

2.0 Appendix A – Project Aspire Conversion/Interface Functional Design

ADML ID	134
ADML Description	P-Card Requests and Changes to Card Provider
ADML Tech #	130

2.1 Description Functionality

Current Functionality:

Currently, the State’s P-Card system automates most of the P-Card maintenance processes between the State and the Bank (P-Card provider), which is Bank of America (BofA). The system allows P-Card administrators to send new card requests, make changes to existing card and cardholder information, send replacement card requests, and close cardholder accounts and Business Unit Address changes. Approvals for new card requests are handled outside the system through a P-Card request form. After the new procurement card is authorized, the agency P-Card administrator then enters the request into the system. Changes to card information include single transaction / daily / monthly / cycle dollar amounts, number of transactions per day / month / cycle, Credit Limit Changes, Name as it appears on the card, Address and MCCG changes.

All of these actions cause the generation of a flat file which is translated into an EDI file and sent to the bank for processing. The bank requires that each change is marked with a transaction sub-type to identify the type of change being made. When the bank has successfully processed this data, they send an EDI file back to the State with the new card number in the case of a new card request. The file also contains the card number associated with each message Id in the case of updates to an existing card. The description field is only used when the changes or new requests are rejected. The EDI 996 incoming file also contains the Approval code which is “Approved” or “Rejected”. The State uses the message ID on the EDI files to identify which changes have been accepted by the bank and maintains this data for a certain period of time before it is archived.

There are three main components in the State’s current P-Card system – (1) Administration Unit, (2) Person File, and (3) Card Information. The Administration Unit is used to validate and maintain FLAIR organization codes for use by the agency within the Procurement Card system, establish and maintain approval level defaults for each organization code, define purchasing and travel extracts, allow or prohibit distribution for

each organization code, and indicate the shipping method and ship-to address for P-Cards issued to the agency.

The Person File is currently used to set-up the cardholder / approver / administrator(s) personal profile. It includes the Administration Unit, Name (Last, First, Middle), Social Security Number, Person ID, Training Date, FLAIR ID, Administrator, Approver, Non-Employee, Active Card, Record Status and Status Changed Date.

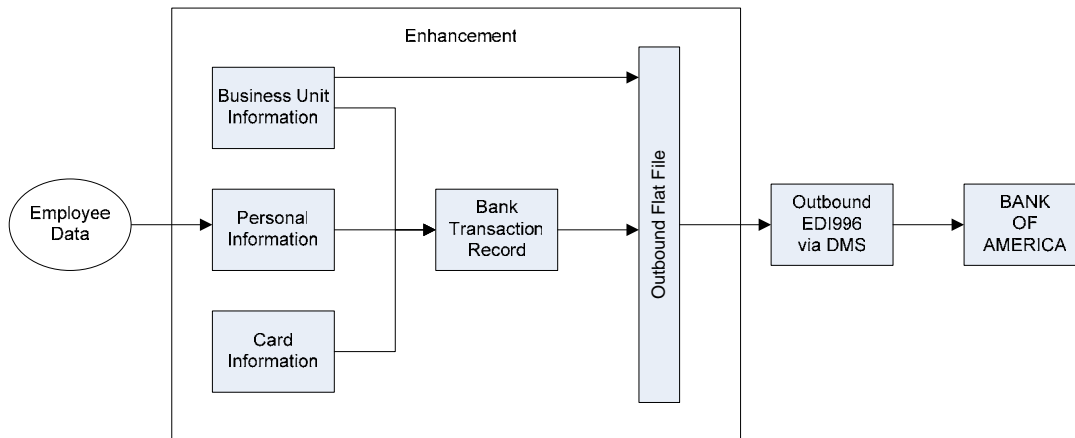
Card Information includes adding the new card to the Person ID, reporting the stolen/lost card, closing the cardholder account, modifying the existing card information, requesting a replacement card, changing processing groups, Changing approval levels for routing and changing accounting information. The Card record in the current system includes Name from Person Record, Name as it appears on the card, Person ID, Card Sequence number, Replacement card indicator, Mother's Maiden Name (used by BofA as the password), Authorization Name (name of the person who authorized the issuance of this card), Approved Date (automated by BofA when the card is issued), Issued Date, Expiration Date, Training Date (this is from the person file), Notify Bank Flag (automated, defaults to 'X' when selected changes are made to the record), Max Credit Limit, Max Amounts per Charge (should be \leq Day Amount), per Day (Should be \leq Month Amount), per Month (Should be \leq Cycle Amount), per Cycle (bank billing cycle), Transactions Allowed per Day (should be \leq month), per month (should be \leq Cycle), per cycle (bank billing cycle cannot exceed max credit limit), default distribution information, approval levels and MCCG's.

ASPIRE does not deliver the functionality to communicate with the bank for P-Card maintenance. In order to accomplish this within ASPIRE, a complex enhancement and two new interfaces will need to be developed which will essentially duplicate the State's current functionality. This specification documents the enhancement as well as the outbound interface. Please refer to ADML 96 for information on the inbound interface.

Enhancement:

- ***Overall Process Diagram***

The following diagram provides an overview of the "To-Be" process:



- **Custom Pages**

Several new pages will need to be created to capture the required information. The State's approval process for new requests will continue to be performed outside the system. Therefore only specific authorized users should be able to access these pages. The new pages will be split into different components: (1) Control Data including the Company (agency) Information, Company ID and Business Unit cross reference table, and (2) Card and Cardholder Information.

This control data must be set up for each BU prior to entering a new card request. The Agency and Company Information will be used by the Statewide Administrator to capture the company information, and also used by the agency P-Card administrators to capture the mailing address and shipping method for the agency. This information is required for the bank to send the new procurement cards and the replacement cards. The agency administrator should not be able to modify the company information. Another page needs to be created to maintain the cross reference table for the Company ID and the PO Business Units as each agency can have multiple PO Business Units assigned to their respective Company ID. Detailed field information for these pages is listed below.

The Card and Cardholder Information component should also have two main pages (or tabs) that will be used mainly by the agency P-Card administrators. The first page will be for the Cardholder Information (Employee ID, BU, Employee Name, etc.). The second page, Card Information, will be used to enter card data such as Card Limits, Approved Date, Expiration Date, Mother's Maiden Name, etc.

Please refer to the “Detailed Field Information” below for a list of all the fields that should be on each of these pages.

- *New Card Request*

All P-Card approvals will be handled outside the system as they are today. Once approval has been received, the P-Card administrator will enter the Card and Cardholder Information to submit the new card request to the bank. The Outbound Interface program will then insert all the new card requests into a new Maintenance Record before creating the flat file. It will then submit this request to the bank through an EDI file during a nightly batch process. While the new card request is being processed at the bank, the transactional data on the new pages will be in display-only mode and the Record Status will be set to “Pending Approval.”

The response from the bank will include the new credit card number. When the response is received, the credit card number will be added to the Card Information page and the Record Status should be set to “Active,” allowing the transactional data on these pages to be open for modifications. In addition, the data received from the bank will need to be loaded into Aspire’s delivered card profile tables. Please see the ADML 96 for more details on the inbound interface.

- *P-Card maintenance*

Once the record is in an “Active” status, the P-Card administrator will have the ability to perform “P-Card maintenance” from within the new components. P-Card maintenance includes making changes to the card and cardholder information, requesting replacement cards, closing accounts and Administrative unit address changes for mailing the cards. Each type of change will create a record in a new transaction table which will stage the data to be sent to the bank. Each type of change will be associated with a specific Transaction Sub-Type that is required by the bank and will be assigned a unique message ID. The Action Codes are as follows:

ADD - Add a new cardholder

AUT - Authorization change; changes to Maximum Single, Daily, Monthly or Cycle dollar limits, changes to Maximum Daily, Monthly or Cycle number of transaction limits, changes to MCCG attachments

CLC - Credit Limit change

CLO - Close an account (cancel a card)

PRO - Cardholder Name or Administrative Unit address change

RRC - Replacement card request

While changes are being processed at the bank, the Record Status should be set to “Processing Changes.” The data will still be editable at this point to allow for multiple changes at one time. When Aspire receives all responses from the bank for the changes related to a card, the Record Status will go back to “Active.” Therefore, when nothing is pending with the bank, the status will be “Active.” Also, the inbound interface should not update the card status field to “Active” if it has been set to “Closed” by the bank response for the closed cards.

The P-Card administrator will also have the ability to set the Person Record Status to “Inactive” for cardholders that are no longer in use. This status will set all the fields to display-only including the Status field, preventing any further modifications.

For Lost / Stolen cards, once the Lost / Stolen information entered card record status should automatically set to ‘Closed’, and should be included in outbound 996 files as Lost/Stolen card (CLO).

When there are changes to the business unit address, the FL_ADDR_CHNG_FLG should be set to ‘Y’. Just before creating the flat file, a record for each card holder associated to the business unit should be inserted in the Maintenance record

Administrators should not be able to inactivate a cardholder if the cardholder has any active cards. Also, if a cardholder is inactive, Administrators should not be able to add new card requests to that cardholder.

- ***Maintenance Record***

In order to stage all the data associated with new card requests and changes to existing cards, a new record will need to be created. This Maintenance record, FL_PC_BANK_TRANS_EC, should be populated every night (just before the flat file creation – the interface program should be designed to meet this requirement) for all new card requests added or changes made to an existing card in a given day. Each row in this record will contain a message ID, the employee ID, and the appropriate transaction sub-type, along with the data entered/updated on the new P-Card pages. This Maintenance record will contain only the changes needed to be sent to the bank; other changes which don’t need to be sent to the bank, such as address changes for inactive cards, will not be included in the Maintenance record.

This record will be required for both the outbound and inbound interfaces with the bank. From this record, a flat file will be sent to DMS to be translated into the outbound EDI 996 file which will then be sent to the bank for processing. In order to verify that a response is received from the bank, the Maintenance record will contain a “Response Received” flag and a “Response Date” field. The inbound message will use the message ID as the key to identify which transaction row has been received. Once the appropriate transaction row is identified, the “Response Received” flag for that row will be set to ‘Y’ and the “Response Date” will be populated with the current date/time. In addition, the

Maintenance record will also be populated with the new bank transaction ID and “Changes Processed Date” for each message ID (these are part of the incoming file) The “Response Date” will also be used to archive the data after a certain time period to be determined by the State.

The FL_PC_BANK_TRANS_EC table will also be used to insert/update the ASPIRE delivered P-Card user profile tables once the response has been received from the bank. This interface should be developed so that it enables both “adds” and “updates” to the cardholder profile. When a new card is added (transaction sub-type is ‘ADD’), the interface should add the record to the ASPIRE delivered P-Card tables based on the Employee ID. In all other cases, when the transaction sub-type is not equal to ‘ADD’, the interface should update the ASPIRE delivered P-Card tables. In this case, the Employee ID field and Credit Card number will be used as the key fields.

Please refer to the attachment for more field-level details on the FL_PC_BANK_TRANS_EC record.

- **Proxies**

P-Card Users (including administrators) should not be able to approve their own transactions.

At Present PeopleSoft delivered functionality doesn’t limit the approver for a transaction. To meet the requirement, the system should only allow the selection of OPRID’s as approvers where the employee id does not match the Cardholders Employee ID. To accomplish this, an error message will be displayed by the system when the approver’s User ID matches the Cardholder Employee ID in the PSOPRDEFN

The following are the P Card approver roles:

ROLENAME	DESCR
WF-PO-CC Agency Admin	FL-Agency Administrator
WF-PO-CC Approver	FL-Approver
WF-PO-CC Cardholder	FL-Cardholder
WF-PO-CC Entp Admin	FL-Enterprise Administrator
WF-PO-CC Fiscal Approver	FL-Fiscal Approver

The administrator adding the proxies should not be able to pick the OPRID where the employee ID on the OPRDEFN table matches to the Employee ID trying to add the proxies.. Also, the administrator should not be able to pick other OPRID’s as WF-PO-CC Cardholder for that card, other than WF-PO-CC Cardholder itself.

WF-PO-CC Cardholder role is the same as actual card holder; other users should not be able to see transactions as WF-PO-CC Cardholder role.

Actual card holder should not be able to verify and/or approve their own transactions.

Also need to display the role name in the results (from the look-up on the proxies page)

For detailed information about proxies and their edits refer to ADML1396.

Outbound Interface:

The outbound interface will run during a nightly batch, as it does today. The Interface program will insert the data into the Maintenance record for all changes and new card requests. This interface will select all of the newly inserted rows from the FL_PC_BANK_TRANS_EC record and convert them into a flat file. The flat file will then be translated into an EDI file through software owned by DMS. Once the data is in the acceptable EDI format, it will be sent to the bank for processing. Please see the “Flat File for EDI 996 Outbound File” section below for more details on the EDI 996 file.

Detailed Field Information:

- ***Company and Agency Information***
 - a. Company Number
 - b. Company Name
 - c. Corporate Account Number
 - d. GL Business Unit
 - e. Mailing Address
 - i) Address 1
 - ii) Address 2
 - iii) City
 - iv) State
 - v) Postal Code (Zip Code)
 - vi) Business Phone
 - f. Shipment Method
 - g. Record Status

- h. Address Change Flag
- ***Agency Administrators***
 - a. Company ID
 - b. Operator ID (Administrator ID)
 - c. GL Business Unit
 - ***Purchasing Business Unit and Company Cross reference:***
 - a. Company ID
 - b. Business Unit
 - ***Cardholder Information Page:***

The Cardholder Information page will capture the following information about the card holder:

- a. Employee ID (Its look-up points to the PERSONAL_DATA record.)
- b. Business Unit
- c. Last Name (Display only and coming from PERSONAL_DATA)
- d. Middle Name (Display only and coming from PERSONAL_DATA)
- e. First Name (Display only and coming from PERSONAL_DATA)
- f. Training Date
- g. Active Card (Y/N)
- h. Record Status
- ***Card Information Page***

The Card Information page will capture the following information:

- a. Employee ID
- b. GL Business Unit
- c. Card Sequence no.
- d. Name as it Appears on the Card
- e. Mother's Maiden Name
- f. Replacement Card (Y/N)

- g. Authorized by
- h. Approved Date
- i. Expiration Date
- j. Issued Date
- k. Default Accounting Info
- l. Notify Bank (Y/N)
- m. Credit Card No.
- n. Credit Limit
- o. Max Amount per transaction
- p. Max Amount per day
- q. Max Amount per month
- r. Max Amount per cycle
- s. No. of transactions allowed per day
- t. No. of transactions allowed per month
- u. No. of transactions allowed per cycle
- v. Blocked MCCG's (9)
- w. Card Status

Lost/Stolen and closed Information:

- x. Lost / Stolen Date / Time
- y. Reported Date / Time
- z. Comments
- aa. Card Retrieved
- bb. Close Reason Code
- cc. Close Reason

Flat File for EDI 996 Outbound File:

EDI 996 Outbound File should include following:

Header information:

Field	Field Type	Length	Default Values
Partnership Code	Char	15	PCDBOAO99636

Unique Identifier	DateTime	15	Current DateTime Stamp in 'YYYYMMDDHHMMSST' format
Record Type	Char	2	CO

Details Record:

For detailed field mapping, please refer to the attached record layout document.

2.2 Scheduling

Nightly Batch

2.3 Run Control Parameters

The nightly batch will need to select all the rows from the FL_PC_BANK_TRANS_EC that have been added since the last nightly batch. Each time a new row is added, it is marked with a date/time stamp which can be used to identify whether or not it was picked up by the previous batch process.

Interface / Conversion Parameters	
<i>Parameters (Required)</i>	<i>Possible Values (Prompt Table)</i>
<i>Select all rows where date/time is greater than or equal to the date/time of the previous nightly batch.</i>	
<i>Parameters (Optional)</i>	<i>Possible Values</i>

2.4 Unit Test Considerations

- Create the “Request for New Procurement Card” and verify that the data is converted into an EDI file acceptable to BofA.

- Verify that the data on the custom pages cannot be modified while the record is in “Pending Approval(the new card request is pending with the bank.)” status and also Closed Status
- Validate that the table, FL_PC_BANK_TRANS_EC, is populated correctly upon submitting a new card request and making updates to the custom pages.
- Verify that each of the fields are flagged with the appropriate Action Code when changes/adds are made.
- Verify the data is populated into the table to create the flat file whenever changes are made to the specified fields. Also, ensure the data is not inserted into the record when other fields are changed.
- Verify that when multiple changes are made to the same cardholder, multiple rows are inserted to the Maintenance record. Also verify data accuracy.
- Verify the flat file is correctly created.
- Verify that all the transactions are selected from the Maintenance record and included in the flat file since the last creation.
- Verify each active card record included in 996 file when business unit address changed.
- Verify that once Lost/Stolen information entered Card status set to ‘Closed’
- Verify the Card status is appropriate during various levels of processing. Creating request (PA), Once Response received (FD), After distribution information and Proxies entered (A) and making changes to existing active card information (PC).

2.5 Miscellaneous

- When creating the flat file, make sure the header record and the detailed records are created in same format (length) to ensure the EDI file is correctly created.
- In the attached Record Layout file, the Processing rules for the Maintenance record combine the rules to insert the data into the table as well the format/data required for the flat file.
- Summary reports and ad-hoc queries will need to be generated to support administrative activities.
- Logic will need to be added to the MCCG fields on the “Card Information” page to bring only the agency’s specific MCCGs.

- Logic will need to be added to limit Proxies on the “Card Information” page to bring only the agency’s approvers(proxyes).
- History records need to be created for all the records and changes made on daily basis (if the record is changed twice in a day only the latest changes should be recorded in the history record). The Interface program will need to insert data into the history records every night.
- Only the statewide administrator is allowed to input the credit card number online; no agency administrators are allowed to input the credit card number. When the credit card number is entered online all the card related data including the distribution information needs to be entered online; otherwise the card number will not be saved. Once the card record is established in the custom tables this data needs to be populated into the ASPIRE delivered tables.
- Two links need to be placed on the P-Card Information custom page: one to Proxies (Approvers), another to Distribution information. These links should be enabled only when the card number is established, and should transfer the user to the ASPIRE Proxies and Distribution delivered pages respectively.
- Whenever a new card request is loaded into ASPIRE from the EDI996 file, the system should generate an email to the agency administrators to help add approvers and distribution information to the card in a timely manner. An email should also be sent to the Statewide Administrator for informational purposes.
- Users should not be able to update their own procurement card data.
- “Name as it appears on the Card” should not allow any numbers and special characters, only characters and spaces are allowed.
- Lost/Stolen Date and Time:
 - a. Should be allowed only valid date and time
 - b. If the comments are entered then lost / stolen date and time is required and vice versa.
 - c. Lost stolen date / time should be \leq Current date and time
 - d. Lost stolen / date should be \geq card issue date and \leq card expiration date
- Reported Date and Time
 - a. Should be allowed only valid date and time
 - b. Reported date and time must be \leq current date and time

- c. Reported lost / stolen date must be \geq card issue date and \leq card expiration date
- d. Reported lost / stolen date and time must be \geq lost / stolen date and time
- A Close reason code is required if the close reason text is entered and vice versa.
- A Close reason code is required if the card retrieved is not blank.
- Close reason codes are B5 – Lost / Stolen, B7 – Terminated, B9 – Miscellaneous, BP – Bank Processing (default value while processing to the bank)
- User profiles will be set-up with the employee ID in the security pages.
- While sending the messages for Address Changes made to the business unit should not be included for the closed cards, pending approval cards and new card requests.
- Once the card request is approved by bank is considered to be an active card as long as the card is not closed.
- FL_CC_CARD_DATA Page needs to be modified to include new chart field changes.

2.6 Assumptions

- The employee ID's for all P-Card holders will be entered into ASPIRE via the interface developed from ADML 033.
- The credit card number will be encrypted at the database level as it is in the current system.

2.7 Record Layout

Please refer to the attached document.



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