ARTS POSLog V6.0

Volume 19: Control Transactions Technical Specification
February 10, 2014 – Last Call Working Draft

TABLE OF CONTENTS

Table of Figures

Table of ARTS XML Samples

1. Abstract

1.1 Overview

1.2 In Scope

1.3 Out of Scope

2. Referenced Documents

ARTS Technical Committees Development Process V6.0.4 2009/11/30
ARTS XML Best Practices V2.2 2010/11/11
ARTS Best Practice for Process Modeling V1.0.0 2011/01/04
A RTS SOA Best Practices Technical Report V1.2
ARTS XML Interface Conformance Tool Manual V1.0 2005/08/11
These documents are available for download from http://nrf.com

3. ARTS Common Header

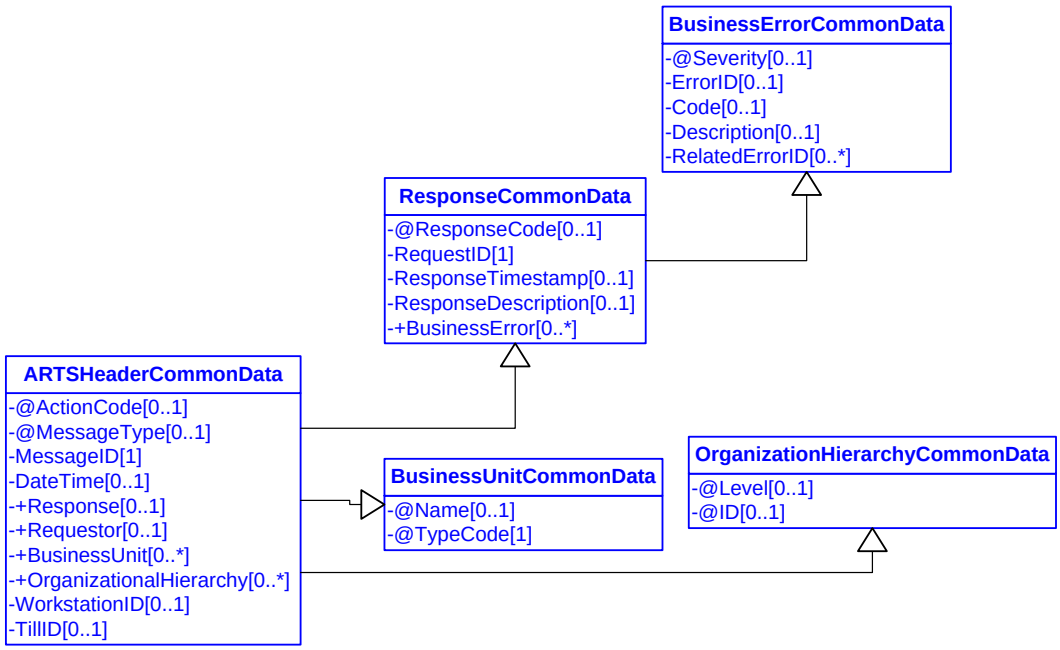

Figure 1: ARTS Common Header Domain View

The ARTS common header is used in all service name schemas. It provides the ability to set session level information and return business error information in one standard format to all SOA implementations.

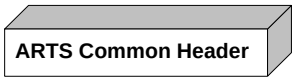

Figure 2: ARTS Common Header Representation

Since this structure is common to all service name schemas, it will not be replicated below. In place of the details, the attached box will be used to represent this complex type structure.

4. Use case: Reprint

4.1 Scenario: Gift Receipt for previous transaction (V6.0)

Brief Description

A Gift Receipt is requested immediately after the transaction for which it is required although it be printed for any previous transaction. A Gift Receipt is printed for one or more of the items in the original transaction. A cashier may request any number of Gift Receipts to be printed, but it is not permitted to print the same item from the original transaction on more than one Gift Receipt so the actual number of Gift Receipts that may be printed cannot exceed the total of the number of non-cancelled transaction lines in the original transaction. The selected items are printed on the Gift Receipt without any price details. The purpose of a Gift Receipt is to enable the recipient of a gift to be able to exchange the Item in any Company store, with proof of purchase, but without overtly revealing the value of the gift to the recipient.

It was with respect to a Gift Registry for a wedding. The POS printed out a Gift Receipt for every item purchased that was also on the Gift Registry List. Customer did not receive a Gift Receipt for those items not on the Gift Registry List. The idea being that one gives the Gift Receipt to the Bride and Groom. If they had a problem with the item or didn't like it, they could return or exchange it.

4.1 Conformance XML Instance Document – Print Gift Receipt for Previous Transaction

The LineSequenceNumber element refers to the lines in the original transaction which were printed on a particular Gift Receipt.

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
..\POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>12346</SequenceNumber>
        <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
        <BusinessDayDate>2011-11-11</BusinessDayDate>
        <BeginDateTime>2011-11-11T20:20:20</BeginDateTime>
        <EndDateTime>2011-11-11T20:20:21</EndDateTime>
        <ControlTransaction>
            <ReceiptReprint TypeCode="GiftReceipt">
                <TransactionLink>
                    <TransactionID>P100T200</TransactionID>
                    <LineItemSequenceNumber>1</LineItemSequenceNumber>
                    <BeginDateTime>2011-11-11T20:20:20</BeginDateTime>
                    <EndDateTime>2011-11-30T20:20:20</EndDateTime>
```

```
                </TransactionLink>
            </ReceiptReprint>
            <ReceiptReprint TypeCode="GiftReceipt">
                <LineSequenceNumber>2</LineSequenceNumber>
                <TransactionLink>
                    <TransactionID>P100T200</TransactionID>
                    <LineItemSequenceNumber>2</LineItemSequenceNumber>
                    <BeginDateTime>2011-11-11T20:20:20</BeginDateTime>
                    <EndDateTime>2011-11-30T20:20:20</EndDateTime>
                </TransactionLink>
            </ReceiptReprint>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

4.2 Scenario: Print Dispatch Docket (V6.0)

Brief Description

To provide a function to enable a Customer Name and Address to be captured in a Retail Transaction (and to capture it automatically by calling out to an external Customer Database system if a Loyalty/Store Card is swiped). But this is not mandatory. So, the Dispatch Docket requirement is to capture a Customer Name and Address, if it has not already been captured in the Retail transaction, so that it can be printed on the Dispatch Docket. We're supposed to report all Customer Names and Addresses in the POSLog so that the Company back-end marketing systems can use them for mail drops.

4.2 Conformance XML Instance Document – Print Dispatch Docket Domain Model

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
../POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID>HighStreet</UnitID>
        </BusinessUnit>
        <WorkstationID>POS5</WorkstationID>
        <SequenceNumber>4294967295</SequenceNumber>
        <OperatorID>John</OperatorID>
        <ControlTransaction>
            <PrintDispatchDocket>
                <Customer>
                    <Name>
                        <OfficialName>Joe Smith</OfficialName>
                    </Name>
                    <Address>
                        <AddressLine>325 E 4th</AddressLine>
                        <City>Mustang</City>
                    </Address>
                </Customer>
```

```
            </PrintDispatchDocket>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

4.3 Scenario: Reprint Receipt with Link to Orginal (V6.0)

Brief Description

This is to report that a receipt was reprinted, therefore there is a link to the original transaction. This is especially true when rebates are tied to receipts. One doesn't want to give a customer multiple valid rebate receipts for the same transaction.

4.3 Conformance XML Instance Document – Reprint Receipt

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
../POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction OfflineFlag="false" TrainingModeFlag="false">
        <BusinessUnit>
            <UnitID>HighStreet</UnitID>
        </BusinessUnit>
        <WorkstationID>POS5</WorkstationID>
        <SequenceNumber>4294967295</SequenceNumber>
        <OperatorID>John</OperatorID>
        <BeginDateTime>2001-08-13T09:03:00</BeginDateTime>
        <EndDateTime>2001-08-13T09:05:00</EndDateTime>
        <ControlTransaction>
            <ReceiptReprint TypeCode="ReceiptReprint">
                <TransactionLink ReasonCode="ReceiptReprint">
                    <TransactionID>1234</TransactionID>
                </TransactionLink>
            </ReceiptReprint>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

5. Use case: Operational

5.1 Scenario: Password Change (V6.0)

Brief Description
Reports the new password (recommend it be encrypted).

Scenario Description
Customer changes his password

5.1 Conformance XML Instance Document – Password Change

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
..\POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>12346</SequenceNumber>
        <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
        <BusinessDayDate>2011-11-11</BusinessDayDate>
    <ControlTransaction>
            <PasswordChange>
                <NewPassword>asas-asai-asas</NewPassword>
            </PasswordChange>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

5.2 Scenario: Password Change Failed (V6.0)

Brief Description
Indicates the password failed and the operator changed their password.

5.2 Conformance XML Instance Document – Password Change Failed

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
..\POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
```

```
            <WorkstationID TypeCode="POS">5</WorkstationID>
            <SequenceNumber>12346</SequenceNumber>
            <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
            <ControlTransaction>
                <BadPassword>true</BadPassword>
                <PasswordChange Status="FailedNewPassword">
                    <NewPassword>asas-ddfgfg-fdfdf</NewPassword>
                </PasswordChange>
            </ControlTransaction>
        </Transaction>
</POSLog>
```

5.3 Scenario: Force Password Change (V6.0)

Brief Description
This logs a transaction where the Operator was forced into a Password Change by either policy or manual setting through Back-Office.

5.3 Conformance XML Instance Document – Force Password Change

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
..\POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>12346</SequenceNumber>
        <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
        <ControlTransaction ForceFlag="True">
            <PasswordChange>
                <NewPassword>asas-ddfgfg-fdfdf</NewPassword>
            </PasswordChange>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

5.4 Scenario: Operator Lock/ Unlocked (V6.0)

Scenario Description
Cashier will take a 30 minute break and will lock the POS, need Password to Enter/Exit. "Only in No Sale mode"

5.4a Conformance XML Instance Document – Operator Lock

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
..\POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>12345</SequenceNumber>
        <OperatorID OperatorName="Johan"
OperatorType="Cashier">205</OperatorID>
        <ControlTransaction>
            <OperatorLock>2011-11-11T20:20:20</OperatorLock>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

5.4b Conformance XML Instance Document – Operator Unlock

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
..\POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>12345</SequenceNumber>
        <OperatorID OperatorName="Johan"
OperatorType="Cashier">205</OperatorID>
        <ControlTransaction>
            <OperatorUnLock>2011-11-11T20:20:20</OperatorUnLock>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

5.5 Scenario: Unauthorized Cash Drawer Open (V6.0)

Brief Description

In a Dual Drawer Cash Register there needs to be a way to identify the particular cash drawer opened. The Cash Drawer ID is added to handle this situation.

Unauthorized Cash Drawer Open is typically used for Loss Prevention to know of potential problems at their POS's

Scenario Description
While John was away helping a customer, POS 5 had an unauthorized open on its #1 cash drawer.

5.5 Conformance XML Instance Document – Unauthorized Cash Drawer Open

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
..\POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>12346</SequenceNumber>
        <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
        <BusinessDayDate>2011-11-11</BusinessDayDate>
        <BeginDateTime>2011-11-11T20:20:20</BeginDateTime>
        <EndDateTime>2011-11-11T20:20:21</EndDateTime>
        <ControlTransaction>
            <UnauthorizedOpen CashDrawerID="1">2011-11-
11T20:20:20</UnauthorizedOpen>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

5.6 Scenario: One cash drawer is opened with a “no sale” on a till which has two cash drawers (V6.0)

Brief Description
When a cash drawer is opened, the ID of the cash drawer should be logged to indicate which drawer was opened. This information can be used to detect unauthorized cash drawer opens.

NOTE: Ties to UnifiedPOS definition of a Cash Drawer where a Till is the insert that goes into the Cash Drawer.

Scenario Description
Tim opens cash drawer two on his till but he is currently assigned cash drawer one.

Data

- Cash drawer id
- Time/Date
- Workstation ID
- Operator ID

5.5 Conformance XML Instance Document – Cash Drawer Opened in a No Sale

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
..\POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>12346</SequenceNumber>
        <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
        <BusinessDayDate>2011-11-11</BusinessDayDate>
        <BeginDateTime>2011-11-11T20:20:20</BeginDateTime>
        <EndDateTime>2011-11-11T20:20:21</EndDateTime>
        <ControlTransaction>
            <NoSale CashDrawerID="1">2011-11-11T20:20:20</NoSale>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

5.7 Scenario: Operator Bypass Approval for Sign On [V6.0]

Brief Description
The Operator Bypass Approval can happen under any Control Transaction situation according to the business.

Example, The cashier has to call the manager first if he wants to do a petty cash expense.

Scenario Description
A trainee was told to buy some decorating stuff for the Christmas season. He goes to the POS in order to get his advanced money back. The cashier is not allowed to do petty cash expenses. That's why he calls the manager. The manager checks the receipt the trainee presents to him and then authorizes the petty cash expense for the decorating stuff the trainee had bought. The cashier conducts the petty cash expense and hands out the money to the employee.

Data

- Sequence number of the approval in the transaction context – is 1 in this scenario as the approval of the petty cash expense is the only one which is conducted for that transaction
- ID of the manager who approved the petty cash expense
- Date and time when the manager approved the petty cash expense

5.7 Conformance XML Instance Document: Operator Bypass Approval for cashier Sign On

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
..\POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>12346</SequenceNumber>
        <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
        <!-- Important to note the Approver ID is different from the Operator ID -->
        <OperatorBypassApproval>
            <SequenceNumber>1</SequenceNumber>
            <ApproverID OperatorName="Rona"
OperatorType="Manager">1234</ApproverID>
            <LineApprovalCode>AA</LineApprovalCode>
            <ApprovalDateTime>2011-11-11T20:20:20</ApprovalDateTime>
        </OperatorBypassApproval>
        <ControlTransaction>
            <OperatorSignOn>
                <StartDateTimestamp>2011-11-11T20:20:20</StartDateTimestamp>
                <TillID>5</TillID>
                <OpenBusinessDayDate>2011-11-11</OpenBusinessDayDate>
            </OperatorSignOn>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

5.8 Scenario: Operator Sign Off

Brief Description
The Cashiers will log off from the POS, Sign off and enter the required confirmation.

5.8 Conformance XML Instance Document: Sign Off

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
..\POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
```

```
            <WorkstationID TypeCode="POS">5</WorkstationID>
            <SequenceNumber>12346</SequenceNumber>
            <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
            <EndDateTime>2011-11-11T20:20:21</EndDateTime>
            <ControlTransaction>
                <OperatorSignOff>
                    <EndDateTimestamp>2011-11-11T20:20:20</EndDateTimestamp>
                    <TillID>5</TillID>
                    <OpenBusinessDayDate>2011-11-11</OpenBusinessDayDate>
                </OperatorSignOff>
            </ControlTransaction>
        </Transaction>
</POSLog>
```

5.9 Scenario: Store Open/Close – Business EOD (V6.0)

Brief Description

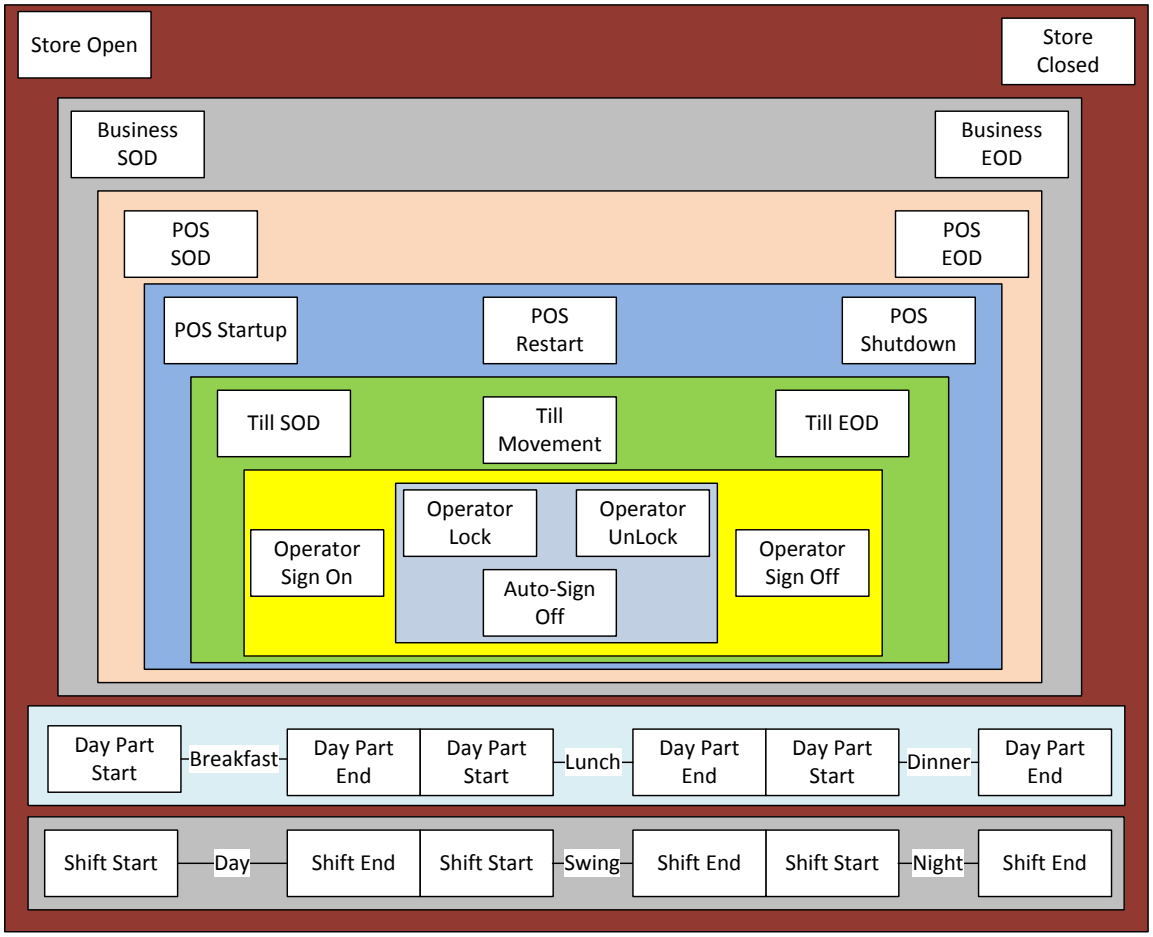

Figure 3: Timing Diagram

Control Transactions are events used to report the change of state of various systems in the retail store.

- Business SOD/EOD – reports the opening or closing of the store for business for selling.
- POS SOD/EOD – reports a particular POS is ready to begin the selling operations. Start of Day or End of Day. Depending on business rules, this can occur for one POS or for all POS's at one time.
- POS Startup/Restart/Shutdown – reports when the POS has powered up, restarted, or shutdown. If one reports the POS SOD on this POS then the order is reversed in the drawing.
- TillSOD/Movement/EOD – reports the insertion, movement and removal of the till into the cash drawer.
- Operator Sign on/Signoff – now the POS is ready to begin selling, the operator signs onto the POS to begin selling. Can also be used to report time punch information.
- Operator Lock/Unlock/Auto-Signoff – reports the state of the POS when the operator leaves the POS to help a customer.

- Day Part Start/End – in foodservice sales can be recorded by day part (breakfast, lunch, or dinner). This reports the start and end of those time periods.
- Shift Start/End – reports the beginning and ending of particular shifts. In foodservice there are associates who work shifts as well as associates who work day parts. Both day parts and shifts can be used in either retail or foodservice.

Scenario Description – Business EOD
As a retailer, I would like to be able to have snapshot of each business day activities per Till in each store, during EOD process,
So that, I would be able to use this data, when needed, for different purposes:

- Summary all the totals, number of customers, gross sales, net sales, Tenders, Return, discount, cash office activities, etc.
- Change the business day date.
- Create different reports (such as Z-report)
- View & analyze this data

5.9 Conformance XML Instance Document: Business EOD

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
..\POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>350</SequenceNumber>
        <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
        <ControlTransaction>
            <BusinessEOD>
                <StartDateTimestamp>2012-11-11T20:20:20</StartDateTimestamp>
                <EndDateTimestamp>2011-11-11T20:20:20</EndDateTimestamp>
                <TillID>23</TillID>
                <OpenBusinessDayDate>2012-02-20</OpenBusinessDayDate>
                <CloseBusinessDayDate>2012-02-19</CloseBusinessDayDate>
                <SessionSettle>
                    <TransactionCount>160</TransactionCount>
                    <TotalNetSalesAmount>19888</TotalNetSalesAmount>
                    <TotalNetReturnAmount>0</TotalNetReturnAmount>
                    <TotalTaxAmount>130</TotalTaxAmount>
                    <GrossPositiveAmount>200</GrossPositiveAmount>
                    <GrossNegativeAmount>0</GrossNegativeAmount>
                    <TenderSummary>
                        <Sales TenderType="Cash" >
                            <Amount Currency="USD">12000</Amount>
                        </Sales>
                    </TenderSummary>
```

```
                    <TenderSummary>
                        <Sales TenderType="Cash">
                            <Amount Currency="USD">2000</Amount>
                        </Sales>
                    </TenderSummary>
                    <Loans>
                        <Tender>
                            <TenderTotal TenderType="Cash">10.00</TenderTotal>
                        </Tender>
                        <Total>
                            <Amount>10.00</Amount>
                        </Total>
                    </Loans>
                    <PaidIn>
                        <Amount>100</Amount>
                    </PaidIn>
                    <PaidOut>
                        <Amount>200</Amount>
                    </PaidOut>
                    <TenderPickup>
                        <Totals>
                            <Amount>100</Amount>
                        </Totals>
                    </TenderPickup>
                    <Refunds >
                        <Amount>666</Amount>
                    </Refunds>
                    <EmployeeDiscounts>
                        <Amount>24</Amount>
                    </EmployeeDiscounts>
                </SessionSettle>

    <LastTransactionSequenceNumber>350</LastTransactionSequenceNumber>
            </BusinessEOD>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

5.10 Scenario: Force Business EOD Operation (V6.0)

Brief Description

(Sign On, Business EOD, etc.)

This logs a transaction where the Workstation was forced into a Trading state (BusinessSOD) overriding a Store Closed setting, or where the Store is off-line and the Workstation cannot receive a Store Open message. Created because there is no extension point in ControlTransaction/BusinessSOD but is more naturally defined as a new Attribute of BusinessSOD e.g. ControlTransaction/BusinessSOD/@Forced which should be optional boolean. The Manager that Forced the Workstation into Open state will be recorded as Transaction/OperatorID.

Scenario Description
From time to time Cashier will be requested to change her personal password, in this example the system force the cashier to change her\his password

Data
ForceFlag – indicates the Transaction was forced

5.10 **Conformance XML Instance Document: Force Business EOD**

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
../POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>350</SequenceNumber>
        <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
        <ControlTransaction ForceFlag="True">
            <BusinessEOD>
                <StartDateTimestamp>2012-11-11T20:20:20</StartDateTimestamp>
                <EndDateTimestamp>2011-11-11T20:20:20</EndDateTimestamp>
                <TillID>23</TillID>
                <OpenBusinessDayDate>2012-02-20</OpenBusinessDayDate>
                <CloseBusinessDayDate>2012-02-19</CloseBusinessDayDate>
                <SessionSettle>
                    <TransactionCount>160</TransactionCount>
                    <TotalNetSalesAmount>19888</TotalNetSalesAmount>
                    <TotalNetReturnAmount>0</TotalNetReturnAmount>
                    <TotalTaxAmount>130</TotalTaxAmount>
                    <GrossPositiveAmount>200</GrossPositiveAmount>
                    <GrossNegativeAmount>0</GrossNegativeAmount>
                    <TenderSummary>
                        <Sales TenderType="Cash">
                            <Amount Currency="USD">2000</Amount>
                        </Sales>
                    </TenderSummary>
                    <Loans>
                        <Tender>
                            <TenderTotal TenderType="Cash">100</TenderTotal>
                        </Tender>
                        <Total>
                            <Amount>100</Amount>
                        </Total>
                    </Loans>
                </SessionSettle>
```

```
        <LastTransactionSequenceNumber>350</LastTransactionSequenceNumber>
                </BusinessEOD>
            </ControlTransaction>
        </Transaction>
</POSLog>
```

5.11 Scenario: EOD Till Settle (V6.0)

Brief Description
Operators count the till bank, (or the closing float, reported as a Pickup to reduce the session balance), and then do a Till declaration to count the remaining money which should balance against the new session total. The balance will be forwarded with a receipt to the cash office. In the morning, they count the till bank again (as the Opening Float) reported as a Till Loan increasing the new Session total to match. Then during the day they do Pickups and Loans as required.

TillDeclaration (POSLogAmount) in the TillSettle to report the amount of money left in the till.

5.11 Conformance XML Instance Document - EOD Till Settle

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
../POSLogV6.0.0.xsd"
    xmlns="http://www.nrf-arts.org/IXRetail/namespace/" MajorVersion="6"
MinorVersion="0"
    FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID>HighStreet</UnitID>
        </BusinessUnit>
        <WorkstationID>POS5</WorkstationID>
        <SequenceNumber>4294967295</SequenceNumber>
        <POSLogDateTime TypeCode="Transaction">2001-08-
13T09:01:00</POSLogDateTime>
        <OperatorID>John</OperatorID>
        <TenderControlTransaction>
            <TillSettle>
                <TenderSummary>
                    <Ending TenderType="Cash">
                        <Amount>100.00</Amount>
                    </Ending>
                </TenderSummary>
            </TillSettle>
        </TenderControlTransaction>
    </Transaction>
</POSLog>
```

5.12 Scenario: EOD Foodservice Settle (V6.0)

Brief Description
Report EOD summary of various foodservice totals

Number	Item Name	Tag
1	Number of Products	TransactionCount
2	Total amount	TransactionAmount TenderTotal
3	Surplus or shortage	? How we should define?
4	Total amount	TransactionAmount
5	Tax	TaxAmount
6	Number of Customer	PeopleCount
7	Number of Party	PartyCount
8	Sales Price	AveragePeopleSales
9	Patry sales	AveragePartySales
10	Guest Sales	AveragePeopleSales
11	Sales amount (Cash)	TenderTotals
12	Sales amount (Credit/Debit)	TenderTotals TenderType CreditDebit
13	Cashi in the Register	Cash Amount
14	Number of guest(male)	PeopleCount（Male)
15	Number of guest(female)	PeopleCount（Female)

5.12 Conformance XML Instance Document - EOD Foodservice Settle

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
../POSLogV6.0.0.xsd"
      xmlns="http://www.nrf-arts.org/IXRetail/namespace/" MajorVersion="6"
MinorVersion="0"
      FixVersion="0">
      <Batch>
            <BatchID>1234</BatchID>
            <FirstTransactionTimestamp>2011-11-
30T10:19:00+09:00</FirstTransactionTimestamp>
            <LastTransactionTimestamp>2011-12-
01T08:41:00+09:00</LastTransactionTimestamp>
            <ActivitySummary>
                  <TransactionCount>13</TransactionCount>
                  <TransactionAmount>74000</TransactionAmount>
                  <!-- Cash -->
                  <TenderTotals TenderType="Cash">
                        <Amount>72400</Amount>
                        <Count>12</Count>
                  </TenderTotals>
                  <!--Credit Card -->
                  <TenderTotals TenderType="CreditDebit"/>
                  <FoodserviceActivitySummary>
                        <!-- Table Sales Amount -->
```

```
                    <AveragePartySales>5692</AveragePartySales>
                    <!-- Guest Sales Amount -->
                    <AveragePeopleSales>4933</AveragePeopleSales>
                    <PartySummary DestinationType="DineIn">
                        <!-- Guest Party Number-->
                        <PartyCount>13</PartyCount>
                        <!-- Total Guest Number-->
                        <PeopleCount>15</PeopleCount>
                        <!-- Total Seles Amount -->
                        <Amount>74000</Amount>
                    </PartySummary>
                </FoodserviceActivitySummary>
            </ActivitySummary>
        </Batch>
</POSLog>
```

5.13 Scenario: Report Software Name/Version (tie to Payment) (V6.0)

Brief Description
Include the store's POS software name and version in the POSLog so that we can perform specific message routing and transform logic based on it if needed.

Data

- Software
- ManufacturerName
- Name
- Version
- Revision
- CreationDate
- Checksum
- InstallationDate
- Checksum

5.13 Conformance XML Instance Document: Report Software Name/Version

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
../POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>12346</SequenceNumber>
        <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
        <BusinessDayDate>2011-11-11</BusinessDayDate>
```

```
            <BeginDateTime>2011-11-11T20:20:20</BeginDateTime>
            <EndDateTime>2011-11-11T20:20:21</EndDateTime>
            <ControlTransaction>
                <Software DeviceTypeCode="POSPrinter"
SoftwareTypeCode="Software">
                    <DeviceID>1</DeviceID>
                    <Name>Printer</Name>
                    <MajorVersion>2</MajorVersion>
                    <MinorVersion>3</MinorVersion>
                    <FixVersion>1</FixVersion>
                    <ManufacturerName>NCRPrinter</ManufacturerName>
                    <CreationDate>2008-01-01</CreationDate>
                    <InstallationDate>2010-03-01</InstallationDate>
                    <Checksum>1212121</Checksum>
                </Software>
            </ControlTransaction>
        </Transaction>
</POSLog>
```

5.14 Scenario: Device Status (V6.0)

Brief Description

How do we report UnifiedPOS messages within the context of a Control Transaction? In Self-Scan how do we report an out of paper situation?

5.14 Conformance XML Instance Document: Device Status

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Information about the software used in a particular device -->
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
../POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>12346</SequenceNumber>
        <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
        <BusinessDayDate>2011-11-11</BusinessDayDate>
        <BeginDateTime>2011-11-11T20:20:20</BeginDateTime>
        <EndDateTime>2011-11-11T20:20:21</EndDateTime>
        <ControlTransaction>
            <Software  DeviceTypeCode="MSR" SoftwareTypeCode="Firmware" >
                <DeviceID>1</DeviceID>
                <ManufacturerName>MSR</ManufacturerName>
                <CreationDate>2001-01-01</CreationDate>
                <InstallationDate>2008-02-23</InstallationDate>
```

```
                <Checksum>1121</Checksum>
            </Software>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

5.15 Scenario: POS Signals (V6.0)

Brief Description
Scenario 1: Signals the POS being shutdown

5.15a Conformance XML Instance Document: POS Signals Shutdown

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Information about the software used in a particular device -->
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
../POSLogV6.0.0.xsd"
    MajorVersion="6" MinorVersion="0" FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>12346</SequenceNumber>
        <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
        <BusinessDayDate>2011-11-11</BusinessDayDate>
        <BeginDateTime>2011-11-11T20:20:20</BeginDateTime>
        <EndDateTime>2011-11-11T20:20:21</EndDateTime>
        <ControlTransaction>
            <POSRestart>2011-11-20T20:20:21</POSRestart>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

Scenario 2: Signals the POS being turned on

5.15b Conformance XML Instance Document: POS Signals Startup

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Information about the software used in a particular device -->
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
../POSLogV6.0.0.xsd"
    MajorVersion="6">
    <Transaction>
        <BusinessUnit>
```

```
            <UnitID TypeCode="RetailStore">12</UnitID>
        </BusinessUnit>
        <WorkstationID TypeCode="POS">5</WorkstationID>
        <SequenceNumber>12346</SequenceNumber>
        <OperatorID OperatorName="John"
OperatorType="Cashier">205</OperatorID>
        <BusinessDayDate>2011-11-11</BusinessDayDate>
        <BeginDateTime>2011-11-11T20:20:20</BeginDateTime>
        <EndDateTime>2011-11-11T20:20:21</EndDateTime>
        <ControlTransaction>
            <POSSOD>
                <StartDateTimestamp>2011-11-20T20:20:21</StartDateTimestamp>
            </POSSOD>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

5.16 Scenario: Customer redeems loyalty points failure (V6.0)

Scenario Description
A customer tries to purchase 2 items with their loyalty points but find out they don't have sufficient points.

Assumption
Loyalty points are a tender.

Data

Customer common data	
	Need to indicate the points failure
CustomerAccount	
LoyaltyAccount	
Points Type="Balance	Current Point Balance

5.16 Conformance XML Instance Document – Customer Redeems Loyalty Points Failure

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
../POSLogV6.0.0.xsd"
    xmlns="http://www.nrf-arts.org/IXRetail/namespace/" MajorVersion="6"
MinorVersion="0"
    FixVersion="0">
    <Transaction>
        <BusinessUnit>
            <UnitID>HighStreet</UnitID>
        </BusinessUnit>
        <WorkstationID>POS5</WorkstationID>
        <SequenceNumber>4294967295</SequenceNumber>
        <POSLogDateTime TypeCode="Transaction">2005-03-
02T10:00:00</POSLogDateTime>
        <OperatorID>John</OperatorID>
```

```
        <ControlTransaction>
            <LoyaltyRedemptionFailure>
                <Customer>
                    <CustomerID>12341234</CustomerID>
                </Customer>
                <ReasonCode>475</ReasonCode>
            </LoyaltyRedemptionFailure>
        </ControlTransaction>
    </Transaction>
</POSLog>
```

6. Document History

7. Version History

Version 1.0
Overview
New Features

Sections	Description of Change
	-

Minor fixes

Deprecation

Sections	Description of Change
	-

Compatibility/Dependencies Issues
Previous Document

8. GLOSSARY

Term	Definition