



STRATEGIC
TREASURER

TREASURY AGGREGATOR

Bank Connectivity Solutions

THE DEFINITIVE GUIDE TO TREASURY
AGGREGATION TECHNOLOGY
SOLUTIONS

- ▶ Deepen Security & Simplify Compliance
- ▶ Streamline Payments & Enhance Visibility
- ▶ Support Organizational Growth

2020

ANALYST REPORT

2020



ADVISE



ASSIST



RESEARCH



INFORM



STRATEGIC TREASURER

Welcome to the 2020 Treasury Aggregators (TA) Analyst Report, your definitive guide to insightful connectivity in the digital age. Our team created this publication with one overarching goal in mind—to equip our readers with critical information as they seek answers to complex treasury technology questions.

Should my organization adopt an aggregation technology solution? If so, which system offers the functionality mix my firm requires? Will an implementation be too difficult and disruptive for my team and our organization? How do I streamline the process to achieve optimal results? After months of market research and comprehensive data analysis, we've compiled this report to help treasury practitioners make more contextually informed decisions regarding innovative financial programs.

We hope the coverage within, which revolves around current and projected challenges across the industry, will help readers overcome obstacles, enhance treasury operations and improve workflow. Let's get started!

CRAIG JEFFERY | Founder & Managing Partner
craig@strategictreasurer.com | +1 678.466.2222

BRIAN COCHRUM | Director of Marketing
brian@strategictreasurer.com | +1 678.466.2227

.....

STRATEGIC TREASURER, LLC

525 Westpark Drive, Suite 130
Peachtree City, GA 30269

For inquiries regarding inclusion in this and other issues of our Analyst Report Series, please contact us at:

analystreport@strategictreasurer.com
+1 678.466.2222

Copyright © 2020 by Strategic Treasurer. All Rights Reserved. Reproduction by any means in whole or part without permission is strictly prohibited. The information contained in this report has been prepared by Strategic Treasurer unless otherwise noted. We make no representations, express or implied as to its accuracy or completeness. Opinions expressed herein are subject to change without notice. This is a report meant for informational purposes. It should not be construed as offering legal, financial, or other advice.

Table of Contents

- 04 Treasury Complexity**
 - ▶ *The Treasury Technology Landscape*
 - ▶ *Who Needs a Treasury Aggregator?*
- 07 TA vs TMS: What's the Difference?**
- 08 Industry Challenges Driving Treasury Aggregation**
 - ▶ *Protecting Against Fraud Through Consistency*
 - ▶ *Payment Types and Changing Formats*
 - ▶ *Increasing Economic Globalization*
 - ▶ *Bank and Bank Account Complexity*
 - ▶ *Cash Position and Visibility*
 - ▶ *Payments Intensity and Complexity*
 - ▶ *Heightened Compliance Expectations*
 - ▶ *Understaffed Treasury Teams*
- 14 Looking Forward: The Future of Treasury Aggregation**
 - ▶ *Networks*
 - ▶ *Application Programming Interfaces (APIs)*
 - ▶ *Faster, Better Payments*
 - ▶ *Big Data and Business Intelligence (BI)*
 - ▶ *Blockchain*
- 17 Treasury Aggregation System Use: Leading Practices**
 - ▶ *Selection Project*
 - ▶ *Implementation Roadmap*
 - ▶ *Employee Training*
 - ▶ *Internal Systems Integration*
 - ▶ *Bank Onboarding*
- 19 Vendor Analysis**
- 40 Works Cited**

TREASURY AGGREGATOR PROVIDERS



➤ Treasury Complexity

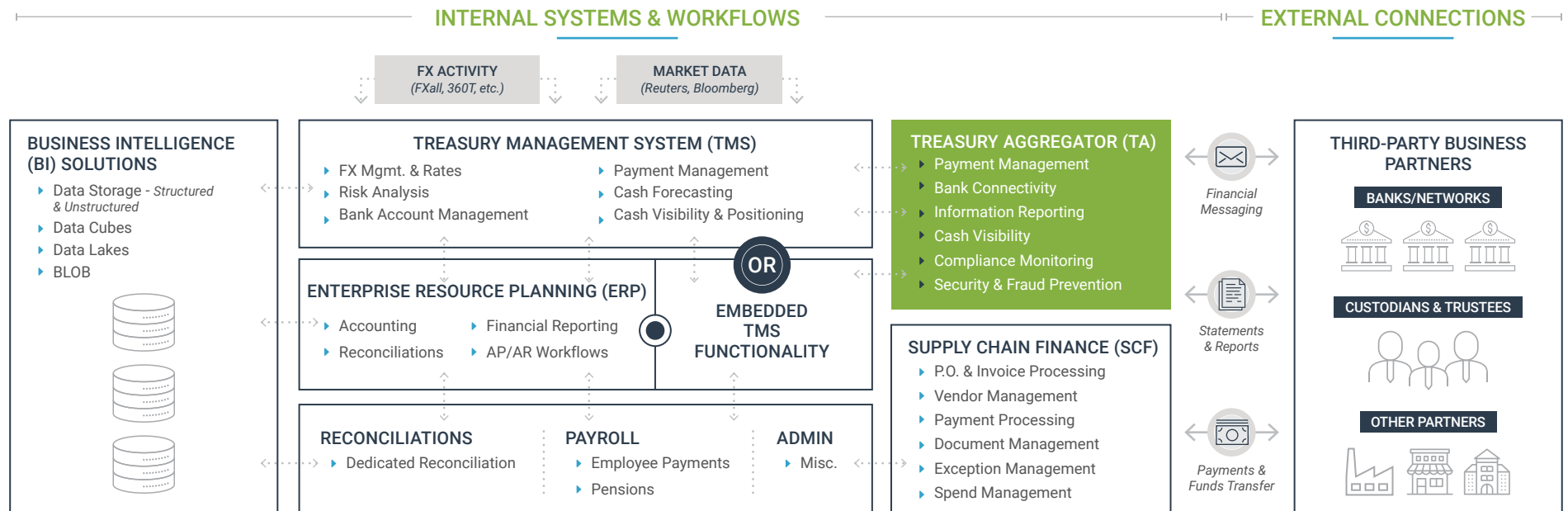
The responsibilities facing treasury in our era frequently outpace treasury staff's time and capacity. Fortunately, technological tools are advancing just as rapidly as the complexity and breadth of the demands on treasury, offering leverage to overwhelmed departments. With so many types of technological tools, however, and with such breadth in their uses and implications for treasury, understanding the tools designed to deal with the overwhelm can be overwhelming too. This report seeks to bring clarity and understanding to treasury professionals seeking to understand and potentially leverage treasury aggregators (TAs), a category of treasury technology designed to consolidate incoming data and handle outgoing payments.

THE TREASURY TECHNOLOGY LANDSCAPE

The treasury function covers a variety of tasks and processes, from cash positioning to hedging and everything in between and it requires connectivity to many areas both internal and external in order to perform each task well. A variety of technology solutions have been developed to help treasury manage and automate portions of the workflow and connectivity. Some solutions specialize in a particular process, while others cover multiple areas. Solutions that fill out the treasury tech landscape or exist in the same ecosystem include treasury management

systems or treasury & risk management systems (TMS/TRMS), ERP (enterprise resource planning) systems, business intelligence or BI solutions, supply chain finance (SCF) solutions, and—the topic of this report—treasury aggregators. There is some overlap between different types of treasury technology, but each type (and even each product) has its own distinctive features and its own role and uses.

Treasury Technology Landscape



An aggregator's core role is to automate two sections of the treasury workflow: information consolidation and payments. Like a smart switch, an aggregator:

1. Pulls bank data in and sends it where it needs to go in the right format, and
2. Supports all the payment types, controls, and activities necessary to manage and

deliver outgoing payments to the right banks or networks via its payment hub functionality.

To qualify as a treasury aggregator, a solution must be able to perform both functions.

Treasury aggregators are connectivity specialists. They can connect to bank networks, maintain H2H connections (SFTP and FTP), and handle proprietary

formats from across the globe. On the payments end, an aggregator can execute a payment whether it has been initiated through its own portal or through a connected TMS, ERP, or other system. This ability to handle internal connections, external connections, and the payment and data aggregation processes that run between them makes aggregators a powerful streamlining tool for modern treasury departments.

Calculate Your Complexity: Two primary elements determine your need for a treasury aggregator: the complexity of your payments and the complexity of your banking information structure. To determine each, use the calculators below. The lefthand column numbered 1-9 is your score for each of the following columns (3-4 Payment Origination Areas = score of 2, 3-4 Payment Systems = score of 3, etc.). Your "Complexity Direction" should be multiplied by the sum of your score for the other columns, yielding your final result. The bolded selections for each column show a sample score, with the corresponding sample results shown below the final complexity ranges for each calculator.

Payment Complexity Calculator

9		>20		>31	>20	>30	>40		
8	>20	16-20	>20	21-30	16-20	26-30	31-40		
7	16-20	11-15	16-20	16-20	11-15	21-25	21-30		
6	11-15	9-10	11-15	11-15	9-10	16-20	16-20		
5	9-10	7-8	9-10	9-10	7-8	11-15	11-15		
4	7-8	5-6	7-8	6-8	5-6	6-10	6-10	Increasing Rapidly	x 1.5
3	5-6	3-4	5-6	4-5	3-4	3-5	3-5	Increasing	x 1.2
2	3-4	2	3-4	2-3	2	2	2	Remaining Constant	x 1
1	1-2	1	1-2	1	1	1	1	Decreasing	x 0.75
	PAYMENT ORIGINATION AREAS	PAYMENT SYSTEMS	PAYMENT TYPES	PAYMENT FORMATS	PAYMENT BANKS	PAYMENT CURRENCIES	COUNTRIES	COMPLEXITY DIRECTION	

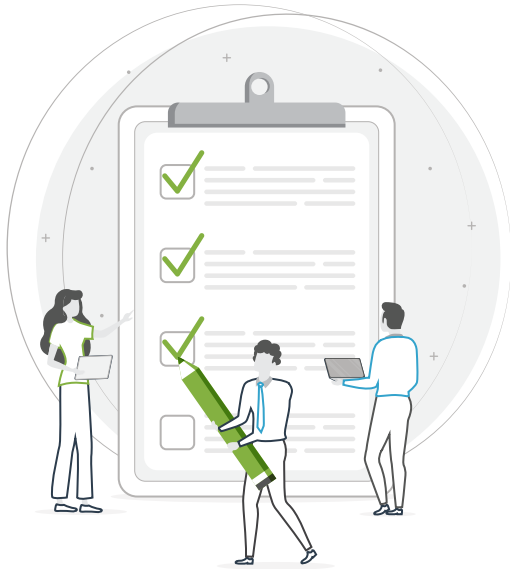
FINAL SCORE RANGES	
HYPER COMPLEX	51 +
HIGHLY COMPLEX	37 - 50
COMPLEX	22 - 36
MODERATE	15 - 21
SIMPLE	7 - 14
Sample Raw Total	15
With Factor Applied	18

Data Aggregation Complexity Calculator

8	>20	>10	>20	>20		>20		
7	16-20	9-10	16-20	16-20		16-20		
6	11-15	7-8	11-15	11-15		11-15		
5	9-10	5-6	9-10	9-10		16-25	9-10	
4	7-8	4	7-8	7-8	11-15	7-8	Increasing Rapidly	x 1.5
3	5-6	3	5-6	5-6	6-10	5-6	Increasing	x 1.2
2	3-4	2	3-4	3-4	3-5	3-4	Remaining Constant	x 1
1	1-2	1	1-2	1-2	1-2	1-2	Decreasing	x 0.75
	SOURCES OF DATA (BANKS)	SOURCES OF DATA (EXTERNAL INFORMATION)	SOURCES OF DATA (INTERNAL)	FORMATS OF DATA	RECEIPT / DELIVERY ENDPOINTS	TRANSFORMATIONS REQUIRED (INTERNAL)	COMPLEXITY DIRECTION	

FINAL SCORE RANGES	
HYPER COMPLEX	43 +
HIGHLY COMPLEX	31 - 42
COMPLEX	19 - 30
MODERATE	13 - 18
SIMPLE	6 - 12
Sample Raw Total	24
With Factor Applied	36

WHO NEEDS A TREASURY AGGREGATOR?



If you've determined your complexity level using the calculators on the previous page, but you still find it difficult to discern whether your organization really needs an aggregator, see if some of the following scenarios sound familiar. If so, an aggregator may be well worth your investment.

1. You spend a significant amount of time adapting to new message formats. *While all companies must adapt to the emergence of new message formats for payments and reporting, it can be a more or less overwhelming task for different organizations. Whether due to the number of regions your organization operates in, the speed with which it expands geographically, the volume of payments, the level of acquisitiveness, or any other reason, adapting to new formats will be a more significant issue for some organizations than for others. If you find that your department routinely devotes significant amounts of time to adapting, you may need an aggregator to help simplify the format translation for you.*

2. You just acquired a subsidiary and are now juggling multiple treasury and payment platforms. *As beneficial as acquisitions can be, they often bring significant complication to treasury. With an acquisition, there may come new platforms, payment streams, and workflows, and it may be that none of them will integrate smoothly with your own. Even a well-managed and highly beneficial acquisition can lead to treasury spending all its time on a juggling act, trying to corral disparate payment processes and manually hand off information between systems, to the neglect of more strategic tasks. If your treasury department is struggling in the aftermath of an acquisition, it might be time to look into centralizing and integrating your scattered payment processes through an aggregator.*

3. You have been growing quickly and now operate in diverse regions across the globe. *Expanding into new regions is something to celebrate, but it brings its fair share of complexity and added work too. Especially when this organizational expansion occurs more rapidly than the treasury department grows (as it almost always does), the additional compliance, payment types and formats, banks, currencies, and other factors that multiply with each new country or region can quickly outgrow treasury's bandwidth. For organizations already operating in diverse regions or anticipating this kind of growth, a treasury aggregator should probably be considered.*

4. Security and/or compliance concerns related to payments cause headaches. *Neither compliance nor payment security take kindly to being neglected, yet the complexity of keeping up with each of them is constantly increasing and morphing. Perhaps your organization has recently faced a loss to fraud or a compliance-related fine. Perhaps you fear that such a loss or fine is imminent, or you prevent these situations only by spending more time than you can afford on compliance and security. In any of these situations, relying on an aggregator might provide significant relief to your department.*

TA vs TMS: What's the Difference?

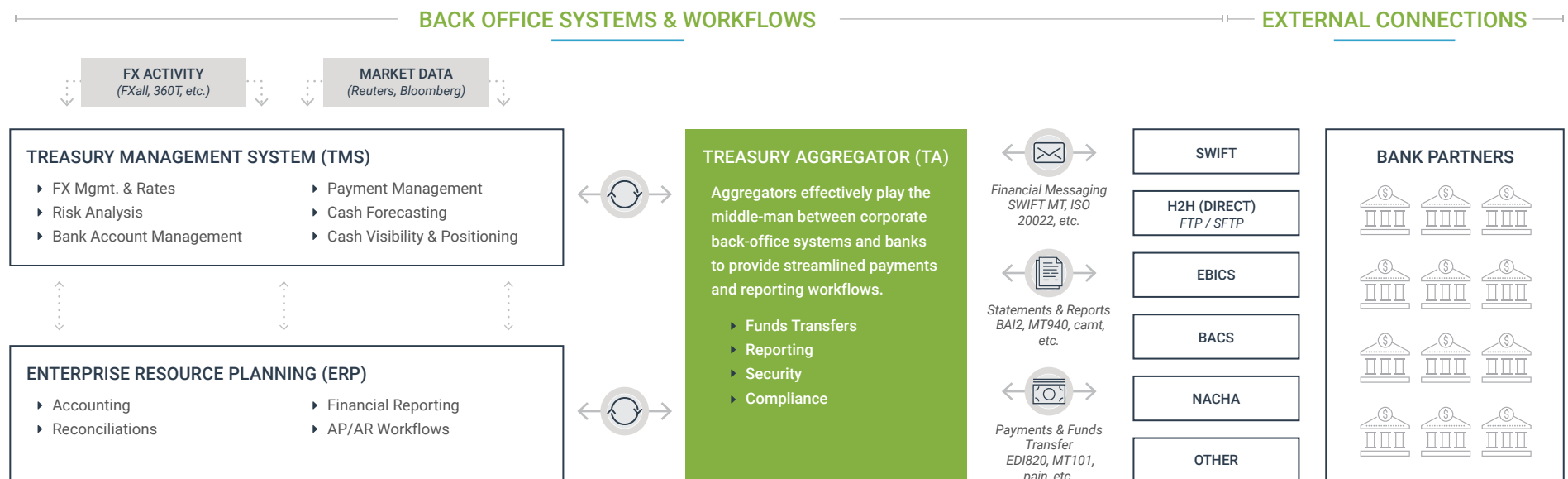
Treasury aggregators and TMS both connect to banks and play active roles in providing users with visibility, cash positioning and payments functionality. Parsing out the differences between the two can be puzzling, as their functionality does overlap. Their roles, however, are distinct.

To use an analogy, think of a phone. SFTP (SSH File Transfer Protocol) and similar connections are similar to having one phone for each person you need to call. It's quite the direct line, and if you have only one or two people to call, it might be very efficient for you. However, once you have several people to call, this setup becomes extremely inconvenient. Most TMS come with a few SFTP and similar direct connections to

some of the most commonly used sources for treasury, such as Reuters and Bloomberg for market data. Now think of your cell phone. You buy a phone from one company, and typically, you buy service from another company, although on occasion the same company may provide both phones and service. The service provides you connectivity to anyone you want to call, not just one person, while the phone itself hosts this service, providing you with the user interface and the ability to perform various functions with the information you received. This is certainly preferable to the one-phone-per-connection setup if you have multiple people you want to call, although there might be differences of opinion on when exactly it makes the most sense to upgrade to the cell phone.

A TA is like your phone service. It makes the connections, and it feeds them to other systems such as your TMS, which in this analogy functions like your cell phone. As in the analogy of some companies providing both the cell phone and the service, there are a few TMS offerings that also specialize in aggregation, with excellent, built-in TA functionality that allows them to sit under both headings. For the most part, however, the two categories are distinct, with aggregators pulling data in and sending payments out, while the TMS handles more of the functionality that puts the aggregator's data to use and plans the payments it makes.

Sample Technology Infrastructure



Industry Challenges Driving Treasury Aggregation

A number of elements affect connectivity, and nearly all these elements are changing and developing. Between the changes in formats, compliance, security and globalization, firms face significant and mounting complexity in their attempts to simply obtain data and make payments.

While some of the causes of complexity are negative or, at best, neutral, several other sources of elevated complexity spring directly from organizational growth. Far from trying to prevent these types of complexity, then, treasury must be prepared

and equipped to encourage and support the organization as it grows. For many, this equipping will mean finding the right technological tools.

Treasury aggregators simplify the complexity, removing what was becoming far too heavy a burden for many treasury departments. They do this both by helping protect and manage what are unfortunate but inevitable realities (fraud, for example), and also by equipping treasury to support organizational growth and manage the repercussions of expansion.

PROTECTING AGAINST FRAUD THROUGH CONSISTENCY

In addition to creating more work and confusion for staff, complexity and rapid change create spaces for fraudulent activity to slip in unnoticed. The rising complexity firms face today is effectively multiplying the fronts in the battle. Criminals, seeing the opportunity, are ramping up their efforts, and just as the rapid changes in technology give treasury leverage to operate more effectively and efficiently, these same advances benefit cyber criminals as well.

Treasury Complexity: The Payments Landscape

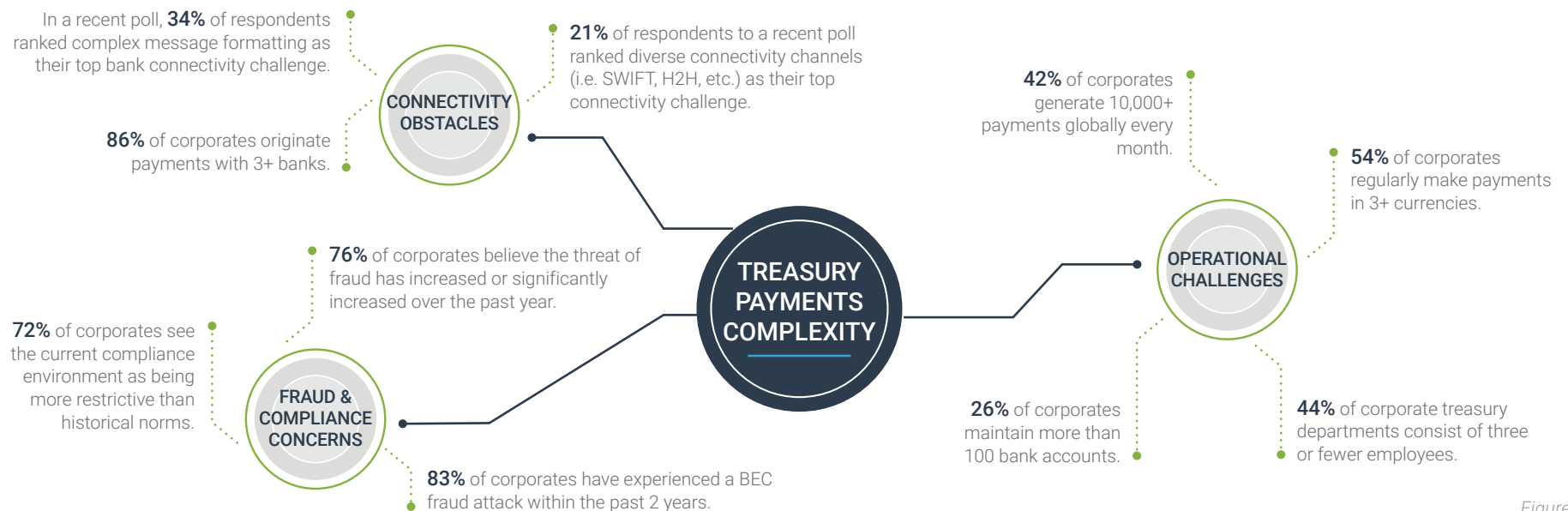
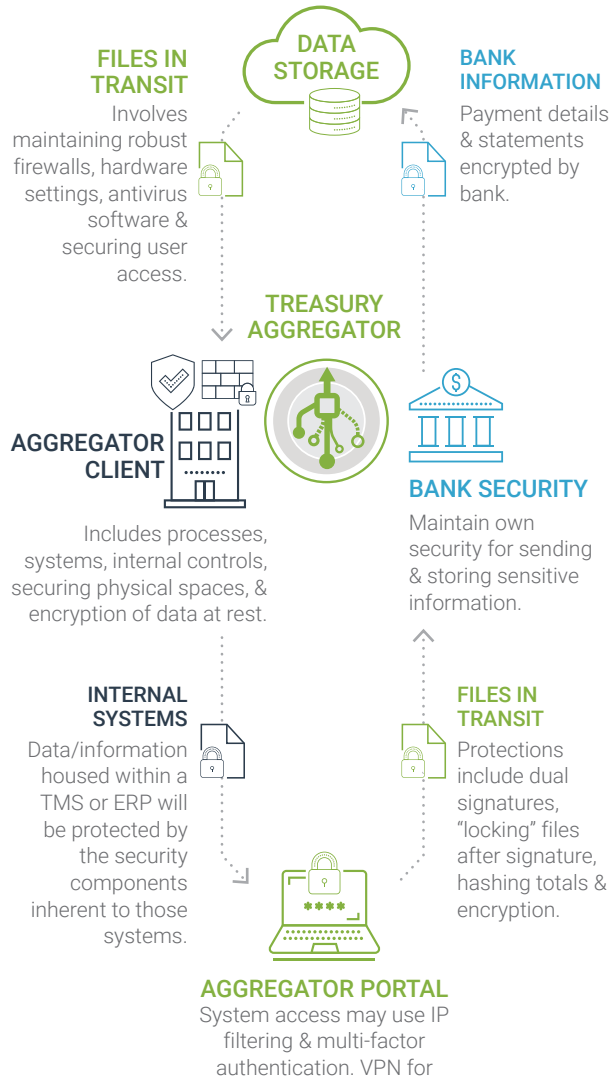


Figure 1



Aggregator Security Components

Cloud-based systems should maintain SOC certifications for data storage.



Your firm's information and assets are made most vulnerable to these attacks at the handoff points, and handoffs multiply with complexity. The more banks a company with manual processes has, the more logins it has that can be stolen. The more payments you make, the easier it is for a fraudulent payment to slip through. The more manual an approval process, the easier it is for steps to be bypassed and for staff to be too confused to recognize a real problem.

Treasury aggregators simplify the defense by corraling sensitive, vulnerable areas into one defensible place and process. Rather than multiple logins to multiple portals daily, users can log in once to the aggregator to access all their information. The payments process can be centralized and driven into a single, consistent process, with controls built into the system. This centralization reduces the number of handoff points, leading to fewer vulnerabilities.

This simplicity also leads to greater efficiency and increased compliance with security procedures. Employees who have left the company are more reliably removed from accounts when there is only one place to remove them—the TA portal—instead of multiple bank portals. All attention, development, and training can be directed to the one process, leading to a robust, up-to-date, well-understood, and system-enforced payment process that is far easier to defend than multiple fronts.

PAYMENT TYPES AND CHANGING FORMATS

Of all the changes treasury must adapt to, the changes in payment formats are some of the most positive. New

formats are called "enriched" for good reason, as they bring flexibility, accuracy, efficiency and greater detail to payment messaging. However, as helpful as these new formats are, they bring complexity with them as well.

New payment types and formats generally do not replace the old immediately. They are simply added to the ranks, with formats stacking up as the years go by. Treasury groups and their technology must be able to deal with both the old and the new rather than dealing with a one-time transition. However, there are different formats that have a sunset within various networks. This means that you have to either move to one of the newer, better formats or have your messaging provider handle the conversion from the old to the new for you.

Terms to Know: Reference Codes & Tracking Codes:

UETR: *Unique End-to-end Tracking Reference code. This SWIFT tracking code follows the payment through the payment networks and is currently used with SWIFT gpi.*

FED REFERENCE: *Follows the payment through the Federal Reserve Wire System.*

ACH REFERENCE CODE: *Code that passes through Nacha.*

Sunset Formats:

INTERBANK MT MESSAGES: *Retiring 2025.*

Changing Payment Formats and Styles



While rejecting the new format for as long as possible may seem to cut down on the complexity, this is neither helpful nor tenable. Currently, XML (Extensible Markup Language) stands poised as the “heir apparent” for the new standard, with more dominance than other formats in new implementations, and its advantages in conveying nuanced, accurate, detailed information reliably and efficiently make it highly advisable. However, it has not taken over the majority of total activity. Stuck between an excellent rising standard for messaging and those still most commonly used,

treasury technology must accommodate everything from XML back to positional and delimited formats.

This is a headache, but it’s a headache a treasury aggregator can solve quite efficiently. Since it is part of an aggregator’s job to act as a translator between various payment and messaging types, aggregators maintain “fluency” in all major formats. They add the new formats while keeping the old, removing that burden from treasury.

INCREASING ECONOMIC GLOBALIZATION

Even domestically, multiple formats and systems for payment settlement are frequently in use, and with the continual evolution of formats, this alone creates complexity for firms. As companies expand internationally, however, complexities multiply. Currencies must be added, and every new country’s formats and the systems for their own payment types—often several per country—must be dealt with.



This increase in complexity of both sending and receiving information and payments with every country a firm expands into adds significantly to treasury's burden. It is almost never possible, however, for an internationally expanding company to add treasury staff quickly enough to keep up with this demand, so technology often becomes the only reasonable solution. While networks such as SWIFT make these cross-border payments plausible and much easier, they do not entirely remove the burden from treasury. Many countries lack a single SWIFT bank. Even if your foreign bank is on SWIFT, this still doesn't solve the payment type issue itself. Networks such as SWIFT provide the multi-format compatible platform and send the payment instructions, but they do not move the money. These networks make excellent tools for treasury, but staff must still perform the work and handle the complexity.

An aggregator, on the other hand, handles the connections, the formats, and additional controls and sanctions filtering, in addition to aggregating incoming data. Since aggregators specialize in connectivity, they are typically able to maintain or build out connections even with small banks and organizations across the globe. Moving this rapidly expanding complexity out of your own back-office and into an aggregator drastically simplifies cross-border connections and payments and frees up staff for work that truly requires their expertise.

BANK AND BANK ACCOUNT COMPLEXITY

With organizational growth come more banks and more bank accounts. With more banks and accounts come security vulnerabilities and strained daily processes. The data from every account must be compiled before visibility can be achieved, and since visibility is prerequisite to many of treasury's other functions, the complexity of reaching it can create a bottleneck.

As inefficient as this lack of timely visibility is, however, its counterpart is often worse: lack of total visibility. Any operating bank account, even with infrequent activity, is vulnerable to fraud or other problems that need to be identified as quickly as possible. The control of monitoring every operating account daily means that if something happens, you can see it quickly, giving you the most time to respond and potentially recover funds. When accounts multiply as an organization expands, a point will come when manual processes for achieving visibility can't keep up. Rather than abandoning 100% daily visibility, many firms look to aggregators to automate the data gathering and aggregation portion, helping them maintain secure and efficient processes while supporting organizational growth.

CASH POSITION AND VISIBILITY

As fundamental as cash positioning and visibility are to the cash management function, many treasury departments find themselves struggling to achieve these as their firms grow. Manually logging into bank portals multiple times a day and trying to accurately and quickly consolidate all the information collected within Excel can become untenably complicated and demanding as the number of banks and accounts grows. Meanwhile, disparate payment processes and unintegrated systems can make cash position and visibility difficult to achieve in a timely and accurate manner even for those who do have a TMS or ERP.

As payment activity from across the organization passes through an aggregator, however, and as it can automatically pull and consolidate bank data throughout the day, cash positions can be updated immediately as changes occur. Current cash positions and visibility can be maintained with relative ease.

In companies also leveraging a TMS or ERP, an aggregator can pass on the current information to these systems for reporting. If not, however, an aggregator's own reporting functionality can still display current cash positions and visibility, giving treasury departments access to the tools they need for their daily decisions and freeing up time for more strategic activities.

PAYMENTS INTENSITY AND COMPLEXITY

As formats change, and individual companies expand into different regions, each company develops its own unique payments landscape. Industry-specific factors further individualize companies' payments, leading to a diverse spectrum of intensity and complexity. Firms need to recognize their own position in this spectrum in order to understand their own drivers and level of need for aggregation. The more formats, the more countries and systems, and the higher the volume of payments—the more complex your payments are. Be sure to account for planned expansions and acquisitions as well. Are you acquiring companies with new platforms, for example, that you will need to integrate and manage? This will also drive up the complexity, increasing the need for an aggregator.

HEIGHTENED COMPLIANCE EXPECTATIONS

Compliance expectations are rising year-over-year without any clear end in sight. Generally, these regulations are motivated by fraudulent and criminal activity, and with these elements always on the rise, we have no expectation of the compliance burden lightening in the coming years.

Key Benefits of an Aggregator:

STP AND SYSTEM INTEGRATION: *Aggregators help achieve STP (straight-through processing) by moving a great deal of complexity out of your underlying systems, facilitating the seamless flow of data through your ecosystem, and allowing your connections to remain stable even when new banks and formats must be added.*

ENHANCED AUTOMATION: *Aggregators extend the automation of treasury's workflow by digitally performing the otherwise grueling and complex data collection process. They also automate handoffs, seamlessly transferring this data to other systems without staff needing to intervene.*

INFORMATION REPORTING: *In addition to pulling the data together and distributing it to other systems, aggregators offer reporting functionality and issue alerts for anomalous data or failed transmissions. Their visibility and reporting tools also allow you to see your balances and other vital information even if your TMS is temporarily down.*

ADDITIONAL FUNCTIONALITY: *Some aggregators offer modules with additional functionality, such as forecasting or bank account management. For these elements that fall outside the core tasks of an aggregator, the functionality offered will vary by vendor.*

MANAGEMENT OF INFORMATION: *With an aggregator, you can buy your data once and route it through all your systems as needed. This solves a great number of efficiency problems that come with siloed data structures.*

Have you inadvertently made a payment to or received a payment from a sanctioned party in the past 12 months? (Select all that apply)

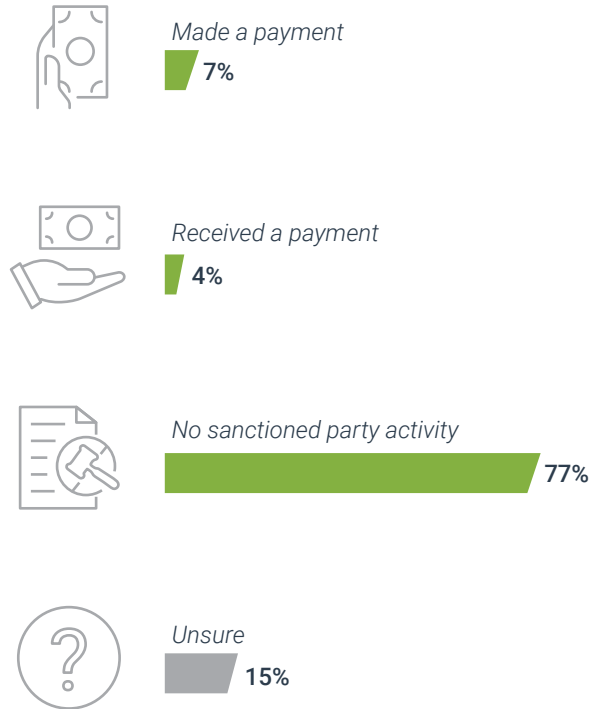


Figure 2

According to a survey run in 2020, 11% of organizations had transacted (either by sending or receiving a payment) with a sanctioned party within the past year, with another 15% responding "Unsure." Not only does each sanctions list continue to expand, but the lists themselves are multiplying. Notably, the UK will begin maintaining and enforcing its own set of

sanctions through its issuing body, OFSI, separate from the EU's list. In addition, after many years of relying largely on their banks to screen payments for them, corporates are now seeing increased responsibility and larger fines directed their way. While the fines for banks can run even higher, entities on the corporate side have met with fines reaching over \$100,000,000 in recent years for transacting with a party or parties on OFAC's sanctions list.

As the complexity of maintaining compliance increases, along with the responsibility placed on corporations in this area, increased effort or use of tools such as aggregators may be necessary to protect companies from these hefty fines. Meanwhile, payment platforms are responding to fraud leaking into their networks and systems from less-secure clients by instituting and tightening security requirements. These include regulations such as PCI-DSS for card payment merchants and SWIFT CSP for SWIFT participants. As for ACH, Nacha's regulatory activities also continue adding to the list of requirements companies must meet to remain in compliance, avoid fines, and use the payment platforms they need. Aggregators vastly decrease the headache of compliance. Most of them screen all payments made through the system against up-to-date sanctions lists, and if any payments require further attention, they are paused, and staff are notified. Their security features additionally aid in remaining compliant with payment platform regulations, and some aggregators offer additional compliance modules that can assist with bank account management and signers, lowering the difficulty of FBAR filings. The availability and exact functionality of these compliance modules will vary by vendor, but even the basic functionality can ease the burden significantly.



Benefits of Centralized Payments:

CENTRALIZED PAYMENTS AND VALIDATIONS: *When company-wide payments are driven through a single, centralized payment process with controls, validation and confirmation of outbound activity built into the system, several important and painful tasks—fraud prevention, visibility, cash positioning, and cash forecasting—all become significantly easier. The aggregator’s payment hub functionality makes this possible.*

VALIDATION & CONFIRMATION: *When payment processes are driven through a single system with excellent connectivity and automation, validation and confirmation data can be collected and distributed immediately to those who need to see it. Making sure this data is received and reaches the right people quickly can prove vital to securing your payment processes and catching fraudulent transactions early.*

SIMPLIFIED DEFENSE & ENFORCED CONTROLS: *Defending one payment process is hard enough. Companies with payment streams scattered throughout the organization can end up fighting a war on fraud on too many fronts to even keep track of, much less effectively defend. Funneling all these payment streams through a single system with built-in and enforced controls simplifies the defense back down and helps secure and manage the environment.*

CENTRALIZED EXPERTISE: *With a common platform and process, expertise in using the system can be shared and consistent throughout the organization. Each division or country within the company still follows the same pattern and sees the same screens, allowing for easier communication due to a shared knowledge base.*

RATIONALIZATION & SCALING: *It’s a difficult balance, making sure you have only as many payment streams, banks, and accounts as you need, while also making sure you can add more as you grow. Centralizing payments through an aggregator, however, can both facilitate rationalization and make adding easier, as it helps data flow smoothly throughout your solution ecosystem and allows for greater control over payments.*

RELATIONSHIP MANAGEMENT: *Centralized payments support more effective relationship management. With the added control they have through an aggregator, treasury is able to reward key banks with operational business. Making these kinds of adjustments with decentralized payments can prove quite difficult.*

UNDERSTAFFED TREASURY TEAMS

While treasury teams are growing consistently, their growth is slow. The demands placed upon them, however, are increasing much more rapidly, leading to overwhelmed teams and neglected tasks. Thirty-three

percent of treasury professionals state that they do not have time to carry out all their duties.¹ Many of the tasks that go neglected are important, core treasury functions that are difficult to automate, such as cash forecasting. In an environment where there is so much for treasury staff members to do, it’s becoming increasingly difficult to justify spending their time on manual or

even semi-manual data collection tasks. Many treasury teams are turning to aggregators to solve this problem by automating data collection and freeing up staff for responsibilities that require human attention and provide more strategic support to the organization at large.

Looking Forward: The Future of Treasury Aggregation

When we consider the challenges and factors driving aggregation, as discussed in the previous section, we see trends that are unlikely to dwindle for many years. In an increasingly technologically linked world, global expansion will continue to bring with it the need for connectivity to small banks, many of whom use proprietary formats and different currencies. More enriched formats will continue to emerge, fraud will continue to advance, and the compliance burden will grow heavier.

As these and other factors drive up complexity, treasury departments that are struggling to perform their duties via manual processes now will find it necessary to leverage more automation as time goes on. Meanwhile, recent survey data shows that complexity drives nearly all challenges to payment digitization. Notably, 22% of respondents considered the “Number of systems generating payments” as their organization’s biggest payment digitization obstacle, with another 22% choosing “Addressing security and compliance requirements.” “Supporting new payment types” ranked far lower, but it was still ranked first by 1 in 10 respondents.

Aggregators help reduce the impact of each of these areas of complexity. Data aggregation and payments processes are some of the simplest and most high yield to automate, solving an area of rapidly growing complexity. As such, treasury aggregators and including payment hubs, sit in a category that we expect to have above-line growth for at least seven years. Below, we’ll consider a few areas of technological development that we expect to influence the

growth, functionality, value, adoption rates, and use of treasury aggregators in the near future.



NETWORKS

As the power of a phone is found in whom you can call from it and what you can do with it, so the power of any network is 1) who’s on it and 2) what services you can leverage through it. As such, the value of an aggregator is found in the payment networks and their services that you can leverage through it. Since their functionality is closely tied, the current state and future outlook for networks can be expected to deeply impact the future of treasury aggregation as well.

For payment networks, the services offered include ways of moving funds, security features, and tracking and visibility features. As networks continue to add and expand services, they create more value that can be leveraged via an aggregator.

“Who’s on it” is defined by region or country for most networks. Even the more global networks—most notably SWIFT—are still somewhat geographically limited. SWIFT’s reach, however, is steadily expanding, and countries without a bank on SWIFT are becoming more rare. With each country a network adds, its participants gain the ability to expand and scale their own operations more easily.

CORPORATE: Select the best statement that fits your organization's biggest payments digitization obstacle:

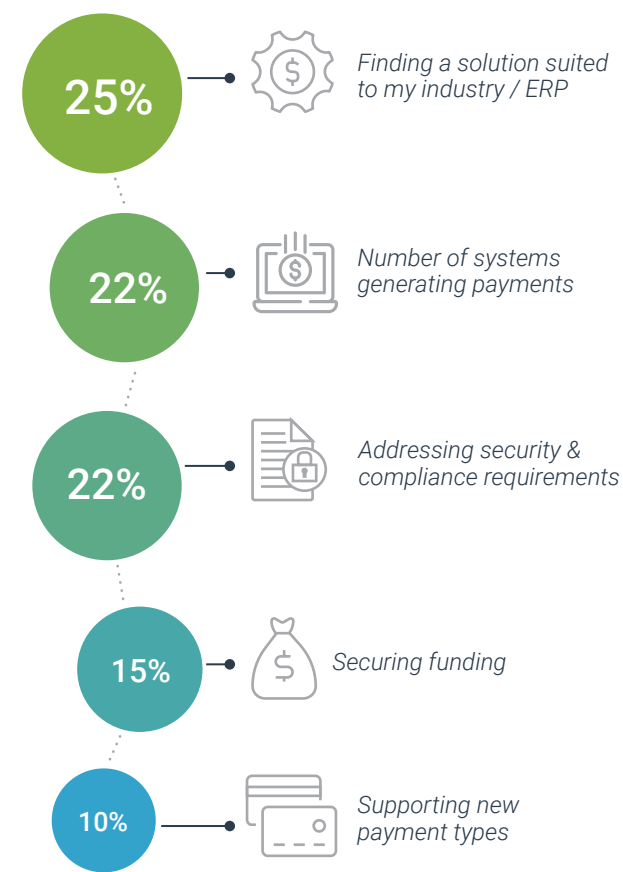


Figure 3

Other large networks whose participants and services bring significant value include EBICS, which has good availability throughout parts of Europe, especially Germany. Japan currently uses Zengin but is looking to implement a new platform to decrease costs. Indeed, many countries are seeking to improve their payment options, with some creating entirely new rails, while others are adjusting around older rails and are redesigning platforms.



APPLICATION PROGRAMMING INTERFACES (APIs)

PSD2, a regulation requiring banks to offer secure access to client data for the client's third parties, drove rapid adoption of APIs in Europe, as they are widely considered the best mechanism for fulfilling PSD2's requirements. Even though the mandate applies only to Europe, banks and companies around the world have followed suit, implementing APIs to support an open banking environment.

As treasury departments and their organizations increasingly connect to their banks via API, it's important to understand that there are distinctions between types of APIs. The two primary types of APIs treasury should be aware of are Web Services and "RESTful" APIs. Web Services are broadly available but more indirect, as they involve one API pulling data from a system and transferring that data to another Web Services API, which in turn plugs it into the second system. RESTful APIs transfer the data more directly from one system to another. While this is preferable from a data management standpoint, RESTful APIs are less widely available than Web Services. While it

is not necessary for treasury to understand precisely what these differences entail, it is incumbent upon them to recognize that there is a significant difference between these types of integration. Treasury should also understand that, as powerful and flexible a tool as an API is, it does have limitations and should not be seen as a connectivity panacea. Aggregators will remain relevant even as APIs continue to expand. Were a firm to exclusively rely on APIs for their connections, they would continue to pay for data multiple times. For managing data efficiently and effectively, a centralized platform such as an aggregator remains necessary.



FASTER, BETTER PAYMENTS

In 2020, 41% of corporate respondents to a survey on B2B payments indicated that they planned to increase their use of RTP (real-time payments), same-day ACH, or other faster payment methods in the following twelve months. With such significant demand, it makes sense that new payment initiatives are springing up both globally and regionally, each seeking to improve a different element or set of elements surrounding payments: Faster Payments Service in the UK, RTP and same-day ACH in the U.S., SWIFT GPI around the globe, and so on. Some are related to greater speed, while others improve visibility, provide additional information or more efficient processes for posting and tracking, and still others bring the potential for different cost levels.

Many address more than one of these improvements. While we often hear new initiatives lumped together under the heading of "faster payments," speed

alone is not the point. Each of the different drivers involved is important to creating improved options. Overall, the drivers are quite similar to those at work in the consumer space causing the rapid and overwhelming adoption of payment platforms such as Zelle, accompanied by the abandonment of paper checks. The effort, speed, and visibility into the process are all drastically improved with Zelle, leading to an overall user experience that is efficient and convenient. Similarly, corporate users are looking for an overall improvement in their payments operations, and the most important factors will vary from one company to another.



BIG DATA AND BUSINESS INTELLIGENCE (BI)

As our organizations grow, we require more extensive analysis. Organizational expansion brings more complexity, issues emerge, and it becomes more and more necessary to capture data and analyze it. Meanwhile, data is doubling every two years. Companies have plenty to analyze, but finding, storing, and managing this data is becoming more and more difficult.

Often, the data analysis process begins to look like Sisyphus rolling the stone up the hill only to watch it roll back down, beginning again eternally. In our analysis, we have to answer one question before we know what to ask next, so we gather data, analyze it to find out the next question, and then repeat the laborious process of gathering data over and over again. Between technological advances such as aggregators and BI solutions, we now have the tools to break this cycle and set our organizations up for better analysis.

Aggregators can port data directly into storage areas, such as data lakes and blobs, as well as your TMS, ERP, and BI systems. By automating the gathering, distributing, and storage processes for data, you can end the Sisyphus-style attempts at analysis and help your company efficiently learn from their data.



MOBILE PAYMENTS

While treasury and finance professionals are showing interest in mobile applications, banks are far more excited about them than their customers are. Thirty percent of bankers expect mobile applications to be more impactful to B2B payments in the next 2-3 years

Terms to Know: Storage Options

DIRECTORY: Location on corporate network, either physically present or in the cloud.

DATA WAREHOUSE: Organized storage, prepositioned and optimized for reporting.

DATA LAKE: Allows for storage of structured, semi-structured, and unstructured data. Hierarchically stored and optimized for BI work and reporting.

BLOB: Binary Large Object database – Non-hierarchical storage of structured, semi-structured, and unstructured data. Everything is stored in “containers.”

Note: A blob is more like the junk drawer in the kitchen, as opposed to a data lake, which is more analogous to a file cabinet. It is easier to set up a blob than a data lake, but you will need a data lake if you’re setting up massively large datasets.

than APIs, AI/ML, RPA, or Blockchain/DLT, compared to only 18% ranking it first on the corporate side.² It’s little wonder that banks have high hopes for their own products, which they have talked and thought about often. Why, however, is the corporate side less enthusiastic?

Most likely, companies do want mobile banking functionality, but not so much for B2B payments. While elements such as reporting, confirming payments, and notifications may be extremely helpful, there seems to be relatively little demand for functionality allowing users to initiate large corporate payments on mobile. This seems, for many, to add too little value for the security risks involved.



BLOCKCHAIN

Opinions surrounding the importance and usefulness of Blockchain in B2B payments vary widely. On the negative side, the percentage of corporations planning significant spend on Blockchain-based payment options decreased from 13% in 2019 to 8% in 2020. In addition, banks ranked it by far the least impactful in the next 2-3 years compared to innovations such as APIs, AI/ML, and RPA (only 1% ranked it most impactful).

On the other hand, however, 21% of banks are interested in or currently offer Blockchain-based payment options (Ripple, Chain, etc.) to their customers. It’s clear that there is some interest in Blockchain, but amidst the mixed messages, it is difficult to anticipate how extensively Blockchain might influence the future of B2B payments.³

CORPORATE: Which of the following technologies are you using / interested in using in treasury?

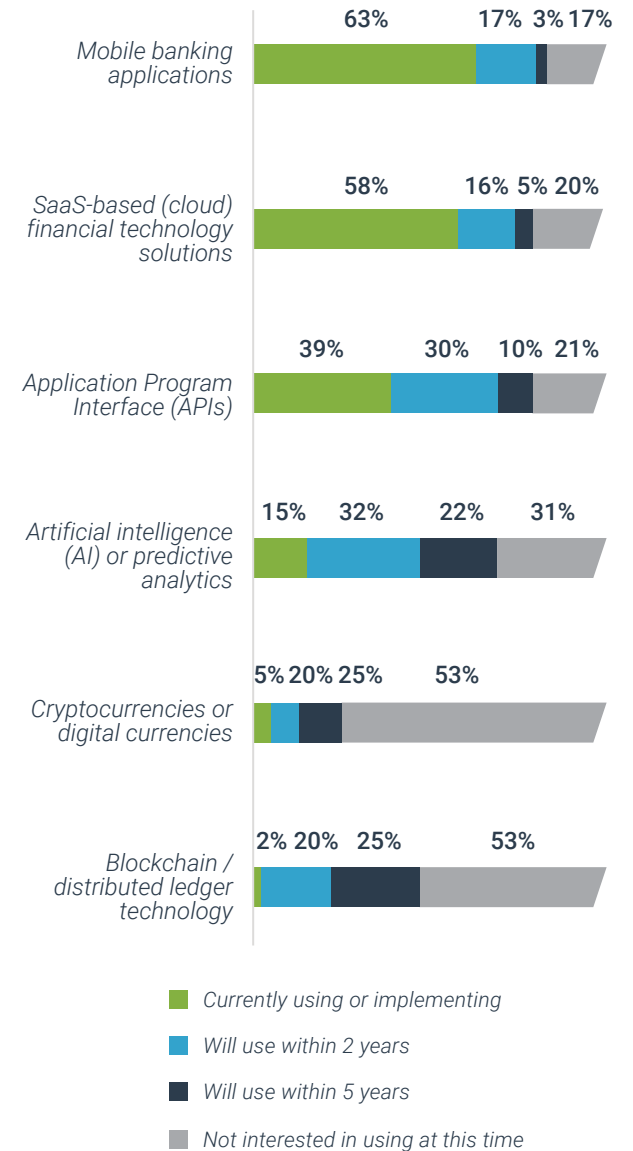


Figure 4

➤ Treasury Aggregation System Use: Leading Practices

No matter how much you need a treasury aggregator, we recognize that the process of purchasing and implementing one can be difficult, overwhelming and full of pitfalls. To help you get started on developing your plans and anticipating what will be needed, consider the following leading practices for selecting and setting up an aggregator.

SELECTION PROJECT

When treasury identifies the need for new or upgraded technology, even the first step constitutes a significant roadblock. Competition for funding can be fierce, and it's a competition that must be won before your project can move forward.

Understand your target state or operating model.

It is difficult to hit your mark when you don't know what you're aiming for. Talk to other key stakeholders, assess your organizational and departmental needs, and develop a target operating model that can inform your technological choices.

Connectivity options and cost structures in use by each aggregator can vary.

While all aggregators collect data and possess payment hub functionality, be aware that the exact

functionality, connectivity options, cost structures, and other elements will differ from product to product. Identify the defining features of the vendors and work to match them up with your identified needs.

Perform due diligence on each potential vendor's financial strength and industry position.

A good solution must be backed by a vendor who can support, sustain and invest in its continued development long-term. Put in the work to make sure your vendor will stand the test of time.

IMPLEMENTATION ROADMAP

No two implementations are the same.

Each roadmap should be customized to your specific requirements. Realistically look at your own circumstances and parameters and plan around them.

Find the help you need.

There are multiple options to consider when deciding on support for your implementation. What will almost never work well is attempting to run the implementation off the side of your desk, without any substantial support.

Make sure you understand your options, verify what each resource can provide, and get the help you need.

Support Options



VENDOR SUPPORT

Many vendors provide substantial support throughout the implementation, and for a number of organizations, this support proves sufficient.



IT

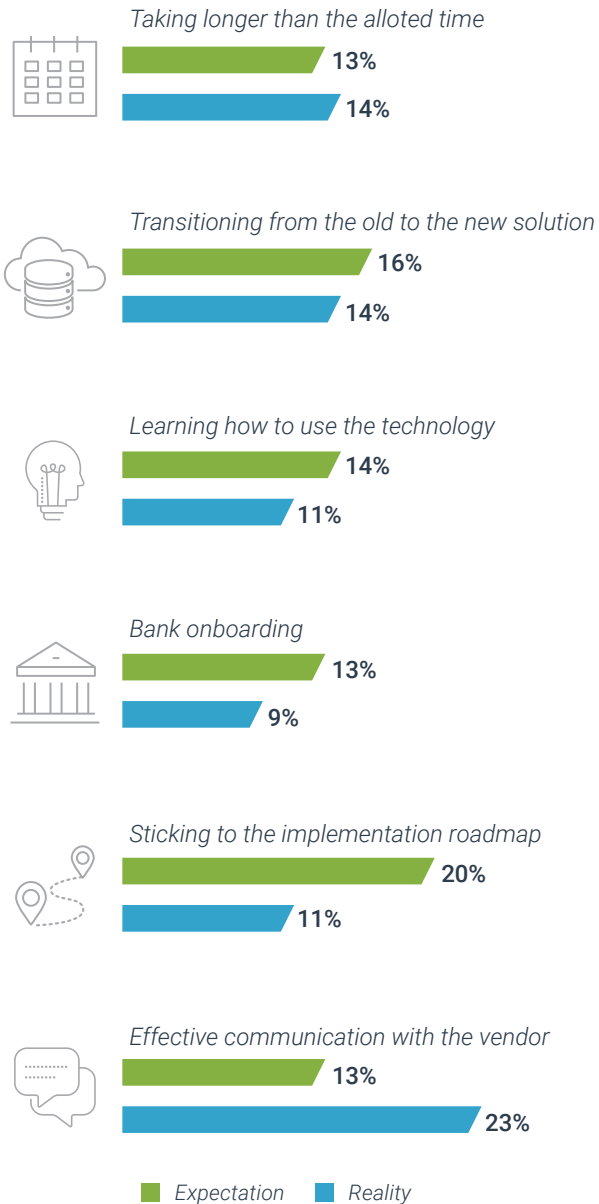
Others may be in a position to rely on their IT department or a combination of IT and vendor support, but this should be approached with careful planning and discussion ahead of time to ensure that IT will have the necessary amount of bandwidth during each phase of implementation. For most companies, an implementation of this type will require more support than IT alone can spare, but a combination of IT and vendor support may be worth investigating.



THIRD-PARTY CONSULTANTS

Some consulting firms provide implementation support. For many organizations, a third party of this kind that specializes and has extensive experience in assisting with implementations can help ensure that the project is completed on time with as few delays and unnecessary costs as possible.

Top Implementation Challenges



Provide banded timeframes for completing steps instead of using hard cutoffs.

Treasury technology implementations frequently take longer than expected. While it can be difficult, making a plan you can conform to and sticking with it is vital for keeping down costs, supporting ongoing operations, and building a track record of success that will help you gain funding and cooperation in future projects. Planning your implementation in phases and using banded timeframes can vastly improve your chances of a timely delivery, as this approach allows you to meet your target even when certain portions of the implementation take longer than you would have expected.

EMPLOYEE TRAINING

Train in close proximity to use.

Staff training is best performed during the implementation stage, shortly before going into production. If you train too early, employees may have forgotten much of what they learned by the time they actually use the solution. If you train too late, bad habits and mistakes may have already accumulated.

INTERNAL SYSTEMS INTEGRATION

Adequately test compatibility with other systems during implementation.

Between their data dissemination and payment hub functionalities, aggregators must usually integrate with multiple other systems such as TMS, ERP,

payroll systems, and etc. These connections are prone to meet with a few issues at first, such as from unsupported formats or messages lost in translation. It will be much easier to deal with these issues if they are discovered during the implementation, so be sure to test your integration extensively.

Communicate with IT.

Keeping IT apprised of developments in the implementation can help them ensure the new solution is properly integrated into the existing ecosystem.

BANK ONBOARDING

Bank onboarding can take excessive time due to compliance and documentation requirements for banks.

This step often takes longer than expected. Problems and delays range from difficulty finding the right contact at each bank to the headaches of KYC. Be prepared and do what you can to identify who will need what ahead of time.

Allow for flexibility during the bank onboarding stage.

To avoid using more time than you had budgeted for this stage, consider building extra margin into this part of the plan to account for unexpected delays.

Figure 5

Vendor Analysis

The vendor analysis that follows covers a selection of individual providers of aggregation technology. Each of the vendors highlighted in this report provides the level of bank connectivity services necessary for classification as a treasury aggregator. Some of the vendors have also built out additional features and components, but since the focus of this report is on bank connectivity, payments, reporting, security and compliance functionality, other features may be mentioned only briefly.

While the organizations featured in the following pages contributed their own original content, Strategic Treasurer did maintain authority over the final, published version of the report to ensure our audience received an accurate, unbiased, thorough, and informative analysis of modern treasury aggregation solutions.

Each vendor section includes a company overview and snapshot for at-a-glance comparison, along with a detailed summary of their relevant solution(s). Additional coverage related to customer experience, servicing, event attendance, product release notes, and more can be found via vendor pages (updated quarterly) on strategictreasurer.com/reports.



A Coupa Company

PAGES 20-23



PAGES 24-27



PAGES 28-31



PAGES 32-35



PAGES 36-39



A Coupa Company

www.bellin.com

+1 800.251.5385

welcome@bellin.com**Founded:**
1998**Founder/CEO:**
Martin Bellin**Headquartered:**
Ettenheim, Germany (Global)
Boston, Massachusetts (US)**Ownership:**
100% owned by Coupa
Software, Inc.

COMPANY OVERVIEW

BELLIN, a Coupa company, is a global leader in treasury technology. BELLIN was founded in 1998 by Martin Bellin, a corporate treasurer himself. In 2020, it was acquired by Coupa Software, the leader in business spend management to complete the business spend offering with comprehensive cash, payments, and risk management solutions. With the treasury software tm5 as the centerpiece, BELLIN has been making a fundamental difference by offering solutions that cover comprehensive, collaborative, group-wide treasury solutions. Headquartered in Germany with offices in London, Vancouver and Boston, and part of the 30+ offices strong Coupa network, BELLIN's innovative solutions are used by large and mid-sized organizations globally.

BELLIN clients value that from the ground up, BELLIN's TMS tm5 is built on the principle that treasury works best when interconnected throughout the organization to leverage group-wide insights and enhance strategic decision-making for senior management. When the entire business can benefit from a collaborative treasury platform, the end user is empowered, compliance is an organic output, and treasury enjoys unparalleled visibility.

All content was produced by BELLIN and edited by Strategic Treasurer.



SOLUTIONS & SERVICES

tm5 (private & public cloud)

A leading provider of cloud-based treasury management solutions for over 20 years.

- ▶ Cash management & forecasting
- ▶ Treasury disbursements & payments
- ▶ Debt & investments
- ▶ Derivatives (FX, interest, commodities)
- ▶ Liquidity planning & risk management
- ▶ Intercompany reconciliation & netting
- ▶ Reporting

MARKET POSITION



Part of Coupa's 30+ office network includes offices in Boston (US), Vancouver (CA), London (UK), Gdansk (PL), Karlsruhe & Ettenheim (DE)



Ownership structure: 100% owned by Coupa Software, Inc.



2,100+ employees, 30+ offices, 1,400+ customers, & 5 million+ suppliers

TOP STATISTICS

- ▶ #1 SWIFT for Corporates (L2BA) provider worldwide
- ▶ Real time bank reporting from banks in 125+ countries
- ▶ Processing of 2 million payment files annually
- ▶ Over 80 domestic and international payment formats supported



Supported languages in tm5 treasury management system: English, German, Chinese, French, Italian, Japanese, Portuguese, Russian, Spanish

WHAT'S ON DECK

**BELLIN recently released:**

- ▶ Enhanced cash management experience
- ▶ New reporting engine incl. customizable dashboards
- ▶ SAP API plug-in
- ▶ Global payment control with vendor verification screening

BELLIN CLIENTS

TOSHIBA**Red Bull®****TOYOTA****flex®**

PRODUCT OVERVIEW

The tm5 treasury management system provides one-stop, best-in-class functionality that enables group-wide visibility, control, collaboration, and efficiency. It covers all your needs across cash management and forecasting, payments, debt and investments, liquidity planning and risk management, intercompany reconciliation and netting, as well as reporting.

As a bank connectivity hub and treasury aggregator, tm5 enables domestic, cross-border, multi-bank, and multi-currency payments. Connecting to your ERP landscape, tm5 becomes one central point of payment release across the organization, standardizing the way payments are processed globally.

BELLIN has a proven track record of setting up customers quickly on standardized and secure connectivity. The tm5 mobile app, BELLIN Connect, can be used for payment approvals with 2-factor authentication and mobile payment approvals. In-house banking functionality covers Payments-on-behalf-of (POBO) and Receipts-on-behalf-of (ROBO), and enables subsidiaries to initiate, negotiate, and capture funding requests to central treasury with all intercompany deals tracked in detail.

Bank Reporting

Manage group-wide cash on one platform as a basis for optimization and decision-making. tm5 connects to all of your domestic and international banks to automatically pull in balances and transactions – prior day and intraday alike. You benefit from real-time visibility of balances and cash flows for efficient cash positioning.

What's more, account transfers are easily managed with the option of reflecting automated pooling structures and executing on system-triggered account transfer suggestions.

Daily cash reconciliation is automated, so you can focus on exception items only. Bank transactions are enriched with GL codes, categorization and other custom tags to account for all cash and feed files to the ERP systems.

Payments

Consolidate all your banking portals into one platform: tm5. Say goodbye to tokens and replace your various, non-integrated e-banking systems and passwords with one bank-independent tool, one access and one password. Make both treasury payments and bulk payments (AP/HR) directly in the system and leverage sophisticated, flexible and mobile approval setups for maximum security and convenience. Fraud prevention is further boosted by machine learning algorithms that screen all payments made and alert you to any suspicious activity. With tm5, you're fully compliant thanks to bank-grade security enabling reliable and secure processes. Bank account management is made easy, ensuring compliance with reporting across banks, accounts, and signers (incl. FBAR).

Direct Bank Connectivity (Host-to-Host)

BELLIN has established host-to-host connections to banks worldwide, including all major financial institutions, and implements new connections on an ongoing basis. There are no associated costs for using third-party communication channels or for individual transactions.

Vendor Verification Dashboard

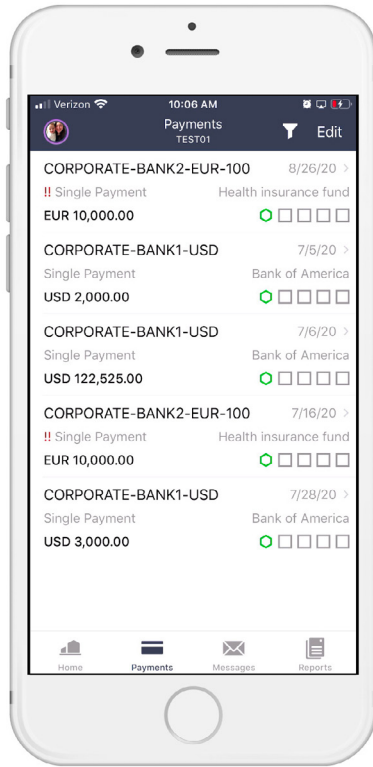
tm5 > Banking > Vendor Verification > Payment Validation: BELLIN default view

Filters: Validation Result, Manual decision, Transmission State, Entered. Clear all filters

702 items filtered. Group & Sort, Columns, More

#	Validation Res...	Manual decision	Execution date	Currency	Amount	Name Beneficiary
Validation Result: Denied 8					246,486.64	
Validation Result: Suspicious 601					50,427,442.48	
9	Suspicious	Approved	7/29/2020	USD	3,000.00	Bank of America
10	Suspicious	Approved	7/31/2020	USD	10,000.00	Bank of America
11	Suspicious	Approved	7/22/2020	USD	4,000.00	Bank of America
12	Suspicious	Approved	7/20/2020	USD	9,840.00	Bank of America
13	Suspicious	Approved	7/16/2020	USD	500.00	Bank of America
14	Suspicious	Approved	7/7/2020	USD	122,525.00	Bank of America
15	Suspicious	Approved	7/7/2020	USD	5,000.00	Bank of America
16	Suspicious	Approved	7/6/2020	USD	2,000.00	Bank of America
17	Suspicious	Approved	7/6/2020	USD	1,000.00	Bank of America
18	Suspicious	Rejected	6/30/2020	USD	1,500.00	Beneficiary Unknown 1
19	Suspicious	Approved	6/26/2020	USD	3.00	Test w/ Andrea
20	Suspicious	Approved	6/26/2020	USD	2.00	Bene - Test Block Payment

Payments Authorization App



Bank Network Connectivity (BELLIN SWIFT Service)

BELLIN is the number one provider of SWIFT Alliance Lite2 connectivity globally, and offers its own dedicated, certified SWIFT infrastructure. Since introducing the service in 2013, over 200 corporates have been connected. Through the BELLIN SWIFT Service, clients can receive account statements and send payment files. The connectivity can also be used to automate confirmation matching of FX and money market deals as well as the digital opening and amending of guarantees and letters of credit.

Thanks to the SWIFT gpi for Corporates integration, BELLIN clients can benefit from instant cross-border payments and track payments live and in real time directly in tm5.

Advantages of the BELLIN SWIFT Service at a glance:

- **Direct integration of the global banking network - SWIFT - into tm5**
- **Entire onboarding process managed by BELLIN**
- **BELLIN serves as central point of contact for all SWIFT-related questions**
- **Centralized billing model with no invoices from SWIFT**
- **Fast and traceable payments with SWIFT gpi for Corporates**

Domestic connectivity in Europe

Local connectivity standards can be implemented in a very short timeframe. The implementation is straightforward and represents a staple for small- and large-scale payment projects alike. BELLIN supports the FTX (CH), MBS (AT) as well as EBICS (DE, AT, CH, FR) channels. For EBICS alone, BELLIN has set up and manages over 2,000 contracts on hosted payment gateways and monitors communication to and from banks.

Payment formats and file conversion

BELLIN supports an extensive number of local and international payment file formats. Clients can combine different connectivity channels and formats to best meet their specific requirements. Instead of developing bank-ready formats (such as NACHA, SEPA) within the ERP, BELLIN can convert standardized files to bank-ready formats. This service considerably reduces development and internal IT efforts in the ERP or HR systems.

Secure & mobile payment authorization/ fraud protection

tm5 comes with a dedicated mobile app, BELLIN Connect, that can be used for approving payments and supports two-factor authentication (2FA). This makes it convenient for users to approve payments on-the-go without sacrificing security. In combination with tm5, it can be made mandatory to use 2FA for every login and every payment approval. BELLIN Connect also allows users to receive push notifications on a mobile device that enable users to monitor payments and to intervene quickly if needed.

TO LEARN MORE ABOUT BELLIN

Contact Us

bellin.com

+1 800.251.5385

welcome@bellin.com



www.ecsfin.com

+1 914.902.0101

info@ecsfin.com



Founded:
1999



Founder/CEO:
Dr. Jacob Aruldas



Headquartered:
White Plains, NY



Ownership:
Privately Held

COMPANY OVERVIEW

ECS Fin helps financial institutions and corporations navigate the digital ecosystem through process optimization with its comprehensive line of transaction processing solutions. Its mission is to help customers transition from digital readiness to digital maturity. Headquartered in New York, ECS Fin has over 100 employees in 6 countries including the USA, Colombia, Ireland, Malaysia, the UAE, and India.

ECS Fin started in 1999 as a transaction processing consultancy. While providing professional services to Fortune 100 companies, it observed the inefficiencies and challenges faced by organizations during application integration, enterprise messaging, transaction processing, data governance, and reporting. The processes used were complex, cost-intensive and time-consuming, leaving customers unable to derive real value from the existing solutions. With the goal of assisting major corporations and large banking groups, ECS Fin conceptualized a holistic processing solution in 2006, and successfully deployed its first module of the Integrated Messaging Services (IMS) in 2009. With a series of message administration services, transaction processing modules, connectivity services, and supporting components, it introduced a modular approach for its customers, giving them the flexibility to either use a product individually or reap benefits by implementing the complete solution.

Since then, ECS Fin has been innovating products for global and regional payments, cash management, financial messaging, compliance, digital banking, open banking, API gateway, and post-trade processing. ECS Fin follows a systems approach to transaction processing addressing the entire financial value chain end-to-end. By optimizing the integration of systems and data, it makes operations more efficient. It delivers the entire solution in a few weeks using a try/buy proposition. The prospect's users and operations team can try out the application interfaces, derive meaningful value, and only then commit resources, time and investment for a complete roll-out of the solution. Today, ECS Fin serves banks, investment managers, fund administrators, hedge funds and multi-national corporations worldwide. Its clients include a major fund administrator as well as a major investment manager in the USA, a major oil company in Latin America, a commercial bank in Asia and a large bank in Africa. The ideal clients for ECS Fin, given its focus on building highly sophisticated and enterprise-oriented solutions, are corporates and financial institutions with annual revenue of several billion dollars and up.

ECS Fin is also a SWIFT service bureau operator and has received SWIFT certifications for its Payments and Securities product every year since 2010. It has also secured the PA DSS Compliance for its IMS product in September 2019 and the SWIFT GPI certification for its Business Solutions in August 2019.

All content was produced by ECS Fin and edited by Strategic Treasurer.

SOLUTIONS & SERVICES

IMS Product Suite & Services

ECS offers their IMS product suite as Installed, Hosted or SaaS solutions. Their hosting service, IMS Cloud, doubles as their SaaS offering.

- ▶ IMS Gateway
- ▶ IMS Payments
- ▶ IMS Securities
- ▶ ECS Fin's SWIFT Service Bureau
- ▶ IMS Data Governance
- ▶ ECS Digital Banking Platform
- ▶ Host-to-host (PBs, Custodians & CBs)
- ▶ Customer Onboarding
- ▶ Cloud Solutions

MARKET POSITION



Approximately 85% of ECS's revenue is gained through sales of their IMS products, and 15% through their SWIFT Service Bureau offering.



Annual Revenue < \$25M
Aggregation Customers < 100



ECS have offices in the United States, South America, Europe, the Middle East, and Asia with around 130+ staff.

TOP STATISTICS



ECS Fin has already introduced both SWIFT GPI and real-time payments capabilities with The Clearing House.



Targeting primarily Fortune 1000 organizations, ECS Fin has acquired 50+ clients since their inception.



IMS Payments comes with the Ripple-Ready module, which has an exclusive dashboard with supporting components like cash management, compliance checks, statement management, reconciliation, and advanced reporting.

WHAT'S ON DECK



IMS Wins Major Certification

IMS Payments and IMS Securities are both certified by SWIFT. IMS was granted the PA DSS Compliance certification in September 2019. The ECS Business Solutions are certified for SWIFT GPI and carry ISO 27001, ISO 9001 and CMMI Level 5 Compliance certification in India.



ECS Fin Wins Technoviti 2020 Award for Innovation in Payment Processing

ECS Fin was the first-place winner of the Technoviti Award for innovating payment processing solutions. Scores were based on innovativeness, implementation feasibility, customer impact, scalability and adherence to security and compliance. ECS Fin's IMS Payment Hub was judged a groundbreaking solution in all respects and went on to win the top honor.

ECS FIN CLIENTS



PRODUCT OVERVIEW

IMS Gateway

ECS Fin’s Enterprise Message Hub & Service Bus is a high-performance financial messaging hub and integration solution that provides institutions with a seamless connection to a wide range of financial messaging networks, payment providers and market infrastructures. This includes connectivity to SWIFT, SEPA, real-time schemes, CHIPS, Fed wire, ACH, Ripple and Blockchain for sending and receiving financial messages. The platform has in-built validation, parsing, and mapping functions that eliminate the need for coding even when the transformations are very complex. IMS ensures complete interoperability between SWIFT, legacy, domestic, XML messaging standards, and open APIs. It is a scalable platform with built-in modular capabilities for data transformation,

automated financial messaging and compliance checks helping organizations across industries to accelerate their modernization programs.

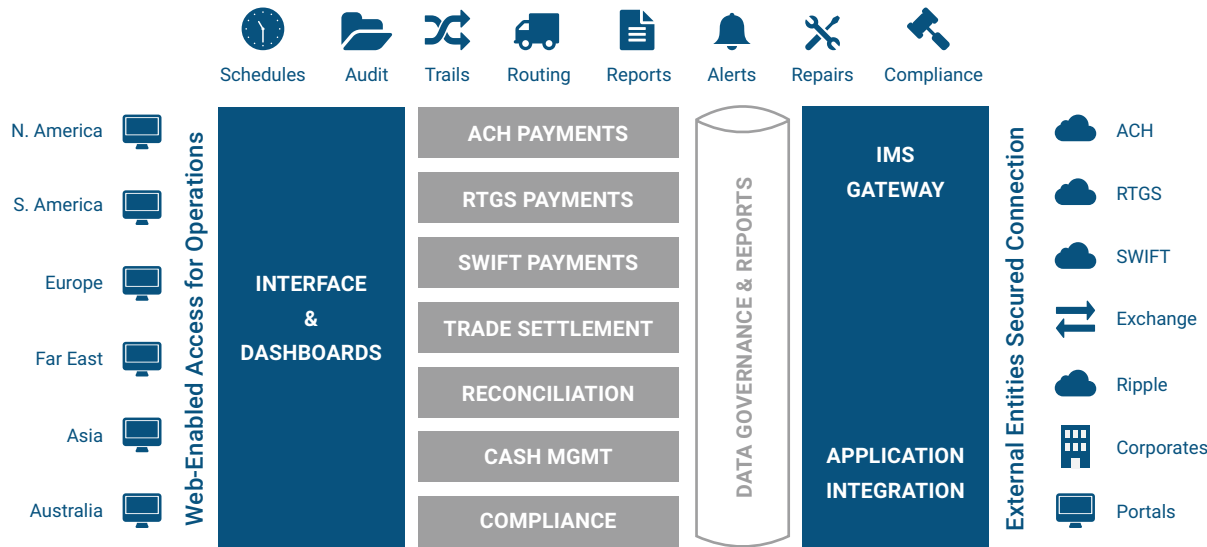
IMS Payments

IMS Payments, ECS Fin’s Enterprise Payment Hub is a well-organized transaction processing system that can manage and control the entire range of payments, messaging and connectivity. It optimizes and automates all known workflows for efficiently creating, managing, controlling, clearing and settling payment instructions through all available channels for a country covering domestic as well as international payments. It includes cash management, reconciliation, statement management, compliance check, data governance, and reporting. IMS Payments meets the requirements of a high-visibility payment hub for banks and processes different payment types, currencies, and systems using

a single, integrated platform. The platform supports modular design and micro-services architecture. Banks can launch new products and innovations much faster across different payment types—ACH, RTGS, SWIFT, SWIFT gpi, and real-time payments along with core supporting components and services.

IMS Payment Factory for Corporates module is an integrated corporate cash management platform for corporate treasurers. It is a complete, straight-through processing solution that provides a secure single-channel inter-bank and corporate-to-bank connectivity. Corporate treasurers can process payments, gain real-time access to current and past cash positions, manage corporate liquidity, and leverage automated delivery tools for account management. For corporates wanting additional treasury services capabilities, the module offers capabilities around quick customer onboarding, direct treasury integration across multiple banks and systems and efficiently process electronic invoicing transactions. Corporate treasury can also benefit from the reconciliation of payments or invoices against payments. IMS Payment Gateway for Corporates module offers direct-to-bank connectivity to corporations and grants them secure access and reliable connections to banking partners. The platform supports both direct and indirect connectivity (SWIFT or any other exchange network). Corporations can access their bank’s services more quickly and cost-effectively. They can also benefit from plug-and-play connectivity to the platform using various channels and send payment instructions for multiple types of payments, either domestic or cross-border, and route payments to their banking partners with seamless integration. An interconnected payment and treasury platform helps corporate treasurers get standardized reporting and consolidated view of their statements across all their banking partners. IMS Gateway with embedded payments and treasury solutions and bank connectivity has the most comprehensive approach to bank communication and supports built-in validation

Enterprise Message Hub, Payment Hub & Post-Trade Processing Hub



for data validation, duplicate checks, compliance checks, and AML filters and with back-office systems.

IMS Payments supports the RTP module with an enterprise-wide approach to real-time payments that serves both corporate and retail customers across a variety of payment types, channels, networks, and currencies. The platform provides all the necessary connections through the orchestration layer for domestic and global immediate payment gateways as well as RTGS modules, and intelligent routing of transactions. The real-time payment hub offers a channel integration layer to receive payment requests across various channels and through the API integration layer connects to the internal payment hub services for immediate fraud checking, reconciliation, AML/KYC, intra-day liquidity cash positions and third-party banks/networks.

IMS SWIFT gpi is a payment module for real-time cross-border payments within IMS Payments. It can be engaged as a standalone application or as one of the modules in the platform. The platform is PREMIER Certified by SWIFT. It addresses all activities for sending international payments from instruction to the final settlement to the beneficiary. With IMS SWIFT gpi, banks can transform their cross-border payments and improve the speed, transparency, and predictability of payments.

IMS Securities

ECS Fin's IMS Securities is a one-stop solution for efficient, compliant, and technologically evolved, post-trade processing for electronic end-to-end trade settlement. The platform is Gold Certified by SWIFT. It addresses all activities related to post-trade transactions like trade confirmation, settlement, fund transfer, reconciliation, reporting, and more. The solution can defragment, manage, and control the entire range of post-trade processing activities. These include allocations, matching, affirmation,

settlement to reconciliation, data governance, and reporting. IMS Securities automates all these activities with a series of securities processing and money movement modules, supporting components, data integration, and connectivity services.

ECS Fin's SWIFT Service Bureau

ECS Fin's Premier Certified SWIFT Service Bureau is a single-window-platform that helps SWIFT members outsource their requirements of a fully managed connectivity platform and get reliable and secure connections to beneficiary banks, correspondent banks, trading partners and its customers on one side while establishing STP with internal applications of the enterprise on the other side. Connecting to SWIFT via a Service Bureau, ECS Fin manages the connectivity and administrative requirements as a service, thus achieving lower total cost of ownership for financial institutions, as well as lower administration and operational costs compared to an on-premises solution. Financial institutions can benefit from plug-and-play connectivity to the platform using various channels and send/receive financial messages either domestic or cross-border, and route payments and post-trade processing settlement instructions to their banking and trading partners with seamless integration. An interoperable platform helps financial institutions get access to their own data in their own datacenter and get standardized reporting and consolidated view of their statements across all their correspondent banks. ECS Fin's SSB is embedded with SWIFT connectivity and has the most comprehensive approach to financial messaging and supports built-in functionality for data validation, duplicate checks, compliance checks, and AML filters and with back-office systems.

IMS Data Governance

Data Governance by ECS Fin takes accountability of all the captured and transmitted data, organizing and storing the data for easy viewing, retrieval,

summarizing, and reporting. The data covers messages, acknowledgments, documents, notes, reference data, and all related elements. It benefits banks, central banks, financial institutions, capital markets, corporates, healthcare firms and government departments. The system grants controlled access to govern data utilization to authorized personnel and also secures what each user is allowed to see and do once access is gained. To strengthen the audit trail, the system stores the documents as attachment links to the underlying transactions or transmitted messages and all events associated with the life cycle of a message or a transaction are stored with links to the underlying entity.

ECS Digital Banking Platform

ECS Fin's Digital Banking Platform offers a flexible and scalable architecture for banks to adopt a digitally-first banking model and provides a unified customer experience across retail and corporate customers, digitizing business workflows and processes in the middle office and back-office. With a digitally savvy customer interface and with the presentation layer banks can not only integrate across portals, mobiles, phone banking, IVR, APIs but also with the channels of the future. On the bank's side, the operating model helps in optimizing end-to-end processes with innovative capabilities, support compliance, duplicate checks and launch new products and services to customers using intelligent data. The platform is available as on-premise deployment and on the cloud.

TO LEARN MORE ABOUT ECS FIN

Contact Us

ecsfin.com

+1 914.902.0101

info@ecsfin.com



www.fides-treasury.com

+41 44.298.65.66

hello@fides-treasury.com



Founded:

1910



CEO:

Andreas Lutz



Headquartered:

Zürich, Switzerland



Ownership:

Credit Suisse Group

COMPANY OVERVIEW

Fides enables corporates to connect to any bank, in any region, through any channel. Fides multibank connectivity and transaction communications solutions deliver critical account statement, payment workflow and reporting capabilities for treasury and finance teams. With Fides, clients can streamline their multibanking processes to achieve greater efficiency, intelligence and accuracy in their communications while securely executing and managing transactions regardless of their banking portfolio or geographic location.

Founded in 1910, Fides has been committed to helping corporations optimally connect and interact with their banks for more than a century. The company has been focused on multibanking and connectivity since 1985, when its bank account balance and transaction reporting service, Fides ARS (Account Reporting Service) was launched. The Fides EFT (Electronic File Transfer) payments solution was released a few years later. Since that time, Fides has continued to frequently improve on the functionality, feature sets and UX of its products, and to develop new services and offerings to meet evolving market needs.

Fides enables banking communications via any channel, including SWIFT, EBICS, H2H, APIs, and more. In addition to being a certified SWIFT Service Bureau, supporting SWIFT for Corporates onboarding and hosting of corporate BICs, Fides also offers a proprietary multi-network, dual-BIC hybrid service model to further streamline connectivity for corporates. Similarly, Fides supports hundreds of messaging file formats, including all SWIFT MT/MX formats, ISO20022, ACH, EDI, AFB, DTA, BAI and ABA among many others. Fides also provides conversion, validation, sanction screening and security services.

Headquartered in Zürich, Switzerland, Fides is an independently operated subsidiary of Credit Suisse. Today, Fides helps more than 3,500 clients communicate with over 13,000 banks and payment providers across 200 countries and territories. Clients can access Fides solutions through the company's secure, easy-to-use Multibanking Suite SaaS solution, or easily integrate with any third-party ERP, TMS and other backend systems. Fides works continually to support the newest connectivity and fraud filtering technologies, complies with all regulatory requirements and governance protocols, and adheres to the highest security standards.

All content was produced by Fides and edited by Strategic Treasurer.



SOLUTIONS & SERVICES

Fides ARS and Fides EFT

Available for installation, as managed services, or via the Fides Multibanking Suite SaaS solution. Can be seamlessly integrated with any TMS or ERP system.

- ▶ Account Reporting
- ▶ Bank Messaging
- ▶ SWIFT Service Bureau
- ▶ Bank Connectivity
- ▶ File Transfer
- ▶ Payments & Cash Management
- ▶ Data Validation & Sanction Screening

MARKET POSITION



Fides provides a global hybrid connectivity model. This includes direct connections, API connections, connections through various networks (e.g., SWIFT) and connections through its parent company's network



Fides is a wholly-owned subsidiary of global banking giant Credit Suisse.



Fides has more than 3,500 active customers in locations around the world.

TOP STATISTICS



Fides' payment platform processes over \$5.5 trillion every year.



More than 210,000 SWIFT messages, including batch files, are processed through Fides' system every day.



Client payment initiations have increased by 45% year over year.



Active Fides clients span 200 countries and territories and connect to more than 13,000 banks worldwide.

WHAT'S ON DECK



Global Growth

As of September, Fides had started the implementations of 134 client projects in 2020, reflecting an 18 percent increase in sales compared to the previous year.



Multibanking Excellence

Fides was named Best Performing Multi-Banking Solutions Provider for 2020 by The European.



FIDES CLIENTS INCLUDE





PRODUCT OVERVIEW

Fides Multibanking Suite

Centralize your bank accounts and make payments to anywhere in the world at the touch of a button, through an intuitive SaaS solution. Fides centralizes and simplifies global multibank connectivity and transaction communications. The modular Fides Multibanking Suite gives you complete visibility into and control over your banking connections and transactions, with secure access from any location. Administration and approvals are controlled through a single tool, saving time and effort while providing visibility into all aspects of workflows. The Fides Multibanking Suite includes Fides ARS and Fides EFT, and will in future also provide access to new features like cash forecasting and an ecosystem of partner solutions for an easy one-stop-shop.

Fides Account Reporting System (ARS)

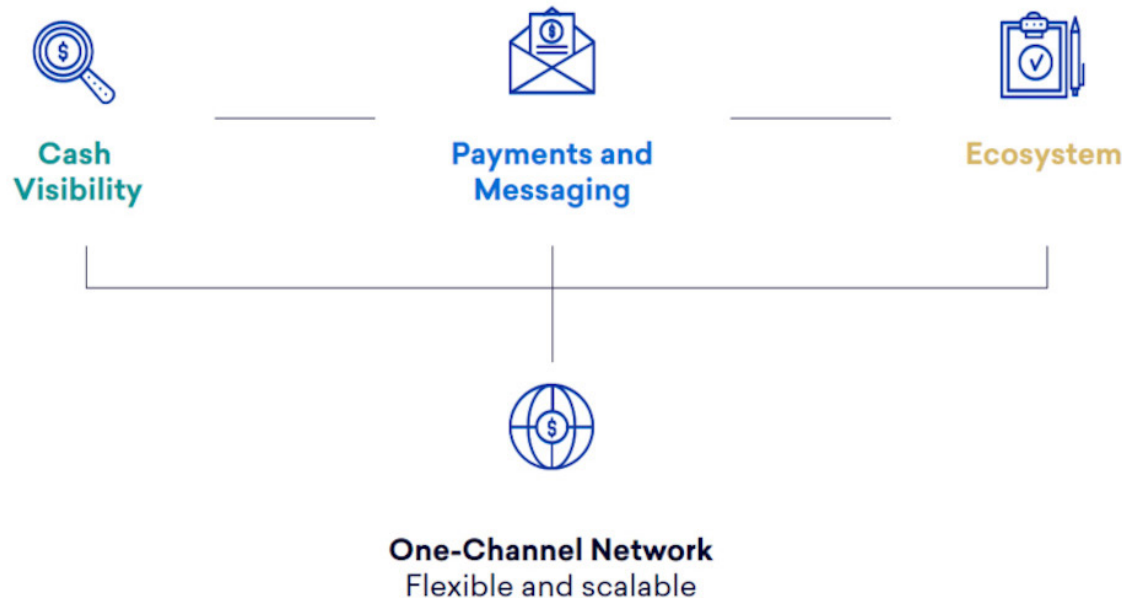
Fides ARS was designed to allow clients quick and easy access to viewing overall liquidity and account statements from their banks at any time. Fides ARS improves upon the legacy process of manually collecting account data from a client's banks by consolidating all account information, including balances, transactions, and booking texts, and providing it centrally via a set of user-friendly dashboards. The process involves converting all messages into a standardized format, verifying the account statements, allowing the customer to choose a preferred format (MT940/42, BAI, AFB120, camt.052/053/054, etc.), and providing options for downloading data, such as in Excel or as a PDF. Fides ARS does not require any special infrastructure or installation. Updates and upgrades to the solution are performed regularly. Fides ARS

can be integrated with a client's TMS/ERP system or managed through the Fides Multibanking Suite.

Key Features & Benefits:

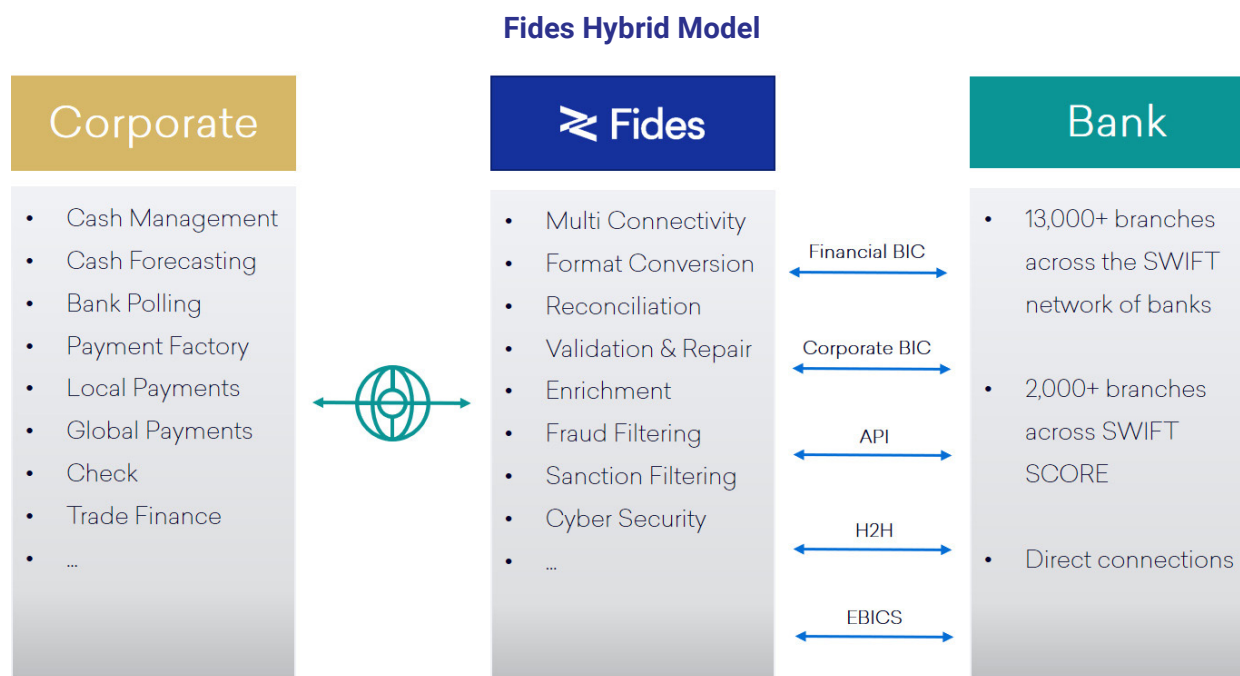
- **Global cash visibility:** Reap the benefits of worldwide transaction transparency. Using a single source for all bank communications makes it easy to gain visibility into global cash positions and increase forecast accuracy.
- **Reduced operational risk:** Transaction data is loaded automatically, eliminating the need for treasury professionals to enter data manually.
- **Flexible authorization:** Map users and groups to accounts, account groups, banks, countries, subsidiaries and more to further automate and streamline processes.
- **Highly customizable reporting:** Extensive search, filter, sorting, display and export functionality gives you the data you need in the format you need it—at the touch of a button.
- **Smooth account control:** Thorough data validation capabilities and services ensure that opening and closing bank balances, statement formats and any other transaction data points are correct, consistent, and ready for your reports and daily processes.

Fides Multibanking Hybrid Model



Fides Electronic File Transfer (EFT)

Fides EFT simplifies the global transfer of individual and bulk payments to banks and consolidates the financial messaging process so that any and all messages can be sent and received by corporates through one platform. Although the majority of clients use Fides EFT for payment purposes, it can be utilized for the full range of MT and MX (ISO 20022 XML) formatted messages, including those used for trade finance or FX trades. Fides EFT serves as a central location to manage and execute payments and provides an efficient method of monitoring all payments. Automated access is



available through a client's TMS/ERP, but a client can opt to manually enter and approve payments through Fides' SaaS solution. Fides EFT is able to process and send payment orders globally to a multitude of different banks and uses enhanced data validation and enrichment processes to ensure client information is delivered securely and quickly. Updates and upgrades to the solution are performed regularly.

Key Features & Benefits:

- **Central workflow control:** Validate, execute and monitor all transactions through a single workflow, eliminating the need for multiple processes.
- **Flexible authorization:** Map users and groups to banks, validate payments, set up sign-off rules, four-eyes principles and more to further automate and streamline processes.

- **Order creation options:** Create orders via ad hoc entry, templates, or file upload to meet your business and HR needs.
- **Fast fraud detection:** As all payments are captured and managed with the same solution, fraudulent activity can be detected quickly. Leverage built-in compliance management features, rule-based checks, and profiling founded on payment history and analytics.
- **Sanction screening:** Our modern, bank-proven sanction filtering adheres to local and international regulations to help you manage and mitigate risk.

Fides Multibanking Hybrid Model

The unique Fides Hybrid Model is a multi-network, dual BIC service option that allows corporate treasury teams to optimize and expand their banking reach effectively and help with banks' SCORE readiness. Fides' hybrid

approach ensures that clients have access to a solution that is tailored to their individual connectivity needs. Based on requirements and communication channels, Fides will recommend, establish and maintain the most effective multibanking connectivity configuration. These connections can be made via SWIFT, EBICS, Host-to-Host (H2H), APIs, or any combination thereof, using Fides' proprietary Hybrid Model. This ensures that clients have a multibanking model that works the way they need to conduct business. Additionally, the Fides Hybrid Model improves accuracy and consistency of payment and transaction messages by validating and correcting all files prior to release, ensuring that files are compliant and bank-ready.

Clients Use the Fides Hybrid Model to:

- Validate and comply with rigorous messaging requirements
- Eliminate gaps in SCORE readiness
- Ensure global banking coverage
- Increase speed-to-market
- Reduce costs of maintaining individual connections and SWIFT costs

The service is completely managed by Fides.

TO LEARN MORE ABOUT FIDES

Contact Us

fides-treasury.com

+41 44.298.65.66

hello@fides-treasury.com



FINLYNC

www.FinLync.com



Founded:
2015



Founder/CEO:
Phillip Ashley Klein



Headquartered:
Singapore
New York, Paris,
Los Angeles (US Offices)



Ownership:
Privately Held

COMPANY OVERVIEW

FinLync Introduces Native Apps with Always-on Connectivity

FinLync is a privately held, global fintech company on a mission to bring harmony and transparency to corporate banking. The firm is growing rapidly and currently has offices in Singapore, Los Angeles, New York, and Paris.

The firm's founding was a truly organic evolution stemming from a series of partnerships among API developers, corporate treasurers, security consultants, and bank connectivity experts—all of whom were determined to build a faster, more secure, global payment system that corporate treasuries and finance departments could adopt without going through the painfully long and expensive implementation process that had been the category norm for so many years.

The core offering is a suite of native treasury and cash management applications that work with their BankLync API aggregator so that corporate treasuries and finance departments have complete, direct control of their data. Instead of relying on third party systems that sit outside of the ERP, treasuries and finance departments can use FinLync to maintain constant, uninterrupted connections to all of their banks.

FinLync clients include Fortune 2000 and Fortune 500 companies as well as other large multi-nationals, and the firm's institutional partnerships span the globe. Company shareholders and directors include Steve Ellis, former Executive Vice President of Innovation at Wells Fargo; Hans Morris, Chairman of Lending Club and former Global President of Visa; and Tom Glocer, former CEO of Thomson Reuters.

All content was produced by FinLync and edited by Strategic Treasurer.



NATIVE APPLICATIONS

Balances

- ▶ Complete View of all Cash Positions
- ▶ Constantly Updated Available Balances
- ▶ Uninterruptible Transaction Visibility

Payments

- ▶ Truly Instant payments
- ▶ End-to-End Message Encryption
- ▶ Universal Message Formats

Status

- ▶ Detailed Tracking to Beneficiary
- ▶ Constantly Updated Transaction Details
- ▶ Detailed Reject Rationale

Approvals

- ▶ Central, Secure Approval Inside SAP
- ▶ Multiple Levels and Authorization Limits
- ▶ Visibility Down to Invoice Amounts

Reconciliation

- ▶ Instantly Posts to Accounting
- ▶ User-trained AI Reconciliation Rules
- ▶ Automated Invoice Matching and Clearing

Accounts

- ▶ Singular View of all Global Banks
- ▶ Signatory and Mandate Management
- ▶ Account Status, Entitlements, and Limits

Financing

- ▶ Creates Trade Financing Agreements
- ▶ Instant Transmission in Any Bank Format
- ▶ Track partners, Progress, and Exposures

Forecasting

- ▶ Immediate Cash Flow
- ▶ Full AP, AR, and GL Data
- ▶ Line Item Drill-Down and Risk Analytics

BENEFITS OF ALWAYS-ON DATA

- ▶ More proactive risk management
- ▶ Uninterrupted payment visibility (track payments as easily as packages)
- ▶ Increased liquidity
- ▶ Immediate cash visibility
- ▶ Better data = better operational decisions
- ▶ Instant reconciliation
- ▶ Single source of truth for entire organization

ERP INTEGRATION

- ▶ SAP Certified Apps
- ▶ Works with all SAP versions (ECC 6.0, S/4HANA)
- ▶ Fits into SAP roadmap
- ▶ Native install (no implementation)
- ▶ Plugs into existing authorizations, configurations, workflows
- ▶ Data retained in SAP application logs

BENEFITS OF NATIVE APPS

- ▶ Increased liquidity
- ▶ Immediate cash visibility
- ▶ Better operational decisions
- ▶ Instant reconciliation

SECURITY

- ▶ Payment messages are safer than payment files
- ▶ End-to-end encryption prevents fraud from the outside
- ▶ Existing SAP logins help prevent fraud from the inside

REAL-WORLD IMPLICATIONS

- ▶ Working Capital: Efficiency
- ▶ Fulfillment: Lower Storage Costs
- ▶ Customer Credit Management: More Sales
- ▶ Cross-border Payment Tracking: More Accurate Forecasting
- ▶ Investing: Smarter Funding
- ▶ Reconciliation: Staff Optimization
- ▶ Account Management: Tighter Compliance

PRODUCT OVERVIEW

A New Level of Data Integrity and Control

Corporate treasurers and finance professionals have long been seeking a way to gain instant visibility of their transactions while also maintaining complete, direct control of their data. Third party systems and SaaS services have tried to deliver that, but they've all been limited by the fact that those systems necessarily sit outside of a treasury's ERP—so even the best of those options were subject to data lags and unable to deliver the degree of transparency that treasurers have wanted for so long.

FinLync does what many TMS providers have sought to do, but calling FinLync a TMS would be a bit of a misnomer because the software is so structurally different from the rest of the category. FinLync's SAP-certified apps are native, meaning they're actually running inside the ERP instead of trying to connect from outside. This is obviously good news in terms of security, but the apps being native is truly a game changer because when they're paired with FinLync's API aggregator, they make it possible for treasuries to have constant, uninterrupted connections to all of their banks.

The immediate utility is obviously for treasuries, but the implications span entire organizations. Having this degree of constant visibility affects a company's

liquidity, logistics, storage, currency strategies, supply chains, investment decisions, and even staffing. Let's look at the two components that make this possible.

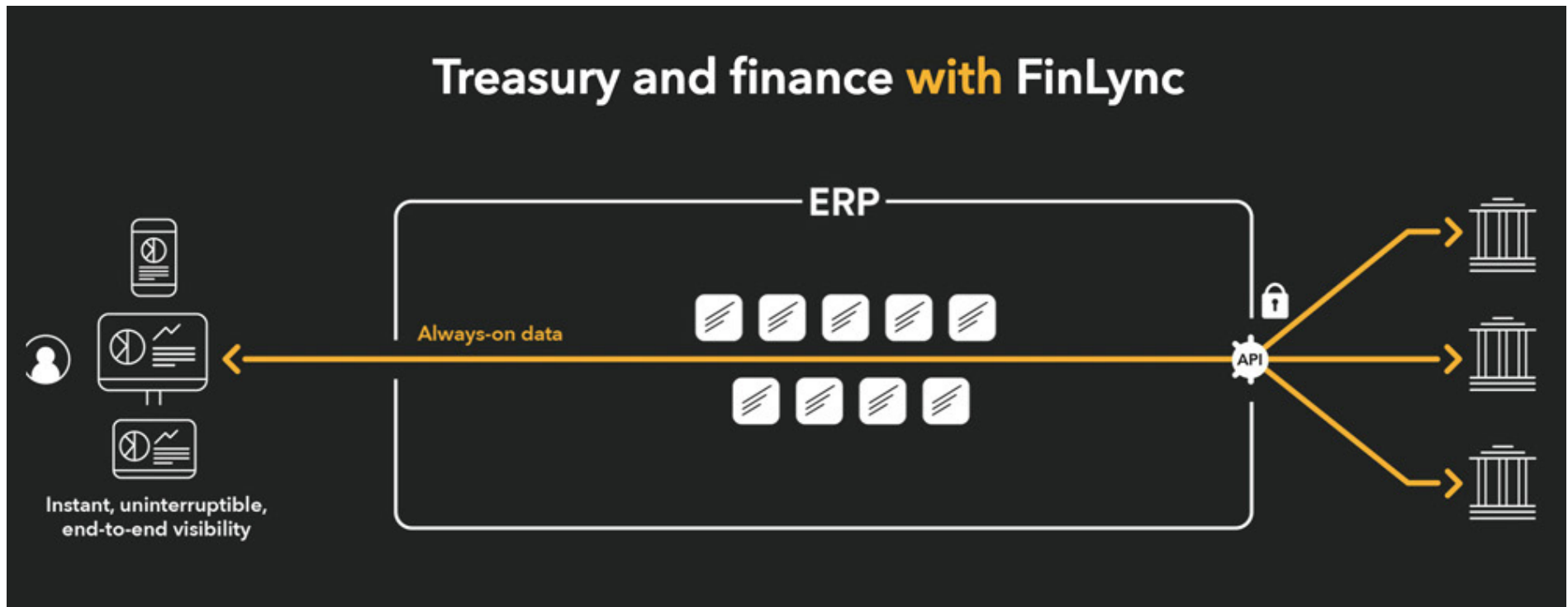
Native Apps

At the heart of what makes FinLync unique is the fact that their SAP-certified apps are a native install within the client's ERP. That means they can deliver instantaneous, multi-bank visibility and real-time analytics through a singular GUI using a combination of bank APIs, H2H connections, and/or SWIFT.

Because the apps are native, they are truly plug-and-play. Nothing in the current ERP has to be torn down—the apps are ready to plug into the

BALANCES	PAYMENTS	STATUS	APPROVALS
Complete View of all Cash Positions	Immediate payment instruction delivery	Detailed Tracking to Beneficiary	Central, Secure Approval Inside SAP
Constantly Updated Available Balances	End-to-End Message Encryption	Constantly Updated Transaction Details	Multiple Levels and Authorization Limits
Uninterruptible Transaction Visibility	Universal Message Formats	Detailed Reject Rationale	Visibility Down to Invoice Amounts

RECONCILIATION	ACCOUNTS	FINANCING	FORECASTING
Instantaneous Posting to Accounts	Singular View of all Global Banks	Creates Trade Financing Agreements	Immediate Cash Flow
User-trained AI Reconciliation Rules	Signatory and Mandate Management	Instant Transmission in Any Bank Format	Full AP, AR, and GL Data
Automated Invoice Matching and Clearing	Account Status, Entitlements, and Limits	Track partners, Progress, and Exposures	Line Item Drill-Down and Risk Analytics



existing ERP's data, configurations, authorizations, protocols, workflows, and security features. Clients can even keep using their existing SAP logins. The other benefit of the apps being native is that there is no lengthy and expensive implementation process—in fact, there isn't really an implementation process. The native install can have the apps up and running in a matter of days.

Always-On Connectivity

Corporate treasuries and finance departments have been relying on static, one-way file transfers of bank data for years, so FinLync's approach really is a break from the rest of the industry.

It all comes back to the firm's fundamental design philosophy being a bit counter-intuitive; instead of adding layers and interfaces, FinLync's engineers took the opposite approach by working from inside the ERP. The end result is fewer layers, and that simplifies the experience, enhances security, and provides a constant, uninterrupted, bilateral flow of information between treasuries and banks. There is no need to start and stop transmission because the datastream is always on. All of this integration and this new level of transparency means the ERP can finally become a single source of truth for an entire enterprise.

TO LEARN MORE ABOUT FINLYNC

Contact Us

[FinLync.com](https://finlync.com)

alwayson@finlync.com



kyriba[®]

www.kyriba.com

+1 858.210.3560

treasury@kyriba.com

**Founded:**

2000

**Founder/CEO:**

Jean-Luc Robert

**Headquartered:**

San Diego, CA

**Ownership:**

Privately Held

COMPANY OVERVIEW

Kyriba empowers forward-thinking treasury and finance teams to optimize key capabilities for treasury, risk management, payments and working capital strategies. With 2,000 clients worldwide, including 20 percent of Fortune 500 companies, Kyriba's pioneering Active Liquidity Network connects internal applications with vital external sources such as banks, ERPs, trading platforms, and market data providers. Based on a highly robust, secure and scalable SaaS platform, Kyriba empowers the CFOs and IT teams of companies worldwide to maximize growth opportunities, protect against loss from fraud and financial risk, and reduce costs through advanced automation.

Kyriba is headquartered in San Diego, with offices in New York, Paris, London, Frankfurt, Tokyo, Dubai, Singapore, Shanghai and other major locations. For more information, visit www.kyriba.com.

Mission:

Kyriba empowers clients to transform how they view and use liquidity as a dynamic catalyst for growth and value creation.

All content was produced by Kyriba and edited by Strategic Treasurer.



SOLUTIONS & SERVICES	MARKET POSITION	TOP STATISTICS
<p>Kyriba Treasury & Finance Solutions</p> <ul style="list-style-type: none"> Cash & Liquidity Management Payments Working Capital Real-Time Payments Fraud Detection FX + Risk Management Business Intelligence Bank Connectivity 	<p> Kyriba has been named the clear leader for treasury and risk management by technology analyst firms such as IDC and Aite Group.</p> <hr/> <p> Kyriba has 750+ employees in 12 global offices worldwide. The team supports more than 2,000 clients in 140+ countries.</p> <hr/> <p> Kyriba surpassed \$110M in revenue in 2018, and was recently valued at \$1.2B as part of an investment transaction with Bridgepoint Equity.</p>	<p> 2,000+ – Total number of Kyriba clients in 100 countries worldwide.</p> <hr/> <p> 65,000 users in 140+ countries</p> <hr/> <p> \$2.2B in transactions done in 2019</p> <hr/> <p> 16 Millions payments per month with recipients in 224 countries and territories</p>

WHAT'S ON DECK

 **The Active Liquidity Network**

“The Active Liquidity Network is a cloud based Liquidity data and connectivity hub which provides:

- A connectivity network delivering robust, secure, pre packaged connectivity between a corporate’s ERPs and 600+ banks and thousands of suppliers using 1400 payment format variants
- A liquidity data hub providing a single view into cashflows. This view is fully supported by optimized workflows, reporting and analytics.

 **Kyriba Global Summit**

We are pleased to extend to you a special invitation to attend our inaugural Kyriba Global Summit on November 10th. During this virtual event, you’ll hear real stories of transformation and success from leading organizations on how they managed through the volatility that now defines our world.

The program is tailored to a virtual viewing experience. Each session is 10-20 minutes while also allowing plenty of time for Q&A.

KYRIBA CLIENTS









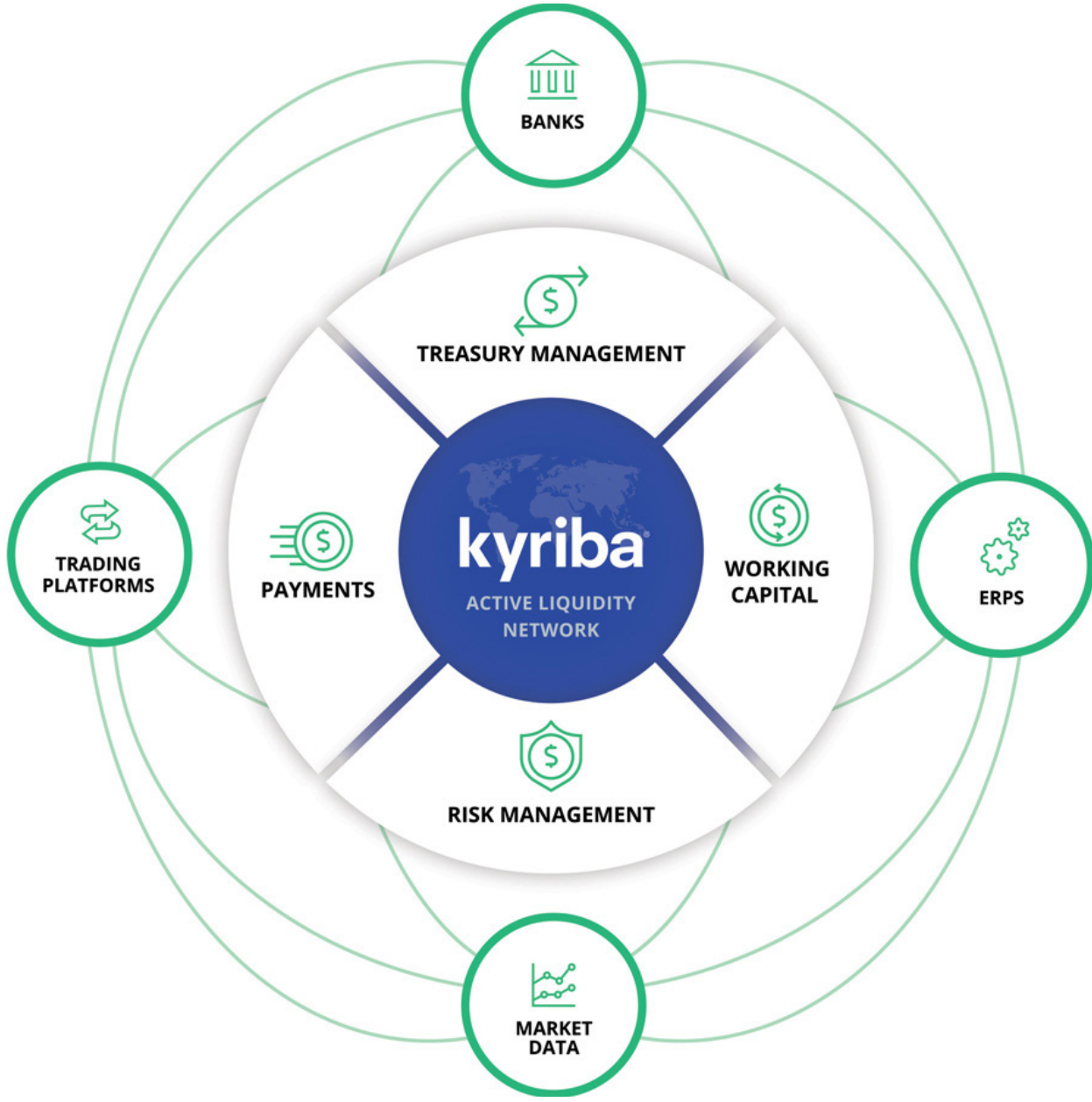


Copyright © 2020 All Rights Reserved | Distributable through December 31, 2021

37



Kyriba Active Liquidity Network



PRODUCT OVERVIEW

Kyriba offers a comprehensive cloud platform for treasury and finance that helps forward-thinking teams enhance key capabilities for cash and risk management, payments, and working capital management. Connectivity is fully integrated into Kyriba's SaaS platform. Connectivity and payments can be separately subscribed to or implemented as part of a larger treasury project.

Key Platform Highlights

Kyriba Connectivity

Kyriba is a global cash management provider offering multi-bank connectivity as a service as well as integrated connectivity within our cloud treasury management system. Kyriba manages millions of transactions every day, to and from banks, to support cash management, payments, and trading workflows. A unique differentiator for Kyriba is the variety of connectivity solutions that can be offered, including combinations of connectivity protocols to optimize costs, automation, and security. All connectivity services are fully managed and monitored by Kyriba on behalf of our clients so no additional resources are required by the client to automate connectivity and integration. Kyriba offers the following connectivity services:

- **Direct bank connections (using SFTP and/or API)**
- **SWIFT connectivity (using Alliance Lite 2 or a full fledged Service Bureau)**
- **Regional Protocols**

Direct Connections

Kyriba offers 'direct-to-bank' host-to-host connections via API or FTP which require no intermediary services or networks, minimizing transaction costs and bank fees. Host-to-host connections are often used for high volume bank relationships in combination with other connectivity methods to minimize connectivity costs.

Swift Connectivity

Whatever their preferences, Kyriba offers its customers the best of SWIFT connectivity. Customers are free to choose Kyriba's embedded SWIFT Service Bureau, specialized for higher connectivity volumes and/or those wanting a completely managed SWIFTNet service, including complete monitoring of end-to-end bank connectivity. Kyriba is also an authorized reseller of SWIFT Alliance Lite2 for Business Applications (L2BA), which is fully integrated to Kyriba's cloud solution, enabling complete automation, straight-through processing and no internal IT effort for bank reporting, payments and other SWIFT messaging.

Regional Protocols

Many countries such as France, Germany, Italy, Spain, Japan, and the UK offer regional networks that support connection to that country's banking partners. Kyriba connects to dozens of these country protocols including Zengin, Anser, EBICS, BACS, CBI and EDITRAN.

TO LEARN MORE ABOUT KYRIBA

Contact Us

[kyriba.com](https://www.kyriba.com)

+1 858.210.3560

treasury@kyriba.com

Works Cited

- ▶ Figure 1, Page 8: *2020 Strategic Treasurer and Bottomline Technologies Treasury Fraud & Controls Survey.*
 - *2020 Strategic Treasurer and Bottomline Technologies B2B Payments Survey.*
 - *2019 Strategic Treasurer and TIS (Treasury Intelligence Solutions) Compliance Survey.*
 - *2019 Webinar Poll Question. Corporate Payments: Solving the Complexity.*
- ▶ Figure 2, Page 12: *2020 Strategic Treasurer & Bottomline Technologies Treasury Fraud & Controls Survey.*
- ▶ Figure 3, Page 14: *2020 Strategic Treasurer & Bottomline Technologies B2B Payments Survey.*
- ▶ Figure 4, Page 16: *2017 Strategic Treasurer & TreasuryXpress Treasury Technology Survey.*
- ▶ Figure 5, Page 18: *2020 Strategic Treasurer & TD Bank Treasury Perspectives Survey.*
- ▶ 1. Page 13: *2020 Strategic Treasurer & TD Bank Treasury Perspectives Survey.*
- ▶ 2, 3. Page 16: *2020 Strategic Treasurer & Bottomline Technologies B2B Payments Survey.*

.....
The analyst reports are released Q4 annually. If this is an outdated version, visit [StrategicTreasurer.com](https://www.StrategicTreasurer.com) to download a free copy of the current report.
.....

STRATEGIC TREASURER MARKET RESEARCH

As part of our ongoing market research initiatives, Strategic Treasurer conducts 10+ industry surveys every year on a variety of topics ranging from cash management and payments to fraud and compliance. These surveys are collectively completed by several thousand corporate, banking, non-profit, government, and higher education respondents every year. Below is a list of our current industry research initiatives.



Treasury Fraud & Controls

Offers comprehensive analysis of treasury's experiences with specific types of fraud and evaluates the security tools and methods used by organizations to protect their financial assets and information.



Treasury Perspectives

Gauges practitioners' viewpoints, strategies, and preferences on a range of topics including economic growth, compliance, security, payments, capital markets, risk, and technology use.



B2B Payments

Provides valuable insights related to the overall payments complexity and challenges being experienced by practitioners. It focuses on unique solutions and tactics employed by organizations to optimize payment processes and maximize efficiency.



Higher Education

Focuses specifically on understanding the unique challenges and operations of financial personnel within the realm of higher education and how their experiences compare to those of their peers in the corporate environment.



GLOBAL PAYMENTS

Studies the various payment technologies, tools, and services used by organizations for facilitating global payments activity and analyzes the key areas of complexity currently impacting the payments landscape.



LIQUIDITY RISK

Analyzes organizations' short-term investment and risk management strategies to uncover trends related to how firms are optimizing their liquid assets and identifying and mitigating associated risks.



INSURANCE TREASURY

Identifies the unique financial drivers, challenges, and areas of focus for insurance companies. Results are compared against data from the broader corporate environment to better understand how the treasury and finance functions within insurance compare to those of other industries.



SUPPLY CHAIN FINANCE

Evaluates the use of SCF technology within the corporate environment, as well as the strategies and technologies put in place by firms to manage vendor relationships, streamline cash conversion cycles, and optimize working capital.



CASH FORECASTING & VISIBILITY

Studies the operational and technological components deployed by organizations for maintaining visibility to cash positions and forecasting cash flows.



TREASURY COMPLIANCE

Captures the macro and micro elements of the compliance landscape that are impacting treasury, it identifies how new regulatory developments are being accounted for, and gains insight into the various technologies and strategies leveraged by organizations for managing compliance on an ongoing basis.

How Are Your Surveys Classified?

The surveys highlighted on the left-hand side of this page comprise Strategic Treasurer's Premier Survey program, which offers comprehensive analysis (100+ questions) across each area of focus. The surveys highlighted directly above are part of our Standard Survey program, which provides robust coverage (30-50 questions) of the selected topic. To learn more about our market research initiatives, visit our website at strategictreasurer.com/surveys.