



## **An Introduction to Renovite and Reno-Cloud**

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## Revision History

Release Date	Version	Description	Authored By
14/5/20	1.0	First public version	D. Smith
19/5/20	1.1	Added minor clarifications	D. Smith
15/7/20	1.2	Added additional channels information	J. Tomaney

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## 1 About Renovite

Renovite was founded in 2015 with the mission to develop and deliver the next generation of payments solution for banks, processors, and merchants. Renovite recognises that aging payments infrastructures, trapped within siloes in many of the established payments providers, is proving to be a costly and insurmountable barrier to the delivery of new innovative payments options.

Consequently, Renovite has developed an ultra-modern suite of payment solutions that can be easily integrated within legacy environments or as new platform deployments. These solutions are born from decades of experience in managing and delivering complex payments projects through a Continuous Delivery model. Renovite's solution portfolio is designed to process payments of any type in any silo – retail, corporate or wholesale.

Renovite is headquartered in Fremont, USA and has its EMEA operations based in Dunfermline Scotland. Additionally, Renovite has a product development facility in Noida, India. Renovite is privately owned with roughly 100 employees – making Renovite big enough to have a clear impact but small enough to be nimble and highly customer-centric.

## 2 Today's Payments Market: A Renovite Perspective

The payments industry is experiencing significant disruption because of rapid technological change, increasingly diverse consumer demands, and new entrants all competing for the consumer's loyalties. Payments organisations are generally responding to this competitive landscape through one of two investment strategies:

- To remain locked in an expensive game of “patch-up and catch-up” with their existing legacy infrastructure and vendors, or
- To embark on a strategic journey of innovative transformation to establish a sustained competitive advantage. Invariably this involves shifting their IT infrastructure out of their data centres into the Cloud, and the deployment of highly adaptable, cloud-native payment applications.

Although it is true that the “patch-up” camp is still in the majority, this situation is rapidly changing as more and more major payments providers face soaring development costs and a diminished ability to compete.

It is Renovite's assertion that choosing the right vendor to match your organisational ethos, and agreeing how you will work together, are among the most important investment decisions that you can make.

Too often, organisations start their investment decisions with a feature by feature comparison of existing off-the-shelf products. In Renovite's view this is a dangerously failed strategy - it only perpetuates the status quo and fosters an inability to react to new growth opportunities.

This “Pick What There Is” mindset fails because your needs will change faster than you think— because the market will continue to change faster than you can project. Sustained success requires a

journey of transformative change where WHO you work with, and HOW you work together, has a significantly more profound impact on your long-term successes than the fine detail of WHAT you start with.

Renovite's mission is to enable transformative thinkers to innovate without constraint – enabling them to create the freedom to make positive forward-looking decisions that enhance future growth and customer satisfaction. We do this through a combination of our Reno-Cloud payments suite and a corporate mindset founded on collaboration, trust, and delivery achievement.

### 3 The Reno-Cloud Payments Suite

Reno-Cloud is a modular payments suite that can provide a full payments infrastructure or specific components can be deployed to augment the existing infrastructure to deliver new business services. In many situations a phased approach to transformative change is a good way to deliver increased business growth through a series of steps providing greater control over project risks and timelines. Reno-Cloud is highly adaptable and well suited to agile delivery methodologies.

The Reno-Cloud Suite consists of the following modules:

- *Reno-Switch*

Reno-Switch is a highly scalable, cloud-native transaction orchestration platform that utilises In-Memory Data Grid technology to maximise transaction throughput, an extensible modular architecture, and rules driven workflows that are easily adapted to emerging requirements. Built from the start to utilise ISO20022 as its core messaging standard, Reno-Switch is channel and payment token agnostic and supports account-based payments alongside legacy card-based payments. It is designed for the Omnichannel world of the 21<sup>st</sup> Century rather than the siloed model of the 20<sup>th</sup> Century.

Reno-Switch can process transactions originating in any physical or virtual channel and can handle transactions that utilise multiple channels to complete a transaction. Its unique architecture allows Reno-Cloud to implement transactions that span traditionally separate domains - for example, using an ATM to fulfil a P2P transaction that originated in an account-based payment from an internet banking platform, using a onetime passcode instead of a plastic-cards. Reno-Switch utilises dedicated channel manager components (such as Reno-ATM or Reno-POS) to handle the channel specifics allowing the switch to remain truly Omnichannel.

Reno-Switch treats each transaction type as a separate business service and new business services can be added, removed, and modified without any impact to the other services and without having to bring the system down. Service workflows can route transactions to any number of endpoints, either sequentially, in parallel or in mixed modes and is ideally suited to the consolidation of existing processing or the deployment of new services.

Reno-Switch is powerful when deployed as an originator switch, handling payments requests from multiple platforms within the organisation, using its powerful orchestration capabilities to invoke multiple screening and risk management services to make the best possible

decision about each transaction, before routing to networks for processing. As a consumer switch, Reno-Switch can apply the same orchestration capability to processing payment request received from the networks, coordinating the actions of risk and fraud services before delivering the payment to the relevant core platform within the organisation.

- *Reno-Recon*  
Reno-Recon provides the effective settlement of transactions including reconciliation, fee calculations, clearing, settlement, GL posting, and real time informational reporting. Reno-Recon provides the architectural framework for any model of settlement by providing a cloud-based, modern, parallel infrastructure to allow any volume of data to be processed within timeframes to meet your business needs without the need for costly redundant hardware investment. Reno-Recon's rules-based architecture ensures that new innovations can be added without any impact to existing business processes, minimising the total cost of ownership, and offering the flexibility to bring new innovative products and services to market in the fastest possible way.
- *Reno-Secure*  
Reno-Secure is an integrated, cloud-native environment that enables the integration of rule processing, statistical methods, and artificial intelligence into any process in the payments ecosystem. This allows the Reno-Secure user to take advantage of opportunities artificial intelligence technology offers to identify and automate many decisions within the payments framework, regardless of the source of data. Reno-Secure can provide payments fraud screening for both Issuer and Acquirer and is easily extensible to any process or purpose that requires Artificial Intelligence. This could range from predictive analytics to reporting anomalous transaction volumes, or to recommendation engines at the point of interaction.
- *Reno-Test*  
Robust testing is crucial to software development success. Consequently, Renovite invests in the continual advancement of its automated testing suite for the deep test coverage that underpins our agile lifecycle management processes. Reno-Test delivers a centralised test environment that is ideally suited for UI, Mobile apps, API, and performance testing.

The Reno-Cloud suite was engineered to fully exploit the cloud-native application advantages including;

- **Speed:** Faster development and deployment of new features compared to competitors on legacy monoliths.
- **Elastic Scalability:** Lower costs by only paying for what you need, when you need it. Traditional monolithic applications must be sized for their peak and the headroom remains redundant until it is needed. Cloud hosting converts upfront Capital Expenditure into lower recurring Operational Expenditure.
- **Supplier Independence:** Our cloud-native applications are entirely portable and can be migrated easily to alternate providers. We can offer hybrid clouds using On-Prem Private Clouds and Public Cloud providers, or models using multiple Public Cloud Providers.
- **Proof of Concept Environments:** These can be spun up or down rapidly if the business wants to test something new. This can be achieved quickly and efficiently compared to traditional approaches.
- **Test Environments:** Rather than bear the continued cost of a permanent Test/Development/Certification environment a cloud-based environment can be spun up and down when required.
- **Disaster Recovery Environments:** These can be significantly scaled down, rather than a 1:1 of the Product Environment Sizing. If the DR system is used, your system will elastically scale up based on service demand.
- **Rolling Updates:** New component changes can be cycled into production without an outage.
- **Rolling Backouts:** Previous versions of components can be cycled back into production without an outage.

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