined in X9.104 part 1. This part of X9.104 also defines data elements and code values for use in this environment.

Publication Date: Reaffirmed 2011

# X9.105-1 (Identical to ISO 8583-1:2003) Financial Transaction Card Originated Messages – Interchange message specifications Part 1: Messages, data elements and code values This part specifies a common interface by which financial transaction card-originated messages can be interchanged between acquirers and card issuers. It specifies message structure, format and content, data elements and values for data elements. The method by which settlement takes place is not within the scope of this part.

**Publication Date: 2009** 

Price: \$175.00

#### X9.105-3 (Identical to ISO 8583-1:2003) Financial Transaction Card Originated Messages – Interchange Message Specifications Part 3: Maintenance Procedures for Messages, Data Elements and Code Values

Part 3 establishes the role of the maintenance agency (MA) and specifies the procedures for adding messages and data elements to ISO 8583-1 and to codes listed in Annex A of X9.105-1 (Identical to ISO 8583-1). The responsibilities of the MA relate to all message type identifiers and classes, data elements and sub-elements, dataset identifiers and codes within X9.105-1 (Identical to ISO 8583-1), with the exception of Institution Identification Codes. **Publication Date: 2009 Price: \$60.00** 

#### X9.106 (Identical to ISO 18245) Retail Financial Services – Merchant Category Codes

This American National Standard is an identical adoption of ISO standard 18245 which defines code values used to enable the classification of merchants into specific categories based on the type of business, trade or services supplied. Values are specified only for those merchant categories that are generally expected to originate retail financial transactions. This standard also establishes the procedures for a Registration and Maintenance Management Group (RMMG), which considers requests for new code values, and a Maintenance Agency (MA), which provides the administrative procedures required to maintain an up-to-date list of codes. It is not within the scope of this International Standard to mandate the use of merchant category codes in any given situation.

Publication Date: 2003

Price: \$80.00

#### **Credit Standards**

#### X9/TR-4 (companion to X9.103) Financial Services Technical Report SPeR

This X9 Technical Report is an effort to establish a common understanding for consumers and businesses for any interstate and foreign commerce transaction in the use of signatures, contracts or other records in electronic form. SPeRS was prepared by the SPeRS Drafting Committee of the Electronic Financial Services Council in 2003. The resulting document, with contributions from over 30 companies, representing a broad range of industries, including mortgage, insurance, securities, and technology, and most of the major financial service trade associations, provides guidance for engaging in business to business and business to consumer transactions electronically. X9 TR 4-2004 focuses on five areas: Authentication; Obtaining Consent to do Business; Establishing Agreements Online, and Meeting Notice and Disclosures Requirements; Electronic Signatures; and Record Retention. **Publication Date: 2004 (Reaffirmed 2009)**

#### X9.103 Motor Vehicle Retail Sale and Lease Electronic Contracting

The scope of this standard begins at the time of signing the Contract, inclusive of signature capture, and includes the creation, storage and assignment of Electronic Chattel Paper where the assignment will involve establishing control of the Electronic Chattel Paper. This standard addresses both electronically originated Chattel Paper and Tangible Chattel Paper that is subsequently converted to an electronic format.

#### Publication Date: 2010

#### Price: \$60.00

#### **X9.110 TOLEC Transfer of Location of Electronic Contracts**

This specification describes a method of transfer for electronic contracts, or electronic records between two disparate Electronic Vaults across a private or public network. The methods and approach described herein prescribe the requirements necessary to maintain compliance with legislation for Electronic Chattel Paper defined in revised UCC Article 9, Section 105. **Publication Date: 2008 Price: \$60.00** 

#### **Securities Standards**

#### X9/TG-10 Signature Guarantee Guideline

TG-10 is meant to educate guarantors to the importance of safekeeping and controlling medallions (hand stamps and/or machine plates) issued to them by their program administrator. Securities Exchange Commission Rule 17Ad-15 dramatically reshaped the method by which financial institutions guarantee signatures and thereby transfer securities. Any financial institution can now guarantee signatures as long as certain protection for transfer agents is provided. Three signature guarantee programs were established following enactment of Rule 17Ad-15 in January 1992.

**Publication Date: 1995** 

#### X9.6 Securities Identification System

This standard provides specifications for uniquely identifying an eligible securities issue. It serves as the common denominator in communications among users for completion of transactions & exchange of information. It specifies the configuration of the number and the meaning attached to each portion.

**Publication Date: 2008** 

#### X9.12 Specifications for Fully Registered Municipal Securities

This standard defines the physical characteristics and format of a municipal security including certificate size, content, and layout. The specific language regarding provisions of the instrument is defined by the issuing authority and is not prescribed in the body of this standard. At a minimum, this standard is intended for use in the issuance of all fully registered municipal securities. Price: \$100.00

#### Publication Date: 2007

#### X9.101 (Identical to ISO 6166) International Securities Identification Numbering System (ISIN)

This American National Standard is an identical adoption of the ISO 6166 which provides a uniform structure for inter-national securities identification numbers (ISINs). It is intended for use in any application in the trading and administration of securities and other financial instruments.

#### Publication Date: 2003

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Price: \$100.00

Price: \$100.00

Price: \$60.00

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#### **Data and Information Security Standards**

**X9/TG-9** Abstract Syntax Notation and Encoding Rules for Financial Industry Standards This tutorial guideline helps the user to understand Abstract Syntax Notation One (ASN.1), the international standard language for defining and encoding data elements in the open systems environment. ASN.1 provides for a more precise specification of message fields and other data, improving interoperability and reducing costs. TG-9 familiarizes the reader with the ASN.1 concepts in ISO/IEC 8824, Specification of ASN.1 and ISO/IEC 8825, Specification for Basic Encoding Rules for ASN.1, without requiring the reader to read the international documents.

#### **Publication Date: 1995**

#### Price: \$60.00

## X9/TR-31 Interoperable Secure Key Exchange Key Block Specification for Symmetric Algorithms

Describes a method consistent with the requirements of ANS X9.24 Retail Financial Services Symmetric Key Management Part 1 for the secure exchange of keys and other sensitive data between two devices that share a symmetric key exchange key. This method may also be used for the storage of keys under asymmetric key. This document is not a security standard and is not intended to establish security requirements. It is intended instead to provide an interoperable method of implementing security requirements and policies. **Publication Date: 2010 Price: \$60.00** 

## X9/TR-39 (formerly TG-3) Retail Financial Services Compliance Guideline Part 1: PIN Security and Key Management

This guideline applies to all organizations using the Triple Data Encryption Algorithm - TDEA (Reference 7) for the encryption of PINs used for retail financial services such as POS and ATM transactions, messages among retailers and financial institutions, and interchange messages among acquirers, switches and card issuers. The guideline should be completed by all organizations acquiring or processing transactions containing PINs, from the terminal driving system to the authorizing entity. The guideline Control Objectives address security controls from the PIN entry device to the interface delivering the transaction to the authorizing entity. When this guideline is completed by a device manufacturer, the Control Objectives are intended to evaluate the manufacturing environment and the device's ability to be implemented in a manner compliant with X9.8 and X9.24 (all parts).

Publication Date: 2009

Free of Charge: www.x9.org or www.ansi.org

X9/TR-39 FAQ Publication: 2009

Free of Charge: www.x9.org or www.ansi.org

X9.8-1 Personal Identification Number (PIN) Management and Security Part 1: PIN Protection Principles and Techniques for Online PIN Verification in ATM & POS Systems Part 1 of this two part standard specifies the basic principles and techniques which provide the minimum security measures required for effective international PIN management. These measures are applicable to those institutions responsible for implementing techniques for the management and protection of PINS. PIN protection techniques applicable to financial transaction card originated transactions in an online environment and a standard means of interchanging PIN data. These techniques are applicable to those institutions responsible for implementing techniques for the management and protection of the PIN at Automated Teller Machines (ATM) and acquirer-sponsored Point-of -Sale (POS) terminals.

**Publication Date: 2003** 

Price: \$100.00

## X9.24-1 Retail Financial Services Symmetric Key Management Part 1: Using Symmetric Techniques

This part of this standard covers both the manual and automated management of keying material used for financial services such as point-of-sale (POS) transactions (debit and credit), automated teller machine (ATM) transactions, messages among terminals and financial institutions, and interchange messages among acquirers, switches and card issuers. This part of this standard deals exclusively with management of symmetric keys using symmetric techniques. This part of this standard specifies the minimum requirements for the management of keying material. Addressed are all components of the key management life cycle including generation, distribution, utilization, storage, archiving, replacement and destruction of the keying material. An institution's key management process, whether implemented in a computer or a terminal, is not to be implemented or controlled in a manner that has less security, protection, or control than described herein. It is intended that two nodes, if they implement compatible versions of

- the same secure key management method,

- the same secure key identification technique approved for a particular method, and

- the same key separation methodologies

in accordance with this part of this standard will be interoperable at the application level. Other characteristics may be necessary for node interoperability; however, this part of this standard does not cover such characteristics as message format, communications protocol, transmission speed, or device interface.

#### Publication Date: 2009

#### Price: \$140.00

## X9.24-2 Retail Financial Services Symmetric Key Management Part 2: Using Asymmetric Techniques for the Distribution of Symmetric Keys

This part of ANS X9.24 covers the management of keying material used for financial services such as point of sale (POS) transactions, automatic teller machine (ATM) transactions, messages among terminals and financial institutions, and interchange messages among acquirers, switches and card issuers. The scope of this part of X9.24 may apply to Internet-based transactions, but only when such applications include the use of a TRSM (as defined in section 7.2 of ANS X9.24 Part 1) to protect the private and symmetric keys. This part of ANS X9.24 deals with management of symmetric keys using asymmetric techniques and storage of asymmetric private keys using symmetric keys. Additional parts may be created in the future to address other methods of key management.

This part of ANS X9.24 specifies the minimum requirements for the management of asymmetric keying material and TDEA keys used for ensuring the confidentiality and integrity of the private keys of asymmetric key pairs when stored as cryptograms on a database. Addressed are all components of the key management life cycle including generation, distribution, utilization, storage, archiving, replacement and destruction. Requirements for actions to be taken in the event of key compromise are also addressed. This part of ANS X9.24 presents overviews of the keys involved in the key transport and key agreement protocols, referencing other ANSI standards where applicable.

Publication Date: 2006

#### Price: \$140.00

## X9.42 Public Key Cryptography for the Financial Services Industry: Agreement of Symmetric Keys Using Discrete Logarithm Cryptography

This standard specifies schemes for the agreement of symmetric keys using Diffie-Hellman and MQV algorithms. It covers methods of domain parameter generation, domain parameter validation, key pair generation, public key validation, shared secret value calculation, key derivation, and test message authentication code computation for discrete logarithm problem based key agreement schemes. These methods may be used by different parties to establish

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a piece of common shared secret information such as cryptographic keys. The shared secret information may be used with symmetrically-keyed algorithms to provide confidentiality, authentication, and data integrity services for financial information, or used as a key-encrypting key with other ASC X9 key management protocols.

#### **Publication Date: 2003**

#### Price: \$100.00

#### X9.44 Public Key Cryptography for the Financial Services Industry: Key Establishment Using Integer Factorization Cryptography

This Standard specifies key establishment schemes using public-key cryptography based on the integer factorization problem. Both key agreement and key transport schemes are specified. The schemes may be used by two parties to transport or agree on shared keying material. The keying material may be used to provide other cryptographic services that are outside the scope of this Standard, e.g. data confidentiality, data integrity, and symmetric-keybased key establishment. The key pair generators may be used in other Standards based on the integer factorization problem.

#### **Publication Date: 2007**

#### Price: \$60.00

#### X9.62 Public Key Cryptography for the Financial Services Industry: The Elliptic Curve **Digital Signature Algorithm (ECDSA)**

This Standard defines methods for digital signature (signature) generation and verification for the protection of messages and data using the Elliptic Curve Digital Signature Algorithm (ECDSA). The ECDSA shall be used in conjunction with an Approved hash function, as specified in X9 Registry Item 00003, Secure Hash Standard (SHS). The hash functions Approved at the time of publication of this document are SHA-1 (see NOTE), SHA-224, SHA-256, SHA-384 and SHA-512. This ECDSA Standard provides methods and criteria for the generation of public and private keys that are required by the ECDSA and the procedural controls required for the secure use of the algorithm with these keys. This ECDSA Standard also provides methods and criteria for the generation of elliptic curve domain parameters that are required by the ECDSA and the procedural controls required for the secure use of the algorithm with these domain parameters.

#### **Publication Date: 2005**

#### Price: \$100.00

#### X9.63 Public Key Cryptography for the Financial Services Industry: Key Agreement and Key Transport Using Elliptic Curve Cryptography

This Standard specializes ISO/IEC 11740-3 "Information Technology - Security Techniques -Key Management - Part 3: Mechanisms using asymmetric techniques" for use by the financial services industry. This Standard defines key establishment schemes that employ asymmetric cryptographic techniques. The arithmetic operations involved in the operation of the schemes take place in the algebraic structure of an elliptic curve over a finite field.

Both key agreement and key transport schemes are specified. The schemes may be used by two parties to compute shared keying data that may then be used by symmetric schemes to provide cryptographic services, e.g., data confidentiality and data integrity. **Publication Date: 2011** 

#### Price: \$160.00

#### X9.69 Framework for Key Management Extensions

This Standard defines methods for the generation and control of keys used in symmetric cryptographic algorithms. The Standard defines a constructive method for the creation of symmetric keys, by combining two or more secret key components. The Standard also defines a method for attaching a key usage vector to each generated key that prevents abuses and attacks against the key. The two defined methods can be used separately or in combination. **Publication Date: 2007** Price: \$60.00

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#### X9.73 Cryptographic Message Syntax – ASN.1 and XML

This Standard specifies a cryptographic syntax scheme which can be used to protect financial transactions, files and other messages from unauthorized disclosure and modification. The cryptographic syntax scheme is based on an abstract Cryptographic Message Syntax (CMS) schema whose concrete values can be represented using either a compact, efficient, binary encoding, or as a flexible, human-readable, XML markup format.

**Publication Date: 2010** 

Price: \$60.00

#### **X9.80 Prime Number Generation Primality Testing and Primality Certificates**

In the current state of the art in public key cryptography, all methods require, in one way or another, the use of prime numbers as parameters to the various algorithms. This document presents a set of accepted techniques for generating primes. It is intended that ASC X9 standards that require the use of primes will refer to this document, rather than trying to define these techniques on a case-by-case basis. Standards, as they exist today, may differ in the methods they use for parameter generation from those specified in this document. It is anticipated that as each existing ASC X9 standard comes up for its 5-year review, it will be modified to reference this document instead of specifying its own techniques for generating primes. This standard defines methods for generating large prime numbers as needed by public key cryptographic algorithms. It also provides testing methods for testing candidate primes presented by a third party. This standard allows primes to be generated either deterministically or probabilistically, where: - A number shall be accepted as prime when a probabilistic algorithm that declares it to be prime is in error with probability less than 2-100. -A deterministic prime shall be generated using a method that guarantees that it is prime. In addition to algorithms for generating primes, this standard also presents primality certificates for some of the algorithms where it is feasible to do so. The syntax for such certificates is beyond the scope of this document. Primality certificates are never required by this standard. Primality certificates are not needed when a prime is generated and kept in a secure environment that is managed by the party that generated the prime.

**Publication Date: 2005** 

#### Price: \$100.00

**X9.82-1 Random Number Generation Part 1: Overview and Basic Principles** This Standard defines techniques for the generation of random numbers that shall be used whenever ASC X9 Standards require the use of a random number or bit string for cryptographic purposes.

Publication Date: 2006

Price: \$60.00

X9.82-3 Random Number Generation Part 3: Deterministic Random Bit GeneratorsThis part of ANS X9.82 (Part 3) defines mechanisms for the generation of random bits using<br/>deterministic methods.Publication Date: 2007Price: \$60.00

## X9.84 Biometric Information Management and Security for the Financial Services Industry

This Standard describes the security framework for using biometrics for authentication of individuals in financial services. It introduces the types of biometric technologies and addresses issues concerning their application. This standard also describes the architectures for implementation, specifies the minimum security requirements for effective management, and provides control objectives and recommendations suitable for use by a professional practitioner.

Publication Date: 2010 PUBLISHED JANUARY 2012 Price: \$100.00 ©Copyrighted 2012 24

#### X9.92-1 Public Key Cryptography for the Financial Services Industry Digital Signature Algorithms Giving Partial Message Recovery Part 1: Elliptic Curve Pintsov-Vanstone Signatures (ECPVS)

This Standard defines methods for digital signature generation and verification for the protection of messages and data giving partial message recovery. This document is Part 1 of this Standard, and it defines the Elliptic Curve Pintsov-Vanstone Signature (ECPVS) digital signature algorithm. Part 2 of this Standard defines the Finite Field Pintsov-Vanstone Signature (FFPVS) digital signature algorithm.

ECPVS is a signature scheme with low message expansion (overhead) and variable length recoverable and visible message parts. ECPVS is ideally suited for short messages, yet is flexible enough to handle messages of any length. The ECPVS shall be used in conjunction with an Approved hash function and an Approved symmetric encryption scheme. In addition, this ECPVS Standard provides the criteria for checking the message redundancy. Supporting examples are also provided. Price: \$60.00

**Publication Date: 2009** 

#### X9.95 Trusted Time Stamp Management and Security

This standard specifies the minimum security requirements for the effective use of time stamps in a financial services environment. Within the scope of this Standard the following topics are addressed: Requirements for the secure management of the time stamp token across its life cycle, comprised of the generation, transmission and storage, validation, and renewal processes. The requirements in this Standard identify the means to securely and verifiably distribute time from a national time source down to the application level; Requirements for the secure management of a Time Stamp Authority (TSA); Requirements of a TSA to ensure that an independent third party can audit and validate the controls over the use of a time stamp process; Techniques for the coding, encapsulation, transmission, storage, integrity and privacy protection of time stamp data; Usage of time stamp technology.

#### Published Date: 2005

#### Price: \$100.00

#### X9.97-1 Financial Services - Secure Cryptographic Devices (Retail) Part 1: Concepts, **Requirements and Evaluation Methods**

This part of ANS X9.97 specifies the requirements for Secure Cryptographic Devices which incorporate the cryptographic processes defined in ISO 9564, ISO 16609 and ISO 11568. This part of ANS X9.97 has two primary purposes:

1) to state the requirements concerning both the operational characteristics of SCDs and the management of such devices throughout all stages of their life cycle,

2) to standardize the methodology for verifying compliance with those requirements. Appropriate device characteristics are necessary to ensure that the device has the proper operational capabilities and provides adequate protection for the data it contains. Appropriate device management is necessary to ensure that the device is legitimate, that it has not been modified in an unauthorized manner, e.g., by "bugging", and that any sensitive data placed within the device (e.g., cryptographic keys) has not been subject to disclosure or change. Publication Date: 2009 Price: \$140.00

#### X9.97-2 (Identical to ISO 13491-2: 2005) Banking - Secure cryptographic devices (retail) Part 2: Security compliance checklists for devices used in financial transactions

This part of the standard specifies checklists to be used to evaluate secure cryptographic devices (SCDs) incorporating cryptographic processes, as specified in parts 1 and 2 of ISO 9564, ISO 16609 and parts 1 to 6 of ISO 11568, in the financial services environment. IC payment cards are subject to the requirements identified in this part of ISO 13491 up until the

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time of issue, after which they are to be regarded as a "personal" device and outside of the scope of this document.

#### Publication Date: 2009

#### Price: \$140.00

## X9.98 Lattice-Based Polynomial Public Key Encryption Algorithm Part 1: Key Establishment: Part 2: Data Encryption

This Standard specifies the cryptographic functions for establishing symmetric keys using a lattice-based polynomial public key encryption algorithm and the associated parameters for key generation. The mechanism supported is *key transport*, where one party selects keying material and conveys it to the other party with cryptographic protection. The keying material may consist of one or more individual keys used to provide other cryptographic services outside the scope of this Standard, e.g. data confidentiality, data integrity, or symmetric-key-based key establishment. It also specifies key pair generators and corresponding key pair validation methods supporting the key transport schemes.

#### Publication Date: 2010

#### Price: \$100.00

## X9.102 Symmetric Key Cryptography for the Financial Services Industry - Wrapping of Keys and Associated Data

This standard specifies four key wrap mechanisms based on ASC X9 approved symmetric key block ciphers whose block size is either 64 bits or 128 bits. The key wrap mechanisms can provide assurance of the confidentiality and the integrity of data, especially cryptographic keys or other specialized data.

#### Publication Date: 2008

#### Price: \$60.00

#### X9.112-1 Wireless Management and Security Part 1: General Requirements

In today's world, both private and public sectors depend upon information technology systems to perform essential and mission-critical functions. In the current environment of increasingly open and interconnected systems and networks, network and data security are essential for the effective use of information technology. Privacy and regulatory requirements highlight this need. For example, systems that perform electronic commerce must protect against unauthorized access to confidential records and unauthorized modification of data. Wireless technologies are rapidly emerging as significant components of these networks. As such, data classification and risk assessments should be performed to determine the sensitivity of, and risk to, data transmitted over wireless networks. Various methods and controls should be considered for data that is sensitive, has a high value, or represents a high value if it is vulnerable to unauthorized disclosure or undetected modification during transmission over wireless networks. These methods and controls support communications security, for example by encrypting the communication prior to transmission and decrypting it at receipt. Note that data classification and risk assessments, regardless of whether data transmission is over wired or wireless environments, should be part of an organization's general security policy and best practices. Refer to Annex A Wireless Validation Control Objectives for further details. Part 1 of this Standard provides an overview of wireless radio frequency (RF) technologies and general requirements applicable to all wireless implementations for the financial services industry. Subsequent parts of this Standard will address specific applications to wireless technology and associated risks, as well as technologies, methods and controls that mitigate those risks.

Publication Date: 2009

Price: \$100.00

#### Management Standards

**X9.99 (Identical to ISO 22307-2008) Privacy Impact Assessment Standard** This International Standard recognizes that a privacy impact assessment (PIA) is an important financial services and banking management tool to be used within an organization, or by "contracted" third parties, to identify and mitigate privacy issues and risks associated with processing consumer data using automated, networked information systems. This International Standard

- describes the privacy impact assessment activity in general,
- defines the common and required components of a privacy impact assessment, regardless of business systems affecting financial institutions, and
- provides informative guidance to educate the reader on privacy impact assessments.

A privacy compliance audit differs from a privacy impact assessment in that the compliance audit determines an institution's current level of compliance with the law and identifies steps to avoid future non-compliance with the law. While there are similarities between privacy impact assessments and privacy compliance audits in that they use some of the same skills and that they are tools used to avoid breaches of privacy, the primary concern of a compliance audit is simply to meet the requirements of the law, whereas a privacy impact assessment is intended to investigate further in order to identify ways to safeguard privacy optimally. **Publication Date: 2009** 

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ASC X9, Inc. operates under its own procedures and those prescribed by the American National Standards Institute. Presently, ASC X9 operates 4 technical subcommittees and as many as 30 technical working groups developing financial industry technical standards and reports. ASC X9 is the USA Technical Advisory Group (TAG) to the International Technical Committee on Financial Services (TC68) under the International Organization for Standardization (ISO), of Geneva, Switzerland. In this role, X9 holds the USA vote on all ISO standards of TC 68 and its subcommittees SC2, SC4, and SC7. X9 participates actively in international standards development, supplies votes on TC 68 documents and contributes to the development and adoption of international standards that support the financial industry. X9 approves delegates who represent the USA in international meetings and participates in the international development process. In addition, X9 serves as Secretariat to TC 68.

#### \* see www.iso20022 .org

In 1974, the American National Standards Institute (ANSI) approved the scope of activity for the X9 Standards Committee on Banking, as "Standardization for Facilitating Banking Operations." In June, 1976, the X9 Standards Committee approved expansion of its membership to include vendors, insurance companies, associations, retailers, regulators, and others in the financial services area. With this approval, the name was changed to X9, Financial Services. ANSI first granted X9 official accreditation in 1984. The official committee name became as it remains today, Accredited Standards Committee (ASC) X9, Financial Services. Since this time, ASC X9 was incorporated under a 501 C(6) non-profit designation for associations.

Accredited Standards Committee X9, Inc. members may elect to vote and participate in one or more of the following:

X9 Board of Directors X9AB – Payments - retail, checks, alternate payments – interfacing with ISO 20022\* X9C – Corporate Banking X9D - Securities X9F - Data and Information Security

### FACTS ABOUT ACCREDITED STANDARDS COMMITTEE X9 – FINANCIAL INDUSTRY GLOBAL STANDARDS



If the financial industry did not follow standards, we would soon notice. This is because standards make an enormous contribution to our industry—even though the contribution is often invisible, or taken for granted. Every day, we come in contact with financial standards - the size of a paper check, protocols for messaging, electronic security systems, and paperless contracts are just a few. Standards simplify our lives, increase productivity, and allow interoperability and straight through processing. The Accredited Standards Committee X9, Inc. or more simply X9, takes the lead in developing the technical industry standards needed to act efficiently and competitively in the market place.

#### WHAT IS X9?

X9 develops, maintains and promotes standards for the financial services industry to facilitate the delivery of financial products. It focuses on current and future standard needs of the financial services industry and participates in and grows the development of international standards. X9 is an independent non-profit corporation comprised of its Board, technical subcommittees and working groups.

The Board acts as the consensus body, voting on acceptance/rejection of X9 standards for submittal to ANSI to become American National Standards. In addition to its subcommittees, four management committees report to the Board, they are: Executive, Finance, Membership & Marketing and Policy and Procedures.

X9's subcommittees have domain over specific subject areas:

- X9AB Payments (Retail, Cards, Checks)
- **X9C** Corporate Banking
- X9D Securities
- X9F Data and Information Security

Working groups are a subset of each subcommittee and are organized as needed to develop standards. Under the four subcommittees there are currently 28 working groups developing standards and technical reports.

#### **X9 MEMBERSHIP**

More than 140 organizations, with more than 800 participants are members of organizations representing:

- Banks
- Vendors & Suppliers
- Corporate Practitioners
- Government Agencies
- Auditors

- Associations
- Securities Firms
- Depositories
- Security Consultants
- Regulators

#### **BENEFITS OF MEMBERSHIP**

Depending on the level of membership, X9 members receive:

- **Opportunity** to be a Board of Director member,
- Voting privileges on American National and ISO standards, technical reports, new work items, X9 policy and leadership positions,
- **Participate** on multiple subcommittees and working groups,
- Serve on Board, Executive or Management Committees,
- Represent the USA internationally at ISO/TC68 or other TC Committees,
- Access to all draft standards both ISO and ANS and full X9 collection of standards - free of charge,
- Full access to the X9 website member workspace,
- Ability to help direct and anticipate the needs of the industry and provide leadership in the development of financial industry standards,
- **Develop** unique peer-to-peer technical based relationships.

#### INTERNATIONAL PROGRAM

X9 is the USA Technical Advisory Group (TAG) to the International Technical Committee on Financial Services (TC68) under the International Organization for Standardization (ISO), based in Geneva, Switzerland.

As the USA/TAG, X9 provides the U.S. vote on proposed international standards and authorizes representatives from X9 member organizations to serve as delegates and experts on international working groups and committees and to represent USA positions. Many X9 developed standards become international (ISO) standards.

X9 is the Secretary of ISO 20022 Registration Management Group (RMG) and approves voting members in the ISO 20022 RMG which is made up of senior industry banking experts nominated by ISO TC68. The RMG is the highest standards registration body. It monitors the overall registration process and reports directly to ISO/TC68.

#### X9 Membership Information

#### Membership in ASC X9 is by organization or company

ASC X9 has four membership categories, each offering benefits to various organizations. Top membership levels provide participants with extra privileges important to leading organizations. The following is a list of categories:

#### Category A—Board Level: \$8,250

**Description:** Board Membership & Voting Privileges - Ability to participate on all Subcommittees and all Working Groups, USA TAG participant voting on all international standards, develop and vote on X9 policy and access to the entire X9 collection of standards free of charge.

#### Eligibility: Executive approval

**Benefits:** The Category A membership provides an organization with the opportunity to name a representative to the ASC X9's Board of Directors. Category A members belong to and participate in multiple subcommittees and their working groups. The Category A member votes on new work projects, standards, the association's procedures/policies, and directs the work of all subcommittees and working groups. The Category A member may represent the USA internationally and may serve as an X9 Subcommittee chairman.

#### Category B—Subcommittee: \$4,900

**Description:** Voting Privileges on one Subcommittee and ability to participate in all working groups within that subcommittee. Access to the full collection of X9 standards free of charge.

#### Eligibility: Executive approval

**Benefits:** Category B membership provides an organization with voting privileges on a single X9 subcommittee and access to that subcommittee's working groups. A Category B member votes on the standards under their subcommittee of choice. Category B members receive member access to X9's website and can download all X9 Standards and Technical Guidelines free of charge.

#### Category C—Subcommittee: \$2,600

**Description:** The Category C level member has access to one Subcommittee, has ability to vote and participate on all standards in that single subcommittee. The Company must qualify annually for this level which is open to organizations with gross revenues of less than \$1 million and who employ fewer than 100 persons (letter of confirmation required from CPA or other financial person in organization).

#### Eligibility: Executive approval

**Benefits:** Category C members voting privileges are for ballots related to a single X9 subcommittee and access to that subcommittee's working groups. Category C members receive member access to X9's website and can download all X9 Standards and Technical Guidelines free of charge.

#### Category E—Working Group Only: \$1,300

**Description:** Access to one national Working Group a non-voting level membership. This is access for one individual for each membership. The company must qualify annually for this level which is open to organizations producing less than \$1 million in gross receipts with 10 or fewer employees (confirmation of company status is required).

#### Eligibility: Executive approval

**Benefits:** Category E membership limits participation to a single ASC X9 national/US working (domestic) group. Category E members are provided access to the documents under development in the working group of their choice.



#### ACCREDITED STANDARDS COMMITTEE X9. INC. MEMBERSHIP ENROLLMENT APPLICATION

Please indicate the method of payment: Check enclosed. (Make check payable to Accredited Standards Committee X9, Inc.) Charge my credit card: Discover □ VISA MasterCard
 American Express Account Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_ Date: Signature: Choose the appropriate category for your organization: Categories A, B and C have free access to all ASC X9, Inc. Standards on the www.x9.org website. Category A \$8,250 Category B \$4,900 Category C \$2,600\*\* Category E \$1,300\*\* (Per national working group - indicate group(s) below) \*\* smaller organization Please indicate Working Group(s) (e.g., X9F1)\_\_\_\_\_ \*Please choose the Subcommittee(s) that interests you: □ X9AB Payments Subcommittee - Retail, Checks, Alternate Payments □ X9C Corporate Banking, □ X9D Securities, □ X9F Data and Information Security Please complete both sections below. Your Company's Principal Contact Name Title Organization\_\_\_\_\_ Address\_\_\_\_\_ City\_\_\_\_\_ State\_\_\_\_ Zip Code\_\_\_\_\_ Phone (\_\_\_\_\_\_)\_\_\_\_\_ Fax (\_\_\_\_)\_\_\_\_\_ Email Your Company's Alternate Contact Name \_\_\_\_\_\_ Title Organization Address\_\_\_\_\_ 
 Address\_\_\_\_\_\_
 City\_\_\_\_\_\_State\_\_\_\_\_Zip Code\_\_\_\_\_\_

 Phone (\_\_\_\_)\_\_\_\_Fax (\_\_\_)\_\_\_\_Email\_\_\_\_\_
 Email\_\_\_\_\_\_\_
 \_\_\_\_\_ (name of organization) understand that we are We \_\_\_\_ making application to join ASC X9, Inc. as a member. We understand that upon receipt of our application and membership dues by ASC X9, Inc. they will provide appropriate access to the member-side of the ASC X9, Inc. website. We have read, understand and will accept ASC X9's Membership Policy. Signature Date

Please return this application form to: Accredited Standards Committee X9, Inc. P.O. Box 890330 • Charlotte, NC 28289-0330