CRIS Data Flow for Meter to Cash

for

CRIS to CSS Migration Project

|  |  |
| --- | --- |
| Project Name | Technology Validation for CRIS to CSS Migration |
| INVP # (if known) | 6393 |
| ITLT Sponsor | Simon Baker |
| IT Primary Contact | Riziel Cruz-Bower |
| Technical Ent Arch | Joe Clinchot |
| Domain Architect | Bala Konduri |
| Solution Architect | Ron Pascual |

|  |  |
| --- | --- |
| Document Version No. | 0.2 |
| Document Version Date | 10/1/2021 |
| Review Date |  |
| Reviewed by: |  |

**Table of Contents**

1. Introduction 3

1.1 Purpose 3

1.2 Intended Audience 3

2. High Level Meter to Cash Flow 4

2.1 Cash Sources, Collections Interfaces 7

2.2 Meter Reads 8

2.3 Billing Determinants 9

2.4 Bill Presentment 9

2.5 Finance 10

2.6 Customer Service, Supplier Switching 10

2.7 Assets, Field Service 10

3. Appendix 11

# Introduction

## Purpose

The purpose of this document is to record the job and data flow for the key components of the Meter to Cash batch process in CRIS. This batch flow information is going to be used for reference only; the CSS version of this deliverable is expected to be the basis for the go-forward flow after the consolidation of CRIS to CSS.

## Intended Audience

The intended audience for this document is relevant technical stakeholders for the CRIS to CSS Migration team, notably the domain and solution architects.

# High Level Meter to Cash Flow

Two versions of the overall data/integration diagram that supports the CRIS meter-to-cash (M2C) process are provided below. The first is the overview diagram and the second one includes the detail interfaces entities. The overview diagram breaks the CRIS integrations that support M2C into seven functional groupings:

* Assets, Field Service: This contributes to M2C since field assets support providing gas service and service orders for turn on, turn off, move in, and move out establish service periods for customers.
* Customer Service, Supplier Switching: This contributes to M2C in the pre-billing process, since it includes establishing customer accounts and assigning suppliers. Post billing inquiries (high bill, usage information, etc.) are also supported through this group.
* Finance: This contributes to M2C as it supports consolidation of transactions into the corporate ledger. Also, in the case of canceling an overbilling that results in a credit balance, outbound payments to customers fall into this group.
* Cash Sources, Collections: This contributes to M2C as it supports customer payments from various sources and integrations to collection agencies for overdue bills.
* Meter Reads: This supports M2C as the monthly meter reads are received, which drive usage calculation and the bill amount.
* Billing Determinants: This supports M2C as weather data, tax exempt status, gas transportation inputs, and gas marketing pricing all contribute to the bill calculation process.
* Bill Presentment: This contributes to M2C in the post-billing process, since it includes the components that prepare bill data for sending and customer consumption.

This version makes the supporting components easier to understand since it abstracts the details into larger items. The diagram is:



The second diagram includes the same functional grouping, but provides a detail listing for the specific interfaces entities (when more than one main integration exists for an entity). The detail view is:



A full list of CRIS interfaces is attached in the Appendix.

From a job flow perspective, there are batch processes that relate to meter-to-cash and other batch jobs that do not relate to meter-to-cash. This document is focused on the meter-to-cash flow. The diagram below shows the logical linkage of the process steps (which is consistent with CSS, as well):



The job streams have over 900 jobs and ESP extracts of the jobs amount to over 600 pages. For this reason, the details on the CRIS job linkages are not provided in this document.

## Cash Sources, Collections Interfaces

Cash Sources

The purpose of the cash posting jobs are to receive files with the details on customer payments and to reflect those payments on the customer accounts within CRIS. This is done at the beginning of the batch flow to clear balances prior to the charging of late charges or the application of collections activities.

CRIS receives the payment files from many different sources. These come through secure FTP and sources include:

* Collection Agency Inbound Payments
* One Step District Office Payments
* TransCentra
* JPMorgan Chase
* Western Union Speedpay
* Western Union Walk-In Office
* Fiserv
* Customer Directed Payments (CDP)
* Collection Agency Cash Files
* Human Resources Administration (NYC HRA) Payment File

Collections Interfaces

The purpose of the collections interfaces in this category are outbound information sharing. These happen later in the batch process, after billing, to allow for proper aging of the customer receivables.

These are distributed secure FTP and sources include:

* Account, Customer, Balance Information to Support Outbound Collections Calls (IQOR, Convergent, NCI)
* Outbound Letters for Customers under Active Collections (RUI)
* Collection Agency Assignment (various agencies)

## Meter Reads

The reading for all the downloaded meters will be fed into CRIS through the Itron interface program. The purpose of upload process is:

* Meter readings recorded in the field can be uploaded and posted to CRIS, which allows period usage to be calculated
* The interface is used to transform the readings into the format needed for CRIS
* The meters are then matched and merged
* As with the download process, the upload process runs daily

CRIS receives the meter read files through secure FTP.

## Billing Determinants

The Billing Determinants group are interfaces that provide data to support the billing and bill calculation process. These interfaces are, therefore, run prior to bill calculation to help ensure all of the necessary inputs are available for calculation. The significant integrations in this category are:

* Weather Data: degree day data (WSI), average daily temperature (WSI), and temperature control gas interruptions (Enernoc)
* Therm Factors: information related to gas content and heat capacity (WSI)
* Gas Usage Information for Suppliers: Marketer Billing System (MBS) and Broker Management System (BMS)
* Gas Transportation Information System (GTIS): Imbalance billing and transportation service applications

## Bill Presentment

Sorting, Address Validation

The purpose of these jobs is to validate and format addresses, add bar codes, and help ensure the proper sorting to maximize the postage discounts attained. These significant integrations in this category include:

* Mailstream
* Code1
* Verimove
* Mail 360
* Finalist

Bill Formatting and Presentment

The purpose of these jobs is to provide billing information in the customer format. This is normally a standard format for most customers, but National Grid supports special consolidate efforts for some large organizations. The breakdown is:

“Normal” customer bill formatting integrations:

* RRDonnelly (Bill formatting)
* Pitney Bowes (Bill Images)
* Fiserv (eBills)
* Striata (eBills)

Large/specialized bill formatted integrations:

* Books for the Blind,
* Dept of Army
* NYC Municipal
* NYC Housing Authority
* NYC Transportation Authority
* Boston College
* Boston University
* City of Boston
* Boston Housing Authority

## Finance

The goals of the Finance category:

* The categorization and summation of all financial activities for external examination.
* Translate all of the financial transactions in CRIS into entries that will be sent to the Corporate General Ledger system (SAP).
* Provides an additional level of controls by balancing A/R by category

This category of M2C supports also includes outbound customer payments. When the customer has an open credit balance, normally the result of an overpayment or the application/refund of a held deposit, the customer has the option to request a refund. In this situation, the credit balance is marked as paid and the details of the transaction is sent to SAP in order to issue the customer a check. This results in a zero balance on the customer account.

## Customer Service, Supplier Switching

This contributes to M2C in the pre-billing process since it includes establishing customer accounts and assigning suppliers. Post billing inquiries (high bill, usage information, etc.) are also supported through this group. The key integrations include:

* Experian: Experian is used for credit checks when new customers are added to the system. The result of the credit check is used to determine if the customer is required to provide a deposit prior to attaining service with National Grid.
* Interactive Voice Response (IVR): This is the service-service phone system that the customer uses at the start of an inbound call to the call center.
* My Account: This is the web portal (soon to be UWP) that the customers use to interact with National Grid for services and inquiries related to their account.
* EDI: This is used for communication with the market suppliers for Supplier Services. For CRIS, this integration is managed through ESG, which provides a service to take in flat files from National Grid and translate them into the EDI transactions required. For inbound, ESG translates the EDI transactions back to flat files for CRIS consumption.

## Assets, Field Service

This contributes to M2C since field assets support providing gas service and service orders for turn on, turn off, move in, and move out establish service periods for customers. The key integrations in this category include:

* SPIPE: This is the repository for Service Pipe and Gas Service Information. Integration is both through MQ and secure FTP.
* MDSI: This is used for service order scheduling and completing field work at customer premises. Field activity details are passed to MDSI, the field workers complete the tasks, and the close details are passed back to CRIS to post to the customer account.

# Appendix

The list of CRIS interfaces, with expected retirements, is provided below:

