White Paper digital banking

the argument for an open approach to banking technology



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the future of banking is open

Banks and credit unions depend on their financial technology providers to perform key business functions. They depend on them to safeguard data. To invest in emerging tech and respond quickly to new innovations. To fuel growth and support progressive strategies. Perhaps most importantly, they depend on their technology providers to offer freedom, flexibility, and choice. To be open.

Without open technology, banks and credit unions find their potential for transformation held hostage by challenging integration environments. It is essential that core technology providers are supportive, compassionate, and bridge-building. That they enable integration opportunities, rather than encumber them.

Jack Henry[™] is dedicated to offering a technology platform that supports open integrations so you can serve and protect your business and accountholder needs. Because we've always had an open approach to banking technology and culture, you can count on us to always help – never hinder – integration prospects that are in your best interest.

What Is Open Banking?

Open banking is about working together. It's opening up APIs (application programming interfaces) to allow third parties to design and build new apps and services far faster than banks and credit unions can on their own. An open platform is focused on the user experience and is powered by technologies that engage and protect accountholders, fuel near-and long-term growth, and create clear differentiation.

A truly open approach to banking will require a change in the way vendors, banks, credit unions, accountholders, and businesses interact and transact – and in what they expect from each other.



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Why Is An Open Approach To Technology The Future Of Banking?

The perception of what makes for a great experience changes over time. In recent years, consumer expectations have been reset by new and disruptive digital technologies like Uber and Airbnb. Consumers expect uncomplicated, intuitive processes that streamline their lives. And they have options. According to Salesforce Research, 76% of customers report that it's easier than ever to take their business elsewhere - switching from brand to brand to find an experience that matches their expectations.1

When it comes to banking, consumers want to simplify the ability to manage and move money, make



payments, check balances, and complete everyday banking tasks. They want less stress in their lives.

Competitive advantage in the financial industry will shift to those who provide the value-added services that accountholders want in order to make banking contextual, easy-to-use, and stress-free.

The expectation of innovation and improved experiences doesn't stop with accountholders. Of 5,000 board members surveyed by Harvard Business School, 30% ranked innovation among their top three concerns, and 21% cited technology.² The truth is, we've been living in a state of disruption for a while - and it will continue.

A proactive Board of Directors that embraces open technology and innovation will ensure their organizations have the strategic agility to navigate the next disruption and differentiate themselves from their competitors.

the ins & outs of open banking

So, what exactly are APIs, how do they work, and what do they mean for open banking? APIs are protocols by which different software components interact. Essentially, APIs allow different applications to communicate with one another. They have been used to connect developers to payment networks as well as to display billing details on a bank's website. Through open banking, APIs are now being used to exchange data with - and incorporate innovations from – third-party providers.

Open Banking At Work

Take Jack Henry's Banno Digital Platform™ for example. Banno is an API platform from the ground up. Every single feature and integration supported by Banno is first established on Jack Henry's own API, which

lays the groundwork to simplify implementation and maintenance of features across our native iOS and Android apps and our progressive web apps. This speeds up feature delivery and keeps banks and credit unions at the forefront of fintech.

And because we've opened up our API with the Banno Digital Toolkit[™], you can choose to bring in solutions and innovations that are unique to you and your community – whether they're from a thirdparty or something you've developed in-house. And everything you integrate is experienced as a natural and seamless part of your existing app and brand. No more jumping from one app to another. Moreover, because the Banno back-office is also API-enabled, it can be extended to consolidate administration and support of integrated third-party solutions in one place. No more jumping between multiple, disparate solutions to support the accountholder ultimately expediting resolution of needs and vastly improving the digital user experience.

Another example of open APIs at work is Geezeo®, a data enrichment and personal financial management (PFM) platform. Geezeo is designed to allow partners flexibility in designing and deploying PFM features into existing digital banking applications – meaning you can pick and choose the features to add to your digital banking suite or completely customize an endto-end personal financial management experience.

The Benefits Of Open Banking

Unlike private APIs, which are never available for third-party or customer consumption, open APIs are fully independent in solution building. In the past, Jack Henry used private APIs – within specific product suites and solutions for internal integrations – but because of the immense benefits for all involved, has moved away from private APIs and toward a standard open API.

Open APIs create, simplify and enhance partnership opportunities with strategic third parties while



bringing integrated solutions to market as quickly as possible. For the technology service provider, an open API makes meeting and managing the demand for services both quicker and better. Conversely, integrated vendors can use the API to build solutions without additional dependencies, allowing them to move much faster in solution building – ultimately resulting in improved and differentiated digital capabilities for banks and credit unions.

Another benefit of embracing open APIs is compliance. While the European Union's PSD2 is the best example of a sweeping regulation that requires banks to share accountholder data with third parties (this is known as XS2A — Access to Account), it's not the only one. Hong Kong has its Open API Framework, while Australia has the Consumer Data Right (CDR) Act. Other significant jurisdictions are moving in the same direction, including our own. The United States Treasury has recommended the introduction of financial data sharing regulations, despite the country's previous market-driven approach.3

What Is BaaS?

In a nutshell, BaaS (banking as a service) offers non-banks access to complete banking capabilities like deposit accounts, payments, and credit – as a service through modern API-driven platforms. BaaS makes it possible for fintechs and other third parties to directly connect with banking systems via open APIs so they can embed financial services into their own native customer experiences using the BaaS providers' regulated infrastructure, as well as unlock other open-banking opportunities.4

BaaS enables a third-party fintech, company or brand access to the regulated institution's infrastructure. The bank or credit union opens its APIs to the third party, granting access to the systems and information needed to build new banking products or offer white-label banking services.⁵ The primary benefits are speed, collaboration, and specialization. Banks and credit unions are able to extend their services

and reach new accountholders far faster than they could alone, accelerating the growth of digital business ecosystems and creating better contextual user experiences for consumers and businesses.



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Why Does BaaS Matter?

BaaS offers new consumer acquisition and revenue opportunities for banks and credit unions. Using BaaS, service providers from just about any sector can embed a wide range of financial services into their suite of offerings for their consumers – and those consumers can conveniently access the financial services they need without having to be a direct customer or member of the underlying bank or credit union.

For example, top brands like Amazon and Apple are embedding payments, loans, and insurance directly into their own consumer experiences. Compared with a traditional white-label solution, API-driven platforms offer brands more control over the end-user experience and higher conversion rates. (E-commerce merchants who embed lending at checkout increase conversion by 50% at checkout).6 But, Amazon and Apple are not financial institutions. So, they partner with banks and credit unions in a new way: through BaaS relationships.

With this flexible, plug-and-play approach to banking, service providers can mix and match from a wide range of financial products and tailor them to the needs of their consumers. In doing so, they essentially



create new financial platforms of their own. By unlocking these new distribution opportunities now, banks and credit unions can capitalize on what's projected to be a \$3.6 trillion market by 2030.7

jack henry's open strategy in action

To meet the needs of the diverse banks and credit unions we serve, Jack Henry must be a catalyst for agility. We must support products that are highly customizable and scalable on your terms and timeline, in a secure manner. Forbes recently recognized us for building our solutions and applications on top of trusted APIs.8 To maintain our future-proof status, we have strict integration standards that require vendors who seek integration with our platforms- to adhere to modern integration practices, and we can offer expert advice on any integration decisions you're considering.



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Integration Opportunities

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Jack Henry built jXchange[™] in the mid-2000s to be the enterprise standard for services connecting cores and complementary products. It was designed to move the company toward an API-first status after using reusable programs for those who needed third-party services. Before that, SymConnect™ was built in the 1990s – way ahead of its time – to enable third parties to build their own integrations. SymConnect eventually evolved into SymXchange[™] in the early 2010s to take advantage of more modern technology, allowing for lower-layer business-service API orchestration.

Both SymXchange and jXchange are intended to replace high-cost, high-maintenance one-to-one product interfaces with an open, standards-based translator of business information between Jack Henry and third-party software products – regardless of platform, operating system, or development language. This way, banks, credit unions, and third-party vendors can build solutions without needing to have in-depth knowledge of file formats or specialized command structures.

Fast-forward to today and you'll see Jack Henry never stops looking for ways to make integration more accessible. Jack Henry is the first core provider to support Plaid Exchange, an open finance solution that enables the data connectivity that users expect with an API that banks and credit unions can implement quickly and securely. Plaid Exchange powers many of the apps in today's financial ecosystem: Venmo, SoFi, Varo, TransferWise, and so many more. Through this partnership, we'll provide Banno clients the means to augment digital services and provide millions of accountholders secure and reliable access to their financial data.

In order to offer more than a "request/response" type of integration solution, Jack Henry also offers a middleware service that allows complementary and non-core products to securely publish highvolume event activity from a product to one or more additional products interested in knowing when an event takes place, as well as details about the event. In short, the event system provides the means for one system to have knowledge of a functional event happening in another system, as that event occurs. This open solution empowers the fintech product space that is real-time dependent. There are several solutions that can be built better because of the event system. For example, now



fraud solutions can subscribe to core or digital "events" as they happen and provide services in real time based on transactional behaviors.

Tools You Can Use

Banno Digital Platform™

In line with jXchange's evolution, the Banno Digital Platform is an API-first architecture – which means that whatever features or functions the Banno team builds, it's built via an API. The platform operates on the same open API that financial institutions can share with third parties and fintechs with whom the financial institution wants to integrate or partner.

Banks and credit unions using the Banno Digital Toolkit can plug any API-based third party's technology directly into their digital banking apps, maintaining a consistent design and user experience. Users can log into the app once and gain access to all the tools offered via external integrations, eliminating the need for multiple apps and logins.

And thanks to a recent partnership between Banno and NuDetect (from Mastercard® company NuData), you can upgrade your security without negatively impacting the digital experience. NuDetect is a passive biometrics and behavioral analytics solution that identifies high-risk users in real time and uses machine learning to optimize the digital experience fully leveraging the world's largest behavioral network.

PowerOn®

PowerOn is a utility that enables banks and credit unions to customize and extend Jack Henry products. It was designed to make it easier for your IT staff to develop tools and automate manual tasks. You can create your own enhancements, develop interfaces to extend your core to third-party systems, and integrate data from multiple sources. The purpose is to give banks and credit unions maximum freedom to adapt our systems to their requirements.

Senior Vice President and Chief Technology Officer at Citizens National Bank, Pam Ilhi, described how her team used PowerOn to enhance a relationship with a third-party provider. Prior to customization, the bank used *jha*PassPort™ and a third party to issue debit cards. Staff logged into the system, navigated to the jhaPassPort system, put in the card number, and gave the customer a new card. "Now, imagine using a PowerOn solution that seamlessly passes the customer and account data from Xperience™ directly to the third-party system to produce the card instantly right there at the printer. PowerOn is the missing piece of the puzzle that allows us to customize the process with a unique level of integration where the user never has to leave Xperience," explained Pam.9

Industry Involvement

Jack Henry's open philosophy extends beyond technology. It applies to how we approach advocacy in our industry. We seek and maintain endorsements from industry associations like the Independent Community Bankers Association (ICBA); and we actively participate in the Association for Financial Technology (AFT) and the Digital Banking Group steering committee. We are also a founding member of the Sheltered Harbor initiative, led by the Financial Services Information Sharing and Analysis Center (FS-ISAC).

We also make sure Jack Henry clients have access to our executive leadership team. We include live Q&A sessions with every quarterly earnings call; host a Quarterly Digital Meetup, where Jack Henry's digital team reviews solutions roadmaps and answers questions; and host several conferences designed to connect you with Jack Henry leaders. That's why you'll see events like the Strategic Initiatives Symposium, the Executive Forum, and the President & CEO Forum hosted throughout the year.



jack henry's approach to openness

Jack Henry's approach to open banking and culture is designed to expand collaboration and facilitate partnerships that help banks and credit unions engage and grow relationships with accountholders by way of a modern user experience that creates new revenue opportunities. Our long-held corporate philosophy, our technology platform, and our focus on your best interest has positioned us as a true leader in open banking.

We're Open For Your Institution

As a proponent of "coopetition," Jack Henry believes that doing the right thing for you means supporting the integration of third-party complementary products, even if they directly compete with our own solutions. That's why we regularly invite hundreds of vendors to showcase their products and services at Jack Henry Connect. We recognize that the benefit of integration is measured in the value it brings to your bank or credit union.



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We're Open For Your Accountholders

Your accountholders want to connect with you on a human, personal level; and ultimately, they want to be put in control of their financial lives. Jack Henry Digital offers one of the industry's largest open banking ecosystems encompassing hundreds of business partners, strategic alliances, and

technology and fintech integrations, offering you a broad spectrum of solutions that extend your offerings beyond traditional banking services.

The Benefits of Jack Henry's Open Approach

While the industry's emphasis on open banking continues to unfold, the concept isn't new here at Jack Henry. For years, we've had an open approach to working with banks and credit unions that has created faster time-to-market for new solutions, faster evolution of banking ecosystems, and more powerful options to configure and personalize financial products.

Today, our award-winning, API-first Banno Digital Platform gives banks and credit unions the strategic agility to partner and integrate at will with third parties of choice and thereby differentiate on features, extend deposit acquisition, and even launch new digital-bank brands altogether. Consider the 2020 recipient of Celent's Model Bank Award for Community Banking Transformation, Midwest BankCentre. This \$2 billion-asset community bank was recognized for launching a separately branded digital bank (Rising Bank®) to increase its deposit base and support continued growth. Leveraging Banno's open platform and API – with support from Jack Henry's SilverLake System® core via jXchange – the bank integrated a select group of fintech solutions and launched its digital brand in only six months. In its first year, Rising Bank gathered over \$130 million in new deposits.

The ability to configure and personalize financial products is a game-changer. According to a Salesforce Research survey of 6,700 consumers and business buyers, 84% of consumers say being treated like a person, not a number, is very important to winning their business. Delivering personalized experiences drives loyalty, with 70% of consumers saying a company's understanding of their individual needs influences their loyalty, and 69% saying the same of personalized care. Because Jack Henry's open platform is so deeply



and tightly integrated to the core, we provide the fastest and most robust digital experiences in the industry – delivering personalized experiences and value-added data and insights that are utterly unique.

And while speed and data-driven personalization are crucial in our current digital-first era, we know the viability of community banks and credit unions hinge upon their ability to deliver personal service meaningfully through digital channels. That's why, in 2018, we pioneered "personal digital banking" with the advent of Banno Conversations $^{\text{SM}}$ – a first-ofits-kind, fully authenticated, real-time messaging capability. This solution brings live, local personal service to accountholders at their moments of need, including those related to features, functions, and innovations integrated from third parties via our open API. Community banks and credit unions can now not only provide the best self-service digital banking innovations made possible by the open-banking ecosystem – they can truly differentiate on personal service at the speed of need, bringing the Main Street banking business model into the digital-first era.

jack henry is future-ready

While we may not know exactly what the future holds, we do know tomorrow is calling us forward. As open banking continues to grow in value and visibility, Jack Henry is ready to address your organization's evolving needs. Our open philosophy and approach to technology and culture has always supported the strategic agility you require and the high-quality experiences your accountholders deserve. And it always will.

create limitless possibilities

Learn more more about our open banking capabilities.

For more information about Jack Henry, visit jackhenry.com.

jack henry[™]

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