

**Virgin Trains West Coast**

**Staging Design specification**

Staging Requirements Document

Steve Forster

Technical Consultant

**July 2018**

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# Document Management

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| --- | --- | --- | --- |
| **Version Control** | | | |
| **Version** | **Date** | **Author(s)** | **Sections Changed** |
| 0.1 | 16/07/2018 | Steve Forster | Initial draft document |

| **Distribution List** | | |
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# Document Purpose

The purpose of this ***TOC+ Data Load Design Document*** is to define the scope of how the solution will process data for the TOC+ Booking feed from the pre-processing tables to the Staging tables

The list of functional requirements that will be documented in this design are covered below in the scoping section.

Each pre-processing feed process will be developed as an individual SSiS package to enable scheduling at different times depending on the file arrival details.

The load to staging will be dependent on the pre-processing for each feed to complete without error

This document should be read in conjunction with the Technical Design document and the Business Requirements documents

## 2.1 In Document Scope

The following items are in scope for this document:

* A data flow diagram showing the steps that will be covered as part of the staging process
* Logging of the number of records loaded, rejected and loaded into the processing tables
* The details of the metadata required to support the data feed loads

## 2.2 Out of Document Scope

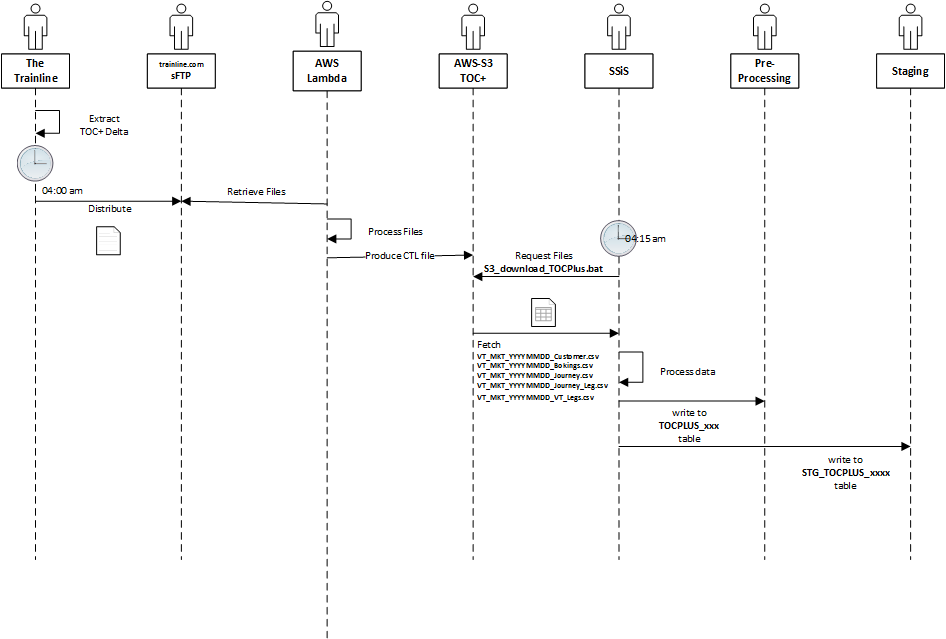
The following items are out of scope for this document and will be covered to separate design documents:

* The SFTP to S3 bucket transfer and logging
  + This is covered as part of the pre-processing load diagram
* The design to process records through to pre-processing

# High Level Overview

3.1. Process Context Diagram

The trainline.com will produce a daily extract and place on their sFTP server for retrieval and processing by Virgin Trains West Coast.



Each set of daily files will be loaded to pre-processing, and this document addresses the design of the load to the Staging environment from pre-processing.

3.2. Process Flow

The workflow will be invoked and the following logic applied…

Start

Records with OperationStatus = ‘Imported’ (4)  
?

Yes

Set record OperationStatus to ‘Processing’ (5)

No

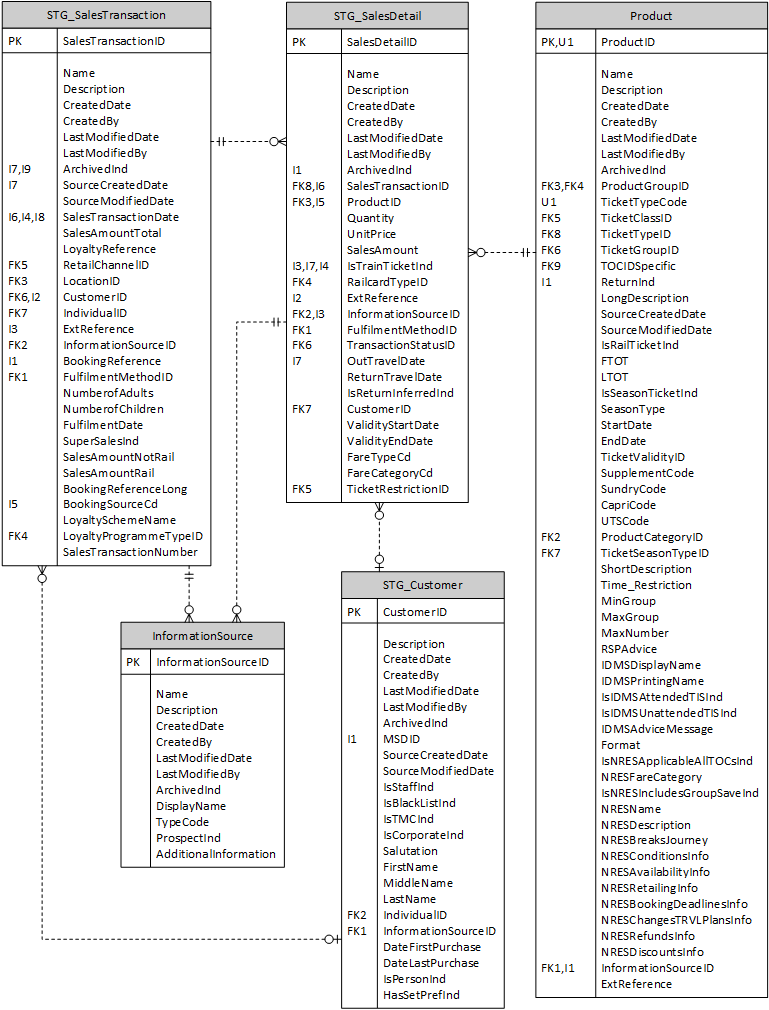
Finish

Insert record into STG\_SalesDetail

Set record OperationStatus to ‘Completed (6)

Update Load Log Counts

3.2 ERD



3.3 Mapping

STG\_SalesDetail will be populated from the preprocessing.TOCPLUS\_Bookings table

New columns BusinessOrLeisure, RefundInd and RefundDate have been added to STG\_SalesDetail to store the additional TOCPlus fields.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Source Table | Source Column | Source Data type | Primary Key | Column  Transformation  Rule | Comments/ Other Rules | Error Handling Rules | Target Table | Target Column | Target Data type |
|  |  |  | Y |  | Identity Column |  | STG\_SalesDetail | SalesDetailID | int |
| TOCPLUS\_Bookings | transactiondate | datetime |  |  |  |  | STG\_SalesDetail | CreatedDate | datetime |
| TOCPLUS\_Bookings | amendeddate | datetime |  | If **amendedInd** <> ‘N’ |  |  | STG\_SalesDetail | LastModifiedDate | datetime |
|  |  |  |  | **0** |  |  | STG\_SalesDetail | ArchiveInd | bit |
| TOCPLUS\_Bookings | Tcstransactionid | int |  | Lookup **externalreference (FK)** from STG\_SalesTransaction |  |  | STG\_SalesDetail | SalesTransactionID | int |
| TOCPLUS\_Bookings | Noofitems | int |  |  |  |  | STG\_SalesDetail | Quantity | int |
| TOCPLUS\_Bookings | purchasevalue | numeric |  |  |  |  | STG\_SalesDetail | SalesAmount | decimal (14,2) |
| TOCPLUS\_Bookings | purchasecode | nvarchar |  | If **purchasecode** =’RAIL’ then **1** else **0** |  |  | STG\_SalesDetail | IsTrainTicketInd | bit |
| TOCPLUS\_Bookings | purchaseid | int |  |  |  |  | STG\_SalesDetail | ExtReference | nvarchar |
|  |  |  |  | Information source for ‘TrainLine’ |  |  | STG\_SalesDetail | informationSourceID | int |
|  |  |  |  | Lookup from Reference.TransactionStatus where InformationSource=’trainline’ |  |  | STG\_SalesDetail | TransactionStatusID | int |
| TOCPLUS\_Bookings | tcscustomerid | int |  | Lookup **tcscustomerid** from STG\_CUSTOMER returning **CustomerID** |  |  | STG\_SalesDetail | CustomerID | int |
|  |  |  |  |  | NOT NULL |  | STG\_SalesDetail | ProductID | int |
| TOCPLUS\_Bookings | refundind | nvarchar |  |  |  |  | STG\_SalesDetail | RefundInd | bit |
| TOCPLUS\_Bookings | refunddate | datetime |  |  |  |  | STG\_SalesDetail | RefundDate | datetime |
| TOCPLUS\_Bookings | businessorleisure | nchar |  |  |  |  | STG\_SalesDetail | BusinessOrLeisure | nchar |

**END**