POSTAGE RECONCILIATION PROJECT

What are the goals of the Postage Reconciliation Project?

Due to the manual-work intensive process of billing by the Accounting Department, InfoIMAGE has purchased NetSort, a new sorting software by Bowe Bell + Howell, which will enable InfoIMAGE to take advantage of full IMB discounts starting 11/29/09, as well as create detailed reports with internal development that will aid in the ease of the billing process. Our previous sorting software, WinSort only allowed us to separate comingled pieces by CID, but NetSort has the capability to sort comingled pieces by CID per application.

Goals for the project:

1. **Calculate current postage profit through NetSort**
    a. Action Plan for Phase 1 (shown on Postage Reconciliation Production Workflow):
        i. Profit Report = Postage Billing Report (based on contract rates) – [(CA Expense Report) or (TX Expense Report + PSI Presort Fee)]
        ii. No reconciliation will be done in Phase 1 (reconciliation amount is too small to be significant)
2. **Implement Checks and Balances on Postage Account (needed by Lenora for the CPA)**
    a. Action Plan for Phase 1:
        i. Compare the total meter expense for one month to the combined expense reports of all jobs run in that date range
        ii. Total meter expense for one month = (meter reading at the end of the month – meter reading at the beginning of the month) + all added meter money during that month + postage refund requests
        iii. ISD will generate monthly reports to show the total estimated expense report value, which will be calculated by using the date range search criteria on the UI system from the last business day of the month at 4 PM to the last business day of the next month at 4 PM.
            1. 4 PM is the transition time between day shift and swing shift.
            2. Meter readings will be taken starting 2/26/2010 at 4 PM.
3. **Create accurate customer reporting (internal)**
    a. Action Plan for Phase 1 (shown on Postage Reconciliation Production Workflow):
        i. ISD to generate a user interface for Accounting to generate reports based on the criteria listed below:
            1. Date range (no max, using drop date)
            2. Parent CID
            3. CID (all or specific)
            4. Application (all or specific)
            5. Facility
        ii. The criteria above will give Accounting the functionality to:
            1. Maintain the Contract Billing Rates table
            2. Generate CA Expense Report
            3. Generate TX Expense Report
            4. Generate Profit Reports
            5. Generate History Reports

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Requested Functionality from Production (available to Calvin Choy, Lenora, Alice Lai)

Production needs an interface to input the following:

1. Postage balance of each of the postage meters (CA and TX) on a monthly basis (last day of the month)
2. Postage account balance
3. Permit postage account balance
4. Money reimbursed by USPS
5. Internal usage
6. Postage amounts dispersed by Accounting

Based on the information above, Accounting needs a report that calculates:

Postage spent (from Netsort) + balance of internal meters + money reimbursed by USPS + internal usage + postage account balance + = disperse amount

Requested Functionality from Accounting (available only to Lenora and Alice Lai)

1. Interface to maintain the Contract Billing Rates table
2. Postage Billing Report
    a. Create on ad-hoc basis
3. Estimated Postage Expense Report
    a. Separate ones for CA jobs and TX jobs
4. Postage Profit Report (incorporates Postage Billing Report and Estimated Postage Expense Report)
    a. Report not available until a job is closed
        i. Closed = 2% threshold (pulls, reprints, rejects) after 5 business days after the drop date
        ii. Production Dept will archive jobs every Monday at 4 AM
    B. Separate line item for NetSort profit ($0.003/piece)
5. Postage History Report/Capability (specs approved by Lenora)
    a. Criteria allowed to search by:
        i. Date range (no max, using drop date, monthly or YTD)
            1. YTD is Jan 1st – Dec 31st (needs to reset at the beginning of the new year)
        ii. Client (parent, child or both)
        iii. Application (all or specific)
        iv. Location (Menlo, Texas or all)
    B. Need to be able to pull at least 3 years of history (No data purging would be preferable).

Reports Requested by Lenora:

MONTHLY REPORT (search by Location/Client/Application/Date Range)								
Client	**App**	**Mail Type** (rate category?)	**Postage Paid Rate** (postage claimed or NetSort report)	**# of Pieces**	**$ Postage Paid** [A]	**Postage Billed Rate**	**Amount Postage Billed** [B]	**Profit(Loss)** [B-A]
				Total	Total [C]		Total [D]	Total [E]
								Check if **D-C = E**

POSTAGE RECONCILIATION PROJECT

YEAR-TO-DATE REPORT (search by Location/Client/Application/Date Range)										
			Monthly				**YTD**			
Client	**App**	**Mail Type** (rate category?)	**# of Pieces**	**$ Postage Paid**	**$ Postage Billed**	**Profit(Loss)**	**# of Pieces**	**$ Postage Paid**	**$ Postage Billed**	**Profit (Loss)**
			Total	Total [A]	Total [B]	Total [E]	Total	Total [C]	Total [D]	Total [F]
Check if **B-A = E** and **D-C = F**										

REPORT BY CLIENT									
▪ Some clients print in 2 locations ▪ Location is not the 1st criteria ▪ Report should show monthly and/or YTD by application (all or separate)									
Client	**Location**	**App**	**Mail Type** (rate category?)	**Postage Paid Rate**	**# of Pieces**	**$ Postage Paid**	**Postage Billed Rate**	**$ Postage Billed**	**Profit(Loss)**
					Total	Total		Total	Total

SUMMARY REPORT (search by Location/Client/All Applications/Separate Applications)							
▪ Summary can be printed for individual clients or for all clients							
		Monthly			**YTD**		
Client	**App**	**$ Postage Paid**	**$Postage Billed**	**Profit(Loss)**	**$ Postage Paid**	**$ Postage Billed**	**Profit(Loss)**
		Application totals			Application totals		
If picked separately for application, need total by client (application subtotals and grand total).							

NetSort Postage Calculations

The sorter doesn't know weights, only knows postage categoryALL pieces are metered at 5 digit rate (lowest)**

Mail Type	**CA Affixed Rates**		**TX Affixed Rates**	
	Rate Category	**Current 1oz Rate**	**Rate Category**	**Current 1oz Rate**
Presort FC	5-digit Presort FC Letters	$0.335	3-digit Presort FC Letters	$0.357
Full-rate FC	Full-rate FC Letters	$0.440	Mixed AADC Presort FC Letters	$0.382
Foreign	Full-rate Foreign Letters	$0.980	Full-rate Foreign Letters	$0.980
Heavies	Full-rate FC Flats	$0.880	Full-rate FC Flats	$0.880

Rate Category (r)		**# pieces (n)**
5 digit	r_2	n_2
3 digit	r_3	n_3
AADC	r_4	n_4
Basic	r_5	n_5

$ Postage Due = $n_2(r_2 - r_2) + n_3(r_3 - r_2) + n_4(r_4 - r_2) + n_4(r_4 - r_2) + n_5(r_5 - r_2)$

Full Service Savings = $0.003(n_2 + n_3 + n_4 + n_4 + n_5)$

$ Postage Affixed = $r_2(n_2 + n_3 + n_4 + n_4 + n_5)$

Total Postage Spent = $ Postage Affixed + $ Postage Due - Full Service Savings

Revenue/Expense/Profit Calculations

Summation of Estimated Postage Expense (only for pre-sort) =

Take all the 1 OZ 5-digit, 3-digit, and basic counts multiply by base rate (.335) = 1 oz expense
Take all the 2 OZ 5-digit, 3-digit, and basic counts multiply by base rate (.460) = 2 oz expense
Take all the 3 OZ 5-digit, 3-digit, and basic counts multiply by base rate (.585) = 3 oz expense
Take all the 4 OZ 5-digit, 3-digit, and basic counts multiply by base rate (.710) = 4 oz expense

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Total Postage By Weight Expense

Plus Postage Due (for pieces that didn't qualify for pre-sort rates, derived from NetSort system)

Postage Claimed – Postage Affixed = Postage Due

Total Postage Expense

Postage Revenue =

Revenue_rate_tbl

cid	
App	
1oz 5-digit	
2oz 5-digit	
3oz 5-digit	
4oz 5-digit	
1oz 3-digit	
2oz 3-digit	
3oz 3-digit	
4oz 3-digit	
1oz basic	
2oz basic	
3oz basic	
4oz basic	

Take all the 1 OZ 5-digit counts multiply by customer rate (?) = 1oz 5-d Revenue
Take all the 2 OZ 5-digit counts multiply by customer rate (?) = 2oz 5-d Revenue
Take all the 3 OZ 5-digit counts multiply by customer rate (?) = 3oz 5-d Revenue
Take all the 4 OZ 5-digit counts multiply by customer rate (?) = 4oz 5-d Revenue
Take all the 1 OZ 3-digit counts multiply by customer rate (?) = 1oz 3-d Revenue
Take all the 2 OZ 3-digit counts multiply by customer rate (?) = 2oz 3-d Revenue
Take all the 3 OZ 3-digit counts multiply by customer rate (?) = 3oz 3-d Revenue
Take all the 4 OZ 3-digit counts multiply by customer rate (?) = 4oz 3-d Revenue
Take all the 1 OZ basic counts multiply by customer rate (?) = 1oz basic Revenue
Take all the 2 OZ basic counts multiply by customer rate (?) = 2oz basic Revenue
Take all the 3 OZ basic counts multiply by customer rate (?) = 3oz basic Revenue
Take all the 4 OZ basic counts multiply by customer rate (?) = 4oz basic Revenue

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Total Postage Revenue

Profit = Total Postage Revenue – Total Postage Expense

Reconciliation Codes (**will not be using for Phase 1**):

Code 3 = mistake postage (USPS refunds 85% b/c of a 15% refund service fee)
Code 4 = mutilated mail piece (not metered)*
Code 5 = hand repair mail piece (not metered)*

*Code 4 & 5 pieces do not need to be calculated as reconciled pieces b/c they will get mailed out regardless and have not been metered previously anyways. This is transparent to Accounting.

Accounting's Billing Rate Table Design (ISD will create the database tables)

BASE RATES				OPTIONAL FEES				MARK UP RATES			
rate_id	*rate 1*	*rate 2*		*fee_id*	*service*	*rate*		*prefix*	*rate_id*	*mark_up*	*p_rate*
r_5d1z	0.34	0.21		1	Certified Mail Service	2.8		afculc	r_5d1z	0.105	0.44
r_5d2z	0.46	0.22		2	Delivery Confirmation - Mail	0.8		afculc	r_5d2z	0.15	0.61
r_5d3z	0.59	0.25		3	Delivery Confirmation - Electronic	0.19		afculc	r_5d3z	0.195	0.78
r_5d3.5z	0.71	0.28		4	Return Receipt - Mail	2.3		afculc	r_5d3.5z	0.24	0.95
r_3d1z	0.36			5	Return Receipt - Electronic	1.1		afculc	r_3d1z	0.083	0.44
r_3d2z	0.48			6	Signature Confirmation - Mail	2.35		afculc	r_3d2z	0.128	0.61
r_3d3z	0.61			7	Signature Confirmation - Electronic	1.95		afculc	r_3d3z	0.173	0.78
r_3d3.5z	0.73							afculc	r_3d3.5	0.218	0.95
r_b1z	0.38							afculc	r_b1z	0.058	0.44
r_b2z	0.51							afculc	r_b2z	0.103	0.61
r_b3z	0.63			PRODUCT FEES				afculc	r_b3z	0.148	0.78
r_b3.5z	0.76			*prefix*	*fee_id*			afculc	r_b3.5z	0.193	0.95
r_fc1oz	0.44			afculc	1			afcudl	r_5d1z	0.047	
r_fc2oz	0.61			afculc	3			afcudl	r_5d2z	0.047	
r_fc3oz	0.78							afcudl	r_5d3z	0.047	
r_fc4oz	0.95							afcudl	r_5d3.5z	0.047	
r_fcf1oz	0.88							afcudl	r_3d1z	0.025	
r_fcf2oz	1.05			PRODUCT DESCRIPTIONS				afcudl	r_3d2z	0.025	
r_fcf3oz	1.22			*prefix*	*desc*	*cid*		afcudl	r_3d3z	0.025	
r_fcf4oz	1.39			afculc	Invoice - Loan Coupon	afcu		afcudl	r_3d3.5	0.025	
r_fcf5oz	1.56			afcudl	Invoice - Dally Letter	afcu		afcudl	r_b1z	0	
r_fcf6oz	1.73			afcums	Monthly Statement	afcu		afcudl	r_b2z	0	
r_fcf7oz	1.9							afcudl	r_b3z	0	
r_fcf8oz	2.07							afcudl	r_b3.5z	0	
r_fcf9oz	2.24							afcums	r_5d1z	0.047	
r_fcf10oz	2.41							afcums	r_5d2z	0.047	
r_fc11oz	2.58							afcums	r_5d3z	0.047	
r_fcf12oz	2.75							afcums	r_5d3.5z	0.047	
r_fcf13oz	2.92							afcums	r_3d1z	0.025	
								afcums	r_3d2z	0.025	
								afcums	r_3d3z	0.025	
								afcums	r_3d3.5	0.025	
								afcums	r_b1z	0	
								afcums	r_b2z	0	
								afcums	r_b3z	0	
								afcums	r_b3.5z	0	

Specifications from Terrence

prp_rateid_lookup table has been recreated with changes that we have discussed on our last meeting.

PRP Specs:

1) Get all proc_id, dropdate, actualdrop from datatrac_prd(ip - 10.8.8.28, port 1433).tblrtwo_cycle
where actualdrop fall within billing date range

2) Get cid, jid, proc_id from process_main using proc_id(s)
order by cid, jid, proc_id

REPORTS:

Table rate_oz and discount_rate_by_zip already contains USPS information, for example:

SQL> select * from rate_oz where PROC_ID = 84483;

PROC_ID	WEIGHT	COUNTS	RATE	CATEGORY_ID	RATE_ID	JID
84483	1	10000	382	1	LFD1	ws2
84483	1	6606	382	1	LFD1	ws2
84483	2	494		507	1	LFD2	ws2
84483	1	396		440	2	LRA1	ws2
84483	2	15	610	2	LRA2	ws2
84483	1	125		980	3	LRB1	ws2
84483	2	6	1820	3	LRB2	ws2
84483	1	1	980	3	LRB1	ws2

SQL> select * from DISCOUNT_RATE_BY_ZIP where PROC_ID = 84483;

PROC_ID	ZIP_DIGI	WEIGT	RATE	COUNT
84483	3digit	1oZ	357	3936
84483	3digit	2oZ	482	453
84483	5digit	1oZ	335	11799

However, the rate_id does not give us the counts that we were expecting!

First, you need to x-reference 3digit, 5digit, etc depending on it weight to an rate_id. For example:

3digit and 1oz = LFB1 where is count = 3936
3digit and 2oz = LFB2 where is count = 453
5digit and 1oz = LFA1 where is count = 11799

Second, to get basic 1oz, use table rate_oz count infomation - discount_rate_by_zip count information

10000 + 6606 = 16606 total 1oz

16606 - 3936 - 11799 = 871 basic 1oz

Third, to get basic 2 oz

494 - 453 = 41 basic 2oz

Fourth, For **full rate**, you can take the count as it.

LRA1 (full rate 1oz) = 396
LRA2 (full rate 2oz) = 15

Fifth, to get foreign count, use table rate_oz

foreign 1oz = sum (count) where rate_id = LRB1
foreign 2oz = sum (count) where rate_id = LRB2

For Biiling Report: hopefully at this point you have the count associate to it rate_id, you can now:

1) Get contractual rate for each category from markup_table(which you are going to build)
using prefix(cid+jid)+rate_id

2) Use contractual_rate * COUNTS give you billing infomation

Netsort Info (Since we are metering every piece of mail at the lowest rate, we need to find out how much we owe.)

1) Get netsort_cat_id, count from net_sort_cnt
where proc_id = proc_id(s)

2) if netsort_cat_id = 3
(LFB1 3 Digit 1 oz - LFA1 5 Digit 1 oz) * count
give you postage due "A" (what we owe)
if netsort_cat_id = 4
(LFC1 AADC 1oz - LFA1 5 Digit 1 oz) * count
give you postage due "B" (what we owe)
if netsort_cat_id = 5
(LFD1 Basic 1oz - LFA1 5 Digit 1 oz) * count
give you postage due "C" (what we owe)

3) (A+B+C) - full service imb discount(total # presort piece * .003) = Total postage due

Total Postage Affix = (LFA1 * count of 1oz pieces + LFA2 * count of 2 oz pieces + LFA3 * count of 3 oz pieces + LFA4 * count of 4 oz pieces)

Profit = sum of (contractual rate * counts) - sum of (postage affix) - sum of (postage due) per rate category

For Texas jobs: At this stage, you should have the count assicated to it's rate_id

Presortable rate_id are LFA*, LFB*, LFC*, LFD*

presort_total = (Sumof (LFA*) + Sumof(LFB*) + Sumof(LFC*) + Sumof(LFD*)) * LFB rate(3 digit rate)
fullrate_total = Sumof(LRA*) * LFD rate(basic rate)
additional_cost = (Sumof (LFA*) + Sumof(LFB*) + Sumof(LFC*) + Sumof(LFD*) + Sumof(LRA*)) * .007

postage affix = presort_total + fullrate_total + additional_cost

Profit = sum of (contractual rate * counts) - postage affix

Issues/Concerns

Network:

- We cannot access the NetSort database system through the BBH firewall.
  - Only allowed to access web page interface.
- We can connect to the database through an open Ethernet cord, but it is not allowed by BBH.
  - Already obtained the DB schema.
  - Already created a read-only user.
  - RHT can access this server.
  - Will start collecting data on 10/14/09.
  - We will make it a company policy that we will only create read-only users.
  - Need to set up a firewall between InfoIMAGE and BBH.
  - Terrence/Kent need to test out this solution.

Production:

- Pieces of the same job do not always have the same Batch ID if they were run at a different time (ex: rejected pieces)
  - Means that we have to match piece by piece every mail piece in a job
    - Cannot predict the processing performance of this method
    - Need to turn on Full IMB for ALL jobs in order to store the unique IMB ID to be used for matching
- How will billing rate updates affect production?
  - Ex: USPS changes postage rates after a job has been printed but before the drop date.
    - Will need to develop an effective date option on our internal InfoTRAC system (with IP restrictions)
- How do we handle postage for heavy files and Certified Mail?
  - Heavy files: currently using weight of #10 envelope no matter what (not completely accurate)
    - Peter will evaluate the program to see if it can handle a 2nd envelope weight for heavies (9x12).
  - Certified Mail: create a database table to store optional USPS fees.
    - http://www.usps.com/prices/extra-services-prices.htm
- **NOTE:** PROD will re-run code 5's with their own Run ID if there are more than 100 pieces/job.

Accounting:

- Want functionality to update billing rates ahead of time.
  - Will need to develop an effective date option on our internal InfoTRAC system (with IP restrictions)
- Wants to keep postage rate history
- Wants billing rate audit trail (report of all changes made that day and who made them)
- If Accounting needs to insert the billing information into the billing rate tables BEFORE the first cycle of new setups, this needs to be a part of the turnover meetings.
- Would like to maintain base rate database table (instead of PROD) AND mark-up rate table (agreed upon in 1/26/10 meeting).
- Wants a database table column that stores the total billing rate (base rate + optional fees + mark-up fee) in order to reduce human errors when modifying the mark-up fee table (added to DB table design).
- Can use data starting 6/1/2010 (7/1/2010 worst case).

IS/ISD:

- Terrence needs to bridge the IS Oracle database to DataTrac using dt_job_id and proc_id.
- Use app_id for future DataTrac link
- Need to store drop date (dt_job_id links to drop date AFTER DP processes)
- Do not generate billing reports along with the DPVS anymore, instead, allow Accounting to create them at will.
  - This will allow Accounting to generate/re-generate billing reports in case billing rates were changed AFTER the effective date.
  - DPVS data needs to be incorporated (file counts).
  - ISD needs to get the drop date from DataTrac to generate these reports.
- NetSort ID is not unique per mailpiece. ID AND category number is needed to make a match.

- Megasys jobs cannot be separated by CID (no solution).
- Need to figure out temporary solution for applications that do not support multiple segments.
- **NOTE:**
  - 1 job might have more than 1 Run ID, but a Run ID will always apply to only 1 job
  - Phoenix jobs will have no profit because all mail pieces are metered at First Class rates.

Phase I Goals [Complete by: 6/30/2010]

Objective:

1. Display the billable amount of postage for each job with the DPVS.
2. Calculate actual postage spent on each job.

Challenges: Figuring out billing for:

1. Pulls (flat fee – on extra charge sheet)
2. PSI (automatically add pre-sort fee to billable amount? CA & TX have different pre-sort fees)
3. First Class (not stored in NetSort, uses USPS First Class rate)
4. Misc files (will be resolved through File ID Standardization)
5. Special files (will be resolved through File ID Standardization)
6. Heavies under 13 oz (add second weight to insert file)
7. Heavies over 13 oz (manually reconcile?)

Description of Task	Date of Completion	Department	Status
Finish preliminary tests for querying NetSort	5/19/2010	Peter	Complete
Accounting to provide invoices for NetSort querying tests	5/19/2010	Alice Lai	Complete
Full IMB duplicate ID testing (GOCU DL, CSCU DL, MACU DL, SNCU DL, RWCU DL, UCCU DL) *cannot use history data, can use data going forward once duplicate ID issue is fixed	5/19/2010	Peter	Complete
More NetSort testing of different scenarios	5/27/2010	Terrence	Complete
Discuss report format with Lenora	5/27/2010	Will	Complete
Get approval from Will regarding database table design (must include effective date functionality). Create database tables and interface for Accounting to input client postage rates and effective dates if Will does not have time to do it.	6/4/2010	Terrence/Will	Complete
Provide feasibility status on report specs from Lenora and PROD (depends on the results from Peter's preliminary NetSort tests)	6/4/2010	Will	Complete
Train DP on new re-processing procedures (MUST tell Terrence every time DP needs to rerun a process so that Terrence can update InfoTRAC's active/inactive flag in the database) or filter out duplicated jobs based on actual drop date field (only active jobs have actual drop dates).	6/4/2010	Terrence/Peter	
Figure out temporary solution for applications that do not support multiple segments	6/4/2010	Terrence/Peter	
ALL Menlo applications (except direct mail) turned on for Full IMB (# apps left: 13 as of 6/1)	6/15/2010	IS	

Generate a monthly Billing/Profit report for Accounting as a temporary solution until ISD creates the interface for Accounting to search for what they need. Report will list CID/Application in alphabetical order.	6/15/2010	IS	
Generate daily report for PROD of jobs that haven't been closed (closed = 98% of mail pieces accounted for) Email needs to go to: Calvin Choy, David Owyeong, Terrence Tong	6/15/2010	IS	
File ID Standardization	6/17/2010	IS	
Create Interface Specifications document	6/24/2010	Will	
Create prototype interface for Accounting to maintain postage rate tables and create necessary reports 5 Clients picked by Alice Lai for testing: 1. BBBB – DDA/SAVs 2. UCSF – Pace Stmts 3. CHFA – Residential Stmts 4. PROV – Loan Stmts 5. DCBB (Metavante) – DDA/SAV	6/24/2010	IS/ISD	

Phase II Goals [Complete by: 7/29/2010]

Objective: Balance internal meters with USPS Postage Account using the following equation:

Postage spent (from Phase I) + balance of internal meters + money reimbursed by USPS + internal usage + postage account balance = disperse amount

Challenges:

1. PROD to keep log of internal postage usage (already doing)
2. When is the best time to take meter readings (last day of the month – CA & TX)
3. Minimize manual work/calculations

Description of Task	Date of Completion	Department	Status
Notify Jon Ludi on when to take meter readings. After a meter's meter reading has been taken on the last day of the month, that meter cannot be used to process any more jobs whose drop date is in that month. It can only be used for jobs whose drop date is NEXT month.	6/4/2010	Calvin Choy	Complete
Confirm that we can get month-end postage account balances from the postage account interface.	6/4/2010	Calvin Choy	Complete
Create interface for PROD and Accounting to enter in each field of the equation above.	TBD	ISD	
Prototype Interface Live Date	TBD		
Kent/Terrence need to test the InfoIMAGE/BBH firewall (hardware purchase might be necessary)	TBD	Kent/Terrence	
Firm Live Date (Phase I and II)	6/30/2010		