This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

American National Standard
for Financial Services

X9.58–2002

Financial transaction messages - Electronic benefits transfer (EBT) – Food stamps

Secretariat:
Accredited Standards Committee X9, Inc.

Approved: 8/28/02

American National Standards Institute

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

Foreword

Approval of an American National Standard requires verification by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer.

Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he has approved the standards or not from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards.

The American National Standards Institute does not develop standards and will in no circumstances give an interpretation of any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken to reaffirm, revise, or withdraw this standard no later than five years from the date of approval.

Published by

Accredited Standards Committee X9, Inc.
P.O. Box 4035
Annapolis, Maryland 21403 USA
Phone: 410-267-7707 or 301-879-7988
Fax: 301-879-5124
Email: Cindy.Fuller@X9.org
Isabel.Bailey@X9.org
X9 Online: http://www.x9.org

Copyright © 2002 by Accredited Standards Committee X9, Inc.
All rights reserved.
No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without prior written permission of the publisher. Printed in the United States of America

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

Contents

Foreword i

Figures v

Tables vi

Introduction viii

1 Scope 1

2 Normative references 1

3 Terms and definitions 2

4 Symbols (and abbreviated terms) 3
4.1 Representation abbreviations 3
4.2 Abbreviated terms 3

5 Message structure 4
5.1 Message components 4
5.1.1 Message type 4
5.1.2 Message repeats 5
5.2 Message bit maps 5
5.3 Data element types 5
5.3.1 Primitive data elements 6
5.3.2 Constructed data elements 6

6 Data elements 6
6.1 Data element directory 6
6.2 Data element rules 11
6.2.1 Amount data elements 11
6.2.2 Additional data, private acquirer (bit 111) 12
6.2.3 Additional response data (bit 44) 12
6.2.4 Amounts, additional (bit 54) 12
6.2.5 Card acceptor name/location (bit 43) 12
6.2.6 POS and ATM transactions 13
6.2.7 Original data elements (bit 90) 13
6.2.8 Replacement amounts (bit 95) 13
6.2.9 Track data element (bit 35) 13
6.2.10 National POS geographic data (bit 59) 13

7 Message and Transactions 14
7.1 General 14
7.1.1 Mandatory and conditional data elements 14
7.1.2 Message flows 14
7.1.3 Message errors 15
7.1.4 Exception message flows 15
7.1.5 Transaction relationships 16

8 Message class definitions 17
8.1 Pre-authorization message 17
8.1.1 Pre-Authorization description 17
8.1.2 Pre-Authorization message rules 17

©2002 – All rights reserved

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

8.1.3 Pre-authorization message type identifiers 18
8.1.4 Pre-authorization mandatory and conditional data elements 18
8.1.5 Pre-authorization message flows 19
8.2 Financial Presentment message class 20
8.2.1 Financial Presentment description 20
8.2.2 Financial Presentment message rules 20
8.2.3 Financial Presentment message type identifiers 21
8.2.4 Financial Presentment mandatory and conditional data elements 22
8.2.5 Financial Presentment message flows 23
8.3 Reversal message class 24
8.3.1 Reversal description 24
8.3.2 Reversal message rules 24
8.3.3 Reversal message type identifiers 25
8.3.4 Reversal mandatory and conditional data elements 25
8.3.5 Reversal message flows 27
8.4 Administrative message class 27
8.4.1 Error Messages description 27
8.4.2 Error Messages message rules 27
8.4.3 Error Messages message type identifiers 28
8.4.4 Error Messages mandatory and conditional data elements 28
8.4.5 Error Messages message flows 28
8.5 Network management message class 29
8.5.1 Network Management description 29
8.5.2 Network Management message rules 29
8.5.3 Network Management message type identifiers 29
8.5.4 Network Management mandatory and conditional data elements 30
8.5.5 Network Management message flows 30

9 Message and Transaction matching 30
9.1 General 30
9.2 Message matching 31
9.3 Transaction matching 31

10 Maintenance of codes 31
10.1 Maintenance group responsibilities 31
10.2 Applications for new code values 31

Annex A (normative) **Data elements in bit number order** 32

Annex B (informative) **Data element code tables** 35
B.1 Account type codes (bit 3-2 and bit 54) 35
B.2 Advice/reversal reason code (bit 60) 35
B.3 Amount type codes (bit 54-1) 36
B.4 Authorization life cycle code (bit 57) 37
B.5 Message type identifier codes (see 5.1.1.2) 37
B.5.1 All possible message type identifier codes 37
B.5.2 Allocated message type identifier codes 38
B.6 National POS condition code (bit 58) 39
B.6.1 Terminal class (bit 58-1) 39
B.6.2 Presentation type (bit 58-2) 39
B.6.3 Security condition (bit 58-3) 40
B.6.4 Terminal type (bit 58-4) 40
B.7 Network management information codes (bit 70) 40
B.8 Point of service entry mode (bit 22) 41
B.8.1 PAN entry mode codes (bit 22-1) 41
B.8.2 PIN entry mode codes (bit 22-2) 41
B.9 Point of service PIN capture code (bit 26) 41

©2002 - All rights reserved

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

B.10 Processing Code (bit 3) **42**
B.10.1 Transaction type code (bit 3-1) **42**
B.11 Response codes (bit 39) **43**

Annex C (informative) **Implementation considerations** **45**
C.1 General **45**
C.2 Data representation **45**
C.3 Use of optional data elements **45**
C.4 Reversal transactions **45**
C.5 Store and forward transactions **46**
C.6 Data element usage **47**
C.6.1 Authorization life cycle code **47**
C.6.2 Account type codes **47**
C.6.3 Amount data elements **47**
C.6.4 Institution identification codes **47**
C.6.5 Mandatory data elements **47**
C.6.6 Additional response data data element **47**

Annex D (informative) **Conversion guideline** **48**
D.1 Code value differences **48**
D.2 Data element differences **48**
D.3 Message processing differences **48**
D.4 File processing differences **48**

Bibliography **49**

©2002 – All rights reserved

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

Figures

Figure 1 — Message bit maps 5

Figure 2 — Exception message flows for time out Reversals 15

Figure 3 — Exception message flows for late response 16

Figure 4 — Example transaction flows for 1xx, 2xx, 4xx transactions 16

Figure 5 — Pre-authorization message flows 19

Figure 6 — Financial Presentment request/response message flows 23

Figure 7 — Financial Presentment advice/advice response message flows 24

Figure 8 — Reversal message flows 27

Figure 9 — Error Messages flows 29

Figure 10 — Network Management message flows 30

Figure C.1 — Store and forward message flows 46

©2002 - All rights reserved

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

Tables

Table 1 — Representation abbreviations 3

Table 2 — Data element directory 6

Table 3 — Amounts in types of Pre-authorization messages 18

Table 4 — Pre-authorization message type identifiers 18

Table 5 — Pre-authorization mandatory and conditional data elements 18

Table 6 — Amounts in types of Financial Presentment messages 21

Table 7 — Financial Presentment message type identifiers 21

Table 8 — Financial Presentment mandatory and conditional data elements 22

Table 9 — Financial Presentments that are not Reversals 24

Table 10 — Amounts in Reversal messages 25

Table 11 — Reversal message type identifiers 25

Table 12 — Reversal mandatory and conditional data elements 26

Table 13 — Error Messages message type identifiers 28

Table 14 — Error messages mandatory and conditional data elements 28

Table 15 — Network Management message type identifiers 29

Table 16 — Network Management mandatory and conditional data elements 30

Table A.1 — Data elements in bit number order 32

Table B.1 — Account type codes 35

Table B.2 — Advice/reversal reason codes 35

Table B.3 — Amount type codes 36

Table B.4 — Authorization life cycle codes 37

Table B.5 —Message type identifier codes 37

Table B.6 — Allocated message type identifiers 38

Table B.7 — Terminal class codes 39

©2002 – All rights reserved

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

Table B.8 — Presentation type codes 39

Table B.9 — security condition codes 40

Table B.10 — Terminal type codes 40

Table B.11 — Network management information codes 40

Table B.12 — PAN entry mode codes 41

Table B.13 — PIN entry mode codes 41

Table B.14 — Point of service PIN capture codes 41

Table B.15 — Processing code values for POS and ATM 42

Table B.16 — Transaction type codes 43

Table B.17 — Response codes 43

©2002 - All rights reserved

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

Introduction

Services of the financial industry include the exchange of electronic messages relating to financial transactions. Electronic benefits transfer (EBT) services allow the exchange of these messages to process federal and state government benefits for recipients. The USDA Food Stamps program is one of these services. This American National Standard is designed as an interface specification enabling messages to be exchanged between the various parties involved in the program. It is the first standard for the area of electronic benefit transfer and conforms to the current industry practices.

Suggestions for the improvement or revision of this Standard are welcome. They should be sent to the X9 Committee Secretariat, Accredited Standards Committee X9, Inc., P.O. Box 4035, Annapolis, Maryland 21403 USA.

This Standard was processed and approved for submittal to ANSI by the Accredited Standards Committee on Financial Services, X9. Committee approval of the Standard does not necessarily imply that all the committee members voted for its approval.

The X9 committee had the following members:
Harold Deal, X9 Chairman
William Lyons, X9 Vice-Chairman
Cynthia Fuller, Managing Director
Darlene Schubert, Program Manager

Organization Represented	Representative
ACI Worldwide	Cindy Rink
ACI Worldwide	Jim Shaffer
American Bankers Association	Stephen Schutze
American Express Company	Barbara Wakefield
American Express Company	Dick Schreiber
American Express Company	Gerry Smith
American Express Company	Mike Jones
American Express Company	Mark Merkow
BancTec, Inc.	Christopher Dowdell
BancTec, Inc.	David Hunt
Bank of America	Mack Hicks
Bank of America	Daniel Welch
Bank of America	Richard Phillips
Bank One Corporation	Jacqueline Pagan
Bank One Corporation	Kimberly Ray
BB and T	Harold G. Deal
Caradas	Richard P. Kastner
Caradas	John Gould
Caradas	Tom Johnston
Certicom Corporation	Daniel Brown
Certicom Corporation	Brenda Klein
Check Solutions	Harry Hankla
Check Solutions	Jerry Bowman
Check Solutions	Ron Schultz
Check Solutions	Don Harman
Citigroup, Inc.	Daniel Schutzer

©2002 – All rights reserved

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

Citigroup, Inc.	Mark Scott
Citigroup, Inc.	Skip Zehnder
Compaq Computer Corporation	Larry Hines
Compaq Computer Corporation	Gary Lefkowitz
Datum, Inc.	Sandra Lambert
Datum, Inc.	John Bernardi
Datum, Inc.	Jerry Willett
Deluxe Corporation	Maury Jansen
Depository Trust and Clearing Corporation	Sandra Dinetz
Diebold, Inc.	Judy Edwards
Diebold, Inc.	Bruce Chapa
Discover Financial Services	Masood Mirza
Discover Financial Services	Patsie Rinchiuso
Discover Financial Services	Pamela Ellington
eFunds Corporation	Cory Surges
eFunds Corporation	Chuck Bram
eFunds Corporation	Forrest Martin
eFunds Corporation	Joseph Stein
eFunds Corporation	Daniel Rick
eFunds Corporation	Richard Fird
Federal Reserve Bank	Dexter Holt
Federal Reserve Bank	Gary Chaulklin
Federal Reserve Bank	Jeannine M. DeLano
First Data Corporation	Gene Kathol
Food Marketing Institute	Stacy Fitzgerald-Redd
Food Marketing Institute	Ted Mason
Griffin Consulting	Harriette Griffin
Griffin Consulting	Phil Griffin
J.P. Morgan Chase and Co.	Robert Blair
J.P. Morgan Chase and Co.	Richard Yen
KPMG Peat Marwick LLP	Jeff Stapleton
KPMG Peat Marwick LLP	Al Van Ranst
Mag-Tek, Inc.	Carlos Morales
Mag-Tek, Inc.	Jeff Duncan
Mag-Tek, Inc.	Mimi Hart
Mag-Tek, Inc.	Terry Benson
MasterCard International	Naiyre Foster
MasterCard International	Ron Karlin
MasterCard International	Caroline Dionisio
Mellon Bank, N.A.	David Taddeo
Mellon Bank, N.A.	Richard H. Adams
Merrill Lynch	Jennifer Smith
Merrill Lynch	Dave Yeger
National Association of Convenience Stores	Robert Swanson
National Association of Convenience Stores	Teri Richman
National Association of Convenience Stores	John Hervey
National Security Agency	Gregory Bergren
National Security Agency	Sheila Brand
NCR Corporation	David Norris
NCR Corporation	Steve Stevens
New York Clearing House	Vincent DeSantis
New York Clearing House	John Dunn
Niteo Partners	Michael Versace
PricewaterhouseCoopers	Jeff Zimmerman
Silas Technologies	Andrew Garner
Silas Technologies	Ray Gatland

©2002 - All rights reserved

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

SPYRUS	Karen Randall
SPYRUS	James Randall
Star Systems, Inc.	Elizabeth Lynn
Star Systems, Inc.	Michael Wade
Sun Microsystems PS	Joel Weise
Sun Microsystems PS	Yvonne Humphery
Troy Systems International, Inc.	Mark Whitson
Unisys Corporation	Navnit Shah
Unisys Corporation	David J. Concannon
VeriFone, Inc.	Brad McGuinness
VeriFone, Inc.	Brenda Watlington
VeriFone, Inc.	John Sheets
VISA International	Patricia Greenhalgh
Wells Fargo Bank	Terry Leahy
Wells Fargo Bank	Ruven Schwartz

The X9A subcommittee on Retail Financial Transactions had the following members:
Gene Kathol, Chairman

Organization	Representative
ACI Worldwide	Cindy Rink
ACI Worldwide	Jim Shaffer
American Bankers Association	Michael Scully
American Express Company	Barbara Wakefield
American Express Company	Dick Schreiber
American Express Company	Mike Jones
BancTec, Inc.	Christopher Dowdell
BancTec, Inc.	Alex Parkov
Bank of America	Richard Phillips
Bank of America	Randall Laza
Bank One Corporation	Jacqueline Pagan
Bank One Corporation	Kimberly Ray
BB and T	Harold G. Deal
Caradas	Richard P. Kastner
Caradas	John Gould
Caradas	Tom Johnston
Check Solutions	Harry Hankla
Check Solutions	Jerry Bowman
Check Solutions	Ron Schultz
Citigroup, Inc.	Bill Burnett
Citigroup, Inc.	Daniel Schutzer
Depository Trust and Clearing Corporation	Sandra Dinetz
Diebold, Inc.	Judy Edwards
Diebold, Inc.	Bruce Chapa
Discover Financial Services	Masood Mirza
Discover Financial Services	Patsie Rinchiuso
Discover Financial Services	Pamela Ellington
eFunds Corporation	Cory Surges
eFunds Corporation	Chuck Bram
eFunds Corporation	Forrest Martin
eFunds Corporation	Joseph Stein
eFunds Corporation	Daniel Rick
eFunds Corporation	Richard Fird
First Data Corporation	Gene Kathol

©2002 – All rights reserved

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

First Data Corporation	Bonnie Howard
Food Marketing Institute	Stacy Fitzgerald-Redd
Food Marketing Institute	Ted Mason
Inovant	Dick Sweeney
J.P. Morgan Chase and Co.	Paul Simon
J.P. Morgan Chase and Co.	Robert Blair
J.P. Morgan Chase and Co.	Richard Yen
MasterCard International	Naiyre Foster
MasterCard International	Ron Karlin
Merrill Lynch	Harry Mahlstedt
Merrill Lynch	John Dolan
National Association of Convenience Stores	Robert Swanson
National Association of Convenience Stores	Teri Richman
National Association of Convenience Stores	John Hervey
National Security Agency	Gregory Bergren
National Security Agency	Sheila Brand
NCR Corporation	David Norris
NCR Corporation	Steve Stevens
New York Clearing House	Vincent DeSantis
Niteo Partners	Michael Versace
Radiant Systems	Drago Dzerve
SPYRUS	Karen Randall
SPYRUS	James Randall
Star Systems, Inc.	Elizabeth Lynn
Star Systems, Inc.	Michael Wade
Sun Microsystems PS	Joel Weise
Sun Microsystems PS	Yvonne Humphery
Unisys Corporation	Navnit Shah
VeriFone, Inc.	Brad McGuinness
VeriFone, Inc.	Brenda Watlington
VISA International	Patricia Greenhalgh
Wells Fargo Bank	Chuck Perry
Wells Fargo Bank	Salley Hoopes

Under ASC X9 procedures, a working group may be established to address specific segments of work under the ASC X9 Committee or one of its subcommittees. A working group exists only to develop standard(s) or guideline(s) in a specific area and is then disbanded. The individual experts are listed with their affiliated organizations. However, this does not imply that the organization has approved the content of the standard or guideline. (Note: Per X9 policy, company names of non-member participants are listed only if, at time of publication, the X9 Secretariat received an original signed release permitting such company names to appear in print.)

The X9A11 EBT/WIC group that developed this standard had the following members:

Ted Mason, Chairman

Peter Relich, Vice-Chairman

Bonnie Howard, Editor

Organization	**Representative**
Booz Allen & Hamilton	Ed Oppenheimer
Burger, Carroll & Associates	Lyn Van Raden
Chaddsford Planning Associates	Robert Bucceri
Citibank	Edward Koslow
eFunds Corporation	Forrest Martin

©2002 - All rights reserved

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

eFunds Corporation	Joseph Stein
First Data Corporation	Carol Simon
Food Marketing Institute	Ted Mason
ISO 8583 consultant	Bonnie Howard
KPMG Peat Marwick LLP	Jeff Stapleton
NACHA	Helena Sims
National Association of Convenience Stores	John Hervey
Phoenix-Maximus	Peter Relich
Texas EBT	Doug Walker
VeriFone, Inc.	Louise Meyer
USDA, Food and Nutrition Service	Jeff Cohen
UDSA, Food and Nutrition Service	Gene Austin
USDA, Food and Nutrition Service	Erin McBride
WIC, Texas Department of Health	Gerry Cannaday

This standard replaces the ANS DSTU 9510, EBT Processor Interface Technical Specifications in whole. A summary of the significant differences in the standard from the DSTU version is provided in Annex D.

Annexes A and B form an integral part of this standard. Annexes C and D are for information only.

To aid clarity the following conventions are followed within this standard:

— data element names have the first letter capitalized

— data element names are shown in *italics* except when used in tables or figures.

— Message class names are shown capitalized when the context refers to their use in messages or transactions.

©2002 – All rights reserved

This is a preview of "ANSI X9.58:2002". Click here to purchase the full version from the ANSI store.

Financial Transaction Messages – Electronic Benefits Transfer (EBT) – Food stamps

1 Scope

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.

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.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. Nevertheless, parties to agreements based on this document are encouraged to consider applying the most recent edition of the referenced documents indicated below. For undated references, the latest edition of the referenced document (including any amendments) applies.

ASC X9.10 Merchant category codes.

ANSI X9.8 – 1995: Banking – Personal Identification Number Management and Security – Part 1: PIN Protection Principles and Techniques; Part 2: Approved Algorithms for PIN Encipherment.

ANSI X9.19 – 1996: Financial Institution Retail Message Authentication.

ANSI X9.24 1998: Financial Services – Key Management Using the DEA.

ISO 3166: Codes for the representation of names of countries.

ISO 4217: Codes for the representation of currencies and funds.

ISO 7813: Identification cards – Financial transaction cards.

ISO 7372: Trade data interchange – Trade data elements directory (Endorsement of UNECE/TDED, sections 1,2,3,4 and 9).

ISO 9564-1: Banking – Personal identification number management and security – Part 1: PIN protection principles and techniques.

©2002 - All rights reserved