



CCF/CCF-II/MDH Transmission Guides

3.08 Institutional Delivery System Authorization and Exception System (ANE1/5) Function User's Guide

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3.08 Institutional Delivery Authorization/Exception (ANE1/5) System: Function User's Guide

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1. Objectives of This Chapter

The objectives of this chapter are to:

- Describe DTC's Authorization/Exception (ANE) System
- Illustrate required record formats

2. Overview: Authorization and Exception Enhancements

This document describes how Participants can use DTC's newly developed Authorization/Exception System via the Computer to Computer Facility (CCF), Computer to Computer Facility II (CCF-II) and Mainframe Dual Host (MDH), under Interface Control Management (ICM), which replaced the PRTE system in April 1995.

This specification is intended to be read in conjunction with the DTC document *Interface Control Management CCF, CCF-II and MDH User's Guide for Transaction Input*, which describes new standards for transaction processing and specifics relating to the operation, error processing, and recovery for transmissions using DTC's automated systems.

2.1 Features of the Enhanced ANE System

The enhanced ANE system provides Authorization/Exception processing of affirmed DTC eligible trades on S-1, in addition to Authorization/Exception processing on the morning of settlement(s) date and trade-for-trade authorization through S+21.

The enhanced system is completely interactive:

- DTC updates information shortly after receiving the input and processes it according to cutoff times.
- Participants can currently submit instructions at any time during the day via CCF or CCF-II.
- For S-1 processing, DTC processes authorizations and exceptions on a last-in basis where the last global instruction received before cutoff overrides all prior input and provide an audit trail for review of input.
- In addition, if the last instruction is a trade-for-trade transaction, it overrides any previous instructions submitted to DTC for a specific trade control number.
- Trade-for-Trade authorizations received on the morning of S through S + 21 settlement days immediately generate an Institutional Delivery Deliver Order (DO) that is processed into the DTC system for update purposes.
- Any authorized Institutional Delivery trade that recycles and drops is exempted from any further ANE processing.



ANE does not provide default processing. For example, if a Participant submits a trade-for-trade exception, the enhanced system does not automatically authorize all of the other trades, as did the current system. In the new system, Participant have to submit a global authorization followed by trade-for-trade exceptions to accomplish this. If a Participant does not submit any input for that settlement day, the new system “excepts” all the trades out of that night’s processing.

2.2 Function Description

The ANE function is available via CCF, CCF-II and MDH. The function names associated with each interface are as follows:

CCF	ANE5	available from 6:00 a.m. through 6:30 p.m. (Eastern Time)
CCF-II	ANE5	available from 6:00 a.m. through 6:30 p.m. (Eastern Time)
MDH	ANE1	available from 6:00 a.m. through 6:30 p.m. (Eastern Time)

For more details about cut off times, see Section 3.5, Cutoff Times, on page 6.

2.3 Description of Service

Deliverers can authorize affirmed DTC-eligible trades on the following days and have them processed by DTC for update:

S-1	For Processing on S
S through S+21 (prior to cutoff)	For immediate processing of those trades that were not authorized on S-1.
S through S + 21 (after cutoff)	To authorize those trades that were not authorized on S-1 and have them processed during the night-side of that day.

Because DTC carries 22 days of non-processed Institutional Delivery trades on its database to allow for the above enhancement, CCF/CCF-II/MDH Authorization/Exception input records must include a Settlement Date field. This date must be the original settlement date of the Institutional Delivery trade that is to be Authorized/Excepted. Immediate or night-side processing occurs depending on when the CCF/CCF-II/MDH input is received by DTC.



2.4 Transaction Types

Participants have the ability to provide DTC, by means of one record layout, with the following Authorization and Exception transactions to accomplish any of the following types of processing:

- Global Authorization (without exception).
- Global Authorization record followed by Trade-for-Trade exception records (contains the DTC control numbers of any trades to be excepted (excluded) from automated settlement).
- Global Exception (without authorization).
- Global Exception record followed by Trade-for-Trade authorization records.
- Trade-for-Trade records containing the trade control number that is to be authorized or excepted.

As previously mentioned, all of the above records must contain the original settlement date of the item(s) being processed. Different settlement date records can be commingled within the same CCF/CCF-II/MDH transmission. The combination of a trade control number and a settlement date ensures quality-control validation. Also, an end of logical unit of work (LUW) record is required to signify to DTC that User input is complete and that DTC can start processing the Authorization/Exception transactions.



3. System Functionality

The following is a description of how the enhanced system applies Authorization/Exception transactions to the database depending upon a) the settlement date in the input record and b) when transactions are submitted to DTC.

3.1 Authorization/Exception on S-1

Participants can provide DTC with one or more types of records—Global, Trade-for-Trade—during the day for S-1 processing. DTC accepts these records and updates the database accordingly. During night-side processing, the system generates Institutional Delivery DO's for all authorized trades and processes them into Account Transaction Processing (ATP). DTC must receive Authorization/Exception instructions in the exact order the Participant wants them applied to the database, since DTC processes them on a last-in basis; for example, the last global instruction record overrides all prior input.

3.2 Authorization/Exception on the Morning of the Settlement Date

On the morning of settlement date, only two of the four global options are available to Participants:

- **Global authorize:** Global authorization with detailed exceptions for all trades excepted on S-1.
- **Trade-for-trade Authorization Instructions:** also allowed on settlement date.

Both the global and trade-for-trade options are processed as they are received and immediately staged to ATP, provided that a) transactions are processed before the appropriate cutoff time (see Section 3.5, Cutoff Times, on page 6) and b) the end of logical unit of work records has been received (see Section 3.4, Authorization/Exception End of Logical Unit of Work Processing, on page 5). In addition, Participants can authorize S+1 through S+21 trades, using the Trade-for-Trade option, and also have them immediately staged into ATP. When these trades settle, they carry a settlement code of 26, and a delivery reason code of 77 (Institutional Delivery trade). Any global record received after cutoff time for S through S+21 trades is rejected, since these trades must be authorized on a trade-for-trade basis.



3.3 Trade-for-Trade Authorization After Cutoff on S Through S+21

Participants can authorize trades after cutoff on settlement date through S+21 on a Trade-for-Trade basis only. Trades authorized in this time frame are processed in night-cycle processing for the following day's work. When these trades actually settle, they carry a Settlement Code of 19 and a Delivery Reason Code of 77 (Institutional Delivery trade). Please note that Trade-for-Trade authorizations received in the morning for S through S + 21 settlement days are processed immediately.

3.4 End of Logical Unit of Work Processing

For CCF/CCF-II/MDH Users, the end of logical unit of work record is important in the processing of Authorization/Exception transactions. At all times, this record must be the last record sent for a unit of work. It signifies to DTC that the Participant has submitted all the Authorization and Exception records for a transmission and that DTC can update its database accordingly.

If the Participant does not submit the end of logical unit of work processing record by Authorization/Exception night cutoff time, DTC closes out the day and process the transactions as if the record had been received.

For day-side processing, if the Participant does not submit the end of logical unit of work processing record by Authorization/Exception morning-side cutoff time, the following occurs:

- Trade-for-Trade authorization records (for S thru S+21) are immediately processed as they are received.
- A Global Authorization Record (for S), with or without following exceptions, is not processed and the system reverses the transaction; that is, the database is set back to the way it looked as if the transaction had never been submitted.
- Group CCF/CCF-II/MDH Users must submit an end of logical unit of work record per Participant (at the end of each set of records per Participant) that they are processing Authorization/Exception transactions for or the above will apply.



3.5 Cutoff Times

Cutoff times have been established to coincide with current Authorization/Exception times and, for the new services (for example, S day Authorizations), within the current time frames for Deliver Orders based on the Funds type. All S-1 day trades are data collected and are covered by the “Evening Cutoff.” All other cutoff times concern deliveries based on Settlement Day (S) or beyond. The following table summarizes all cutoff time processing along with an individual explanation for each event. All times are US Eastern Time.

Cutoff Times PTS/CCF/CCF-II/MDH		
Function Description	Settlement Date	Cutoff Times
CCF/CCF-II/MDH Global and Trade-for-Trade	S-1	06:00-18:30
PTS Global and Trade-for Trade	S-1	06:00-19:30
PTS/CCF/CCF-II/MDH Global for immediate delivery	S	06:00-10:00
PTS/CCF/CCF-II/MDH Global with exceptions for immediate delivery	S	06:00-10:00
PTS/CCF/CCF-II/MDH Trade-for-Trade for immediate delivery	S Day and Beyond	06:00-14:30
CCF/CCF-II/MDH Trade-for-Trade for night side processing	S Day and Beyond	14:30-18:30
PTS Trade-for-Trade for night side processing	S Day and Beyond	11:30-19:30

Evening processing cutoffs mirror the cutoff time already in effect. CCF/CCF-II/MDH cutoff is 18:30 hours.

Global Cutoff on Settlement Day (S): The Global Cutoff for immediate processing has been established at 10:00 hours. This ensures the rapid processing of *any global authorization* received. After 10:00 hours, *all global authorizations for S day trades are rejected.*

Trade-for-Trade Authorization is accepted up to 14:30 hours for immediate processing. After that time, authorizations are data collected and processed during regular evening processing.



4. July 1998 Modifications

No material changes have been made to the Authorization and Exception (ANE) record layout.



5. Record Formats

5.1 Record Generation

Participants can generate any one or combination of the Authorization/Exception records mentioned previously and transmit them to DTC. The following paragraphs summarize considerations for generating input records.

1. Transaction Header Section (bytes 1–26)

- Feedback Indicator must be equal to a space.
- Production/Test Indicator values:
 - P–Full production: All delivery instructions to be processed. All updates to be applied to trade records with the generation of appropriate audit rail records.
 - T–Test: All instructions pass through the same editing mechanism as P data, the only difference being that T records are not applied to the trade record. Audit trail records are generated enabling the deliverer to review integrity of transmission using DTC’s online PTS function ANE.
- Record Type must be ANEINP for Authorization/Exception Input Detail Records (Global and Trade-for-Trade).
- Record Type must be ANELUW for end of logical unit of work record.
- Record Suffix must be 01.

2. Authorization/Exception Input Detail (bytes 27–80)

- Effective Settlement Date field must be the original settlement date of the trade(s) to be authorized or excepted.
- The Authorization/Exception Indicator must be A (Authorize) or E (Except) to identify the type of processing required.
- The Global Indicator must be Y (Yes) or N (No).
- The DTC Control Number is required when processing trade-for-trade authorization or exceptions and, combined with the Effective Settlement Date and Fund Type information, must exactly match the database; otherwise, the transaction will be rejected.

3. Notes

To process a Global Authorize with exceptions, Participants must submit, first, a Global Authorize record, then trade-for-trade exceptions, all containing the same effective settlement date; since DTC processes them in the order they are received.

At the end of the transmission (logical unit of work), a separate and distinct end of logical unit of work record must be submitted. This record contains the literal of ANELUW in the transaction header and blanks in bytes 27–80.



5.2 Authorizations/Exceptions Record Layout

Position	Length	Format	Field Name	Validate	ANE Fields Description (Part 1 of 2)
Positions 1 through 26 = Transaction Header					
1-1	1	Character X(1)	Feedback Indicator	N	* = If no errors ? = If record contains errors This field is used by DTC to indicate the return of this record because of errors. A full description of this processing is available in a separate document <i>Interface Control Management</i> .
2-2	1	Character X(1)	Production/Test Indicator	Y	Required indicator: P = Production T = Test
3-8	6	Character X(6)	Record Type	Y	Type of data contained in message: ANEINP = Authorization/Exceptions Input Detail record.
9-10	2	Numeric 9(2)	Record Suffix	Y	01 = Authorizations/Exceptions Input
11-12	2	Numeric 9(2)	Version Number	Y	Version number that defines the record format. Refer to the front page of this document for version number.
13-18	6	Character X(6)	User Reference Number	N	Optional. Can contain reference number assigned by submitter.
19-26	8	Character X(8)	Participant ID	N	DTC destination of the User for whom the transaction is being processed.
27-34	8	Character X(8)	Effective Settlement Date	Y	Required. Original Settlement Date of trade(s) in CCYYMMDD format.
35-42	8	Character X(8)	Deliverer ID Number	Y	Required. DTC Participant Number of deliverer of ID-affirmed trades. Right justified, zero filled.
43-43	1	Character X(1)	Fund Type	Y	Required. Identifies Fund Type: S = Same Day Funds.



Position	Length	Format	Field Name	Validate	ANE Fields Description (Part 2 of 2)
44-44	1	Character X(1)	Authorization/Exception Indicator	Y	Required. Identifies type of processing: A = Authorization. E = Exception.
45-45	1	Character X(1)	Global Record Indicator	Y	Required. Indicates option to globally authorize or except all the trades for the Effective Settlement Date (positions 27-34). Y = Process Global activity. N = Do not process Global activity.
46-55	10	Character X(10)	Trade Control Number	Y	Optional if previous field is Y. Required if previous field is N. Identifies Institutional Delivery Trade. Format NNNNNNNNNN b . or Municipal Deliver from NSCC. Format NNNNNNNNNN, where first three characters are Julian date.
56-80	25	Character X(25)	Filler	N	DTC use only; do not use.

The Authorization/Exceptions Input record is 80 characters.



5.3 Authorization/Exception End of Logical Unit of Work Record

For Group User Transmissions, an End of Logical Unit of Work Record (LUW) is required for each Participant included within a transmission.

Position	Length	Format	Field Name	Validate	NOE Fields Description
Positions 1 through 26 = Transaction Header					
1-1	1	Character X(1)	Feedback Indicator		* = If no errors ? = If record contains errors This field is used by DTC to indicate the return of this record because of errors. A full description of this processing is available in a separate document titled <i>Interface Control Management</i> .
2-2	1	Character X(1)	Production /Test Indicator		Required indicator: P = Production T = Test
3-8	6	Character X(6)	Record Type		Identifies the type of data within a message. ANELUW = Authorization/Exceptions End of Logical Unit of Work Record.
9-10	2	Numeric 9(2)	Record Suffix		01 = Authorizations/Exceptions Input
11-12	2	Numeric 9(2)	Version Number		Version number that defines the record format. Refer to the cover page of this document for version number.
13-18	6	Character X(6)	User Reference Number		Optional. Can contain reference number assigned by submitter.
19-26	8	Character X(8)	Addressee		Eight-character ID of entity on whose behalf transaction is being processed.
27-80	54	Character X(54)	Filler		DTC use only; do not use.

The Authorization/Exception Record (LUW) is 80 characters.



6. Appendices

6.1 Message Prefix Specification

Position	Length	Format	Field Name	Validate	NOE Fields Description
1-1	1	Character X(1)	Filler	–	DTC use only; do not use.
2-2	1	Character X(1)	Message Flag	–	O = Current Day Message. R = Current Day Reprint. U = Current Day Message requested out of sequence. Y = Prior Day Message.
3-3	1	Character X(1)	Filler	–	DTC use only; do not use.
4-13	10	Numeric 9(10)	Destinatio n ID	–	Identifies the queue that this message was retrieved from. First 8 positions are User signon, last 2 are destination.
14-14	1	Numeric 9(1)	Filler	–	Contains a constant value of “–”
15-20	6	Character X(6)	Message Sequence Number	–	Contains unique Message Sequence Number assigned by DTC’s Message Delivery System for each destination ID (last two positions of Destination ID field).

For a full description of the above fields, see DTC’s document *Interface Control Management–General Function User’s Guide for Output*.



6.2 Error Block Specification

Position	Length	Field	Field Name	Field Description
1-8	8	Character X(8)	Error Code 1	<p>Codes identify the field and the reason why the field is erroneous. The first 4 positions identify the field and the second 4 positions identify the reason the field is in error. See Appendix C for Error Code Values.</p>
9-16	8	Character X(8)	Error Code 2	
17-24	8	Character X(8)	Error Code 3	
25-32	8	Character X(8)	Error Code 4	
33-40	8	Character X(8)	Error Code 5	



6.3 Authorization/Exception Error Codes

The combination of field and reason code formulates an error code. Authorization/Exception records that contain any of these errors are returned to the submitter. The following table is sorted alphabetically by Field Code.

Field Code	Reason Code	Explanation	(Part 1 of 2)
AAAB		Invalid	
	9AAA	Fields 27–80 not blank with record type ANELUW.	
BAAA		Non-Numeric Data	
	9AAF	Invalid Effective Settlement Date.	
	9ABB	Effective Settlement Date Not Found.	
CAAM		Non-Numeric Data	
	9AAF	Deliverer Number Not Valid.	
	9ABB	Deliverer Not Found.	
EAA3		Invalid Data	
	9AAE	Global Record Indicator invalid for settlement date input. or Global Record Indicator not equal Y/N.	
	9AAL	Past Cutoff time for Global processing (S Day only).	
EAA4		Invalid Data	
	9AAE	Indicator not equal A/E. or No global exception on S day.	
GAAD		Invalid Data	
	9AAE	Fund Type not equal N or S.	
	9ABB	Fund Type does not match Trade Control Number.	



Field Code	Reason Code	Explanation (Part 2 of 2)
GAAJ		Non-Numeric Data 9AAF Trade Control Number not numeric. 9ABB Trade Control Number is not found 9ABT Trade Control Number must equal spaces for Global Processing