

CONNECTING THE DOTS BETWEEN PEOPLE, PROCESS,
AND TECHNOLOGY

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The Operational Guide to Blockchain Transformation for Banking and Financial Services



Introduction

Blockchain technology will transform the banking and financial services industry. Many financial institutions have taken early steps to realize this transformation after seeing its practical application in conventional BFSI domains: securities and capital markets (issuance, trading, corporate actions, and post trade clearing and settlement), lending, payments, trade finance and insurance, data privacy and consent, fraud protection, KYC/AML, and more. Implementing blockchain across these use cases — realizing a real Blockchain Transformation — has the potential to improve processes, establish new revenue streams, and enrich customer experience. Those leading the charge will be well positioned to leader the industry.

But many BFSI players are missing out on the opportunities blockchain offers because they fall into the complexity chasm that successful Blockchain Transformation needs to overcome.

My experience with blockchain innovation in banking began in 2014. After a decade in banking, I took up the challenge of implementing blockchain as part of a Blockchain Center of Excellence at a European Bank, where I saw the impact this technology can have on the one hand and the pitfalls that need to be avoided on the other. After many blockchain experiments and implementations, and after hitting the wall with many of these initiatives, I embarked on a new path to simplify the Blockchain Transformation journey for enterprises. This guide provides a way forward for organizations who are hitting those walls. A way to dramatically improve success rates of blockchain implementations. A way to successfully cross the complexity chasm and realize meaningful and lasting Blockchain Transformation.



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PART #1

Blockchain Projects and the Complexity Chasm

When the idea of blockchain was proposed in 1991 in the paper "[How to Time-Stamp a Digital Document](https://link.springer.com/content/pdf/10.1007/3-540-38424-3_32.pdf)" by Stuart Haber and W. Scott Stornetta,¹ it was a way to verify and certify documents and data in a growing digital world that was rapidly losing physical ledgers. Today, blockchain technology is growing beyond just distributed ledger technology to transforming data storage, contracts, sustainability, and a number of other areas across industries.

Yet with all the potential that blockchain offers, many have yet to embrace — and those who have embraced it are falling short of their aspirations for how blockchain can revolutionize their business. Here are some of the opportunities blockchain offers today, and why many organizations in the BFSI are falling short of realizing its potential.

¹ Haber, Stuart and W. Scott Stornetta. "How to Time-Stamp a Digital Document." https://link.springer.com/content/pdf/10.1007/3-540-38424-3_32.pdf

CHAPTER # 1 :

The Value Blockchain Offers to Banking and Financial Institutions

Blockchain technology has the potential to revolutionize industry — especially the banking and financial services sector, where money and other securities exchange hands between multiple entities, where privacy is a priority, and where vast amounts of data need to be stored and accessed.

However, the ways in which financial institutions operate today are often highly complex, lack standardization across the industry, and employ fragmented IT solutions and data architectures. This not only introduces risk into the system, but can compromise customer security and privacy, cause friction along the channels of exchange, and result in higher operational costs for banking institutions.

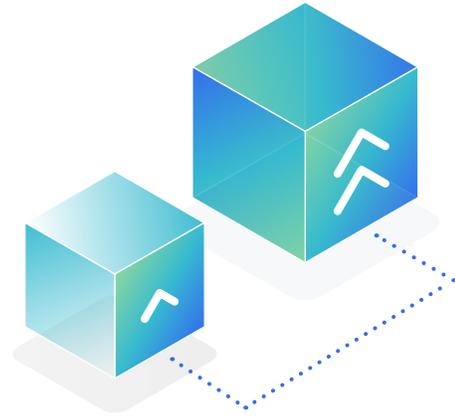
This is where blockchain technology can help in three key areas: distributed storage of data, immutability of stored data, and self-executing smart contracts. These capabilities can extend across a number of applications and use cases, including asset ownership and management, trading and derivatives, corporate financial services, and regulatory.

As such, the benefits of blockchain include the ability to:

- ✓ *Digitize and automate financial service offerings between different parties*
- ✓ *Make transactions more secure and transparent*
- ✓ *Create a shared source of truth based on standards, protocols, and processes*
- ✓ *Improve security with distributed consensus-based systems*
- ✓ *Create more secure permissions and privacy*
- ✓ *Reduce counterparty risk through higher transparency and real-time data*
- ✓ *Lower operational costs through automation, baked-in compliance, and reduced fees*
- ✓ *Reduce overall systemic risk*

How Blockchain Improves Upon Legacy Systems

Blockchain offers true digitization for organizations seeking to revolutionize their operations and position themselves for the future of industry. Blockchain systems improve on legacy systems in the following ways, improving the drawbacks of how financial institutions approach operational initiatives today and the current status quo.



Security

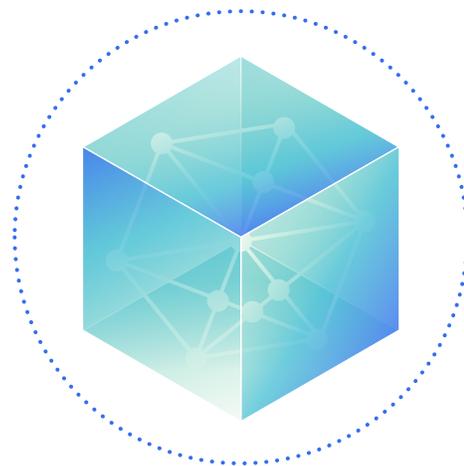
Legacy systems can put data at risk by being a single point of failure, and can limit the products and services that financial institutions provide to customers. However, systems built on blockchain that store data on distributed consensus-based architecture not only improve security, but enable a wide offering of products and services that will be better secured.

Immutable Asset History

At the heart of blockchain technology is its ability to create an immutable record of the provenance of digital assets. Not only does this increase transparency across the system, it reduces risk, and makes it easier to achieve regulatory compliance as well.

Transparency

With legacy systems, stakeholders are forced to rely on a centralized source of truth, where a lack of trust can limit participation. However, blockchain technology creates a decentralized system where standards, protocols, and processes are agreed upon by network partners, creating a shared source of truth and easier collaboration.

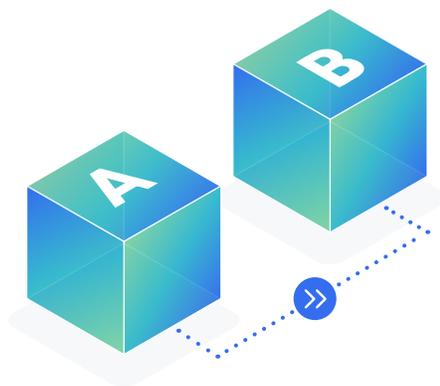


Visibility

Legacy systems can also limit visibility as well, and centralizing data makes it harder to share across stakeholders. However, blockchain creates a shared version of the truth that is visible by many, promoting business and network growth.

Peer-to-Peer Transactions

Blockchain technology also enables the exchange of assets between two parties, reducing the friction between trustless entities, and can offer value through real-time settlement as well.

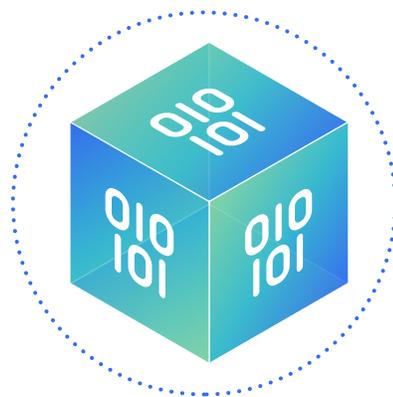


Programmability

With blockchain systems, financial institutions can take advantage of programmability, which enables incentive-driven business logic and automated or “baked in” compliance. For example, programmable smart contracts can improve efficiency, increase transparency, and reduce costs.

Tokenization

Tokenization, enabled by blockchain technology, is rapidly growing as many see the value it can bring to assets like securities, its ability to fractionalize assets, and how it can support increased liquidity.



Privacy

Keeping data private is a high priority, yet legacy systems only allow data sharing between point-to-point participants, which can hinder business growth. However, systems built on blockchain can offer granular permissions, the ability to maintain confidentiality, and coordination among a wide network of participants.



Blockchain Project Opportunities and Options

Given the benefits blockchain provides, banking and financial institutions have a number of options for blockchain projects they can launch to leverage this technology for improved customer experience, more operational efficiency, and lowered costs. Here are just a few blockchain project examples:

- **Loan and insurance:**

Mitigate fraud by creating smart contracts with automated processes to track and execute financial loans and insurance claims.

- **Customer data privacy and consent:**

Develop a blockchain-based consent management solution where customers can manage their data and privacy settings.

- **Customer experience and loyalty:**

Use blockchain to enhance a loyalty program that issues rewards or tokens, which can be more easily managed and tracked.

- **Asset tokenization:**

Launch projects to digitize and tokenize the assets you currently make available through your financial institution, like securities, loans, bonds, or even currency.

- **Fraud prevention:**

Reduce or eliminate banking fraud by implementing blockchain across the customer journey.

- **Payment and remittance:**
Allow customers to conduct transactions through blockchain-based transfers that are immediate, peer-to-peer, and processed securely.
- **Regulatory compliance:**
Leverage blockchain's immutable ledger to provide proof of compliance for audits, or track steps in adhering to regulations.
- **Decentralized identities and KYC:**
Use blockchain's ledger to capture immutable information about your customers so that processes like KYC verifications go faster.

Expected Blockchain Value Creation

Legacy systems can also limit visibility as well, and centralizing data makes it harder to share across stakeholders. However, blockchain creates a shared version of the truth that is visible by many, promoting business and network growth.

With its many opportunities and improvements over current operational approaches, it's no wonder that [*79% of those in financial services believe that blockchain and digital assets will be important to the industry over the next two years.*](#)² In fact, it's estimated that blockchain will create [*\\$3.1 trillion in new business value by 2030.*](#)³ Additionally, the blockchain market is expected to grow at a compound annual growth rate (CAGR) of [*87.7%.*](#)⁴

However, [*85% of blockchain projects fail.*](#)⁵ and most organizations won't reap the returns on that value creation.

² "Deloitte's 2021 Global Blockchain Survey." Deloitte, 2021. https://www2.deloitte.com/content/dam/insights/articles/US144337_Blockchain-survey/DI_Blockchain-survey.pdf

³ Panetta, Kasey. "The CIO's Guide to Blockchain." Gartner, September 23, 2019. <https://www.gartner.com/smarterwithgartner/the-cios-guide-to-blockchain>

⁴ "Blockchain Technology Market Size, Share & Trends Analysis Report By Type (Private Cloud, Public Cloud), By Application (Digital Identity, Payments), By Enterprise Size, By Component, By End Use, And Segment Forecasts, 2023 – 2030." Grand View Research. <https://www.grandviewresearch.com/industry-analysis/blockchain-technology-market>

⁵ Trujillo, Jesus Leal, et al. "Evolution of blockchain technology." Deloitte, November 6, 2017. <https://www2.deloitte.com/us/en/insights/industry/financial-services/evolution-of-blockchain-github-platform.html>

CHAPTER # 2 :

Why Blockchain Projects Fail

Blockchain offers a number of benefits to revolutionize customer experience, privacy, and security, and that can foster the growth of businesses and networks who adopt it. However, many organizations today have failed to fully adopt blockchain into their offerings or successfully execute their blockchain projects. They're finding themselves at a complexity chasm between their ambitions and opportunities that they can't seem to cross.

What is the Complexity Chasm?

Blockchain offers great promise for business. Yet while [*83% of financial services leaders*](#)⁶ see compelling business cases for blockchain in their organization, only 3% of organizations have an operational blockchain in their business, "and those solutions that do exist focus mostly on efficiency of existing process versus business disruption and new value creation," according to [*Gartner*](#).⁷

The reality is that many organizations will take on blockchain projects in order to transform their operations, product offerings, and customer experience, and many will come up short. [*A study conducted by Deloitte on GitHub*](#), the open-source development platform, looked at what they called the "mortality rate of blockchain projects." They found that only 15% of blockchain projects developed by organizations are active, which they define as being updated at least once in the last six months. This means that 85% have failed or stopped at some point along the way.⁸ Additionally, [*Gartner*](#) finds that 90% of blockchain projects that are launched will need replacing within 18 months of their launch in order to stay relevant, competitive, and secured.⁹

What's happening here? It seems like many organizations are embarked on blockchain projects, yet most are having to cancel or abandon them, or they're looking at having to replace them because the initial launch is unsustainable. In other words, many organizations are investing time, energy, resources, and lots of money into creating

⁶ "Deloitte's 2021 Global Blockchain Survey." Deloitte, 2021. https://www2.deloitte.com/content/dam/insights/articles/US144337_Blockchain-survey/DI_Blockchain-survey.pdf

⁷ Panetta, Kasey. "The CIO's Guide to Blockchain." Gartner, September 23, 2019. <https://www.gartner.com/smarterwithgartner/the-cios-guide-to-blockchain>

⁸ "Trujillo, Jesus Leal, et al. "Evolution of blockchain technology." Deloitte, November 6, 2017. <https://www2.deloitte.com/us/en/insights/industry/financial-services/evolution-of-blockchain-github-platform.html>

⁹ "Gartner Predicts 90% of Current Enterprise Blockchain Platform Implementations Will Require Replacement by 2021." Gartner, June 3, 2019. <https://www.gartner.com/en/newsroom/press-releases/2019-07-03-gartner-predicts-90--of-current-enterprise-blockchain>

these projects, yet only 15% are seeing their efforts bring value to their customers and return a profit.

The obstacles that these organizations are unable to hurdle can be summed up in one term: blockchain complexity. This complexity creates a chasm that stops all forward motion, where ambition lays on one side and massive opportunity on the other — and most organizations don't know how to cross the chasm.

Seven Reasons Why Blockchain Projects Fail

Blockchain projects may fail for a number of reasons, resulting in lost time, no ROI, and general discouragement over how to finally bridge that chasm. However, in order to continue moving forward, it's helpful to identify the possibilities of why the project failed. What constitutes that complexity and why can't they cross that chasm? Here are some common reasons.



There's no clear use case for your blockchain project

One of the reasons why blockchain projects never get any further than an idea is due to a lack of clarity around the use case. Many organizations may want to dive into blockchain adoption and ramp up on blockchain usage, but they haven't looked at exactly how they'll use it. Blockchain technology is best adopted when it provides advantages over existing solutions, like when there's a need to share data or conduct transactions between trustless entities. But a lack of a clear use case results in wasting budgets and resources on a fuzzy vision and no solid foundation. Even if you do get a project launched, having an unclear use case will likely result in low or no adoption from your customers.



Your project yields little or no return on investment (ROI)

In addition to lacking a clear use case, many blockchain projects fail or are halted because they lack a clear way to yield an ROI. Again, many organizations may want to jump right in to offering blockchain projects or opportunities to their customers, but they need to have a way to bring value or earn revenue that justifies the investment. Additionally, you may think you have a great use case, but if the ROI is lower than expected or taking longer to realize, it may be difficult for leadership to justify the ongoing investment, or the project may need to go back to the drawing board.



You don't have an implementation strategy

Blockchain projects can also fail without an implementation strategy as well. Not only does this include the clear use case and how it will provide a return on investment, but outlines how the project will be developed, what people or resources will be needed, what the funding will look like, a clear timeline or roadmap, a launch date, and how the project will be marketed or communicated so that customers will adopt it. A blockchain project needs to be managed like any other product development cycle, or else it won't get much further than an idea. Because blockchain is a relatively new technology, add into that implementation plan a strategy to manage change within your organization as well, or else your people won't be on board to push the project forward.



You lack in-house expertise to build that blockchain project

In order to launch functional and impactful blockchain projects, someone has to build them — and a lack of in-house expertise on how to actually take the project from idea to proof of concept is another reason why blockchain projects fail. In fact, in our recent report on [“The State of Blockchain Transformation in Banking,”](#) we found that the second biggest challenge to rolling out blockchain initiatives is finding developers to work on the project. However, developers trained on blockchain aren't necessarily easy to come by, and the skills gap may leave organizations wondering how to even get started on their projects.





You lack helpful tools and resources

Even if organizations have in-house expertise and knowledge of how to build and execute blockchain projects, their projects may still fail due to a lack of the right tools and resources. For example, developers may lack tools that are enterprise-grade, or don't have the performance or scalability to support blockchain projects. The tools may limit the ability to create multiple use cases, or they may not be intuitive or user friendly. A lack of vendor, partner, or community support to truly understand how to effectively implement the blockchain project may cause it to fail as well.



You get hung up on regulatory and compliance challenges

Another reason your blockchain project may fail is because it doesn't adhere to the regulations of your industry, or you run into compliance issues or challenges when creating your project that you didn't anticipate. Since blockchain technology handles privacy and security differently than legacy systems, many teams may get tripped up on complex compliance requirements before they can get the project launched — and you especially don't want to run into compliance issues after you've launched.



The project has technical limitations and scalability issues

Blockchain projects require technical know-how in order to launch and scale. In our recent report on [“The State of Blockchain Transformation in Banking,”](#) we found that the biggest challenge to rolling out blockchain initiatives is integrating legacy systems with blockchain, one of the technical roadblocks that can derail blockchain projects. Unless you can successfully integrate your project into your current systems, operations, and networks, you'll lack useability and eventually the ability to scale. Blockchain systems offer a number of benefits over legacy systems, but you have to be able to implement them first.

But there is a way to bridge that chasm. It's through Blockchain Transformation.



PART #2

An Introduction to Blockchain Transformation

Your organization is facing the chasm of complexity and wants to cross it in order to realize the many benefits blockchain technology can offer. How do you cross that divide? By adopting a Blockchain Transformation, which can bridge the chasm between your ambitions and blockchain opportunity.

CHAPTER # 3 :

What is Blockchain Transformation?

Blockchain Transformation is the next big tech evolution since the invention of the internet, where transparency, efficiency, and sustainability becomes the norm. A Blockchain Transformation changes companies from the inside out, revolutionizing their processes and empowering their teams to create real-world impact. Blockchain Transformation is about businesses tapping into their true potential, leaving behind obsolete technologies, reinventing their corporate strategies, and challenging the status quo.

Blockchain Transformation is the discipline that combines strategies, methods, and tools that organizations use to accelerate value creation. If you're ready to embrace the opportunities that blockchain can offer, you can't simply focus on adopting one project. Nor can you simply adopt a tool and believe that your organization will be transformed, as a tool alone won't do the job.

Instead, Blockchain Transformation combines technology, skills, and impactful use cases to enable forward-thinking companies to open new doors to innovative, strategic, and revenue generating or cost cutting possibilities. It's a holistic plan for people, processes, and technology, not just an out-of-the-box, one-size-fits-all approach that you just plug in for success.

A Blockchain Transformation touches the following areas:

- **Tools**

A key part of Blockchain Transformation is having the right tools that can help you bridge the chasm and launch blockchain projects quickly and efficiently.

- **Education and training:**

A Blockchain Transformation also involves educating and training your developers on blockchain technology so that they can build projects in-house.

- **Support and expertise:**

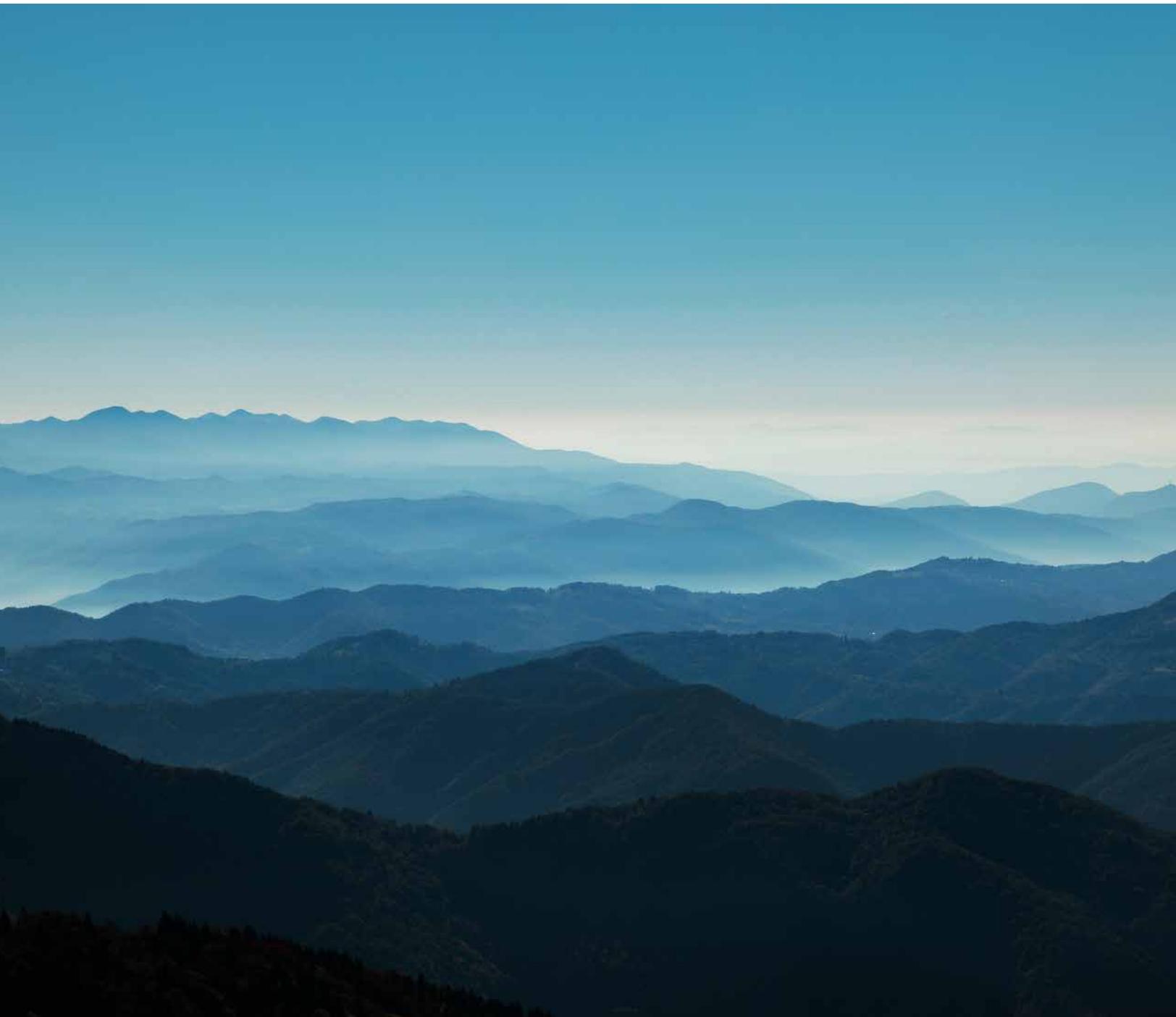
Blockchain Transformation can only happen by leveraging the expertise and support of vendors and blockchain partners.

- **Community and partner networks:**

As you build out your projects, you'll begin growing your community of users and partner networks — another contributor to Blockchain Transformation.

- **Guidance and methodology:**

Finally, Blockchain Transformation can't happen unless you rethink and adapt your operations to optimize your blockchain use.



How is It Similar to Digital Transformation?

[McKinsey](#) defines Digital Transformation as “the rewiring of an organization, with the goal of creating value by continuously deploying tech at scale.”¹⁰ [IBM](#) says that Digital Transformation “takes a customer-driven, digital-first approach to all aspects of a business, from its business models to customer experiences to processes and operations.”¹¹ [Accenture](#) defines Digital Transformation as “the process by which companies embed technologies across their businesses to drive fundamental change.”¹²

Blockchain Transformation is quite the same: a process that transforms the organization from the ground up through the implementation of blockchain technology.

Many organizations today have already embarked on a Digital Transformation in order to revolutionize their processes, people, and systems so that they can keep up with an increasing digital world. Blockchain Transformation is similar in a number of ways, in that it's a holistic discipline through which to adopt and integrate blockchain technology across an organization.

How are the two disciplines similar? Successful implementation of both Blockchain Transformation and Digital Transformation requires a clear strategic vision and alignment with the company goals, including both short-term, mid-term, and long-term changes. They both look at transforming the people, processes, and technology across an organization.

Both create possibilities for new business models, customer experiences, and revenue streams through disruption and innovation. They also both increase value through innovation, invention, customer experience, or efficiency.

They also both involve the adoption and integration of new technologies. Digital Transformation is about leveraging digital technologies to fundamentally change how a business operates, while Blockchain Transformation focuses specifically on incorporating blockchain solutions into various aspects of an organization's processes. The tools and technology may be different, but the process has many parallels.

Just like with a Digital Transformation, if organizations don't embark upon a Blockchain Transformation today, they'll struggle to catch up as their competitors move forward and may lose out on a future in their industry altogether.

¹⁰ “What is digital transformation?” McKinsey, June 14, 2023. <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-digital-transformation>

¹¹ “What is digital transformation?” IBM. <https://www.ibm.com/topics/digital-transformation>

¹² “What is digital transformation?” Accenture. <https://www.accenture.com/us-en/insights/digital-transformation-index>



CHAPTER # 4 :

Benefits of Blockchain Transformation

Banking leaders aren't going to embark upon a Blockchain Transformation unless they truly understand the benefits and value it can bring to their organization, and how it can give them a competitive advantage over others in their industry. The benefits that Blockchain Transformation can bring to an organization extends across a number of areas, and include the following.

Realize ROI on Your Blockchain Projects

As mentioned above, only 15% of organizations are actually seeing success in their blockchain efforts, while 85% of organizations are investing money, time, and resources into projects that don't end up reaching their goal of launching or generating revenue for the company. This inability to produce value is a result of the aforementioned complexity chasm that many organizations have difficulty crossing. However, a Blockchain Transformation puts the right people, technology, and resources in place to cross that chasm so that organizations can finally realize ROI on their blockchain project investments.



New Business Models and Revenue Streams

Adopting a Blockchain Transformation across your organization will result in a ramping up of blockchain projects across a number of use cases, and is ideal for situations where multiple parties need to share data, where trustless connection and coordination between parties is required, to improve security or privacy around transactions, or to create a distributed consensus-based system that connects a network of partners. As such, this will allow you to develop new business models as you launch and enhance your use cases, which will lead to new revenue streams, new innovation, and the potential to tap into new markets.

Operational Efficiency and Cost Reduction

Another benefit that a Blockchain Transformation provides is an increase in operational efficiency through the reinvention of existing internal practices. One example is that using blockchain to create an immutable ledger of movements allows businesses the ability to track entire processes, identifying bottlenecks, optimizing logistics, and improving their resource management. Organizations will see a reduction in administrative costs as well through these more efficient processes, as well as lower transaction fees and cut costs associated with their processes.

Improving Trust and Transparency

In our recent report on [“The State of Blockchain Transformation in Banking,”](#) the biggest benefit banking leaders said blockchain could provide is an increase in trust across their processes and for their customers. Blockchain’s immutable ledger, where recorded data can’t be altered, builds transparency and trust among stakeholders because they can independently verify transactions and data. Having a shared source of truth as well means that there’s more transparency into processes and transactions to keep the system honest.



Increased Customer Engagement and Loyalty

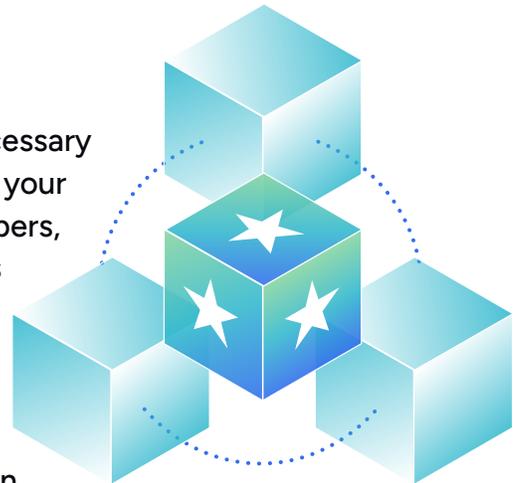
By improving process efficiency, security, and trust, financial institutions can improve their customers’ experiences and engagement as well. Additionally, blockchain can facilitate the creation of innovative loyalty programs and reward systems through branded digital tokens or NFTs, through which customers can earn and redeem incentives, discounts, or exclusive offers. Tokenized offerings can encourage greater customer engagement and loyalty, as well as new business opportunities and increased demand for services. As more people open more digital wallets, we’ll only see the demand increase.

Access to Investment Opportunities

Another benefit of Blockchain Transformation, which builds on the customer experience mentioned in the last section, is the ability for financial institutions to increase access to investment opportunities through the creation of asset tokens for stocks, bonds, and real estate. Tokenization also enables fractional ownership of those assets, which can open up opportunities to a broader range of investors who can now participate with smaller amounts of capital.

More Internal Blockchain Expertise

One key aspect of Blockchain Transformation is the increase in education and internal expertise that's necessary for future blockchain success. Instead of outsourcing your blockchain initiatives to expensive third-party developers, your team is in the driver's seat of innovative projects that have the potential to yield ROI, improve the customer experience, and solve real-world business problems. Blockchain Transformation inherently increases your IT capabilities and expertise as well, resulting in higher employee satisfaction and retention.



Your organization is facing the chasm of complexity and wants to cross it in order to realize the many benefits blockchain technology can offer. By embarking upon a Blockchain Transformation, you'll cross that complexity chasm by building up the people, technology, and processes necessary to truly capitalize on blockchain technology, reaping a number of benefits that will put you at the forefront of your industry.



PART #3

Why You Need a Blockchain Transformation

As technology accelerates and customer expectations increase, there's an urgency to do things differently. Customers expect transparency, sustainable products, and deeper brand experiences. Governments are pushing for ESG (Environmental, Social, and Governance) and embracing new technologies to revolutionize old industries. Businesses know that there's great potential for value creation with new business models and offerings, which are evolving at unprecedented speed. How can a Blockchain Transformation help you keep ahead of your competitors and be at the forefront of your industry?

CHAPTER # 5 :

The Critical Discipline of Blockchain Transformation



Blockchain Transformation isn't just a skill that you learn one time and master. Rather, it's a multifaceted discipline that must be practiced and iterated upon in order to truly see success. It's the difference between simply adopting a new tool versus adopting a new mindset and holistic approach to preparing your organization for blockchain implementation at every level.

Now is the time for banking leaders to start practicing that discipline in order to see real change across their organization.

Reasons Why Now is the Time for a Blockchain Transformation

Many financial institutions have already embarked on experimenting with blockchain projects and rolling them out to their customers — meaning that the time of early adoption is gone, and the time for necessary adoption is here. What follows are just some of the reasons why now is the time to begin your Blockchain Transformation.



You need a competitive advantage in the digital economy

Every business is looking for a competitive advantage in their industry as a way to stand out and stay ahead. With blockchain technology offering unique benefits that include transparency, security, and efficiency, companies that adopt and effectively implement blockchain solutions can improve their operations, reduce costs, and generate new revenue streams. They'll ultimately position themselves as industry leaders as they operate more efficiently and attract new customers.



You need more sustainability and ESG initiatives

There's an increasing expectation today that businesses will commit to sustainability and Environmental, Social, and Governance (ESG) efforts. Blockchain technology can play an important role in achieving transparency and traceability by tracking efforts through its immutable ledger, and providing opportunities for more digital, paperless interactions. Customers today are looking for organizations who are taking the lead on sustainability efforts as well. Through Blockchain Transformation, businesses can demonstrate their commitment to sustainability and meet their customers' expectations



You need more efficient processes and better ROI to stay competitive

In this economy, businesses are looking for ways to do more with less, and optimization will remain a key priority in order to reduce costs and maximize resources. This is why many organizations are turning to blockchain technology, which can bring more efficiency to your processes and return more ROI. As we saw above, by adopting a Blockchain Transformation, financial institutions can finally realize ROI on blockchain projects that may have stagnated or gone back to the drawing board, creating more opportunity for revenue, new audiences, and business models.



Upskilling and empowering your team

Blockchain skills and expertise are only growing, and [demand for blockchain programming skills grew 552% in 2022](#).¹³ One of the foundations of Blockchain Transformation is upskilling your current team members with blockchain knowledge and expertise so that they can develop blockchain projects in-house that align with the company mission and goals. This alone can create a competitive advantage for you, and can be a way to increase job satisfaction and retention so that they don't leave for competition who will train them on new skills instead.



Value creation through partnerships, ecosystems, and consortia

Value creation through partnerships, ecosystems, and consortia
In our recent report on [“The State of Blockchain Transformation in Banking,”](#) respondents are looking for deeper relationships with vendors, communities, and partners in order to realize their blockchain success. Blockchain implementation needs community to thrive, and not only requires a more holistic mindset approach to educating and upskilling people internally, but a commitment to build community networks and partnerships through various consortia who will all work together to forward blockchain's growth.

¹³ “DevSkiller Digital & IT Skills Report 2023.” DevSkiller, 2023. <https://devskiller.com/digital-it-skills-report-2023/>

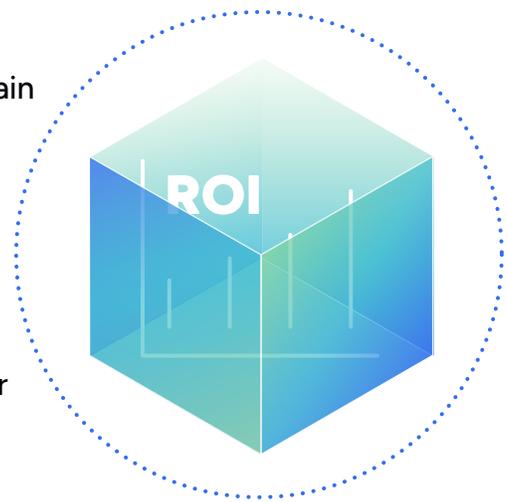
CHAPTER # 6 :

The Future of Blockchain Transformation

Today's urgency for a competitive advantage, sustainability efforts, new business offerings, and better ROI on blockchain projects are just a few of the reasons why now is the time to embark on a Blockchain Transformation. What will adopting a Blockchain Transformation now lead to in the future?

ROI will be the main driver of growth

Innovation will no longer be the main driver of Blockchain Transformation like it was for Digital Transformation, but return on investment and revenue growth will be the main driver. This will be especially key once organizations begin implementing their Blockchain Transformation and start seeing success and ROI on their blockchain projects. Increasing success in implementation will have many organizations no longer asking why they should use blockchain — they'll know why because they'll see the results.



Increasing mainstream adoption and blockchain maturity

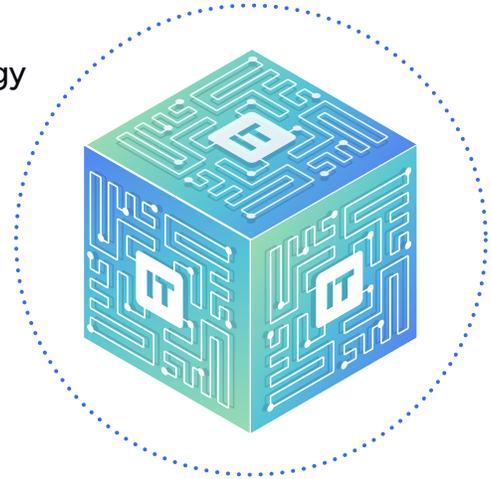
We're already seeing blockchain adoption today and organizations growing in their blockchain maturity. As more organizations embark upon Blockchain Transformation and realize the benefits and returns from their efforts, mainstream adoption of blockchain will hit its tipping point. All leading companies will also have a Blockchain Transformation strategy just like they have a Digital Transformation strategy, and they'll likely have Blockchain Transformation business units or teams. We'll also see blockchain used in a variety of ways as well, including asset tokenization, NFTs, identity management, payment, and more.

Governments will get involved

Blockchain adoption won't just be limited to financial institutions and customers, but governments will grow in their blockchain maturity as well. Many governments are already embarking upon creating digital currencies, and will use blockchain for identity, security, supply chain tracking, and a lot more. Additionally, with their increasing focus on ESG, governments will fuel the growth of sustainable and greener business models with blockchain at the foundation.

Blockchain will become integrated into the IT stack

Another result of increasing Blockchain Transformation adoption will be the integration of blockchain technology into part of the common IT stack, just like CRM, CMS, and ERP systems. As Blockchain Transformation results in more upskilling and increases in-house knowledge and capabilities, it will become "just another everyday" IT skill as well, with new roles around Blockchain Transformation expertise growing more common across organizations.



More customers will participate

Customer usage and participation in blockchain technology and use cases will increase as well. Today, [over 80 million wallets are active](#)¹⁴ and being used to interact with blockchain-based technologies every day, from digital currencies to NFTs to assets — and especially with the rise of Central Bank Digital Currencies. Additionally, with blockchain's transparency and ability to show provenance, consumers will choose blockchain-based products or services that can prove their sustainable claims.

As technology accelerates and customer expectations increase, there's an urgency to do things differently — and Blockchain Transformation is a way to set yourself apart from your competitors and position yourself now for the industry of tomorrow.

¹⁴ de Best, Raynor. "Unique cryptocurrency wallets created on Blockchain.com as of November 17, 2022." Statista, Aug. 29, 2023. <https://www.statista.com/statistics/647374/worldwide-blockchain-wallet-users/>



PART #4

How to Implement a Blockchain Transformation

Blockchain offers great potential for the banking and financial services industry by revolutionizing internal processes, customer experiences, and the ability to create new revenue streams. The benefits of embarking upon a Blockchain Transformation are many, as are the ways in which blockchain can reshape use cases to bring more value to customers.

Organizations who want to stay at the forefront of their industry can't take a wait-and-see attitude. Blockchain Transformation begins today.

CHAPTER # 7 :

Step-by-Step Guide to Blockchain Transformation

Blockchain Transformation isn't a plug-and-play piece of software, nor is it just a skill that you learn once. It's a discipline that, at its core, will change your organization and prepare it for the future of industry. If you're ready to embark upon a Blockchain Transformation, follow these steps.



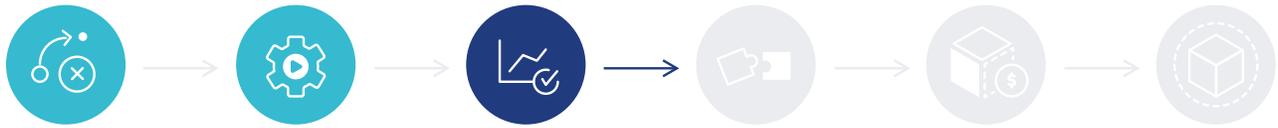
Step #1: Define your Blockchain Transformation ambition and strategy

Because Blockchain Transformation requires a mindset shift across your organization's processes, people, and technology, ensure that there's alignment across your teams and with leadership. This is why the first step in your implementation is outlining your Blockchain Transformation strategy. Start by assessing your company's maturity for change and readiness to adopt a transformation of this scope. Determine your objectives as well so that you know what goals you're moving towards, and be prepared not just for a one-time rollout, but for ongoing change management.



Step #2: Design your blockchain initiatives

Next, determine what new initiatives, business models, or revenue streams you want to implement. As you create those initiatives, look to current market insights around blockchain use and implementation to guide you, as knowing the latest developments in the market means you can leverage best practices already out there. Ensure that customer and constituent needs are at the center of your efforts as well.



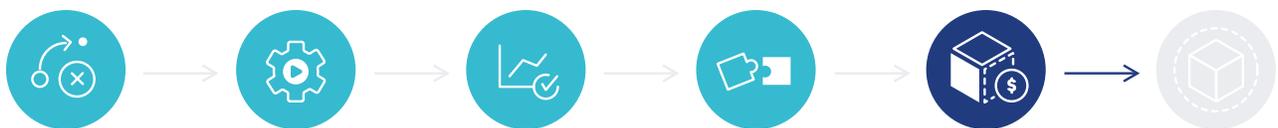
Step #3: Identify relevant use cases and define KPIs

Next, identify your use cases. This will be where integrating blockchain can improve your processes and initiatives in areas where, for example, multiple parties need to share data, but where those parties face a barrier to coordination, like the inability to trust each other. Identify use cases that will also be low-hanging fruits and that can get you to initial success, value, and ROI quickly. Today, we're seeing use cases in the banking industry range from loans and insurance, customer data privacy and consent, customer experience and loyalty, asset tokenization, and more.



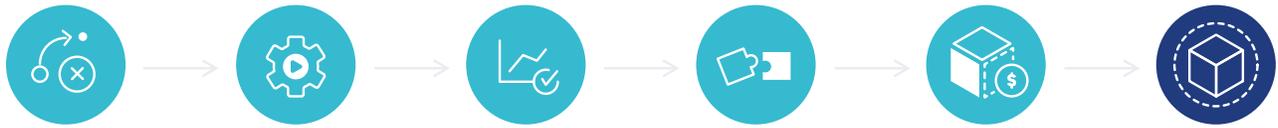
Step #4: Build a team with different key stakeholders according to the use case

Next, build the team that will make your blockchain project a reality, including front end developers, UI developers, industry experts, project managers, and others. You may also consider establishing a Blockchain Transformation business unit and identifying blockchain champions to drive the change as well. Remember that in-house upskilling, education, and training are key parts of your Blockchain Transformation.



Step #5: Invest in a Blockchain Transformation Platform

A Blockchain Transformation Platform will be another asset that will help forward your Blockchain Transformation. These platforms abstract much of the complexity so that developers can start creating, and cost much less than it would to build a project from scratch. With a variety of templates, customizable smart contract libraries, integration assistance, and other features, onboarding the right Blockchain Transformation Platform will be a critical part of your strategy.



Step #6: Delivery of your blockchain project, scaling, and refining

Finally, once you build and launch your blockchain project, use the metrics and KPIs you determined at the start to measure its success. As with any new technology, adoption may be an ongoing process, especially among your customer base who may be new to blockchain technology. As you continue to mature your Blockchain Transformation efforts, ensure your organization has the agility to reset strategy and plans, knowing that Blockchain Transformation is a journey, not a destination.



CHAPTER # 8 :

Common Challenges and How to Overcome Them

Implementing a Blockchain Transformation across your organization will take time, resources, and strong leadership — but it'll be worth the effort. Here are a few challenges you may encounter along the way and how to overcome them.

Confusion between Blockchain Optimization and Blockchain Transformation

One of the initial challenges you encounter may be in understanding the scope of Blockchain Transformation. Blockchain Transformation is not Blockchain Optimization, where you leverage blockchain technology to simply improve existing operational processes. Yet many organizations may stop at just that, leaving blockchain initiatives siloed, or seeing it as just one project or part of one department.

Instead, understand Blockchain Transformation as a top-to-bottom change in how an organization integrates and uses blockchain technology, revolutionizing how that business fundamentally operates with blockchain incorporated into its ethos.

Resistance to change

Implementing a Blockchain Transformation is a big change for the organization when done effectively. And leadership needs to be prepared to lead that change — and to address and inspire those who don't yet see the value, or don't understand blockchain technology in general.

Lead this change by creating clear roadmaps to communicate the path of Blockchain Transformation to the company. Look for blockchain champions already in your company, create a permanent position for a Blockchain Transformation expert, or create a taskforce to ensure internal buy-in, adoption, and implementation across your organization.

Having the right people to drive this adoption

Blockchain Transformation isn't just led by one person, or by a Blockchain Center of Excellence. Instead, everyone at your organization should have buy-in to your Blockchain Transformation. Another challenge is having the right people to drive your blockchain adoption — individuals who understand blockchain technology, the value it can bring, and how to build and scale blockchain projects.

If you don't have the people already, don't go hiring: train your in-house teams. That way you'll keep your expertise internal, which will save costs, increase capabilities, and give you much needed flexibility. Extend that education and training out to partners and customers so that you're growing the entire ecosystem and community around your project.

Chasing a “big bang” approach can fail

You may be eager to launch your blockchain project, but remember the chasm of complexity: many organizations launch with limited understanding of how to build their project, resources, or use case, and never get a product off the ground. Avoid taking a “big bang” approach to launching your Blockchain Transformation that's immediately unsustainable.

Instead, as you create your strategy, be cognizant of keeping your blockchain project scaling with your workforce's current capabilities. Start with low-hanging fruit projects that generate ROI immediately, and then scale from there as you create more expertise, synergy, and community across your organization. Don't forget to make sure that strategy and execution are aligned as well.

Blockchain offers great potential for the banking and financial services industry by revolutionizing internal processes, customer experiences, and the ability to create new revenue streams. Your Blockchain Transformation can begin today as you define your strategies, design your initiatives, pick your use cases, and compile a knowledgeable team who can build, launch, and scale your new blockchain projects.



PART #5

Blockchain Transformation Platforms

A Blockchain Transformation Platform is a critical part of your organization's blockchain implementation, and may not be able to happen without it. These platforms abstract much of the complexity of blockchain creation, allowing developers who may not have extensive blockchain expertise to build and launch projects in an easy and straightforward manner. Blockchain Transformation Platforms are a fraction of the cost of creating blockchain projects from scratch as well. Here are some of the key capabilities and questions you need to ask as you seek out the best Blockchain Transformation Platform for your organization.

CHAPTER # 9 :

Top Features and Capabilities

Not all Blockchain Transformation Platforms are created the same. You want technology that can help build the foundation of your Blockchain Transformation, one that you can adopt and start using immediately with little onboarding. More importantly, you want a technology that will fit your organization's needs and expectations for blockchain innovation and strategy. Consider the following features and capabilities when looking for your new Blockchain Transformation Platform.

- **Enterprise-grade, performance, security, and scalability**

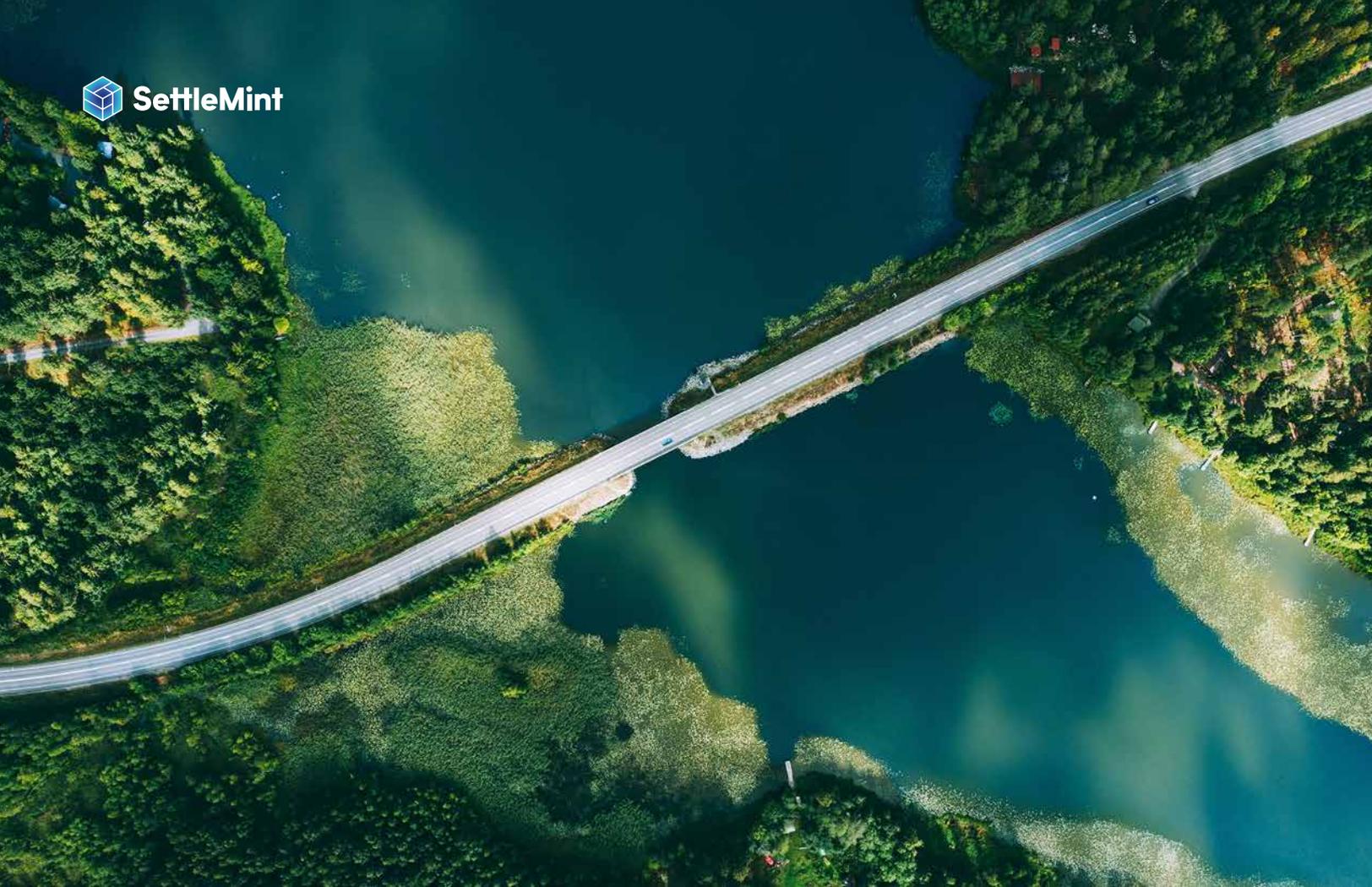
Start by ensuring that your Blockchain Transformation Platform can keep pace with your organization. Enterprises need capabilities like scalability, governance, resilience, observability, and both on-chain and off-chain integrations, so products aiming to serve start-ups and individual developers in the Web3 space will not be well suited for enterprises. Look for a platform that runs in any infrastructure, and make sure that its security is in compliance with today's standards.

- **A complete solution for multiple use cases**

You don't want to be limited to just one or two use cases. Your Blockchain Transformation Platform should be able to handle a number of different types of use cases so that you're not limiting your ambitions and can be prepared to scale. Look for vertical completeness, in that every layer of the development cycle is covered, like infrastructure, business logic, integration with current systems, monitoring, governance, and metrics. Also look for horizontal completeness, in that you can build any blockchain use case you want.

- **Great developer experience**

Look for a Blockchain Transformation Platform that provides a great experience for your developers as well, which will help lower the learning curve as your internal teams begin ramping up on their blockchain knowledge and expertise. Ensure your platform also includes templates and customizable code libraries, are designed to simplify the process of integration with legacy systems, and have intuitive UI.



- **Supportive partners and systems**

Does your Blockchain Transformation Platform have a responsive team behind it willing to give you support? Look for partners that will help guide you through your Blockchain Transformation journey by providing resources like online learning libraries and certification programs, training your in-house teams, and being ready with on-call local customer support teams for wherever you are in the world.

- **Value for the Cost**

Of course, evaluate the cost of a new Blockchain Transformation Platform as compared to the value it can bring to your processes and your customers. Be sure to think through your budget for blockchain innovation, which should account for the ROI you'll realize on your blockchain projects because of your investment in a Blockchain Transformation Platform.

CHAPTER #10:

Questions to Ask When Purchasing a Blockchain Transformation Platform

As with any other new technology you adopt for your organization, you'll need to carefully evaluate the capabilities, features, value, and other aspects of your new Blockchain Transformation Platform. Here are seven questions to ask vendors to ensure that you're getting the best technology that can set you up for future blockchain success.

1

Is the platform enterprise-grade?

Enterprises have high demands for security, scalability, governance, resilience, and on-chain and off-chain integrations that your platform will need to support. Ensure that your Blockchain Transformation Platform works with your preferred infrastructure, and that it meets your security standards.

2

What's the budget?

Your current budget for investment in blockchain will determine the type of Blockchain Transformation Platform you can adopt. Be sure to account for the ROI of your projects when using the platform.

3

Do we have mid-to long-term plans for blockchain implementations?

This question will help you evaluate the capabilities of your new Blockchain Transformation Platform, and how extensive you want it to be — especially if you're setting yourself up for a long future of blockchain growth.

4

What different methods does it offer to implement a blockchain project?

Can the platform actually take your project from concept to production, and how will it do so? Look for a platform that can help you build different use cases, and also look at its options for templates, customizable code libraries, and its ease of integration with legacy systems.

5

Is it a complete or full option, or do I still need other products to bring a project to life?

As mentioned above, make sure that you're not limited in the variety of use cases you can create. Your Blockchain Transformation Platform should offer both vertical completeness and horizontal completeness. Otherwise, you'll need more tools in addition to your Blockchain Transformation Platform.

6

What resources do we have in-house and which do we still need?

Those new to Blockchain Transformation will need support and guidance. Look for platforms with partners that will provide support for that product, as well as who can help train your team, offer resources and certification programs, and provide customer support.

7

Does it provide developers with a user-friendly experience that increases their productivity?

Finally, look for a Blockchain Transformation Platform that your developers can start using immediately, even if they only have a bit of blockchain training. Seek out platforms that are easy to use, with friendly UX/UI design and intuitive functionality. Ask what templates and customizable code libraries are included as well to simplify the development process.

A Blockchain Transformation Platform is a critical part of your organization's blockchain implementation, and may not be able to happen without it. Be sure to take the time to evaluate the capabilities and functionality your blockchain projects will require, and look for a robust platform where you don't just purchase a product but create a partnership as well.

Conclusion

Blockchain technology has the potential to transform the banking and financial services industry, and is expected to create \$3.1 trillion in new business value by 2030. And organizations who want to reap part of that value should start their Blockchain Transformation today.

However, beyond reaping the promised value of blockchain, forward-thinking organizations will realize that blockchain technology is here to stay, and will only increase in use in the coming years. And to position yourself at the forefront of your industry, you must take a holistic approach to blockchain integration.

As seen above, adopting a Blockchain Transformation that revolutionizes every area of your business will be the key to generating ROI, creating value for customers, and ultimately seeing stalled blockchain projects get off the ground. It requires an understanding of the benefits blockchain can bring. It also requires a long-term strategy of transforming your people, processes, and technology through education, support, vision, and technology.

Ultimately, it's what will prepare you to play a key role in the future of the banking and financial services industry.



Get started on your
Blockchain Transformation
journey today by visiting

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