



Dynamic Rates Engine  
V1.1 Product Overview



## CHAPTER 1

### Overview



## CHAPTER 2

### How Does It Work?

- Rate Sources
- Optimization
  - Window
  - Reset
- Distribution
- Revenue Upside



## CHAPTER 3

### Integrating DRE Rates



## CHAPTER 4

### Next Steps



A background image of two business professionals in an office setting. A woman on the left, wearing a dark blazer, is holding a silver pen and pointing at a tablet held by a man on the right, who is wearing a dark suit and tie. They are seated at a wooden desk. In the foreground, there is a spiral-bound notebook with a black pen resting on it. The scene is lit with warm, natural light from a window in the background.

## CHAPTER 1

### Overview

DRE helps companies increase revenue by providing optimized exchange rates.

# OVERVIEW

Launched in 2019, the industry-leading Dynamic Rates Engine (DRE) is powering currency exchange rates on over 8,500 ATMs in 13 countries.

The DRE platform empowers businesses to increase revenue by:

- **Delivering optimized exchange rates for 150+ currencies** ensuring that only the most advantageous optimized rates are delivered
- **Capitalizing on intraday FX upswings** while at the same time protecting from downswings, by refreshing the optimized rates **every 15 minutes**
- **Supporting all use cases of currency conversion**, including but not limited to FX Sale, FX Purchase, and Dynamic Currency Conversion (DCC)
- **Supporting all channels of currency conversion**, including, but not limited to ATM, POS, eCommerce, and settlement services

DRE is a world class, cloud-native, high availability platform capable of delivering optimized exchange rates via API or flat files.

Underlying rates sources include Refinitiv (formerly Reuters) and Mastercard, with the facility of bringing your own preferred rate provider. Multiple rate sources can be used simultaneously during the optimization process, to further increase revenue opportunities.

DRE is designed for rapid integration to payment switches, kiosks, point-of-sale, ATM, mobile, eCommerce, and settlement platforms.





## **CHAPTER 2**

### **How Does It Work?**

Capitalise on changes in  
exchange rates to your  
advantage.



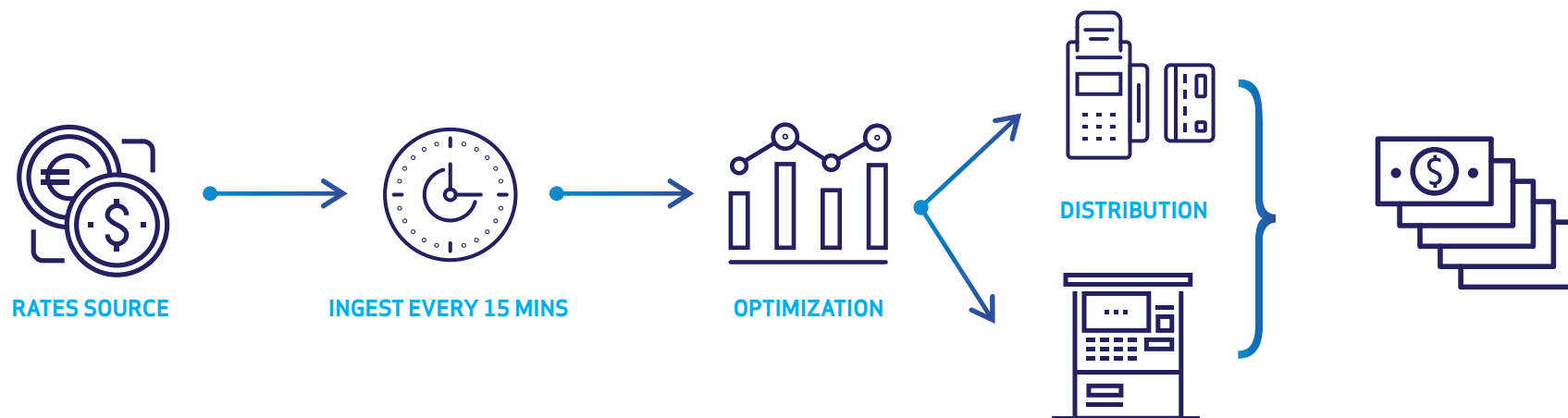
## HOW DOES IT WORK?

It is common for merchants and acquirers that perform currency conversion to set exchange rates in their systems once per day based on externally provided settlement rates (and in the case of some settlement service providers, once per week or month). While this approach carries little risk, the upside is also generally constrained to a fixed margin regardless of price movement throughout the period.

DRE loads exchange rates from its rate sources for all currency pairs every 15 minutes. Its optimization algorithms enable DRE to provide the most advantageous exchange rates (based on the loaded rates) for 150+ currencies for periods as low as 1 hour, to periods greater than a week.

Multiple layers of optimization are performed for each currency pair (based on specified parameters detailed below), ensuring that only the most advantageous exchange rates are provided.

By distributing highly optimized exchange rates throughout the day/period, any changes in exchange rates can be leveraged to maximize the revenue to the merchant, acquirer or settlement service provider.



# HOW DOES IT WORK?

## RATE SOURCES

The DRE platform is designed to be able to ingest rates from multiple rate sources, either via API or flat file. DRE's existing rate sources are Refinitiv and Mastercard, but customers can bring their own rate provider.

Customers can select for their optimized rates to be based on any combination of DRE's existing rate sources and their own rate source, or solely on their own source. For example, one customer may decide to only use Refinitiv's rates, while another may choose to use their own rates in addition to Refinitiv & Mastercard rates.

Leveraging more than one rate provider not only provides the customer with an increased revenue opportunity, but also protects them from negative fluctuations in failure events (where rate sources fail to provide exchange rates for some reason).

## OPTIMIZATION

Optimization is at the heart of DRE and what makes the platform so powerful. DRE supports rate optimization in one of two modes: Window and Reset.

### WINDOW

When using the Window mode, DRE will determine the optimal rate within a given rolling window of a specified number of hours. For example, if set to 24 hours, DRE will ensure that any rate provided is the most advantageous rate over the past 24 hours. If an exchange rate was requested at 13:00 today, DRE would provide the most advantageous exchange rate for the requested currency pair between 13:00 yesterday and 13:00 today.

### RESET

When using the Reset mode, DRE will determine the optimal rate since a fixed time of day. For example, if set to 08:00am, DRE will ensure that any rate provided is the most advantageous rate since 08:00am today. If an exchange rate was requested at 15:00 today, then DRE would select the most advantageous exchange rate for the requested currency pair between 08:00am today and 15:00 today.

## HOW DOES IT WORK?

### DISTRIBUTION

DRE supports three modes of rate distribution: RESTful API, SFTP push and SFTP pull.

For information on the RESTful API interface, please contact Afferent Software.

SFTP push is used to distribute rates on an agreed schedule, as often/frequently as every 15 minutes, to an SFTP location determined by the receiving entity.

When using the SFTP pull option, rates files will be stored on the DRE SFTP server on an agreed schedule, with a maximum frequency of 15 minutes, and made available for collection using credentials supplied by the DRE team.

### REVENUE UPSIDE

Customers using DRE have reported anywhere between 2% and 8% revenue upside after integrating DRE into their existing currency conversion platforms.

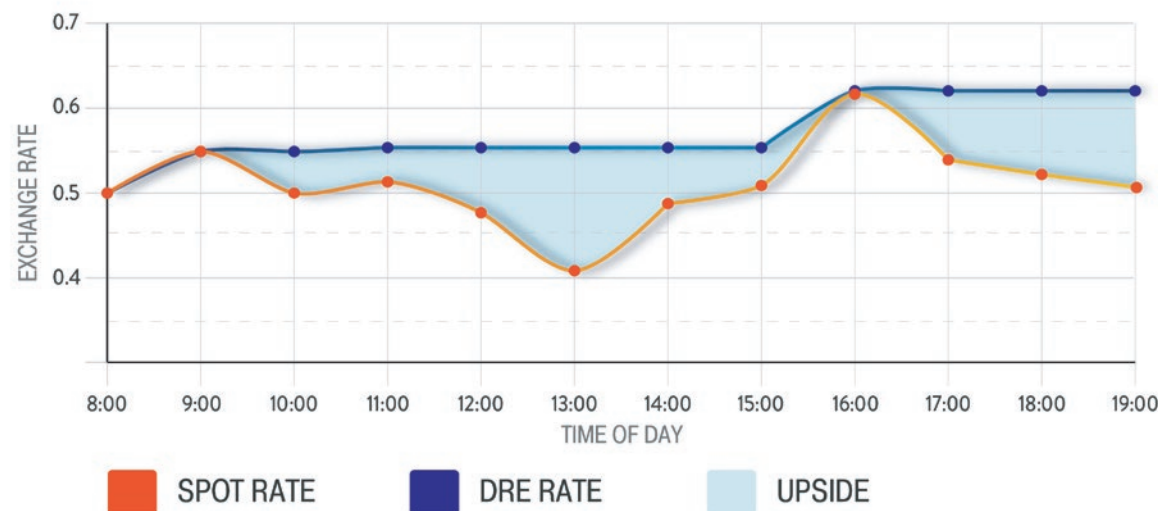
Results vary based on the volatility of the currencies used, the optimization mode and other variables.

---

Simulated data

The diagram (right) demonstrates the revenue upside through intraday exchange rate ingestion and optimization.

---







## CHAPTER 3

### Integrating DRE Rates

Replace your current rate source with DRE, without changing the distribution mechanism.

## INTEGRATING DRE RATES

Due to the flexible design of the DRE platform, integration with existing currency exchange software is generally straight-forward. The typical approach is simply to replace the current rate source with DRE, without changing the mechanism of distribution.

For example, if exchange rates are currently received via flat file, DRE can support your existing file format to minimize the amount of customization, and hence the timeframe, required. If rates are currently received via API, these API calls can be replaced with API calls to the DRE platform.

All that is required to begin receiving rates from DRE is to determine the following information and provide this to Afferent Software:

1. What rate providers should be used to feed into the DRE optimization engine
2. What base currency and target currencies are required to be optimized
3. What optimization mode, and corresponding parameters, should be used: Window or Reset
4. What margin should be applied to the resulting rate prior to distribution
5. How should the optimized rates be distributed: API, SFTP push, SFTP pull, or a custom integration to your system

Note that all this information can be updated at any time and managed directly within the DRE web portal.



The background image shows a modern office environment with large windows and people working at desks. In the foreground, a man and a woman are seated at a table, looking towards the right. In the background, several other people are working at desks, some using laptops. The office has a clean, minimalist design with dark wood and large windows.

## CHAPTER 4

### Next Steps

Let us calculate actual upside you would have received with DRE using your own scrubbed historical data.

## NEXT STEPS

If you would like to better understand the potential upside of **DRE** in your environment, we are able to retrospectively calculate the potential revenue upside using scrubbed historic transaction files.

If you have any other questions on **DRE**, or would like any additional information, you can contact us at:

[info@afferentsoftware.com](mailto:info@afferentsoftware.com).





