**MCCF EDI TAS US190**

System Design Document

PRCA\*4.5\*xxx



Department of Veterans Affairs

**January 2017**

Version 1

**User Story Number:** US190 (USPY-07)

**User Story Name:** **APAR to Suspense Errors**

**Background**

**Update this when the user story gets updated**

### End users, across many CPACs have reported receipts that appear to be “stuck” in processing and continue to repeat receipts in the nightly job. The issue appears to be related to transactions placed into suspense from the APAR list, but the ePayment teams, in conjunction with VistA Product support, has been unable to narrow any further specifics. In one instance, an ERA contained only one line item and that one ERA and line item was placed into suspense – this may be a good one to begin researching on. Other ERAs had multiple line items – some posted to patients accounts ‘as normal’ and then ‘issues’with line items placed into suspense, from the APAR list.

# Conversation

Issues reported indicates autoposting is leaving ERA lines from APAR as marked for autopost with receipts partly created. ~~The exact reason this occurs is not yet established – we are waiting error trap report from Portland.~~

For the initial remediation effort the following options will be changed.

# Nightly Autopost Job

The nightly autopost job to process APAR lines marked for autopost will be enhanced to prevent APAR lines and receipts being left in an intermediate state. These changes include:

* Currently the nightly process resets the status of ERA lines marked for autopost after the receipt for the ERA is created and processed. The nightly job will be changed so that the autopost status on ERA lines submitted from APAR will be reset when the nightly job will begin to process the ERA. This will ensure that if issues occur in the receipt creation and processing the ERA line is returned to the APAR list.

RCDPEAP1

1. Error handling in receipt creation will be corrected. Currently, there are several instances of hard crashes (and errors entered into the error trap) that can occur during error handling in receipt creation.  The code will be modified to prevent these errors from occurring.

* RCDPEM, RCDPEMA, RCDPEAP
* Receipt creation for split lines will be corrected (this is a common routine with receipt creation in ERA Worklist)

RCDPEM, RCDPEMA

* Validation of APAR lines suitable for autopost will be changed to reject lines which already have receipts.

RCDPEAP

1. **ERA Worklist**

The following is not directly related to user story but was identified during research

* The ERA worklist will be modified to display the autopost date for partially processed ERAs.

RCDPEWL

ERA Entry #: 136 Total Amt Pd: 2700.98 Current View:

Payer Name/ID: TJB INSURANCE CO./122334567 NO SORT ORDER

EFT #/TRACE #: 221/ABC6431353463 ALL EEOBS

\*\*\* RECEIPT(S) ALREADY CREATED \*\*\* (E17013001A)

Auto-Post Status: Partial Auto-Post Date: Jan 30, 2017

1 (V)EEOB Seq # On ERA: 1 Net Payment Amt: 2700.98

1.001 Claim #: suspense Patient/Last 4: ??

\*\*\*CLAIM NOT FOUND IN YOUR AR \*\*\*

Payment Amt: 2700.98 Total Adjustments: 0.00 Net: 2700.98

Receipt: E17013001A

Receipt Comment:

..............................................................................

2 (V)EEOB Seq # On ERA: 2 Net Payment Amt: 0.00

2.001 Claim #: K500009 Patient/Last 4: BOYDALL,NANCY FLORENCE/0987

Claim Bal: 1000.00 Billed Amt: 1200.00 Amt To Post: 0.00

Svc Dt: 12/12/14 COB: NO Rx Copay: NON-EXEMPT Means Tst: REQ

+ Enter ?? for more actions

Split/Edit A Line Look At Receipt Mark for Auto Post

Distribute Adj Amts Review Line ERA View/Print ERA

Refresh Scratch Pad Verify RP Receipt Processing

Research Menu Change View EXIT

Select Action: Next Screen//

**Resolution – Added Changed Objects**

| Routines | Activities | | | |
| --- | --- | --- | --- | --- |
| **Routine Name** | RCDPEM | | | |
| **Enhancement Category** | New | Modify | Delete | No Change |
| **RTM** |  | | | |
| **Related Options** | RCDPE EDI LOCKBOX WORKLIST | | | |

| Related Routines | Routines “Called By” | Routines “Called” |
| --- | --- | --- |
|  | RCDPEAP  RCDPEM0  RCDPEM1  RCDPEU  RCDPEWL4 | SPL1^IBCEOBAR  EN^RCDPEAD  EN^RCDPEAP $$ADDDEP^RCDPEM0  $$ADDREC^RCDPEM0  $$SETERR^RCDPEM0  MATCH^RCDPEM0  STORERR^RCDPEM0  BULL^RCDPEM1  EN2^RCDPEM1  SENDBULL^RCDPEM1  EN^RCDPEM8  NEWPYR^RCDPESP  $$CHKSUM^RCDPESR3  EN^RCDPEX4  CONFIRM^RCDPUDEP $$ADDTRAN^RCDPURET |

| **Current Logic** |
| --- |
| RCPTDET(RCRZ,RECTDA1,RCER) ; Adds detail to a receipt based on file 344.49  ; RCRZ = ien of ERA entry in file 344.49  ; RECTDA1 = ien of receipt entry in file 344  ; RCER = error array returned if passed by reference  ;  N RCR,RCSPL,RCZ0,RCTRANDA,RCQ,DR,DA,DIE,X,Y,Q,Z0,Z1,Z  ;  S RCR=0 F S RCR=$O(^RCY(344.49,RCRZ,1,RCR)) Q:'RCR D  . S RCZ0=$G(^RCY(344.49,RCRZ,1,RCR,0))  . I $P(RCZ0,U)'["." S RCSPL(+RCZ0)=$P(RCZ0,U,9) Q  . I $S(+$P(RCZ0,U,3)=0:$P($G(^RCY(344.49,RCRZ,0)),U,3),1:$P(RCZ0,U,3)<0) S RCSPL(RCZ0\1,+RCZ0)=RCZ0 Q  . S RCTRANDA=$$ADDTRAN^RCDPURET(RECTDA1)  . ;  . I 'RCTRANDA D Q ; Error adding receipt detail  .. S RCER(1)=$$SETERR^RCDPEM0() S RCER($O(RCER(""),-1)+1)=" NO DETAIL LINE ADDED TO RECEIPT "\_$P($G(^RCY(344,RECTDA1,0)),U  )\_" FOR LINE #"\_$P(RCZ0,U)\_" IN EEOB WORKLIST SCRATCH PAD"  . ;  . ;Store receipt line detail  .  .  . |

| **Modified Logic (Changes are in bold)** |
| --- |
| RCPTDET(RCRZ,RECTDA1,RCER) ; Adds detail to a receipt based on file 344.49  ; RCRZ = ien of ERA entry in file 344.49  ; RECTDA1 = ien of receipt entry in file 344  ; RCER = error array returned if passed by reference  ;  N RCR,RCSPL,RCZ0,RCTRANDA,RCQ,DR,DA,DIE,X,Y,Q,Z0,Z1,Z  ;  S RCR=0 F S RCR=$O(^RCY(344.49,RCRZ,1,RCR)) Q:'RCR D  . S RCZ0=$G(^RCY(344.49,RCRZ,1,RCR,0))  . I $P(RCZ0,U)'["." S RCSPL(+RCZ0)=$P(RCZ0,U,9) Q  . I $S(+$P(RCZ0,U,3)=0:$P($G(^RCY(344.49,RCRZ,0)),U,3),1:$P(RCZ0,U,3)<0) S RCSPL(RCZ0\1,+RCZ0)=RCZ0 Q  . S RCTRANDA=$$ADDTRAN^RCDPURET(RECTDA1)  . ;  . I RCTRANDA’>0 D Q ; Error adding receipt detail  .. S RCER(1)=$$SETERR^RCDPEM0(1) S RCER($O(RCER(""),-1)+1)=" NO DETAIL LINE ADDED TO RECEIPT "\_$P($G(^RCY(344,RECTDA1,0)),U  )\_" FOR LINE #"\_$P(RCZ0,U)\_" IN EEOB WORKLIST SCRATCH PAD"  . ;  . ;Store receipt line detail  .  .  . |

| Routines | Activities | | | |
| --- | --- | --- | --- | --- |
| **Routine Name** | RCDPEMA | | | |
| **Enhancement Category** | New | Modify | Delete | No Change |
| **RTM** |  | | | |
| **Related Options** | PRCA NIGHTLY PROCESS | | | |

| Related Routines | Routines “Called By” | Routines “Called” |
| --- | --- | --- |
|  | EN2^RCDPEAP | SPL1^IBCEOBAR  $$SETERR^RCDPEM0  $$NEXT^RCDPUREC $$ADDTRAN^RCDPURET |

| **Current Logic** |
| --- |
| RCPTDET(RCRZ,RECTDA1,RCLINES,RCER) ; Adds detail to a receipt based on file 344.49 and exceptions in array RCLINES  ; RCRZ = ien of ERA entry in file 344.49  ; RECTDA1 = ien of receipt entry in file 344  ; RCER = error array returned if passed by reference  ; RCLINES = array to indicate which scratchpad lines can be posted (assigned a receipt)  ;  N DA,DIE,DR,Q,RCLINE,RCQ,RCR,RCSPL,RCTRANDA,RCZ0,SEQLINES,RCSEQ,X,Y,Z,Z0,Z1  ;  S RCR=0 F S RCR=$O(^RCY(344.49,RCRZ,1,RCR)) Q:'RCR D  . S RCZ0=$G(^RCY(344.49,RCRZ,1,RCR,0)),RCSEQ=$P(RCZ0,U)  . ;Check first line for prefix to see if ERA line is valid for auto-post  . I RCSEQ?1N.N,$P(RCZ0,U,9),$P($G(RCLINES($P(RCZ0,U,9))),U) S SEQLINES(RCSEQ)=""  . ;Skip WORKLIST lines that do not need associated receipt detail  . Q:'$D(SEQLINES(RCSEQ\1))  . I RCSEQ'["." S RCSPL(+RCZ0)=$P(RCZ0,U,9) Q  . I $S(+$P(RCZ0,U,3)=0:$P($G(^RCY(344.49,RCRZ,0)),U,3),1:$P(RCZ0,U,3)<0) S RCSPL(RCZ0\1,+RCZ0)=RCZ0 Q  . S RCTRANDA=$$ADDTRAN^RCDPURET(RECTDA1)  . ;  . I 'RCTRANDA D Q ; Error adding receipt detail  .. S RCER(1)=$$SETERR^RCDPEM0() S RCER($O(RCER(""),-1)+1)=" NO DETAIL LINE ADDED TO RECEIPT "\_$P($G(^RCY(344,RECTDA1,0)),U  )\_" FOR LINE #"\_$P(RCZ0,U)\_" IN EEOB WORKLIST SCRATCH PAD"  .  .  . |

| **Modified Logic (Changes are in bold)** |
| --- |
| RCPTDET(RCRZ,RECTDA1,RCLINES,RCER) ; Adds detail to a receipt based on file 344.49 and exceptions in array RCLINES  ; RCRZ = ien of ERA entry in file 344.49  ; RECTDA1 = ien of receipt entry in file 344  ; RCER = error array returned if passed by reference  ; RCLINES = array to indicate which scratchpad lines can be posted (assigned a receipt)  ;  N DA,DIE,DR,Q,RCLINE,RCQ,RCR,RCSPL,RCTRANDA,RCZ0,SEQLINES,RCSEQ,X,Y,Z,Z0,Z1  ;  S RCR=0 F S RCR=$O(^RCY(344.49,RCRZ,1,RCR)) Q:'RCR D  . S RCZ0=$G(^RCY(344.49,RCRZ,1,RCR,0)),RCSEQ=$P(RCZ0,U)  . ;Check first line for prefix to see if ERA line is valid for auto-post  . I RCSEQ?1N.N,$P(RCZ0,U,9),$P($G(RCLINES($P(RCZ0,U,9))),U) S SEQLINES(RCSEQ)=""  . ;Skip WORKLIST lines that do not need associated receipt detail  . Q:'$D(SEQLINES(RCSEQ\1))  . I RCSEQ'["." S RCSPL(+RCZ0)=$P(RCZ0,U,9) Q  . I $S(+$P(RCZ0,U,3)=0:$P($G(^RCY(344.49,RCRZ,0)),U,3),1:$P(RCZ0,U,3)<0) S RCSPL(RCZ0\1,+RCZ0)=RCZ0 Q  . S RCTRANDA=$$ADDTRAN^RCDPURET(RECTDA1)  . ;  . I RCTRANDA’>0 D Q ; Error adding receipt detail  .. S RCER(1)=$$SETERR^RCDPEM0(1) S RCER($O(RCER(""),-1)+1)=" NO DETAIL LINE ADDED TO RECEIPT "\_$P($G(^RCY(344,RECTDA1,0)),U  )\_" FOR LINE #"\_$P(RCZ0,U)\_" IN EEOB WORKLIST SCRATCH PAD"  .  .  . |

| Routines | Activities | | | |
| --- | --- | --- | --- | --- |
| **Routine Name** | RCDPEAP | | | |
| **Enhancement Category** | New | Modify | Delete | No Change |
| **RTM** |  | | | |
| **Related Options** | PRCA NIGHTLY PROCESS | | | |

| Related Routines | Routines “Called By” | Routines “Called” |
| --- | --- | --- |
|  | RCDPAA2  RCDPEAD  RCDPEAP1  RCDPEM  RCDPEM0  RCDPEM2  RCDPWL8 | $$LOCKDEP^RCDPDPLU  ERADET^RCDPEAP1  VALID^RCDPEAP1  RCPTDET^RCDPEM  $$BLDRCPT^RCDPEMA  RCPTDET^RCDPEMA  $$ADDREC^RCDPEWL  ADDLINES^RCDPEWLA  $$LOCKREC^RCDPRPLU  PROCESS^RCDPURE1  $$BLDRCPT^RCDPUREC  $$FMSSTAT^RCDPUREC  $$PENDPAY^RCDPURET |

| **Current Logic** |
| --- |
| .  .  .  EN2 ;Auto-Post Previously Processed ERA |
| .  .  . . ;ERA Receipt is created from scratchpad entry - type 14 is EDI Lockbox payment  . . S RCRCPTDA=$$BLDRCPT^RCDPEMA(RCERA) ; Creates basic receipt for ERA of payment type EDI LOCKBOX; 2nd parameter means an  alpha suffix on receipt number  . . K RCERR  . . D RCPTDET^RCDPEMA(RCERA,RCRCPTDA,.RCLINES,.RCERR) ; Adds detail to a receipt based on file 344.49 and RCLINES array  . . ;Unable to create receipt - clear scratchpad, reset AUTO-POST STATUS = NULL  . . I $O(RCERR("")) D CLEAR(RCSCR),SETSTA(RCERA,"@","Auto Posting: Removed from Auto Posting-Unable to create receipt") Q  . . ;Lock ERA receipt and deposit ticket  .  . |

| **Modified Logic (Changes are in bold)** |
| --- |
| .  .  .  EN2 ;Auto-Post Previously Processed ERA  .  .  . . ;Get deposit ticket and EFT receipt  . . S RCDEPTDA=+$P($G(^RCY(344.3,+$G(^RCY(344.31,+RCEFTDA,0)),0)),U,3),RCRECTDA=+$O(^RCY(344,"AD",+RCDEPTDA,0))  . . ;ERA Receipt is created from scratchpad entry - type 14 is EDI Lockbox payment  . . S RCRCPTDA=$$BLDRCPT^RCDPEMA(RCERA) ; Creates basic receipt for ERA of payment type EDI LOCKBOX; 2nd parameter means an  alpha suffix on receipt number  . . I 'RCRCPTDA Q ;Problem building receipt header  . . K RCERR  . . D RCPTDET^RCDPEMA(RCERA,RCRCPTDA,.RCLINES,.RCERR) ; Adds detail to a receipt based on file 344.49 and RCLINES array  . . ;Unable to create receipt - clear scratchpad, reset AUTO-POST STATUS = NULL  . . I $O(RCERR("")) Q ;Do not attempt to process partially filed receipt  . . ;Lock ERA receipt and deposit ticket  .  . |

**Resolution – Added Changed Objects**

| Routines | Activities | | | |
| --- | --- | --- | --- | --- |
| **Routine Name** | RCDPEAP1 | | | |
| **Enhancement Category** | New | Modify | Delete | No Change |
| **RTM** |  | | | |
| **Related Options** | PRCA NIGHTLY PROCESS | | | |

| Related Routines | Routines “Called By” | Routines “Called” |
| --- | --- | --- |
|  | RCDPEAD  RCDPEAP  RCDPEAPP  RCDPEM0  RCDPEM2  RCDPEWL8 | $$CHECKPAY^RCDPEAP  $$SCRPAD^RCDPEAP  CLEAR^RCDPEAP |

| **Current Logic** |
| --- |
| ERADET(RCERA,RCRCPTDA,RCLINES) ;  .  .  . ;Get all ERA line references; RCLINES(RCLIN) could have multiple line # references (e.g., RCLINES(3,4) or RCLINES(3))  . ;Need to parse out each line reference so that the necessary fields can be updated for the specific line.  . ;If not posted then update the AUTO-POST REJECTION REASON (#5)  . ;Otherwise update line with receipt number and auto-post date  . ;Set MARK FOR AUTO-POST (#6) to off for every line  . F RCI=1:1 S LNUM=$P(RCLIN,",",RCI) Q:LNUM="" D  . . S DA(1)=RCERA,DA=LNUM,DIE="^RCY(344.4,"\_DA(1)\_",1,"  . . I REJECT S DR="5////"\_$P(RCLINES(RCLIN),U,3)\_";6////0"  . . E S DR=".25////"\_RCRCPTDA\_";9////"\_DT\_";6////0"  . . D ^DIE  Q  .  .  VALID(RCERA,RCLINES) ;  .  .  .. ; If ERA reference is missing (should not happen), skip ahead to next integer sequence  .. I ERALINE="" S SUB=SUB\1\_".999" Q  .. S AUTOPOST=1  .  .  . ;Line is potentially postable - update flag  . S RCLINES(ERALINE)=1  ; |

| **Modified Logic (Changes are in bold)** |
| --- |
| ERADET(RCERA,RCRCPTDA,RCLINES) ;  .  .  ; Update ERA detail line with Receipt or reject reason as appropriate  N RCLIN,REJECT  S RCLIN=0 F S RCLIN=$O(RCLINES(RCLIN)) Q:'RCLIN D  . ; Set REJECT to true if the line if it was rejected during validation  . S REJECT=0 I '$P(RCLINES(RCLIN),U) S REJECT=1  . ;If not posted then update the AUTO-POST REJECTION REASON (#5)  . ;Otherwise update line with receipt number and auto-post date  . S DA(1)=RCERA,DA=RCLIN,DIE="^RCY(344.4,"\_DA(1)\_",1,"  . I 'REJECT,'RCRCPTDA Q  . I REJECT S DR="5///"\_$P(RCLINES(RCLIN),U,3)  . E S DR=".25///"\_RCRCPTDA  . D ^DIE  Q  .  .  VALID(RCERA,RCLINES) ;  .  .  .. ; If ERA reference is missing (should not happen), skip ahead to next integer sequence  .. I ERALINE="" S SUB=SUB\1\_".999" Q  .. ; Check for receipt  .. I $$GET1^DIQ(344.41,ERALINE\_","\_RCERA\_",",.25)]"" S SUB=SUB\1\_".999" Q  .. S AUTOPOST=1  .  .  . ;Line is potentially postable - update flag  . S RCLINES(ERALINE)=1  ;  ;Reset the MARK FOR AUTOPOST flag on ERA lines and count number of auto-postable lines  N RCLIN,RCI  S RCLIN=0,RCLINES=0 F S RCLIN=$O(RCLINES(RCLIN)) Q:'RCLIN D  . I +RCLINES(RCLIN) S RCLINES=RCLINES+1  . ;Set MARK FOR AUTO-POST (#6) to NO for every line  . S DA(1)=RCERA,DA=RCLIN,DIE="^RCY(344.4,"\_DA(1)\_",1,"  . S DR="6///0"  . D ^DIE  Q |

**Resolution – Added Changed Objects**

| Routines | Activities | | | |
| --- | --- | --- | --- | --- |
| **Routine Name** | RCDPEWL | | | |
| **Enhancement Category** | New | Modify | Delete | No Change |
| **RTM** |  | | | |
| **Related Options** | RCDPE EDI LOCKBOX WORKLIST | | | |

| Related Routines | Routines “Called By” | Routines “Called” |
| --- | --- | --- |
|  | RCDPEAP  RCDPEWL0  RCDPEWL2  RCDPEWL5  RCDPEWL7  RCDPEWLP  RCDPTTA1 (testing tool) | PARAMS^RCDPEWL0  PRERA1^RCDPEWL0  BLD^RCDPEWL1  WL^RCDPEWL7  ADDLINES^RCDPEWLA  PARAMS^RCDPEWLA |

| **Current Logic** |
| --- |
| .  .  .  . ; Setting the Auto-Post info in the header  . N AUTOPSTS  . S AUTOPSTS="Auto-Post Status: "\_$S($P(RC4,U,2)=0:"Unposted",$P(RC4,U,2)=1:"Partial",1:"Complete")  . S AUTOPSTS=AUTOPSTS\_" Auto-Post Date: "\_$S($P(RC4,U,2)=2:$$FMTE^XLFDT($P(RC4,U)),1:"")  .  . |

| **Modified Logic (Changes are in bold)** |
| --- |
| .  .  .  . ; Setting the Auto-Post info in the header  . N AUTOPSTS  . S AUTOPSTS="Auto-Post Status: "\_$S($P(RC4,U,2)=0:"Unposted",$P(RC4,U,2)=1:"Partial",1:"Complete")  . S AUTOPSTS=AUTOPSTS\_" Auto-Post Date: "\_$S($P(RC4,U,2)>0:$$FMTE^XLFDT($P(RC4,U)),1:"")  .  . |