Defining and Building the Next-Generation Payments Hub

Global Enterprise Payments Strategy for Payments Modernization from Edgar, Dunn & Company and ACI Worldwide

January 2022
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>3</td>
</tr>
<tr>
<td>Background and Methodology</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Payment Hubs</td>
<td>4</td>
</tr>
<tr>
<td>Three Reasons Financial Institutions Invest in Payment Hubs</td>
<td>6</td>
</tr>
<tr>
<td>- Siloed infrastructure and the pains of legacy systems</td>
<td>7</td>
</tr>
<tr>
<td>- Operational resilience and business continuity</td>
<td>8</td>
</tr>
<tr>
<td>- Regulatory changes (e.g., ISO 20022) and how they impact strategic decisions</td>
<td>10</td>
</tr>
<tr>
<td>Payment Hubs Versus Tomorrow’s Challenges</td>
<td>12</td>
</tr>
<tr>
<td>- Payment hubs and the real-time imperative</td>
<td>14</td>
</tr>
<tr>
<td>- Cloud and Payments as a Service for payment hubs</td>
<td>15</td>
</tr>
<tr>
<td>- New payment methods and Open APIs</td>
<td>17</td>
</tr>
<tr>
<td>- Payment type convergence</td>
<td>18</td>
</tr>
<tr>
<td>Adoption, Outlook and the Value of Payment Hubs</td>
<td>20</td>
</tr>
<tr>
<td>- Market readiness and the outlook for payment hubs</td>
<td>20</td>
</tr>
<tr>
<td>- Value adding</td>
<td>22</td>
</tr>
<tr>
<td>Geographical Imbalance</td>
<td>23</td>
</tr>
<tr>
<td>The Future of Payment Hubs Is Bright</td>
<td>24</td>
</tr>
<tr>
<td>Appendix</td>
<td>25</td>
</tr>
<tr>
<td>- Survey demographics and additional information</td>
<td>25</td>
</tr>
</tbody>
</table>
Foreword

The term payments hub is once again the talk of the town, but there has been little consensus as to the definition of the modern hub “2.0.” This research sought to understand those differing definitions of payments hub to find the reasons why financial institutions are now looking to consolidate once more, and to begin to provide guidance as to how to achieve those strategic aims with a modern approach to payment hubs.

Financial services and payments themselves are increasingly globalized, but regional and local requirements remain. This shift to global details, a global approach with focus on local needs, is reflected in the responses to the research. Financial institutions want to learn from their global counterparts and build for their local markets, but with global expansion in mind. This idea of future-proofing payment hubs emerged throughout the input from our industry experts.

It’s clear that financial institutions have learned from past payment hub attempts and understand that the modern hub will need to manage multiple challenges if it is to deliver true value to the business. But how can they achieve their goals?

This paper outlines not only the challenges facing today’s financial institutions but also recommends a path to a modern payments hub. It provides a framework against which to design a global enterprise payments modernization strategy, and recommendations on the key services and capabilities. It is the ultimate guide to defining and building your next-generation payments hub.

Background and Methodology

This paper was written as a collaboration between Edgar, Dunn & Company (EDC) and ACI Worldwide. It explores the most common payments-related challenges experienced by financial institutions today, along with those of tomorrow, and discusses how orchestrated payment hubs can alleviate these pressures.

To conduct the primary research for this paper, EDC designed a global online survey to which banks and industry experts could contribute. The survey explored the rationale for developing a payments hub strategy, the key drivers to modernize the enterprise payment processing architecture within a bank and benefits they are aiming to achieve. The online survey results enabled EDC to identify the main market trends, drivers for change and the benefits of adopting a payments hub design principle. Insights into payments modernization are given, along with a geographical breakdown of institutional payments strategy.
The survey was open to all interested parties during September and October 2021, and was promoted through a range of relevant social media platforms and banking and financial services membership associations. Additional participants were secured through a social media campaign, leveraging LinkedIn and search engine marketing and retargeting. Overall, nearly 100 participants from around the globe took part in the online survey.

Supplementing the information collected from the online survey, EDC conducted in-depth telephone interviews with leading market experts in different geographies and from organizations serving different types of clients (retail, corporate and banks). These interviews helped to increase the understanding of the perceived virtues of a payments hub design and the benefits that banks are seeking to gain.

In addition, EDC analyzed the online survey on a global level, then delved deeper into the data to look at the results from financial institutions of varying sizes, operating in different markets and regions. EDC used the qualitative data collected from the in-market interviews to determine and qualify the benefits of an enterprise payments hub architecture.

Introduction to Payment Hubs

Payment hubs first came into play about 20 years ago. They consolidated the myriad payments involved with the functioning of contemporary financial institutions and were able to reduce costs and complexity. However, they were difficult to implement and prohibitively expensive. They were also fiendishly complicated and tough to maintain and integrate with other bank systems.

Payment hubs today are an entirely different proposition. The focus has changed from a siloed payments infrastructure to a customer-centric approach, with financial institutions looking for a platform that delivers value-generating products and services. As technology has converged around real-time payments, developments have amalgamated around the ISO 20022 standard. We are witnessing the explosion of cloud technology with vendors being able to offer, and banks being able to deploy, several different options including hosted, public, multi-tenant, etc. clouds. We are also seeing payments offered as a service — or PaaS — where the payments function is “rented” and used as needed rather than owned outright.

As a result, the modern payments hub can serve many functions that previous versions were not able to. Not only do they increase efficiency and reduce costs, but they also reduce fraud risk and overhead (for instance, by automatically screening outgoing payments against a sanctions list and reducing manual investigations). Modern payment hubs also overturn the viewpoints that only very large banks will benefit from payment hubs and that all payment hubs are the same. Payment hubs today are fully focused and optimized for the use of application programming interfaces (APIs) helping different pieces of software (where applicable) to communicate with each other.
There is no clear-cut and unambiguous definition of a payments hub. When asked for their definition, interviewees gave a wide variety of insightful answers. This is not to say that a payments hub solution is undefined.

“A payments hub is a concept that is made up of a common infrastructure and multiple bank and scheme connections.”

Head of Strategy and BD, European processor/infrastructure provider

“A payments hub is a black box managing payments execution and a range of value-added services while being resilient and scalable.”

Payments and Markets Infrastructure Lead, European arm of U.S. bank

“A payments hub consists of a payments engine (internal) and payment gateways (external); these two components used to be separate but are likely to integrate. The hub consists of a suite of services that combines processing, messaging and data intelligence.”

Payments Delivery Director, U.K. bank

One must look deeper and see that these payment hubs are viewed differently between institutions based on their strategic aims and desired use cases. For right now, suffice to say that a payments hub consists of the tools that banks, and other institutions, use to centralize their payments. Payment hubs serve as a single location where all bank messages are consolidated, although they are much more than an enterprise service bus. They manage issuance, messaging, interpreting and transmitting of all outbound payments. They’re designed to enable straight-through processing, gain adaptability and scalability, and reduce operating costs. Moreover, a payments hub can support multiple (transaction) currencies and can be used to manage outgoing payments for all subsidiaries, suppliers, customers, etc. Payment hubs receive their inputs from several different source systems including multiple ERP (enterprise resource planning) systems, finance, treasury, legal, etc. Modern payment hubs are also able to deal with clearing of all types including automated clearing house (ACH), real-time gross settlement (RTGS) and SWIFT (Society for Worldwide Interbank Financial Telecommunication), as well as new real-time and alternative payment types.
Three Reasons Financial Institutions Invest in Payment Hubs

Banks today are facing headwinds from many different directions. As the world increasingly digitizes, the number and frequency of transactions has increased, the costs associated with processing these transactions have correspondingly increased, the overall complexity in the system has multiplied and finally customers have become much more demanding. Legacy banking systems built around a fractured structure of products, services, countries, etc. and managed accordingly are pervasive. There is an overwhelming case to be made to consolidate and standardize these different processes.

To identify the gravity of the challenges faced by financial institutions, and the associated modernization drivers, respondents of the survey were asked to select which, if any, common payments-related challenges are faced by their financial institution. Coupled with the in-market interviews, the following challenges were identified as the most prevalent today:

1. **Siloed infrastructure and the pains of legacy systems**
2. **Operational resilience and business continuity**
3. **Regulatory changes (e.g., ISO 20022) and how they impact strategic decisions**
Siloed infrastructure and the pains of legacy systems

Many established financial institutions have their IT and payments infrastructure set up in a way that each part of the business has its own separate “silo.” For example, the digital operations will be housed in one system while the transaction handling will be handled in another. Likewise, different (payment) products are managed in an isolated fashion. This results in a lack of fluidity between these rigid silo systems. Over 10 years ago, this landscape made sense. In the modern environment, this is not the case anymore.

Legacy systems, designed and built for very precise historical reasons, are no longer able to keep up with the frenetic pace of change coming from the modern payments world. Coupled with the siloed approach that many institutions still hold, legacy systems act as a further hindrance against operational clarity and fluidity. Banks that desire to escape their current siloed landscape discover that their legacy systems are not flexible or adaptable enough to undergo such change.

On top of the resultant diminished customer experience, the back-end impacts relate heavily to reduced efficiency. With no easy route of transferring information between silos, each department must build its own infrastructure. This has stimulated fragmented internal communications and breeds an environment for inaccuracies. Moreover, with some of the largest institutions, one can only imagine the levels of infrastructural duplication between the individual silos. When one system fails, it is not uncommon for the bank to find the recovery time is far too long, which in turn has a lasting reputational damage on the bank’s brand promise.

Finding a solution to these challenges is proving to be imperative for many financial institutions today. When asked which payments-related challenges are faced by their financial institution:

- **51%** of the survey participants said that they experience “a siloed approach to support different payment processes and systems.”
- **48%** feel that current legacy systems no longer meet the business or customer needs.

These findings were validated by market experts.
One of the propositions of a payments hub solution is to alleviate the overbearing pressure caused by the complex “spaghetti junctions” of siloed legacy systems. By being tailored to an individual institution’s back-end environment, modern payment hubs can bring together these aging systems and give them a new lease on life. Picture a conductor leading and energizing an otherwise weary orchestra — the legacy musicians are individually challenged and yet, when brought together with younger musicians, can perform Beethoven brilliantly.

Key Takeaway

It is clear that there is no universally accepted methodology on what must be done to meet the demands of these challenges. A payments hub can represent a centralized point of order for financial institutions to tackle these strategic challenges.

Operational resilience and business continuity

Operational resilience has worked its way into becoming a significant talking point post COVID-19. In a changed global state, where footfall in bank branches recently dropped to zero, the importance of having robust digital channels was never greater. Operational resilience is “the ability of a bank to deliver critical operations through disruption,” states the Basel Committee for Banking Supervision (BCBS).

The potential risks of running operations of sub-par resilience are that of sometimes dire consequence. When spoken about during the in-market interviews, multiple stakeholders of tier 1 and tier 2 banks stated that achieving high levels of resilience is “always a main concern” and is “key.”

With the age of social media and online news outlets, any notable consumer downtime is scrutinized and immortalized. The list of resilience failure case studies is all too large, and banks are keen to ensure their name is not added to it. However, implementing a solution to match this desire is not easy.

A selection of national regulators has taken it upon themselves to bring forth new actions to improve resilience within banks and financial institutions.

“Some Central Banks and schemes are becoming much stricter in demanding back-ups and higher requirements for disaster recovery. The CHAPS system is one example.”

Head of IT, European bank
While some institutions see this as a welcome change, others see this as further compliance that will be prioritized before product and service innovation. Some policies are now requiring extensive scenario testing and action planning to ensure resilience targets are met. When coupled with the previously discussed siloed approach to payments infrastructure, these regulatory requirements can quickly become overwhelming.

Within the online survey, participants were asked to identify which types of future-proofing they would require from a payments hub solution.

63% of financial institutions responded that they would require the solution to be resilient.

Modern payment hubs seek to ease the headache of resilience and related regulatory requirements. They aim to make it easier to test how quickly an issue can harm consumers and the market. Also, in theory, data centers in the cloud are at least equally as resilient as current on-premise offers. However, the future potential is far greater. Through cloud technology, the resilience can scale naturally and without much interference. Moreover, when multi-cloud setups are brought into the picture, business continuity can become significantly easier to manage and maintain.

**Key Takeaway**

Banks and other financial institutions need to diagnose their operational resilience trajectory. Either they have robust actions to deal with compliance requirements of national and international regulators and continued business continuity or they are scratching their heads as to what they can undertake on a reactive basis. We believe many to be on the latter trajectory. For this group, payment hubs are a more than welcome relief.
Regulatory changes (e.g., ISO 20022) and how they impact strategic decisions

A rising importance to financial institutions is their critical conformance to the latest regulatory changes such as PSD2 and ISO 20022. The latter is the International Standards Organization’s new standard for payments globally. It represents an evolution from the MT messaging developed originally by SWIFT to the MX (the XML version of the older SWIFT-based MT format) messaging currently in use, for instance by SEPA Instant Credit.

There are two broad schools of thought on how the transition to ISO 20022 is best managed — the “once-and-done” approach and the gradual change approach. The advantage of the former is self-explanatory; it enables the quick adoption of ISO 20022 and its attendant MX messaging language. However, the slower approach has the advantage of being more deliberate and only transforming to MX data that already exists in MT.

From the results of the online survey, the notion that financial institutions are already well on their way to becoming ISO 20022-compliant became apparent. However, the idea that there is need for a modernization solution that provides protection and adaptability to future regulatory changes, including additional ISO 20022 changes, emerged.

When asked about which future-proofing solutions they would require from a payments hub solution, 60% of institutions chose “protection from, and adaptability to, upcoming regulatory changes.”

Market interviews also validated that a complete migration towards ISO 20022 negates further system upgrades. Additional changes are continuously needed.

Clearly there is still a need for a modernization solution that can ease the unrest that comes with seemingly constant regulatory changes and their associated costs.

Modern payment hubs are closely linked with ISO 20022 technology as it creates data rich messaging along with more efficient processes. The data rich character of the new messaging format will aid in the process of innovating possible new products for bank clients and allow for automatic reconciliation, for instance, between invoices and payments. The move to ISO 20022 represents the most significant move away from proprietary messaging to a global standard. For institutions that are lost in their journey to becoming ISO 20022-compliant, a payments hub can help to spearhead the necessary integrations. On the flipside, for those that are significantly on their way to already adopting this new standard, the integration of a payments hub solution can aid in shielding them from the additional expenditures associated with further changes.
Throughout this market research the idea of “payments strategy” has thrust itself into the headlights on numerous occasions. The questions surrounding the investment into modernization solutions, of which a payments hub is at the forefront, get filtered through each institution’s sieve of strategy and how forward-thinking they are with payments modernization.

In the survey, we asked financial institutions whether they have refreshed their five-year payments strategy in the past six months. Globally, 40% of financial institutions suggested that they had not.

When conducting the market interviews, it became apparent that any payments modernization strategy is severely impacted by mandatory changes to the infrastructure, whether these are mandatory changes to address regulatory or compliance issues or regular software upgrades. These mandatory changes require a lot of resources (staff and money) and restrict financial institutions from strategizing more about innovation and fundamental architectural changes to the payments infrastructure.

Hence, in many cases the additional changes that the future of payments demands are frequently being put on the back burner. However, this is likely to be changing. Payment hubs, along with other modernization activities, are now able to efficiently handle the many upcoming, and future, mandatory aspects of payment ecosystem changes. This, coupled with their adaptability and technology capabilities, allows financial institutions to focus their thinking and investments into their own future of payments.

**Key Takeaway**

*Alleviated from the mandatory game of cat and mouse, banks can utilize best-in-class payment hub technologies to form a clear payments strategy and distinguish themselves in a myriad of competitive payment propositions and unveil a return on investment.*
Payment Hubs Versus Tomorrow’s Challenges

Understanding the drivers as to why financial institutions are being persuaded to modernize their payments infrastructure is important in the context of payment hubs for two main reasons.

1. First, the hub solution seeks to solve the pain points brought along by legacy systems.
2. Secondly, and equally as important, the hub sets itself to be a future-proofing solution.

The figure below is in relation to the latter type of driver, future-proofing.

Over 90% of the survey respondents see the importance of a payments hub, when tackling unseen payments-related challenges in the future, as very important or even pivotal. Clearly, institutions are turning to these solutions not just for aid with today’s difficulties relating to their internal payments ecosystem, but for tomorrow’s also.

Participants of the survey were also asked to rank a list of technical drivers in relation to why they believe their institution needs to modernize its payments infrastructure. The following graph shows how these were ranked, from 1-5, in order of most important (1) to least important (5).
Upon inspection, two of the options were commonly favored as more important in relation to the others.

“To have Open APIs enabling access to a broader range of partners and vendors” and “to consolidate/simplify different payment types” collectively earned 65% of the votes for most important drivers and still approximately 50% for second and third most important driver.

Conversely, “to be cloud ready” and “to create more real-time-capable processing” fared less well. This can be interpreted that either these challenges are not as strong of a priority for financial institutions or that they already have enacted a suitable workaround.

The option ranked as most important by 35% of the participants is the idea of consolidating and simplifying different payment types within their financial institutions.

This result is another sign that the discussions surrounding this topic are not ones of haste. In a global environment where both the quantity and quality of alternative payment methods seem to exponentially rise, along with the consumer adoption of these new technologies, it is no surprise to see that banks are clamoring to simplify and standardize their approach to these offerings. In a similar vein, during a time of fintech renaissance, financial institutions are keener than ever to connect themselves to the new opportunities that the widening catalog of vendors and partners can provide. By having Open APIs, the connectivity between historic financial institutions and these new offers dramatically improves. It is no surprise to see this ranked as second most important.

Key Takeaway

Overseeing the challenges for modernizing payments infrastructure, be it adopting real-time payments or consolidating different payment types, is a significant undertaking. A payments hub seeks to not only effectively combat each individual challenge, but also do so in a cohesive and centralized way that is tangible and easy to manage from the point of view of a financial institution.
Payment hubs and the real-time imperative

The transition to, and adoption of, real-time payment solutions is likely no revelation to any reader of this paper. One of the notable financial victims of the pandemic is that of cash payments. Its abandonment already in motion, COVID-19 resulted in cash payments having an accelerated phasing out across many nations. Furthermore, with in-store footfall being replaced with online channels, questions are being asked too of card schemes in relation to B2C payments. Some argue that cards are not fit for purpose when it comes to remote payments. The recent rapid adoption by consumers of real-time wallets and instant P2P payments is therefore no surprise. These experiences are having knock on effects elsewhere — customers of financial institutions are beginning to expect the same immediacy.

Much of a traditional bank’s payments infrastructure has its roots in batch processing. To open new related revenue streams, these institutions require purpose-built, real-time native solutions. With rising pressures from new clearing and settlement rules, customer demands and digital overlay scheme requirements, the need for real-time capabilities is still growing.

The above figure highlights the responses to a question of three choices — all under the context of the timeliness of transactions being processed through the payments hub of those that currently work within an institution that has one. With a handful of current offerings on the market being under the umbrella of “fully real-time” (some of the most up-to-date solutions can break down batch payments and individually process those transactions in real time), less than a quarter of the currently implemented hubs are suggested to fall under this umbrella. Only 8%, however, are hindered to the point of being “not real-time” at all. This leaves 69% claiming to be able to support “real-time and batch processing.”

With a product offering that has been around for more than 20 years, it is only natural that a decent proportion of today’s implemented payment hubs are “out of date.” Evaluating real-time payment capabilities of these solutions is a good litmus test for determining which ones fit this label. With 53% of the surveyed banks identifying that they do already have a payments hub solution, and over three quarters then saying that their hub is not at all, or partially, real-time — questions begin to be asked about the quantity of hubs that require a real-time update or refresh. EDC believes that banks want to be fully real-time but are still undergoing a transitional period.
Cloud and Payments as a Service for payment hubs

During the in-market interviews, experts revealed a common perception that payment processing is not always a core service that needs to run on bespoke infrastructure hosted by financial institutions. While payment hubs are compelling on their own, they are made an even more attractive proposition by utilizing the cloud. By way of explanation, the cloud referred to is the deployment of computing power (or any of the services associated with it — for instance, payments) as a service rather than as a fixed asset. As a result, there is no upfront cost to bear, since the cost is spread out over the timeframe that one uses it. It also converts what would have been capital expenditure (CapEx) to operating expenditure (OpEx) and improves the client’s financial position. Further, using cloud technology always keeps the system software up to date as they are updated in real time — you do not have to wait for your software vendor to deliver an update as you do with legacy payments software. Software made with the cloud in mind is designed “cloud native” — i.e., having all the features and systems designed in a manner that they are optimized for use in the cloud.

When asked in the survey, 79% of the participants agreed that cloud technologies are a vehicle for transformation rather than just an outcome.

There are several cloud options to choose from when choosing a payments hub setup — the key trade-off is between control and the ability to grow. The most conservative cloud setup is the client-hosted cloud. This is where the software sits on the client side. The client is in full control of their own payments data but are unable to take advantage of positive cloud features such as the ability to grow quickly and cut operating costs dramatically. It is also the most expensive cloud deployment model. A model dramatically different to that of the client-hosted model, is where the cloud is fully hosted by a technology provider. The bank has less control over operations, which are instead provided as a fully-fledged service (Payments as a Service or PaaS) by the technology provider, but can benefit from being able to expand swiftly. An additional advantage is that of lower costs as the technology provider can control a larger number of cost variables.

"Cloud is an important enabler; our new payments hub is cloud based. Otherwise, it would have been too expensive."

Head of Payments, European bank

Key Takeaway

Real-time payments are among the biggest drivers of payments modernization demands, and one of the major reasons that legacy hubs are not fit for purpose in today’s payments ecosystem. Creating a payments strategy that understands how real-time demands impact technology solutions, beyond payments scheme connectivity, is imperative to future-proofing the next generation of hubs.
A further model is the hybrid cloud which consists of elements of the two clouds described above with a cost-growability ratio that sits roughly in between those models.

“When PaaS is much more of interest to smaller banks for cost reasons, but most of them hugely depend on their core banking platform providers who may struggle or be unwilling to strip out certain applications.”

Head of Strategy and BD, European processor/infrastructure provider

When asked in the survey whether their institution would use PaaS solutions for payment processing that, in themselves, do not act as a differentiator, 45% said that they would. Another 41% said that it is something they are currently debating. Clearly this is a hot topic that is drawing plenty of conversation and bringing about action. Survey participants were then asked, if their institution were to enact a payments hub solution, where would they prefer for its operations to run. While 40% selected either the original solution vendor or another third party, the remaining 60% selected for it to be run in house. When this topic was discussed during the in-market interviews, it came across that institutional accessibility to cloud and PaaS services is being limited by legacy systems. It begs the question then: how many of the 60% feel that they are not in a position, with their current technical infrastructure, to adopt these new technologies versus how many, if all barriers were lifted, would still prefer to use in-house methods?

“When some regulators are still educating themselves on what cloud technology is. On top of that, some legacy systems have (scheme) requirements that are not supportive of cloud.”

Payments Director, UK Building Society

With this in mind, a best-in-class payments hub solution should then bring together these current legacy systems to one central location and then be able to easily enable this central location to work with cloud and PaaS technologies.

Key Takeaway

In the past, new service offerings were launched because of demand from the banks. These days, new technologies and offerings are developed ahead of any institutional outcry for help. Vendors can clearly see the challenges of tomorrow and effectively develop solutions to alleviate them. PaaS and cloud solutions are prime examples of this. Banks need to be decisive on their strategy regarding the adoption of these technologies and find the best roadmap to address their needs. For those that decide to embrace the new wave of infrastructure without fully abandoning their offline systems, payment hubs act as an effective enabler.
New payment methods and Open APIs

The continued rise of the fintech sector has brought with it an ocean of potential new and alternative payment methods. Inevitably a good portion of these will not catch on — however, as the likes of Alipay, Google Pay and iDeal can testify, there is a real opportunity to be had for many new digital payment methods. From the perspective of consumers, there is a real growing expectation of financial institutions when it comes to new payment methods.

When asked which future-proofing features they would require from a payments hub solution, the survey participants were overwhelming (77%) in favor of “faster and smoother adoption of new payment methods.” Today’s legacy systems are notoriously one-track minded. To bring them together in a way that enables them to work with new payment methods is, at best, a workaround. Having a payments hub that is implemented with established digital payment methods and alternative payment methods (APMs) in mind instantly opens numerous avenues for financial institutions to explore. Furthermore, a well-designed payments hub seeks to be nimble and adaptable enough for quick and easy adoption of future payment methods, such as the introduction of new overlay services. Could this see the gap in customer offerings of traditional banks versus neobanks shrink? With modernization solutions such as the payments hub, we believe so.

Having Open APIs within a payments hub is the idea of publicly making available APIs for third-party software developers to work alongside. The upside of this is that it allows connections to be made to more vendors and partners. One form of these partners would be APMs; however, the list can be extensive.

“The bank is looking to leverage capabilities of third parties more than before. They can provide more flexibility for niche services.”

Payments Director, UK Building Society

Key Takeaway

Payment hubs combat the tired nature of today’s all too common legacy systems with Open APIs and connections to new and alternative payment methods. Banks with a payments hub will have the ability to connect to exciting technologies supplied by a plethora of previously unreachable fintech companies. As a result, not only will their back-end environment receive a healthy update, but their potential customer offerings will drastically expand, too.
Payment type convergence

An idea critical to payment hubs is that of convergence — namely the convergence of ACH systems and cards systems. Payment systems for banks and cards have historically been separate with cards payments moving on card rails and bank payments moving on bank rails. However, external factors, like the global COVID-19 pandemic, helped to bring these payment rails closer together — the ubiquitous take up of payment cards (and in particular, contactless payment cards) across the ecosystem has helped to blur the lines between the card rails and bank rail worlds.

The impacts of convergence are difficult to deal with. Legacy systems were designed and purpose-built for specific, often outdated, reasons. They are no longer able to keep up with the frenetic pace of change coming from a converging payments world. Furthermore, convergence will not be a linear process — it will be very difficult for core systems to deal with the peaks and troughs of payments convergence change. The drivers of change in convergence fall into several areas — technology (mobile wallets), regulation (PSD2), etc. Whatever the precipitator, the result is that the world of online bank transfer payments has grown hugely and card payments (e.g., PayPal linked to an underlying credit card) have both grown in size but have also grown closer together. Schemes like that of the European Payments Initiative wanting to launch a card scheme that operates on account-to-account rails is of interest to this also. It is critical for a payments hub to be able to deal with this underlying complexity and embrace convergence.

Participants of the online survey were asked if they agree with the following statement:

“There is a hypothesis within the payments industry that a technical convergence of bank/ACH payments and card payments is inevitable. However, an operational convergence may take longer or not happen at all.”
As can be seen in the figure, **84% agree with the statement on the previous page**. Furthermore, when this majority was pressed as to when they think their institution will enact a solution to this convergence, only **4%** stated that they already have one in place.

However, nearly **73%** expect their institution to implement one in the next five years.

Clearly, then, this convergence is not seen as an immediate challenge to overcome. Instead, it is viewed as a likelihood that will need addressing in the coming years.

**Key Takeaway**

*How financial institutions will combat payments convergence is down to how they organize themselves operationally and not necessarily from a technical perspective. Nonetheless, some payment hubs are setting good early examples for those that choose to embrace the idea of a technical convergence. For those that are not ready to decide on their convergence actions yet, payment hubs are bound to still alleviate many of their more present challenges.*
Adoption, Outlook and Value of Payment Hubs

Market readiness and the outlook for payment hubs

With the idea that many financial institutions do not generate large revenues from traditional investment banking activities, for such players there is more focus on revenues generated from services like lending and payments. It was important to try and unpick the revenue proportions of these institutions. In the survey, participants were asked to state what percentage of their institution’s revenue is generated through payment processing.

This result can be broken down further when viewed in tandem with the size of each institution that the respondents represent.

It was found that 86% of large banks generate more than 30% of their revenues through this channel. Conversely, for medium and small banks, this averages around 38%.

Clearly larger banks have captured a significant chunk of the payment processing market and, as a result, are more dependent on it as a source of revenue.

With such dependence on the income generated from these means, having a fully functioning and efficient back-end system to deal with payments is becoming ever more imperative for financial institutions. As a result, we are currently within a time of rapid transition. Investments into modernization solutions, of which payment hubs are one, are sure to continue to rise quickly. The outlook for these types of products is bright.

Of the representatives that took the survey, when asked whether their institution already owns a payments hub solution, 40% indicated that they do. For this group, it was asked of them to select how long ago the implementation took place. Nearly two-thirds chose “Over 5 years ago.” This was the uppermost range of the question. Given that the concept of a payments hub has been around for over 20 years, it is likely that many of these respondents come from institutions that have in-house developed hubs of archaic design. By deduction, the remaining third of respondents have had their payments hub five years or less. This accounts for 15% of all participants. Given the amount of time these propositions have been on the market, this is quite a large figure. Clearly the present-day message behind these solutions is being heard and institutions are turning to them for their benefits.
The 60% of respondents representing institutions that do not have a payments hub today were then questioned as to the timeframe in which their company would implement one, if at all:

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the next 12 months</td>
<td>20%</td>
</tr>
<tr>
<td>1-3 years</td>
<td>25%</td>
</tr>
<tr>
<td>3-5 years</td>
<td>15%</td>
</tr>
<tr>
<td>&gt;5 years</td>
<td>35%</td>
</tr>
</tbody>
</table>

The most important takeaway from this is that only 20% of those currently without a payments hub are unlikely to consider one as part of their strategy. Overall, this means that 88% of respondents either work in an institution that currently has a payments hub solution or is likely to implement one in the next five years. When considering only the responses from those within banks, this number goes up to 95%.

The implementation timeframes for those that are likely to invest in a payments hub solution are also viewed here and can be broken down into three groups.

1. The first and smallest group, making up 5%, see their institution having this new functionality within the next 12 months. This group is likely already in final pre-implementation talks with their potential vendor.
2. The second group brings together those within institutions that see a payments hub solution as a medium-term implementation (1-3 years and 3-5 years). This makes up 40% of the responses. This collection of institutions is thought to be in the later stages of realizing their payments strategy and sees a payments hub as a vessel to deliver their payments-related requirements.
3. The third group, making up the remaining 35%, sees the implementation likely to happen more than five years into the future. This group of institutions likely has a payments hub on their radar, but feels that they are not ready for the implementation process or cost.

**Key Takeaway**

Overall, the outlook for the payments hub is very promising. With rising revenue dependencies on payments, the need for a solid payments infrastructure has never been greater. Financial institutions have begun to change their way of thinking with regards to these offerings. Once seen as expensive and “easier said than done” enhancements, they are now viewed as a viable solution for relieving the pressure from many of today’s and tomorrow’s challenges.
Value adding

Despite effectively combatting present and future challenges that financial institutions are likely to face, payment hubs also offer a variety of value-adding features. As part of the online survey, participants were asked to identify in which areas a hub would provide most added value. Nearly two-thirds said that a payments hub would provide added value by enabling digital overlay services (such as QR codes, P2P payments and Request to Pay).

50% or more showed a desire for a payments hub to support digital identity (eKYC, onboarding) in banking and payments alongside supporting least-cost routing.

“The development of new commercial propositions for end customers is a key driver for change in the payments infrastructure.”

Payments Delivery Director, U.K. bank

Key Takeaway

Favorably, a modern, orchestrated payments hub solution offers these things and much more. Best-in-class security capabilities, payments tracking, the enablement of new overlay services to name but a few. The added business-oriented benefits include reduced long-term operational costs and capital expenditure alongside increased speed to market with new products and services. As payment hubs ease the headache of time- and money-hungry challenges, financial institutions are then given the tools to form their payments strategy around new technologies and revenue streams.
Geographical Imbalance

From a geographical viewpoint, one of the hypotheses held at the start of this market study was that financial institutions within the Europe, Asia and Pacific regions were more in tune with having a regularly updated and clear payments strategy than others.

In the survey, we asked financial institutions whether their five-year payments strategy has been refreshed in the past six months.

Globally, 60% of financial institutions suggested that they had. When the responses are divided up regionally, however, this question then began to encapsulate regional differences in institutional willingness to stay on top of payments modernization.

North American institutions, on average, stated that they update their five-year payments strategy twice as frequently as their Latin American counterparts.

This was on par with institutions situated in Asia Pacific — a region commonly viewed as highly forward-thinking when it comes to payments and other financial technologies.

Elsewhere, Europe sat at the global average while the Middle East and Africa followed behind at 50%.
When looked at in terms of the size of the institutions responding, no clear relationship was found with how this question was answered. This is to say that the geographical basis of a financial institution is more important than its size when it comes to how recently their future payments strategy is revised.

The geographical requirements of a payments hub solution is a topic of much debate. In a large multinational bank, for example, should a hub seek to bring together its global back-end payment operations or should it focus its efforts region by region? This figure outlines the responses to one of the questions posed to participants of the online survey. When asked, 44% of participants stated that they would desire a payments hub solution to operate on a global scale. This was the most popular vote. “A near even split between ‘multiple market’ and ‘regional’ implementations followed.” Clearly then it is the desire of financial institutions to enact these solutions on a wide geographical basis.

The Future of Payment Hubs Is Bright

Banks and other financial institutions, in the context of payments, are on a historical path that forks in two. On one path they succumb to the challenges of: siloed legacy systems, a constant need to be compliant with changing regulatory requirements, an inability to effectively adapt to new payment methods, real-time payments, payment type convergence and changing customer needs. On the other path, they do not.

Financial institutions are cognizant to these pressures and are keen to tread the right path. With long-term global payment strategies being updated on a relatively frequent basis, these institutions are constantly on the lookout for a solution that fits their needs. Real-time payments, API-first design, cloud-ready solutions that can be deployed in a public, a private or hybrid model are fundamental requirements for any financial institution wishing to reduce the burden of keeping up to date with the latest compliance mandates. At the same time, they want to be able to support their legacy systems through a well-thought-out roadmap to migrate them to the new ecosystem. It is worth noting though that geographic basis does introduce a delta in institutional willingness (or ability) to modernize.
With numerous individual solutions available to tackle current and future payment challenges, a next-generation payments hub will bring together best-in-class technologies under a more accessible umbrella. While these solutions have been around for over two decades, the next-generation payments hub has caught the attention of more players. A roadmap from siloed legacy systems to a new payments platform that takes advantage of new ISO 20022 standards and benefits from cloud technologies is never going to be easy. Based on the findings of the global ACI and EDC research, there is no doubt that there is a recent resurgence of payment hub implementations. This is likely to continue and even accelerate as the payment-related pressures on financial institutions accumulate.

**Key Takeaway**

*For many financial institutions, it is not a question of whether they will implement a modern payments hub or not. It is a question of when.*

**Appendix**

Survey demographics and additional information

The conducted online survey, of which this section is based, was intended to be answered by a spread of financial institutions with differing sizes, target clients and payments exposure. Of the respondents representing banks, there was an even split between those from large-, medium- and small-sized banks. These made up 62% of responses. The remainder came from individuals within other financial institutions. Those who either didn’t make it substantially far through the survey or didn’t represent a financial institution were filtered out of the results.

When designing the online survey, a global spread of respondents was desired and encouraged. It was important that not only worldwide payment hub trends were identified, but also the individual trends of specific markets. Having held discussions with market players from all continents, it is apparent that certain markets are more advanced in their adoption and view of these solutions than others. Having a good geographic spread of responses in the survey allows for these ideas to be further explored.

Naturally, as the survey was published in English, Spanish and Portuguese, the linguistically related regions garnered the most responses. North America and Europe jointly collected 40% of responses. Latin America made up 35%. The remaining 25% split between Asia, MEASA and the Pacific.
ACI Worldwide is a global software company that provides mission-critical real-time payment solutions to corporations. Customers use our proven, scalable and secure solutions to process and manage digital payments, enable omni-commerce payments, present and process bill payments, and manage fraud and risk. We combine our global footprint with local presence to drive the real-time digital transformation of payments and commerce.

www.aciworldwide.com

Contact
Craig Ramsey
craig.ramsey@aciworldwide.com
Borja Lopez
borja.lopez@aciworldwide.com

Edgar, Dunn & Company (EDC) is an independent global financial services and payments consultancy. Founded in 1978, the firm is widely regarded as trusted advisor to its clients, providing a full range of strategy consulting services, expertise, market insights, and M&A support. From offices in Frankfurt, Dubai, London, Paris, San Francisco and Sydney, EDC delivers actionable strategies, measurable results and a unique perspective for clients in more than 45 countries on six continents.

www.edgardunn.com

Contact
Mark Beresford
Mark.Beresford@edgardunn.com
Volker Schloenvoigt
Volker.Schloenvoigt@edgardunn.com

LEARN MORE
www.aciworldwide.com
@ACI_Worldwide
contact@aciworldwide.com

Research methodology
This white paper was developed by Edgar, Dunn & Company and ACI Worldwide using a combination of online survey and phone interviews to industry leaders. Both were carried out between September and October 2021.

© Copyright ACI Worldwide, Inc. 2021