

SEPTEMBER 2022

RETAIL BANKING & PAYMENTS FINTECH SPOTLIGHT

Q3 2022

DAVID SHIPPER

This excerpt provided compliments of Novoflex.

TABLE OF CONTENTS

INTRODUCTION..... 2

 METHODOLOGY 3

NOVOFLEX..... 5

CONCLUSION..... 9

ABOUT AITE-NOVARICA GROUP 10

 CONTACT 10

 AUTHOR INFORMATION 10

LIST OF FIGURES

FIGURE 1: RETAIL BANKING AND PAYMENTS FINTECH
 SPOTLIGHT PRODUCT CATEGORIES..... 3

FIGURE 2: RETAIL BANKING AND PAYMENTS FINTECH
 CATEGORIES..... 4

FIGURE 3: EXAMPLE OF AN EMV CHIP CUSTOMIZATION FOR
 SPORTS CARD 8

LIST OF TABLES

TABLE A: NOVOFLEX SUMMARY 5

IMPACT REPORT

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INTRODUCTION

Aite-Novarica Group is featuring six vendors in this edition of the Retail Banking & Payments Fintech Spotlight. Fintech firms continue to pressure legacy players globally by providing more banking, payments, and lending products and services, and by showing growth and demand. Meeting customers where they are is the key to winning in today's environment, and most of the vendors featured in this report are doing just that. These innovative firms are leveraging technology to connect with customers more effectively and offering more choices in how to pay for things, enabling capabilities that remove friction from everyday banking and payments processes.

This report also examines the trend of financial institutions (FIs) and merchants streamlining operations to enable them to bring more innovation to market and more effectively sell products and services.

The vendors profiled in this report face strong competition in the market. Each is having success within the market sectors it serves, which is why Aite-Novarica Group has included them in the Fintech Spotlight:

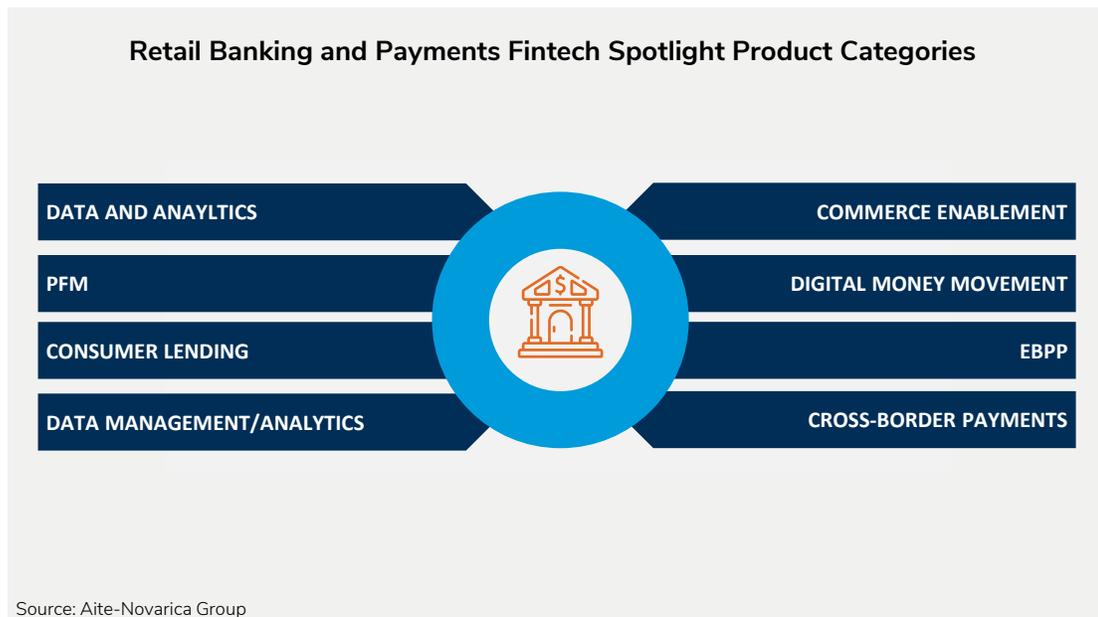
- **Aliaswire:** This is an electronic bill payment and presentment platform that enables banks and credit unions to offer business customers a comprehensive, white-label billing and payment solution fully integrated with treasury management solutions.
- **Algoan:** This API credit-scoring platform leverages open banking capabilities to power smarter and more risk-conscious decisioning for various FIs that trust Algoan to limit risks associated with lending and accelerate the attraction of new applicants and borrowers.
- **Ecolytiq:** This end-to-end solution empowers consumers by helping them understand their environmental impact and take climate action in an open and effective way to maximize the positive impact for all stakeholders.
- **Novoflex:** This smart-chip technology manufacturer produces a full range of standard and custom EMV debit, credit, and prepaid card solutions.
- **Tribe:** This is an issuing and acquiring processing services provider for FIs and licensed fintech firms, whether a business is an issuer, an acquirer, or both.
- **Under:** This workflow automation solution streamlines end-user (consumer and business) applications for payment processing, lending, or mortgages.

METHODOLOGY

The Retail Banking and Payments Fintech Spotlight is a quarterly series of reports that looks at select emerging fintech vendors active in the retail banking and payments space. The vendor landscape is becoming more crowded, and banks and their clients face a growing ecosystem of choices. The spotlight series aims to provide insight into interesting vendors that offer strong, unique selling points and innovative approaches as partners or competitors.

Featured vendors must be active in commerce enablement, money transfers, bill pay, personal financial management, core banking platforms, onboarding, digital banking, data management and analytics, or lending (Figure 1). They must have at least one financial services client with a solution in production and hold annual revenue of less than US\$100 million. Advisors select featured fintech vendors exclusively based on their levels of innovation and interesting approaches to wider business challenges the retail banking and payments market faces from bank and customer perspectives. No featured vendors have paid for their inclusion in this report.

FIGURE 1: RETAIL BANKING AND PAYMENTS FINTECH SPOTLIGHT PRODUCT CATEGORIES

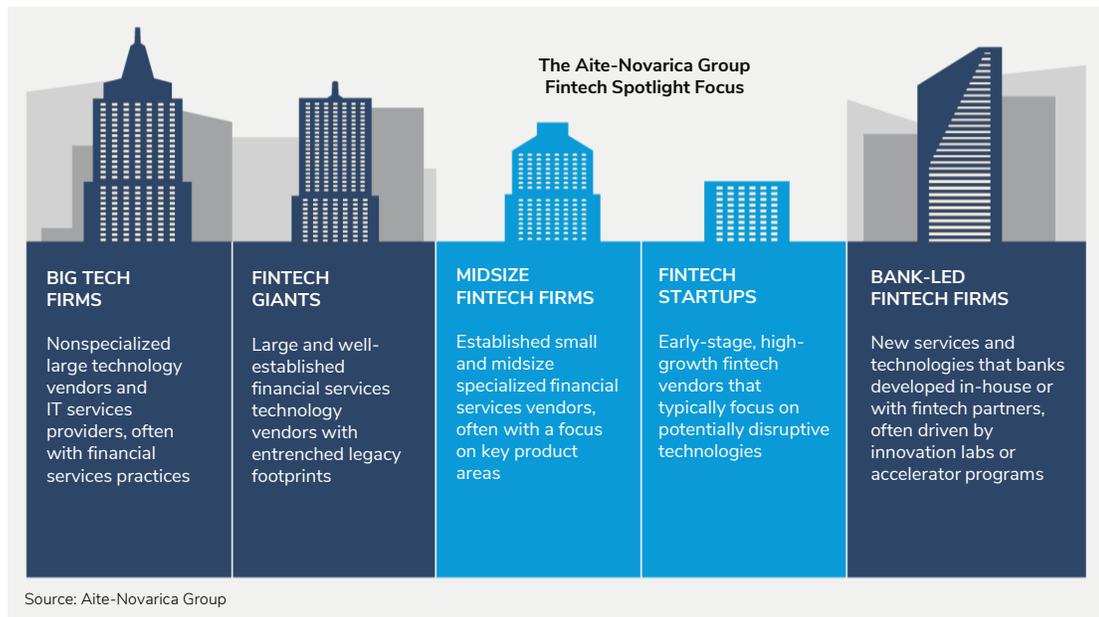


How Aite-Novarica Group Defines Fintech

“Fintech” is a popular shorthand referring to young and disruptive companies in the financial services technology space. Yet, “fintech” remains an ill-defined term meaning many things to many people. Terminology remains critical in understanding the market in an environment where Tier-1 global banks, multibillion-dollar legacy vendors, and early-stage startups all refer to themselves as fintech firms. For clarity, Aite-Novarica Group defines fintech providers as technology vendors and service providers that aim to improve or automate financial services delivery, potentially disrupting legacy processes and business models in financial services.

Many types of organizations fall under the category of fintech firms, but the Retail Banking and Payments Fintech Spotlight is intended to provide insights and market intelligence about some promising firms that are delivering banking and payments capabilities in new and innovative ways. As such, Aite-Novarica Group is primarily focusing on fintech startups and midsize fintech firms (Figure 2).

FIGURE 2: RETAIL BANKING AND PAYMENTS FINTECH CATEGORIES



NOVOFLEX

Founded in 2003, Novoflex is a privately held smart-chip technology company based in Singapore with offices in the U.S. It produces a full range of standard and custom EMV debit, credit, and prepaid card solutions. In 2016, the company was made private from the Singapore Stock Exchange by private equity firm Novo Tellus. The company works with Tier-1 global card manufacturers and ships approximately 500 million integrated chip modules annually to over 70 countries.

Novoflex primarily focuses on enabling payment card issuance through its solutions, but it also has offerings that support identity, telecommunications, and radio-frequency identification (RFID) use cases. Novoflex owns multiple patents in more than 30 countries to protect its single-sided chip modules (Bravo) and its flagship custom-chip-design inlay (sAiL) products.

Table A has summary information.

TABLE A: NOVOFLEX SUMMARY

CATEGORY	DESCRIPTION
Founded	2003
Number of employees	Over 150
HQ location	Singapore
Geographic coverage	Global—products sold in over 70 countries
Key product/service offerings	SAiL, a proprietary inlay solution that enables custom chip designs, is ecofriendly and globally certified by Visa and Mastercard. It also enhances chip security. Bravo is a proprietary single-sided, tape-based dual-interface chip module that delivers enhanced value by using fewer substrate materials. It offers smart card assembly and testing services for banking, identity, telecommunications, RFID, and other industries.

CATEGORY	DESCRIPTION
Ownership and key investors	Privately owned, with investment by private equity firm Novo Tellus Capital Partners
Website	www.novoflexglobal.com

Source: Novoflex

Fintech Pitch

Novoflex provides a unique and powerful solution for issuers by enabling them to customize the EMV chip shape and design. Custom chip designs allow issuers to market their card products more effectively, stand out from the competition, and enhance card portfolios' return on investment through new account acquisition and higher card usage.

Novoflex's proprietary sAiL is an innovative single-inlay solution for contact and contactless smart card applications in payments and solutions for telecommunications and the internet of things. It is patented in more than 30 countries across the U.S., Europe, and Asia. It complies with global smart card standards, such as ISO/IEC 7816. The first custom product of sAiL occurred in Q4 2021 and sold out in just 48 hours, highlighting the uniqueness of the product.

Primary Target Market and Clients

Novoflex can ship its integrated chip products globally and has offices in Singapore and the U.S. The company collaborates with smart card ecosystem partners, such as card manufacturers, personalization bureaus, payment networks, and card processors. Additionally, Novoflex can act as a liaison between an interested bank or credit union and its card issuance supply chain partners.

Key Value Proposition and Market Challenges Addressed

The Novoflex sAiL inlay offers three key benefits to card issuers:

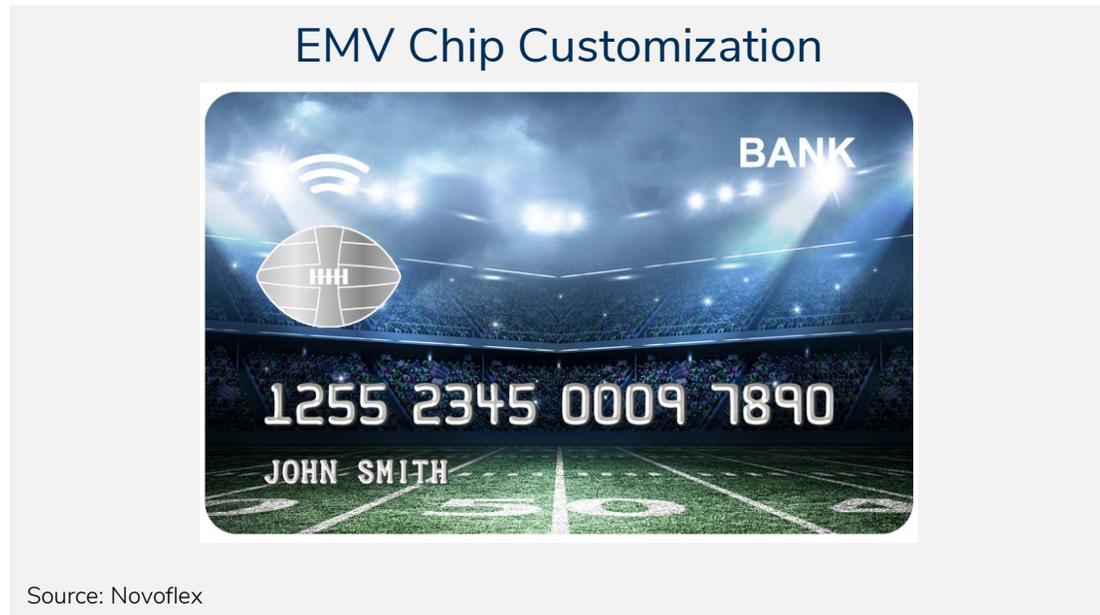
- **Customization benefits:** SAiL can customize the shape of the EMV chip contact pad on its debit, credit, and prepaid card products. Although other providers allow issuers to customize the overall card design, the chip contact pad has always remained rectangular. However, the Novoflex sAiL inlay can support functional EMV

chip contact pads with a custom logo or shape, helping issuers further differentiate their cards. Differentiation can help a card become top of the wallet and is also a nice feature for affinity, private-label, and co-brand card products that want to highlight the brand or a visually identifiable mark (Figure 3). For example, the Novoflex inlay could allow football teams to include a football-shaped EMV chip on their affinity credit card.

- **Sustainability benefits:** Novoflex cites that the sAiL inlay received Mastercard Card Eco Certification (CEC) for using 37% less energy and producing fewer carbon emissions than standard chip module offerings, allowing issuers to reduce their overall impact on the environment. As consumers become more environmentally conscious and more FIs move to recycled or more ecofriendly debit and credit card materials, issuing card products with lower carbon emissions than others in the market can be a competitive differentiator.
- **Fraud prevention benefits:** The sAiL inlay encases the EMV chip with the other card components, making removal and reuse difficult or impossible. This integration benefits issuers by reducing the risk of fraud due to EMV chip theft.¹

¹ Ellen Chang, "This New Chip-Theft Scam Will Blow Your Mind," Experian, April 13, 2018, accessed May 11, 2022, <https://www.experian.com/blogs/ask-experian/this-new-chip-theft-scam-will-blow-your-mind/>.

FIGURE 3: EXAMPLE OF AN EMV CHIP CUSTOMIZATION FOR SPORTS CARD



Aite-Novarica Group's Take

Card issuers and card manufacturers constantly look for creative and secure options to differentiate their physical card products and capture “top-of-wallet” status. The Novoflex patented flagship product, sAiL, is unique because it provides card issuers with a dual-interface card inlay that supports a custom EMV chip design. This custom design can help differentiate these cards from others in the wallet, offering usage benefits similar to those provided by a colored core or metal card substrate.

Aite-Novarica Group is placing Novoflex in the Q3 Fintech Spotlight because its card inlay offers a compelling value proposition for a card issuer that wants to differentiate its cards or provide a unique value proposition for affinity or co-brand card clients. A unique card design can benefit new credit, debit, and prepaid card account sales and transaction volume. And as competition for consumer transaction grows, this type of differentiation will become more important.

CONCLUSION

- **FIs that either issue credit and debit cards or process on behalf of merchants are struggling to remain competitive in the face of the degree of change in the payments space.** With the accelerating rate of change in the payments ecosystem, FIs prefer state-of-the-art, cloud-based platforms with connectivity through API calls and delivery of functionality through microservices rather than antiquated, legacy solutions that often miss the mark when it comes to specialized or niche capabilities that are more easily related via highly customizable cloud solutions.
- **Automation of the application process is required for FIs to drive scale and shorten time to revenue.** Customers expect to easily apply online for financial services and fast decisioning (real time or near-real time). Therefore, FIs are looking for solutions to modernize their customer onboarding processes and streamline the integration with value chain partners.
- **Card aesthetics matter to many.** Card issuers and card manufacturers constantly look for creative and secure options to differentiate their physical card products and capture “top-of-wallet” status. Card design and quality can offer a compelling value proposition for a card issuer that wants to differentiate their cards or provide a unique value proposition for affinity or co-brand card clients. A unique card design can also benefit credit, debit, and prepaid card new account sales and transaction volume.
- **Credit-decisioning algorithms are ripe for innovation.** As the world of lending is flipped on its head with new ways to lend, such as BNPL and micro-lending, credit-scoring algorithms need to keep up. Modern, API-driven credit-decisioning software providers enable a new framework for FIs to bounce against, utilizing borrower data and open banking capabilities to produce more efficient, risk-conscious decisions.
- **Biller platforms can be bank-driven.** While most of the electronic bill presentment and payment market is driven by direct biller and provider relationships, financial institutions—credit unions and banks alike—still have an opportunity to get in the game. Certain fintech firms have developed innovative, all-encompassing biller platforms that put FIs in the driver’s seat and help them build stronger, more efficient relationships with treasury and commercial clients.

ABOUT AITE-NOVARICA GROUP

Aite-Novarica Group is an advisory firm providing mission-critical insights on technology, regulations, strategy, and operations to hundreds of banks, insurers, payments providers, and investment firms—as well as the technology and service providers that support them. Comprising former senior technology, strategy, and operations executives as well as experienced researchers and consultants, our experts provide actionable advice to our client base, leveraging deep insights developed via our extensive network of clients and other industry contacts.

CONTACT

Research and consulting services:

Aite-Novarica Group Sales
+1.617.338.6050
sales@aite-novarica.com

Press and conference inquiries:

Aite-Novarica Group PR
+1.617.398.5048
pr@aite-novarica.com

For all other inquiries, contact:

info@aite-novarica.com

Global headquarters:

280 Summer Street, 6th Floor
Boston, MA 02210
www.aite-novarica.com

AUTHOR INFORMATION

David Shipper
dshipper@aite-novarica.com

Contributing authors:

David Albertazzi
+1. 617.398.5036
dalbertazzi@aite-novarica.com

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