1 ISO 8583 interface to BancsConnect

1.1 List of messages in version 2.0

Existing Messages

1. Repeat messages/advice
2. Network Messages (Logon, Echo test)
3. Cash withdrawal authorization request
4. Cash withdrawal authorization reversal
5. Dr. authorization request
6. Dr request reversal
7. Cr. Authorization request
8. Cr request reversal
9. Funds Transfer authorization request
10. Funds Transfer request reversal
11. Utility Payments authorization request
12. Utility Payments reversal
13. Balance Inquiry
14. Mini Statement Inquiry
15. POS purchase authorization request –
16. POS Purchase authorization request reversal
17. Stop Check instruction
18. Stop Check Instruction reversal
19. Check status Inquiry
20. User defined Messages
21. Miscellaneous Messages – Used by the bank to extend BancsConnect functionality

New Messages in Version 2.0

22. Cash deposits Notification - The appropriate 'workflow' needs to be developed by the bank in FiNACLE to handle this request.
23. Cheque deposits Notification - The appropriate 'workflow' needs to be developed by the bank in FiNACLE to handle this request.
24. Cheque book request - The appropriate 'workflow' needs to be developed by the bank in FiNACLE to handle this request.
25. Statement of accounts request - The appropriate 'workflow' needs to be developed by the bank in FiNACLE to handle this request.
26. DD Issue request - The appropriate 'workflow' needs to be developed by the bank in FiNACLE to handle this request. *This message will be used only when FiNACLE has to issue the DD.*
27. Hold /Release Funds (Modify Block) request
28. Block Inquiry Message
29. Hold/Release Funds request reversal
30. Dr against held funds (Unblock Debit) authorization request
31. Dr against held funds authorization request reversal
32. Cash deposits authorization request reversal
33. Issue DD authorization request – *Will be used by front end applications that can actually issue* DD's.
34. Issue DD authorization request reversal
35. Issue Checkbook authorization request - *Will be used by front end applications that can actually issue*
36. Issue Checkbook authorization request reversal
37. General Account Inquiry
38. Loan Account Inquiry
39. Deposit Account Inquiry

40. Currency Rate Inquiry
41. Request Status Inquiry

Cash withdrawal, Cash deposit and POS transactions where transaction currency is a foreign currency but the customer account is in local currency are also supported.

1.2 Communication Protocol

1. Communication protocol between the Delivery channel Controller and BancsConnect will be TCP/IP.
2. BancsConnect will service all messages (transaction messages and the echo-test message) at a specified port.
3. BancsConnect supports the following models for connection management:
   a. Open and close a connection for each message
   b. Maintain a pool of connections and process one message at a time (i.e. send request, wait and receive response) on each of the connections
   c. Maintain a pool of connections and process multiple messages at a time on each of the connections. In this case the delivery of responses are not guaranteed to be in the same order as the corresponding requests.

Note:
If BancsConnect receives any field, not specified in this document, within an incoming request or advice, BancsConnect will ignore it. Also, 'reversals' should be originated by the DCC only if the request to BancsConnect times out. In cases where BancsConnect responds with an 'error response', BancsConnect would take the responsibility of 'reversing' the transaction in FiNACLE, if required. Similarly 'repeats' should be originated by the DCC only if the request to BancsConnect times out.

1.3 Security

For ISO 8583 messages, as of now, the only way to totally secure the messages transmitted between the delivery channel controller and BancsConnect is to use router-based access control and encryption techniques. However BancsConnect has an in-built IP address-based access control mechanism to prevent unauthorized messages to BancsConnect. Also, the 'customization' features of BancsConnect, allows a bank to implement its own authentication/checksum mechanisms to prevent unauthorized / tampering of ISO 8583 messages to BancsConnect.

1.4 Message Formats

1.4.1 Message headers

Version number	N1	1 = ISO 8583:1993
Message class	N1	1 = Authorization 2 = Financial 3= File requests 4 = Reversal 8 = Network
Message function	N1	0 = Request 1 = Request Response 2 = Advice 3 = Advice Response
Transaction originator	N1	0 = Acquirer 1 = Acquirer Repeat 4 = Other 5 = Other Repeat
Primary bit map	B8	Set depending upon the primary fields used

1.4.2 Messages sent or Received by BancsConnect

Message	Description	Originator	Destination
1200	Request	DCC	BancsConnect
1201	Request Repeat	DCC	BancsConnect
1210	Request Response	BancsConnect	DCC
1220	Advice (Transactions authorized locally)	DCC	BancsConnect
1221	Advice repeat (Transactions authorized locally)	DCC	BancsConnect
1230	Advice response (Transactions authorized locally)	BancsConnect	DCC
1420	Reversal advice	DCC	BancsConnect
1421	Reversal advice repeat	DCC	BancsConnect
1430	Reversal advice response	BancsConnect	DCC
1804	Network Management Request (Logon/Logoff) – N/A		
1814	Network Management Response (Logon/Logoff) – N/A		
1804	Network Management Request (Echo Test)	DCC	BancsConnect
1814	Network Management Response (Echo Test)	BancsConnect	DCC

1.4.3 Network Management Messages

Bit	Description	1804	1814	Format	Remarks
1	Secondary bitmap	M	M	B8	Bitmap corresponding to the secondary fields used.
11	System Trace Audit Number	M	ME	Anp12	ISO supports N6. BancsConnect will accept Anp12 format for requests received by it.
12	Local Transmission time	M	ME	N14	Time in YYYYMMDDhhmmss format. ISO supports YYMMDDhhmmss.
24	Function Code	M	ME	N3	Please refer to function codes table.
39	Action Code	-	M	N3	BancsConnect will return 800 (OK) for echo-test requests and 902 (Invalid transaction) for all other requests.
59	Transport Data	M	ME	Ans..999	For requests received by BancsConnect, this field will be echoed by BancsConnect within the response.
93	Transaction destination Institution identification code	M	ME	N..11	For requests received by BancsConnect, this field will be echoed by BancsConnect within the response.
94	Transaction originator Institution identification code	M	ME	N..11	For requests received by BancsConnect, this field will be echoed by BancsConnect within the response.

Bit	Description	1804	1814	Format	Remarks
123	Delivery channel controller Id	M	ME	A..3	Three character code identifying the controller. Hard-coded value for each controller e.g. “SWT”: Switch, “TLB”: Tele-banking, “FAB”: FiNACLE@Branch etc. This field will be echoed by BancsConnect within the response. (This should be sent as a variable length field with a maximum length of 3)

1.4.4 Transaction messages Structure

Bit	Description	1200	1210	1420	1430	Format	Remarks
1	Secondary bit map	M	M	M	M	B8	Set depending upon bits used in secondary bitmap.
2	Primary Account number/customer id	C	CE	C	CE	N..19	Either this field or extended PAN (Field 34) would be available.
3	Processing code	M	ME	M	ME	N6	Since BancsConnect uses only the account identifications (Fields 102 and 103), account types given in this field will be ignored. BancsConnect will echo the entire field on responses.
4	Transaction amount	M	ME	M	ME	N16	Transaction Amount for all debit and credit transactions e.g. • Cash Withdrawals • Funds transferred • POS Purchase Amount • The new block amount for Modify Block request. It is unsigned. The sign information is sent in ISO field 125. The total block amount on the account (ISO field 102) is updated with this amount. • The amount to be unblocked and debited for Unblock Debit request. • The transaction amount for normal debit/credit • DD Amount • Remittance amount • Payment amount For reversal transactions, this field indicates the amount being reversed. ISO has N12.
5	Amount, Reconciliation	O	OE	O	OE	N16	Funds to be transferred between acquirer and the issuer. ISO has N12. This field is not used by FiNACLE, but could be used by bank's own scripted logic.
9	Conversion rate, reconciliation	C	CE	C	CE	N8	Required if amount, reconciliation (Field 5) is provided. This field is not used by FiNACLE, but could be used by bank's own scripted logic.

Bit	Description	1200	1210	1420	1430	Format	Remarks
11	System Trace Audit Number	M	ME	M	ME	Anp12	This number will remain the same for multiple messages within the same transaction. ISO supports N6.
12	Local Transaction Date & Time	M	ME	M	ME	N14	YYYYMMDDhhmmss (ISO supports two digit year). This is the time at card acceptor's location.
15	Date, settlement	O	OE	O	OE	N8	Date in YYYYMMDD format for transferring funds from card issuer to acquirer. This field is not used by FiNACLE, but could be used by bank's own scripted logic. ISO supports YYMMDD.
16	Date, Conversion	C	CE	C	CE	N8	Date in YYYYMMDD format. Required if amount, reconciliation has been provided. ISO format is MMDD.
17	Capture Date	M	ME	M	ME	N8	Date in YYYYMMDD format. This will be the business date of the transaction. ISO format is MMDD.
24	Function Code	M	-	M	-	N3	Please refer to function codes table.
30	Original Amounts	-	-	C	-	N32	Original amount in case of partial reversals. Original amount in case of pre-authorization completion transactions. ISO supports N24.
32	Acquiring Institution Identification Code	M	ME	M	ME	N..11	Code identifying the acquirer
33	Forwarding Institution Identification Code	O	OE	O	OE	N..11	Can be put when forwarding institution is not the same as institution originating the message. Will be echoed by BancsConnect. This field is not used by FiNACLE, but could be used by bank's own scripted logic.
34	Extended Primary Account number	C	CE	C	CE	Ns..28	Can be used in if Primary Account Number (Field 2) is not provided.
37	Retrieval Reference Number	O	OE	O	OE	Anp12	In cases where the DCC does not maintain the original STAN, this will be used by BC as the STAN for all messages.

Bit	Description	1200	1210	1420	1430	Format	Remarks
38	Approval Code	-	OE	-	OE	Ans6	Fixed length approval code. Will be part of the response. Used to identify the authorization mode Valid values are 1. UNI000 – If the transaction is processed by Uniserver 2. SIR000 – If the transaction is processed by Central Standin server in RLM mode 3. SIN000 – If the transaction is processed by Central Standin Server in Normal mode 4. SIC00 – If the transaction is rejected by Central Standin Server during cutover 5. SIL000 – If the transaction is approved by local standin server *(NOT RELEVANT to Delivery channels. Used internally)*
39	Action Code	-	M	-	M	N3	Action codes that can be returned by BancsConnect. These will be as per table specified below.
41	Card Acceptor Terminal Id	O	OE	O	OE	Ans16	Device Id which could be Terminal Id in case of ATM or POS, Channel Id in case of tele-banking. This can be used to derive the Device Cash A/C. ISO supports 8 characters.
42	Card Acceptor Identification	O	OE	O	OE	Ans15	To derive Device Cash A/C from field 41, this field will be used to find whether transaction originated from a device directly connected to the DCC..
43	Card Acceptor Name/Location	O	-	O	-	Ans..99	The Location of the Card Acceptor terminal Used for logging/custom reports.

Bit	Description	1200	1210	1420	1430	Format	Remarks
46	Amounts, Fees	O	OE	O	OE	Ans..300	Up to six fees that need to be posted to cardholder account. Format of the field is: 1. Fee Type Code N2 2. Currency Code, Fee N3 or A3 3. Amount of Fee X + N16 where X is the D (Debit) or C (Credit) (Should generally be debit for requests and credit for reversals) 4. Conversion rate, fee, N8 5. Amount for reconciliation X+N16 6. Currency for reconciliation N3 (FiNACLE currently supports only five fees) This field will contain the fees used for all transactions where fees will be collected.
48	Additional Data, Private		C	-	C	Ans..999	Account balances are returned in the following format 1. 17 char ledger balance (Source account) 2. 17 char available balance 3. 17 char float balance 4. 17 char FFD balance 5. 17 char user defined balance 6. 3 char balance currency code 7. 14 char Fallback time in YYYYMMDDhhmmss format, (Blank if data center is not in fallback mode) In case of Own A/c funds Transfers the credit A/c balances will also be sent in the same format of the debit A/c balances after the debit account balance details Destination account balance will be specified only in case of transfer transaction. All the balance fields will have sign (“+” or “-”) followed by sixteen character amount with implied decimal based on balance currency code. It will be filled up only for authorized transactions. --- To get the details of the messages which send balances in their response, please refer section 4.6

Bit	Description	1200	1210	1420	1430	Format	Remarks
49	Transaction currency Code	M	ME	M	ME	A3 or N3	BancsConnect supports all ISO CCY codes.
50	Currency, Reconciliation	C	CE	C	CE	A3 or N3	If amount, reconciliation (Field 5) is provided, this field is required. This field is not used by FiNACLE, but could be used by bank's own scripted logic.
56	Original Data Elements	C	-	M	-	N..43	Required for reversals and pre-authorization completions. Consists of: 1. 4 char Message Type Identifier 2. 12 char System Trace Audit No (ISO supports 6) or RRN of the original message where DCC does not maintain STANS. 3. 14 char Local Date and Time (ISO supports 12) of the original Transaction 4. 11 char Acquiring Institution Id (2 char length will precede institution id)
59	Transport Data	O	OE	O	OE	Ans..999	Transport data, if provided within the original, will be echoed unchanged by BancsConnect. This field is not used by FiNACLE, but could be used by bank's own scripted logic..
62	Reserved for Private Use	C	CE	C	CE	Ans..999	This field is used by the following messages • Cheque Status Inquiry • Stop Payment Request • Cheque Book Requests • Funds Transfers/Cash withdrawals using Cheques Please refer the specific messages in section 4.6
63	Reserved for Private Use	O	-	O	-	Ans..28	This field is used for Utility Payment Transactions. Please refer to the specific message in section X.X
66	Amounts, original fees	-	-	C	-	Ans..300	Required in case of partial reversal, if the fees have changed. Up to six fees that represent the fees originally posted to cardholder account. Format of the field is: 1. Fee Type Code N2 2. Currency Code, Fee N3 or A3 3. Amount of Fee X + N16 where X is the debit or credit indicator 4. Conversion rate, fee, N8 5. Amount for reconciliation X+N16 6. Currency for reconciliation N3 (FiNACLE currently supports only five fees)

Bit	Description	1200	1210	1420	1430	Format	Remarks
94	Transaction Originator Institution Identification Code	O	OE	O	OE	N..11	If specified in reversal advice message, BancsConnect will echo it within its response. This field is not used by FiNACLE, but could be used by bank's own scripted logic.
99	Settlement Institution Identification Code	O	-	O	-	N..11	Financial institution at which the accounts are held by the parties settling. This field is not used by FiNACLE, but could be used by bank's own scripted logic..
102	Account Identification-1	M	-	M	-	Ans..38	For inquiry and debits: 1. 11 char Bank Id (AN) 2. 8 char SOL id (Branch code) (AN) 3. 19 char a/c number (AN) (ISO allows Ans..28)
103	Account Identification-2	C	-	C	-	Ans..40	For credits: 1. 2 Char Code (If credit account number is fully specified, use spaces. Otherwise this would be used to derive the actual account number from the fields below. It could be, for example the option selected on ATM) 2. 11 Char Bank Id 3. 8 char SOL id 4. 19 char a/c number (ISO allows ANS..28)
123	Delivery channel controller Id	M	ME	M	ME	A..3	Three character code identifying the controller. Hard-coded value for each controller e.g. "SWT": Switch, "TLB": Tele-banking, "FAB": FiNACLE@Branch etc. This field will be echoed by BancsConnect within the response. (This should be sent as a variable length field with a maximum length of 3)
124	Terminal Type	O	OE	O	OE	A3	This field is not used by but could be used by bank's own scripted logic. Possible values could be: 1. POS 2. ATM 3. TLB (Telebanking) 4. ITB (Internet banking) 5. TLR (Teller)

Bit	Description	1200	1210	1420	1430	Format	Remarks
125	Reserved for private use	C	C	-	-	Ans..999	Please refer to the specific messages defined for the following in section 4.6 1. General A/c Inquiry 2. Customer A/c Inquiry 3. Transaction Inquiry 4. Mini statement inquiry 5. Statement request 6. DD Issue authorization 7. DD Issue request 8. Remittances 9. Modify Block 10. Unblock Debit 11. Currency rate Inquiry 12. Request Status Inquiry 13. Deposit A/c Inquiry 14. Loan A/c Inquiry .
126	Reserved for private use	-	C	-	-	Ans..999	Same as field 125.
127	Reserved for private use	-	C	-	-	Ans..999	Same as field 125 In addition to the response code, specific description of some transaction errors will be sent in Field 127.

1.5 Processing Codes for Functionality Supported

Code	Meaning	Remarks
00	Normal Purchase (POS)	Account 1 (Field 102) will be debited online
01	Cash Withdrawal	Account 1 (Field 102) will be debited online. If field 123 is 'FAB' FiNACLE@Branch, then cash account of user-id specified in field 41 is credited .If check number is specified in field 62 that check will be marked as 'used'.
18	Unblock Debit request	Account in field 102 will be debited by the transaction amount by lifting the block using the block details provided in Field 125.
21	Cash Deposit Notification	BancsConnect will pass the request to the host to be processed by the host through custom workflow
24	Cheque Deposit Notification	BancsConnect will pass the request to the host to be processed by the host through custom workflow.
28	Credit request	Credit the account specified in Field103. (This processing code is reserved for internal applications)
29	Cash deposit Authorisation	Online cash deposit (Reserved for private use) (This processing code is reserved for internal applications)

31	Balance Inquiry	Available, ledger and float balances would be returned in Field 48
36	Currency rate inquiry	The from currency code ,to currency code between which conversion is to be done and the rate code to be used for the conversion will be specified in the field 125. The rate will be returned in field 125 as 12 character field with decimal.
37	Customer account inquiry	Fetches all open accounts of the specified account type for the given customer. Maximum of 150 accounts will be fetched.
38	Mini Statement Inquiry	Up to last 12 transactions for account 1 (Field 102) will be returned in Field 125
39	Block inquiry	For block inquiry message, BancsConnect sends the details of the latest 5 blocks on the account with reason code in field 125, along with the account status and the total block amount.
40	Funds Transfer	Funds transferred from account 1 (Field 102) to account 2 (Field 103). If check number is specified in field 62 that check will be marked as 'used'
48	Transfer debit (Debit authorization)	Funds debited from account 1 (Field 102). If check number is specified in field 62 that check will be marked as 'used'
49	Transfer credit (Credit Authorization)	Funds credited to account 2 (Field 103)

50	Payment	Funds transferred from account 1 (Field 102) to account derived from account 2 (Field 103). The same code will be used for Payment to parties holding accounts with other banks. In that case account 2 will belong to another bank. In case the Account is specified in this field the account specified will be verified and funds will be transferred to the account specified.
17	Modify Block Request	This message will block/ unblock the mentioned amount in the message from the A/c specified in field 102 depending upon the sign indicator specified in field 125. If the sign indicator is 'N' (negative) the funds will be unblocked. In case of 'P' (positive) the funds will be blocked.
10	DD Issue authorization	Account 1 (field 102) is debited for the total amount(field 4 + field 46) and a DD issue record is created for amount in field 4 with data provided in field 125. This message is for DD's that will be issued either at the Branch or at Call centers. The main point here is that the inventory being used here is from the delivery channels inventory. (Currently reserved for internal applications)
98	DD issue Request	Account 1 (field 102), amount in field 4 , and DD Payable at (field 125 – Place) will be available in 'script hook' in FiNACLE to spawn a custom workflow
97	Miscellaneous request	Miscellaneous messages are private messages between FiNACLE and the respective delivery channel. This message uses the private fields 125 to 127 of the ISO message structure for data transmission. The format of these fields for each private message is pre-defined by both Infosys and the respective vendor. The same processing code can be used for request status enquiry also ie; for receiving the status of a request such as DD request, cash deposit request, Cheque Deposit request messages that would be processed in FiNACLE using customized work flows.

Code	Meaning	Remarks
81	Cheque book Issue authorization	Account 1 (field 102) is debited for the charges (field 46) and a Checkbook issue record is created for Account 1(field 102) with data provided in field 62. Similar to DD Issue authorization, this request will be sent by DCC's where the DCC itself is issuing the cheque book and not from a central Inventory.
82	Account inquiry	This message will provide basic details of the A/c such as A/ holder's name/s A/c Balances, A/c open date and A/c Status
83	Loan account inquiry	This message will provide Loan A/c details such as Loan A/c holders Name/s, Sanctioned amount, Interest rate, Disbursed amount, Pending Amount, Installment Amount and next Installment date
84	Term deposit Inquiry	This message will provide Deposit A/c details such as Deposit A/c Holders Name/s, Deposit Amount, Deposit open date, Deposit Maturity date, Interest date and Deposit Maturity Amount.
90	Check Book Request	Account (field 102) and Number of cheque leaves (field 62) will be available in 'script hook' in FiNACLE to spawn a custom workflow
91	Cash deposits authorization	Valid only if field 123 is 'FiNACLE@Branch'. Account 2 (field 103) is credited online and cash account of user-id specified in field 41 is debited online.
92	Statement Request	Account 1 (field 102) and date range (field 125) will be available in 'script hook' in FiNACLE to spawn a custom workflow

Code	Meaning	Remarks
93	Transaction Inquiry (Full Statement)	BancsConnect will return back list of statement in fields(125,126,and 127) for the Account (field 102) and the given date range and continuation transaction id (field 126).
94	Cheque Status Inquiry	Status of cheques issued to account 1 (Field 102) will be returned in Field 125.
95	Stop Cheque Instruction	Cheques specified in Field 62 issued to account 1 (Field 102) will be marked as 'stopped'
96	Pay away messages	Used by Bill Payment and Presentment Product "PayAway" (Not used by Bancs connect/Uniserver.)

1.6 Messages

1.6.1 Inquiries

1.6.1.1 Balance Inquiry

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 31
102	Account number	Account for which balance inquiry is required.

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of account as given below: 1. 17 char ledger balance (Source account) 2. 17 char available balance 3. 17 char float balance 4. 17 char FFD balance 5. 17 char user defined balance 6. 3 char balance currency code 7. 14 char Fallback time in YYYYMMDDhhmmss format, (Blank if data center is not in fallback mode) All the balance fields will have sign (“+” or “-”) followed by sixteen character amount with implied decimal based on balance currency code.

1.6.1.2 Mini Statement Inquiry

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 38
102	Account number	Account for which mini statement is required.

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the account (Refer section 4.4.4)
125	Reserved field	The transaction details are sent in the format given below. ***** 1. 8 char date in YYYYMMDD 2. 8 char Instrument Id (right justified, left padded with spaces) 3. 5 char tran report code (Right padded with spaces) 4. 40 char Tran Particulars (Right padded with spaces) 5. 1 char Db/Cr Indicator 6. 17 char Formatted Amount (with explicit decimal) (left padded with zeros)

***Mini-statement format is changed from the previous BancsConnect format. It can be formatted according to the requirement of delivery channels in the BancsConnect script.*

1.6.1.3 Transaction Details (Full Statement) Inquiry

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 93
102	Account number	Account for which transaction details are required.
125	Reserved for private use	This is the criteria field for transaction inquiry **Start Date** – 8 char date in YYYYMMDD (Mandatory) **End Date** - 8 char date in YYYYMMDD (Optional, by default BOD Date) **Low Amount** - 17char amount with decimal **High Amount** - 17char amount with decimal **Begin Cheque Num** - 8 char begin cheque number **End Cheque Num** - 8 char end cheque number **Number of Records** - 2 char (00 to 20) (Mandatory) **Sorting Order**- 1 char **'A'**scending/**'D'**escending (Mandatory) **Credit or Debit – 'C'** for credit only, **'D'** for debit only, **'B'** for both debit and credit. (Mandatory)* The transaction inquiry can fetch a maximum of 20 records at a time. For the next set of records, the following should be populated from the previous record. **Last Transaction Date**- 8 char in YYYYMMDD **Last Transaction Id** - 9 char Last transaction id (right justified left padded with spaces) **Last part tran number** - 4 char Last part tran number (right justified left padded with spaces) **Last transction posted date time** - 14(91-104)char last posted date time in YYYYMMDDHHMISS **Last balance -** 17 char last balance with decimal

**** Credit or Debit** flag in the criteria is a new addition.*

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the account (Refer section 4.4.4)
125	Reserved field	This field gives the details of the transcations **More data flag** : 1 char (**'Y'/'N'**) This indicates whether there are more records for the given criteria. **Number of statements** : 2char (00 to 20) Number of statements in this fetch The following are repeated as many number of statements **Transaction date** : 8 char (YYYYMMDD) **Transaction Id** : 9 char (right justified, left padded with spaces) **Part tran serial num** : 4 char (right justified left padded with spaces) **Tran Type** : 1 char (C - Cash, T - Transfer, L - Clearing) **Tran sub type** : 2 char (BI, CI, NP, NR) **Debit credit indicator** : 1 char (D - Debit, C - Credit) **Tran value date** : 8 char (YYYYMMDD) **Transaction Amount** : 17 char (with decimal) **Transaction particulars** : 50 Char (left justified, right padded with spaces) **Transaction Posted date** : 14 char (YYYYMMDDHHMISS) **Instrument number** : 8 char (right justified, left padded with spaces) **Balance at the end of the transaction** : 17 char (with decimal)

1.6.1.4 Cheque status Inquiry

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 94
62	Cheque Details	1. Start Cheque Number N8 2. No of leaves N3
102	Account number	Account for which cheque status inquiry is required..

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
125	Reserved field	For cheque status inquiry, it will return one character cheque status as follows: 1. Paid i.e. cheque used (‘P’) 2. Cautioned i.e. a warning set up on the cheque (‘C’) 3. Destroyed when account is being closed (‘D’) 4. Stopped (‘S’) 5. Paid cheque returned (‘R’) 6. Unused (‘U’) 7. Sent to user but not acknowledged by user (‘I’)

1.6.1.5 Customer account inquiry

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 37
102	Account number	Optional If the bank has multiple data centers, then for bancs connect to derive the destination data center, the bank code and sol id need to be specified in this field. The account number part can be left blank. For eg : “AAA 0001 ” – 11 char Bank Code and 8 char SOL Id If the bank has only a single data center, this field need not be specified.
125	Reserved field	**Page numberrequested** 2char numeric (01 for first page, LP for last.) **Number of records required in a page** 2char numeric (maximum 25) **Customer Id** (Finacle customer id) 9 char right justified, left padded with spaces **account type** 3 char (ALL – for all types of accounts, SBA – SB a/c CCA – Cash credit accounts CAA – Current accounts ODA – Overdraft accounts LAA – Loan accounts TDA – Term deposit a/c) If the account type is not specified, ‘ALL’ will be assumed.

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)

125	Reserved for private use	**Page numberfetched** 2char (01 for the first page. **LP** for the last page. Maximum 99 pages can be displayed. Each page can contain a maximum of 25 records) **Number of records in this page** 2char numeric (maximum 25) **Customer Id** (Finacle customer id) 9 char right justified, left padded with spaces **Acount type requested** 3 char (valid values as given above) Maximum of 50 records of the account number and account type **Account number** 16 char right padded with space **Account type** 3 char **Clear Balance** 17 char (with sign (“+” or “-”) followed by sixteen character amount with implied decimal based on account currency code) **Account currency code** 3 char

1.6.1.6 General Account Inquiry

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 82
102	Account number	Details of this account will be fetched

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the account (Refer section 4.4.4)

125	Reserved for private use	For General A/c Inquiry This field will contain the following details Customer Id (9 Char right justified, left padded with spaces) Customer Name (80 char left justified right padded with spaces) Account Name (80 char left justified right padded with spaces) A/c open date YYYYMMDD (8 Char) A/c Product (Scheme code) 5 Char left justified right padded with spaces A/c Type – 3 Char (Valid value : SBA/CCA/ODA/CAA) A/c Status – 1 Char (F- Frozen, C - Closed, D - Debit frozen, R - Credit Frozen, M – Dormant, A – Active,O – Open, I - Inactive) Mode of Operation code -5char (left justified right padded with spaces) Joint holder Name1(80 Char) Joint holder Name2 (80 Char) Joint holder Name3 (80 Char) GL subhead code (5 char) Account sol id (8 char) 17 char Drawing power 17 char Lien amount

1.6.1.7 Loan Account Inquiry

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 83
102	Account number	Details of this loan account will be fetched

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Account balances (Refer: section 4.4.4)

125	Reserved for private use	Customer Id (9 Char right justified, left padded with spaces) Customer Name (80 char left justified right padded with spaces) A/c Open Date – YYYYMMDD (8 Char) Loan period months – 3char left padded with zeros (eg: 036) Loan period days – 3 char left padded with zeros (eg: 090) Loan product (Scheme code) –5 Char Interest Rate – 10 Char with decimal Loan Type – '**F**'ixed, '**E**'MI (1 Char) Next installment due date (YYYYMMDD) – 8 Char Joint Holders name1 (80 Char) Joint Holders name2 (80 Char) Joint Holders name3 (80 Char) Sanctioned Amount Disbursed Amount Installment Amount Over due amount (All the amount fields will have sign ("+") followed by sixteen character amount with implied decimal based on Loan Account currency code.) (eg: +0000000005000000) Loan Account currency – 3 char

1.6.1.8 Deposit Account Inquiry

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 84
102	Account number	Details of this term deposit account will be fetched

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Account balances (Refer section 4.4.4)

125	Reserved for private use	Term deposit account details will be populated in this field as given below. Customer Id (9 Char right justified, left padded with spaces) Customer Name (40 char left justified right padded with spaces) A/c Open Date – YYYYMMDD (8 Char) Deposit period months – 3char left padded with zeros (eg: 036) Deposit period days – 3 char left padded with zeros (eg: 090) A/c Maturity Date -YYYYMMDD (8 Char) A/c Type – (1 Char) **'R'**ecurring, Fle**'X'**i, **'F'**ixed , **'C'**ertificate of deposit, **'N'** otice deposit A/c Product(Scheme code) – 5 Char (right padded with spaces) Joint holder Name 1(80 Char) (right padded with spaces) Joint holder Name 1(80 Char) (right padded with spaces) Joint holder Name 1(80 Char) (right padded with spaces) Interest Rate – 10 Char with decimal (left padded with zeros) Deposit Amount Maturity Amount (All the amount fields will have sign ("+") followed by sixteen character amount with implied decimal based on Deposit Account currency code.) (eg: +0000000005000000) Account currency code - 3 char

1.6.1.9 Block Inquiry:

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 39
102	Account number	• Account on which block inquiry has to be performed.
125	Reserved field	• The following criteria should be given for fetching the lien details 1. DCC Id : 3 char (ALL for all delivery channels) 2. Lien reason code: 5 character (left justified, right padded with spaces) (Optional) 3. Lien expiry date : YYYYMMDD (Optional) *The lien reason code given should be a valid lien reference code in Finacle application.*

Output:

Bit	Description	Remarks
39	Response Code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the account (Refer section 4.4.4)

Bit	Description	Remarks
125	Reserved for private use	This field indicates the status of the account if the account is closed/frozen : • Account status indicator : 2 char TF – Total Freeze DF – Debit Freeze AC – Account Closed In all other cases it will be 00. • Total lien amount on the account by the DCC. (If the DCC id is “ALL”, the total lien amount on the account will be given) (The amount fields will have sign (“+”) followed by sixteen character amount with implied decimal based on Account currency code.) (eg: +0000000005000000) For block inquiry message, BancsConnect sends the details of the latest 5 blocks on the account in this field. The following is the format 5 char reason code 1 17 char total Block Amount for reason code 1 5 char reason code 2 17 char total Block Amount for reason code 2 5 char reason code 3 17 char total Block Amount for reason code 3 5 char reason code 4 17 char total Block Amount for reason code 4 5 char reason code 5 17 char total Block Amount for reason code 5

1.6.1.10 Currency Rate Inquiry

Bit	Description	Remarks
3	Processing code	36
102	Account number	Optional If the bank has multiple data centers, then for bancs connect to derive the destination data center, the bank code and sol id need to be specified in this field. The account number part can be left blank. For eg : “AAA 0001 ” – 11 char Bank Code and 8 char SOL Id If the bank has only a single data center, this field need not be specified.
125	Reserved for private use	From CCY (Transaction currency code) (3 Char) To CCY (Reference currency code). (3 Char) [Note: *This will be the account currency code in case the inquiry is being done for a transaction where transaction currency is different from account currency*] Rate Type (5 char) TC, CSH, BILL etc as specified in FiNACLE rate code. Transaction amount :17 character amount..

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)

125	Reserved for private use	**Fixed currency code** - 3 char **Fixed currency units** - (12 char rate with decimal, left padded with zeros) **Variable currency code** - 3 char **Variable currency units** - (12 char rate with decimal, left padded with zeros) **Converted amount** - (Will be zero if transaction amount is not present amount fields will have sign ("+") followed by sixteen character amount with implied decimal based on reference currency code.) (eg: 0000000005000000) **Flag indicating whether the rate is latest or not** – 1 char (**Y** – if rate is latest, **N** – if rate is not latest). The rate will be compared against the business date (capture date) field.*****

****Flag indicating whether the rate is latest or not** is introduced in the latest version.*

1.6.2 Transactions

1.6.2.1 Cash withdrawal request

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 01
4	Transaction amount	Amount to be debited (Refer section 4.4.4)
46	Amount fees	Charges (Refer section 4.4.4)
49	Transaction currency	Transaction currency code. All valid ISO currency codes
102	Account number	Account from which amount is being withdrawn

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the account after debit. (Refer section 4.4.4)

1.6.2.2 Funds Transfer authorization request

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 40
4	Transaction amount	Amount to be transferred between accounts
46	Amount fees	5 types of Fees (Refer section 4.4.4)
49	Transaction currency	Transaction currency code. All valid ISO currency codes
102	Account number - 1	Debit account number (Source account)
103	Account number - 2	Credit account number (Destination account)

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the account after debit followed by balances of the credit account after credit (Refer section 4.4.4)

1.6.2.3 Stop Check Instruction

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 95
46	Amount fees	5 types of Fees (refer section 4.4.4)
62	Cheque Details	For cheque book request 1. Cheque start number N8 2. Number of Leaves N3 3. Stop Reason code An5 *The stop reason code given should be a valid reference code in Finacle application.*
102	Account number	Account for which cheque needs to be stopped.

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the account. (Refer section 4.4.4)
125	Reserved field	This field will contain the status of the cheque leaves after trying stop request. The status is same as sent in check status inquiry.

1.6.2.4 Utility Payments authorization request

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 50
4	Transaction amount	Amount to be transferred between accounts (Refer section 4.4.4)
46	Amount fees	5 types of Fees (Refer section 4.4.4)
49	Transaction currency	Transaction currency code. All valid ISO currency codes
102	Account number - 1	Debit account number (Refer section 4.4.4)
103	Account number - 2	2 character payee code or Credit account number. (Refer section 4.4.4)

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the debit account after debit (Refer section 4.4.4)

1.6.2.5 Debit authorization request

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 48
4	Transaction amount	Amount to be debited (Refer section 4.4.4)
46	Amount fees	5 types of Fees (Refer section 4.4.4)
49	Transaction currency	Transaction currency code. All valid ISO currency codes
102	Account number	Debit account number (Refer section 4.4.4)

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the debit account after debit (Refer section 4.4.4)

1.6.2.6 Credit authorization request

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 49
4	Transaction amount	Amount to be credited to the account (Refer section 4.4.4)
46	Amount fees	5 types of Fees (Refer section 4.4.4)
49	Transaction currency	Transaction currency code. All valid ISO currency codes
103	Account number	Credit account number (Refer section 4.4.4)

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the credit account after credit (Refer section 4.4.4)

1.6.2.7 Modify Block request:

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 17
4	Transaction Amount	• New block Amount for Modify Block Request • It is unsigned. • Sign Info is available in Field 125 • Total block amount in the account (Field 102) is updated with this amount.
102	Account number	• Account on which modify block has to be performed.
125	Reserved Field for private use	• 1 char sign indicator Valid values a) P (Positive) : it indicates that the amount given in field 4 (transaction amount) is the additional block amount on the account given in Field 102. b) N (Negative) : Indicates that the account (field 102) needs to be unblocked to the extent of the amount specified in transaction amount field. • 25 char Block Id (Should be left justified and padded with spaces. *If this field is blank, the block id will be formed as Dccid/Reasoncode. For eg: if the reason code is SHARE and the dcc id is ATM, the block id will be ATM/SHARE*) • 5 char reason code (left justified) • 8 char Block Expiry Date in YYYYMMDD format. If not present, default Expiry Date is assumed to be 20991231 • 50 char remarks (e.g., transaction reference number of the brokerage system)

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data priavte	Balances of the source account after modify block (Refer section 4.4.4)
125	Reserved Field for private use	This field indicates the status of the account if the account is closed/frozen : • TF – Total Freeze • DF – Debit Freeze • AC – Account Closed In all other cases it will be 00.

1.6.2.8 Unblock Debit request :

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 18
4	Transaction Amount	• Amount to be unblocked and debited from the account. • It is unsigned. • Sign Info is available in Field 125 • Total block amount in the account (Field 102) is updated with this amount.
102	Account number	• Account on which block needs to be removed and debit transaction is to be created.
125	Reserved for private use	• 1 char sign indicator. Always N. • 25 char Block Id (Left justified, filled with spaces. If this field is blank, then the block id will be taken as "DCCId/Reason code") • 5 char reason code • 8 char Block expiry date (in YYYYMMDD format) • 50 char remarks (e.g., transaction reference number of the brokerage system)

Output :

Bit	Description	Remarks
39	Response Code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data priavte	Balances of the source account after unblock debit (Refer section 4.4.4).

1.6.3 Requests

1.6.3.1 Cash Deposit notification request :

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 21
4	Transaction amount	The deposit amount
49	Transaction currency code	All valid ISO currency codes
103	Account number	Account to which cash is to be credited

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the account (Refer section 4.4.4)
125	Reserved for private use	Can be used to send reference id (generated by the custom program)

1.6.3.2 Cheque Deposit notification request:

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 24
4	Transaction amount	Amount of the cheque
62	Cheque details	8 characters long cheque number (This field can be customized to hold multiple cheque numbers, bank code, branch code etc.)
103	Account number	Account to which cheque amount is to be credited

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the account (Refer section 4.4.4).
125	Reserved field	Reference Id generated in the custom program can be sent in this.

1.6.3.3 Cheque book request :

Bit	Description	Remarks
3	Processing code	Valid value : 90
62	Cheque Details	For cheque book request 1. Number of leaves - N3 2. Design type - AN5 (Can be used for customization)
102	Account number	Account for which cheque book is to be issued.

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the account (Refer section 4.4.4)
125	Reserved field	Reference Id generated by custom program can be sent in this field.

1.6.3.4 Statement of account request:

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 92
102	Account number	Account number for which statement is to be processed.
125	Reserved Field	For Statement request the field can optionally contain the data required for statement generation. This can be decided while customization.

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the account (Refer section 4.4.4).
125	Reserved field	Reference Id generated by the custom program can be sent in this field

1.6.3.5 DD Issue Request :

Input:

Bit	Description	Remarks
3	Processing code	Valid value : 98
4	Transaction amount	DD amount
49	Transaction currency	All valid ISO currency codes
102	Account number	Account number from which the dd amount is to be debited.
125	Reserved Field	For DD Issue request the field will be formatted as follows: 1. DD Payable at Bank *(In Case of Correspondent Banks) (8 Char) 2. DD payable at branch code (8 char). Code should match branch code set-up in FiNACLE. 3. Beneficiary Name (40 Char) * Code should match branch code set-up in FiNACLE.

Output:

Bit	Description	Remarks
39	Response code	Valid ISO response codes (Refer section 4.6.5)
48	Additional data private	Balances of the account (Refer section 4.4.4).
125	Reserve Field	Reference Id generated by the custom program

1.6.4 Function Codes

Code	Meaning
200	Original Authorization request or advice
400	Reversal
801	Logon – Not supported since BancsConnect handles stand-in processing
802	Logoff – Not supported since BancsConnect handles stand-in processing
831	Echo-test (Received by BancsConnect)

1.6.5 Action codes returned by BancsConnect

Code	Meaning
000	Financial transaction has been approved (DCC should go ahead and complete the transaction)
111	Invalid scheme type
114	Invalid account number (DCC should reject the transaction)
115	Requested function not supported (First two digits of processing code or Function code is invalid) (DCC should reject the transaction)
116	Insufficient funds (DCC should reject the transaction)
119	Transaction not permitted to card holder (DCC should reject the transaction)
121	Withdrawal amount limit exceeded. (DCC should reject the transaction)
163	Invalid Cheque Status
180	Transfer Limit Exceeded (DCC should reject the transaction)
181	Cheques are in different books
182	Not all cheques could be stopped
183	Cheque not issued to this account
184	Requested Block operation failed since Account is closed/frozen. Account status is sent in ISO field 125. Note that brokerage requests can be processed on a Credit freeze account and not permitted on Total Freeze/Debit freeze/Closed Accounts.
185	Invalid Currency/Transaction Amount
186	Block does not exist
187	Cheque Stopped
188	Invalid Rate Currency Combination
189	Cheque Book Already Issued
190	DD Already Paid
800	Network message was accepted
902	Invalid transaction (Invalid function code within network management messages) (DCC should reject the transaction)
904	Format Error (Any format related errors etc) (DCC should reject the transaction)
906	Cut-over in progress (When Stand-in Server is handing over control to FiNACLE. (DCC should reject the transaction and try again after some time or do local authorization)
907	Card issuer inoperative (When BancsConnect cannot contact FiNACLE and cannot do stand-in processing.) (DCC should reject transaction and do local authorization)

909	System malfunction (Sent by BancsConnect for errors like database corrupted) (DCC should reject transaction and do local authorization)
911	Card issuer timed out (BancsConnect contacts FiNACLE and FiNACLE times out and BancsConnect cannot do stand-in processing) (DCC should mark transaction as 'suspect' and do local authorization)
913	Duplicate transmission. This error is returned if a duplicate message is received and the transaction amount is different. The DCC will have to treat this transaction as 'suspect' and carry out the necessary steps to process suspect transactions.

Note:
If the DCC times out on its request to BancsConnect or receives a '000' response after its timeout value then it should mark that transaction as 'suspect' and send a 'reversal' message to BancsConnect.
In any case if the DCC does local authorization, it should be done under a new STAN.

1.6.6 Notations used

A	Alphabetic characters A through Z and a through z
N	Numeric digits 0 through 9
P	Pad character i.e. space
S	Special Characters
An	Alphabetic and Special Characters
Ns	Numeric and Special Characters
Anp	Alphabetic, Numeric and Pad (Space) characters
Ans	Alphabetic, Numeric and Special Characters
MM	Month, 01 through 12
DD	Day, 01 through 31
YY	Year, 00 through 99
YYYY	Year, 0000 through 9999
Hh	Hour, 00 through 23
Mm	Minute, 00 through 59
Ss	Second, 00 through 59
B	Binary representation of data
..nn	Variable length data up to nn characters. There will be two or three character length (depending upon whether maximum data length is 99 or 999) at the beginning of the element to identify the number of positions following to the end of the data element
DCC	Delivery Channel Controller
SAF	Store and Forward File
PBF	Positive Balance File
SOL	Service Outlet

1.6.7 Conventions used for denoting field presence

M	Field must be present
ME	If field is present in request, the same value has to be echoed in the response
-	If the field is present in request, it will be ignored. It will not be put by BancsConnect in response
C	Field is mandatory under certain conditions
CE	If the field has been provided in the request, it will be echoed by BancsConnect within response
O	Field is optional within the request. If present, BancsConnect will take certain action on it.
OE	If the field is present within request, it will be echoed by BancsConnect within response