

## Customer Briefing Note 008

### Automated and Manual Billing

#### Edge Background

Edge is our flag-ship web-based software solution for retail water and waste services suppliers in the UK.

Edge has been designed and built from first principles to provide a complete “Business in a Box” for both established and new entrant Licensed Providers.

The Edge system allows seamless operations across the UK – in both the Scottish and English markets.

Edge runs on the Microsoft “Azure” cloud platform, and provides unrivalled flexibility, security and availability.

Deployment of Edge is quick and easy, whether you are a new start or the largest water company in the country.

#### Volume Billing Concepts

Utility Billing systems such as Edge need to be able to create ad-hoc bills in response to customer enquiries and requests. These ad-hoc bills must be created quickly and accurately to meet customer expectations.

However, most bills are not ad-hoc. They are scheduled bills and are typically sent out to the customer at a pre-determined frequency.

Traditionally, scheduled bills would coincide with the receipt of meter readings. Meters would be read on a regular schedule, typically every six months. Hence, meter readings and schedule bills would be synchronised. If a meter read was not available, then an “estimated” meter reading would be calculated and loaded to the billing system and this would be used to create the scheduled bill.

It follows that most metered utility variable charges are calculated in arrears and are based on either “actual” or “estimated” meter readings.

This is a very easy way to calculate bills, but it relies upon a direct association between metering frequency and billing frequency. This has two major disadvantages:

- Bills can only be created “in arrears”. This causes corporate cashflow issues in competitive markets where settlement charges are incurred “in advance”
- It is difficult to create truly consolidated customer bills, since it is nearly impossible to align the meter readings for different premises within a consolidated account (see also CBN006)

The Edge billing module overcomes these limitations by removing the relationship between metering and billing. The Edge billing algorithm calculates an Average Daily Consumption (ADC), in the same way as the Central Market Operators do when calculating Settlement charges (see also CBN002)

ADC bill calculation requires significantly more system processing power, but the advantages far outweigh the drawbacks. This methodology brings with it many benefits including:

- No need to input estimated reads;
- Ability to bill in advance;
- Ability to provide customers with fixed billing periods independent of meter readings e.g. 28 days, Monthly, Quarterly, Annually;
- True consolidated billing (see CBN006);

### Fully-Automated Billing (FAB)

The Edge solution has been designed and developed to allow the creation of “ad-hoc” bills. However, Edge also provides powerful billing automation functionality.

When a Customer Account is created in Edge, several billing parameters are entered as follows:

- Billing Frequency: Monthly; Quarterly; Annually; Bi-Annually
- Billing Day: Day of the month
- Billing Method: In Advance / In Arrears
- Send Bill in Post: Yes / No
- XML via eMail: Yes / No
- PDF via eMail: Yes / No

Once the billing parameters are entered and the Account is set to use the “Automated Billing” functionality, then Edge will calculate when the next bill is to be created, based upon the date of the previous bill and the billing parameters.

Fully Automated Billing is a powerful feature, but several Retail Companies did not like to create bills in this manner, since some Customers argued that their bills were not based on “Actual” meter readings.

To resolve this issue, we have developed the concept of “Manual-Auto-Billing” (MAB)

### Manual-Automated Billing (MAB)

Manual-Auto-Billing (MAB) has been developed to provide volume billing functionality (overnight bill runs) but with the control of knowing exactly which Accounts are going to be billed.

The concept is very simple. A spreadsheet is created for each MAB run and this contains a list of Account Numbers that are to be billed.

Originally this was for Accounts / SPIDs that had just received a meter read, but of course any Account can be added to the MAB list.

The spreadsheet is then loaded to the “Bill Schedule” section of Edge.

The Manual-Auto-Billing run starts shortly after midnight as a schedule database job. The MAB spreadsheet data is loaded and the Edge billing engine starts to process bills automatically. Once the bills are created (as Previews) they then enter the next stage of the process which is “Auto-Activation (AA)

### Auto Activation (AA)

Auto-Activation is an automated job that collects FAB and MAB Preview bills and conducts several checks on the bills before Activating the invoice. The key checks are as follows:

- Maximum Bill Value Check: This check ensures that the Invoice total amount does not exceed a Maximum Invoice Threshold. The Maximum Invoice Threshold is a customer parameter that is loaded to Edge as standing data;
- Previous Bill Comparison Check: This check ensures that the Invoice Daily Total Charge does not exceed the Daily Total Charge for the previous invoice by more than a given percentage. The Percentage Threshold is a customer parameter that is loaded to Edge as standing data;
- Negative Bill Total: This check ensures that Negative Total charges are not auto-activated;
- Minimum Value Threshold: Edge provides a feature so that bills of a small value can be blocked from sending to the customer. The rationale for this is that in some cases it can cost more to print and send a bill than the value of the bill itself.

If the Auto-Activation checks are successful, then Edge will Activate the Invoice and prepare it for sending to the Customer, through whichever method has been selected for the Account, for example, by email or by Post etc.

Preview Invoices that fail to pass the AA checks are not Activated. They can however be manually checked and sent if required during the following day.

Note that Edge always deletes all Non-Activated Invoice Previews at the end of the working day.

### Related Customer Briefing Notes (CBN's)

You may also be interested in these related CBN's

- CBN001: "Edge Overview"
- CBN002: "ADC Billing"
- CBN003: "Volumetric Adjustment"
- CBN004: "Metered Billing"
- CBN005: "Block Tariffs"
- CBN006: "Consolidated Billing"
- CBN007: "Published Tariffs"
- CBN008: "Manual and Automated Billing"
- CBN009: "Bill Output Formats"
- CBN010: "Market Transactions and Data Items"
- CBN011: "Integrated Transaction Management"
- CBN012: "Bitemporal Updates"
- CBN013: "Market Data Set"
- CBN014: "Market Pricing"
- CBN015: "SPID Transfers"
- CBN016: "CRM Module"
- CBN017: "Data Quality"
- CBN018: "Meter Reading Management"
- CBN019: "Sub Meters and Complex Metering"
- CBN020: "Meter Exchange Management"
- CBN021: "Trade Effluent"

### Further Information

If you require further information on any aspect of the Edge solution, please contact us at:

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